



MINUTES

TECHNICAL ACTIVITIES COMMITTEE

2022 Winter Meeting

January 29 & February 2, 2022

Note: These draft minutes have not been approved and are not the official, approved record until approved by the Technical Activities Committee.

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January 29 & February 2, 2022

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**PRINCIPAL MOTIONS
TECHNICAL ACTIVITIES COMMITTEE
January 29, & February 2, 2022**

No.	Motion	Status
1	that the title of TC 9.8 be changed as shown below: Large <u>Specialized</u> Building HVAC Applications	PASSED
2	that the draft minutes from TAC#7 virtual meeting be approved as submitted.	PASSED
3	that TAC approve the formation of MTG.RES (Resiliency) with the following scope:	PASSED

LIST OF ATTACHMENTS

ATTACHMENT A: ASHRAE member satisfaction survey presentation
ATTACHMENT B: TC chairs breakfast slides
ATTACHMENT C: BOD Ex-O PEAC presentation

LIST OF ACRONYMS

AI	Action Item
ASHRAE	American Society of Heating, Refrigerating and Air-conditioning Engineers
BOD	Board of Directors
CNV	Chair Not Voting
ETF	Epidemic Task Force
Ex-O	Ex-Officio
FG	Functional Group
HVAC	Heating, Ventilating & Air Conditioning
MBO	Management by Objectives
MOP	Manual of Procedures
MTG	Multi-disciplinary Task Group
OPS	Operations Subcommittee
PCM	Provisional Corresponding Members
PDH	Professional Development Hours

PEAC	Presidents Elect Advisory Committee
RAC	Research Administration Committee
RAST	Reactive Air and Surface Treatment
RES	Resiliency
ROB	Rules of the Board
RTAR	Research Topic Acceptance Request
SH	Section Head
TAC	Technical Activities Committee
TC	Technical Committee
TF	Task Force
TFBD	Task Force for Building Decarbonization
TG	Task Group
TPS	Title Purpose Scope
TRG	Technical Resource Group

MINUTES
TECHNICAL ACTIVITIES COMMITTEE
January 29 & February 2, 2022

MEMBERS PRESENT:

Larry Smith, *Chair*
Craig Messmer, *Vice Chair*
Dave Meredith, *Co-Section 1*
Corey Metzger, *Co-Section 1*
Jon Cohen, *Section 2*
Stuart Dols, *Section 3*
Vance Payne, *Section 4*
Kevin Marple, *Section 5*
Doug Reindl, *Section 6*
Satheesh Kulankara, *Section 7*
Kevin Mercer, *Co-Section 8*
Brad Cochran, *Section 9*
Charles Henck, *Co- Section 8 & Section 10*
Dan Dettmers, *Section MTG*
Victor Goldschmidt, *Special Activities Coordinator*
Jaime Bennett, *Training Coordinator*
Rick Hermans, *BOD Ex-O*

GUESTS:

Kevin Gebke
Tom Lawrence
Sarah Maston

ASHRAE STAFF:

Steve Hammerling, *MOTS*
Tara Thomas, *AA*

MEMBERS NOT PRESENT:

Tim McGinn, *Coordinating Officer*

A. CALL TO ORDER & INTRODUCTIONS

Chair Smith called the meeting to order at 8:00 AM PST on Saturday January 29th. Members and guests in the room and attending virtually introduced themselves. Staff confirmed quorum.

B. ADDITIONS AND/OR CHANGES TO THE AGENDA

The agenda was sent ahead of the meeting. Staff was asked to add:

- "Breakfast Meeting Discussion" to Chair's Report.

Cochran noted TC 9.8 had approved a title change and Smith asked to consider at this point the meeting.

- (1) It was moved (Cochran) and seconded (Cohen) that the title of TC 9.8 be changed as shown below:

~~Large~~ Specialized Building HVAC Applications

Background: The TC voted to approve this change at their meeting. No changes to the

Motion 1 Vote: 14-0-0 CNV PASSED

Tom Lawrence asked to address committee with a presentation on the 2021 ASHRAE Member Satisfaction Survey Summary (**Attachment A**). Highlights include:

- Sent to all ASHRAE members 1863 responding (~4%)
- Technical content and digital resources are highly valued

- Lean to in person meetings
- Lack awareness of ASHRAE Strategic Plan
- Plan to do survey on annual basis
- Details and response to all questions in attached presentation

C. APPROVAL OF MINUTES

a) Draft TAC Meeting #7 meeting minutes were emailed to TAC Jan. 19th.

(2) It was moved (Cohen) and seconded (Goldschmidt) that the draft minutes from TAC#7 virtual meeting be approved as submitted.

Motion 2 Vote: 14-0-0 CNV PASSED

D. CODE OF ETHICS

Smith reminded all *"we shall avoid all real or perceived conflicts of interests."* **With the recent CHANGES to the TC MOP requiring BALANCE for the voting membership we remove the appearance of bias and conflict of interest.**

Smith will ask TCs at breakfast (slide) to introduce themselves, employer, etc. to identify bias, interests etc.in ASHRAE meetings.

E. CHAIR'S REPORT (Smith)

a) Disposition of Motions from Last Meeting Requiring Higher Body Approval:

- No motions from the TAC Meeting #7 required higher approval

b) TAC Successes

Smith referenced several activities TAC is currently undertaking. These are listed here as information items for TAC members. (Updates *italicized*)

- a. New TG2.RAST – *committee formed with membership and meeting already.*
- b. New MTG.RES – *Formal proposal with scope/roster approved by MTG and on TAC agenda. Committee already meeting*
- c. *Approved three (3) changes to TC MOP including requirement for TC balance or TAC Chair approval.*
- d. *Since July 1 this is the 8th TAC meeting, 7 virtual and Las Vegas is first face to face*
- e. ALL FG's now have a basecamp
- f. ALL FG sections have a basecamp – This was done in response of the Research Committee ability to communicate to the FG's. It is envisioned the FG committee chairs (research, standards, handbook, and others) would be a part of the section basecamp to facilitate communications with the governing committee liaisons and each other within a section.
- g. Kevin Marple, Dave Meredith, and Corey Metzger have actively engaged several TC's with voting membership realignment with the TC MOP
- h. Consolidation of TC 8.9 into TC 10.7 is in progress. - *On agenda for Wednesday.* [H.a Section 10 report]
- i. Leadership Training – *the final bite, "Thinking Like a Leader" is complete. Developed for use by TC leadership, they are a great resource for all of ASHRAE. These are now posted on the ASHRAE website (www.ashrae.org/tac). TAC is working with ASHRAE to make PDH credits available for those who participate.*
- j. Both the Chair and Vice-Chair have been in conversation with the TFBD (Task Force for Building Decarbonization) on engaging the FG membership for assistance
- k. Douglas Reindl has been instrumental with an inquiry from 90.1 with TC 6.1
- l. TechC approval for automating roster changes (\$25,000) – *final approval expected in Las Vegas*

- m. TechC approval for automating FG Evaluation / Activity forms (\$125,000) – *final approval expected in Las Vegas*
- n. ASHRAE Society President (Mick Schwedler) below comment in Victor's Leadership Development Program:
Thanks to everyone for the work, the vision to provide these for our Members, and for the access.

Perhaps you want to bring a recommendation for dissemination through Tech Council so that all the other Council leadership knows of this and can provide to their Committees.

I'm looking forward to learning how to become a better leader myself.

Congratulations on a job well done.

Best regards,
Mick Schwedler, PE, FASHRAE
ASHRAE 2021-22 President

- o. TAC website updated to include resources for FGs related to Vegas Meeting. See www.ashrae.org/TAC. Content includes activity forms, breakfast meeting presentations, handouts and any information TAC wishes for FGs to have easy and quick access and the Leadership Development Auto-Tutorials
- c) Goals for 2022 winter conference
- a. Section Head engagement with the FG leadership
 - b. ASKTAC@ASHRAE.net (Smith handed out ASKTAC hats for members to wear and identify as resource while attending ASHRAE Meeting)
 - c. FG leadership succession
 - d. FG voting member balance
 - e. FG evaluation form
 - f. FG Activity Form
 - g. FG roster cycle completed as outlined in Appendix B (as amended) in the TC MOP (this will be discussed at TC Breakfast)
 - h. Improved breakfast meeting experience
- d) Old business / Action Items (Please be prepared to respond to below action items)
Completed actions are struck below. TAC members asked to complete assigned actions listed below.
1. Staff/Dols - noted merged TC (Section 3) website content, staff was asked to coordinate and archive – staff working w IT to archive, link to old info from new TC website - **ongoing**
 2. Cohen + Payne - were asked to assure TRG4 and TG2 coordinate as there may be overlap in rosters and work - **ongoing**
 3. ~~Cohen – final roster approval for TG2. RAST – TG2 roster submitted for Cohen review. Close to approval.~~
 4. Payne - Balance for TRG4 is due 8/1 (past due!) - **ongoing**
 5. ~~Smith – TC 5.9 meeting monthly and working very effectively. Productive in between meetings. Can we push this concept to other TCs? Tout as a success story at breakfast? 9/1/21 Smith requested a 2-minute mp4 for presentation during the TAC breakfast meeting.~~
 6. ~~Smith + Marple – Need to send current Code of Ethics and distribute (include in agenda template). Smith wants to expand the Code of Ethics presentations. ongoing~~
 7. Smith + Mercer + Henck - Pushing TC 8.9 (residential refrig./freezer) to merge with 10.7 (commercial refrig./freezer) but there's some hesitancy. Engage with TC leadership and figure out plan before Las Vegas meeting. **Henck noted a motion to formally merge is expected for TAC Wednesday meeting** [H.a Section 10 report]
 8. Smith + Cochran - Noted TC 9.8 is only interest is Handbook. 15-20 members for 10

ASHRAE Handbook chapter. Is this a really a TC if they don't do other activities? Do they need help with research and program issues? – **ongoing. Seeking guidance from TAC if there is an issue or another opportunity for them vs acting as a TC.**

9. Goldschmidt – need your CHANGES to the TC MOP!!! - **Ongoing**
- ~~10. Staff would let nominators know results of Hightower scoring~~
11. Smith and Metzger to help with passing on guidance/future actions from ETF into Functional Groups.
- ~~12. Section Heads are asked to poll their TCs for volunteers on Decarbonization Task Force and forward interested parties to Mercer~~
- ~~13. Status of MTG.RES (Dettmers) – status provided earlier~~
- ~~14. Status TRG2.RAST (Cohen) conducted first meeting in January 2022. – status provided earlier~~

e) Old business

a. Tech Council MBO's

Smith listed TAC MBOs for Society Year 2021-2022. These will be reported to OPS Tuesday.

MBO #	Description	Metric	Comments/Activities supporting MBO
1	Train the Trainer and engage the FG leadership	# Training sessions conducted by TAC # get on the ladder responses from FG # successful June roster review process	We expect a lot of the FG's, however, we need to expect MORE from the TAC section heads. TAC will be concentrating on "training the trainer" on section head best practices and engaging with the FG leadership. As engineers we are good managers and scientists, however, ASHRAE needs great leaders.
2	Honest assessment for FG evaluation in January 2022	# Evaluation forms returned	The winter 2022 meeting will be the second time for the FG evaluation. TAC will be promoting an honest assessment of the FG and report the final FG vote which will then guide future FG training and organizational needs. The results will be reported at the 2022 summer conference.
3	Open channels of communications throughout ASHRAE with TAC	# of ASKTAC inquiries # of open mike events # of formal motions made to TAC	Through various direct communications channels to TAC we will promote openness and transparency within TAC and the rest of the ASHRAE organization. We started communicating this prior to the summer 2021 meeting, however, we will continue broadcasting and report the feedback at the breakfast meetings.
4	Re-write TC MOP, TAC MOP, and TAC Reference Manual	% Completion	We are commencing a re-write of the TC MOP, TAC MOP, and TAC Reference Manual to bring current and relevant. This will take more than a year to complete.
5	New breakfast meeting format	customer satisfaction survey	We will attempt a new meeting format to make the TAC breakfast meeting more meaningful and relevant
6	Align the FG's with the ASHRAE Strategic Plan with feedback from the FG's to modify and influence the current and future Strategic Plans.	FG action plan	This is the main goal of all the above MBO's.

f) New Business

a. Goldschmidt / Marple – Brief TC MOP update.

The subteam focused now on MOP updates. Aim to include more references to guiding documents and streamline. Goal is to review this spring and vote on changes in June meeting.

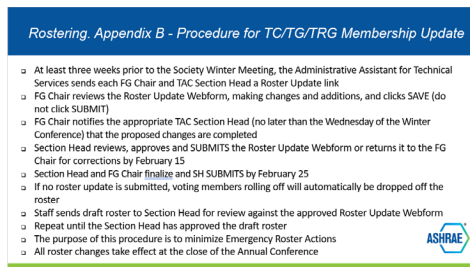
- b. Decarb Task force overview and TC 6.10 issues (Reindl, Mercer, Messmer, Smith)
Kevin Mercer (SH8 and on Decarb task force) updated on issues and how TAC can address. Reindl is SH6 and noted TC 6.10 Fuels and Combustion has shared some concerns on the work of the Task Force (TF) and how participate and engage. TAC would make clear to all that TC's (6.10 etc.) will be heard and can engage in work of TF. TAC will follow up with the TF leadership to communicate issues and form plan to ensure engagement by all interested parties.
- c. Sunday breakfast meeting (part 1 & 2) plus open mike (will review during TAC Part A in Las Vegas) – review PowerPoint presentation (saved on Basecamp) (Smith, Bennett, and Mercer)
Smith the plan for Part 1 presentation in the morning. The presentation will include 10 pre-recorded mp4's (~25 minutes total) and a presentation from Victor on the Think Like a Leader training bite (~10 min).
Part 2 will be about 45 minutes of time for the training presentation.
About 20 minutes are planned for the open mic or Q&A.
Materials will be posted to TAC website and TAC/TC basecamp.
- d. TAC website
Staff reported that www.ashrae.org/TAC is up and running. Content includes Leadership tutorials, information on attending the Winter Meeting in Las Vegas, and various Forms & Procedures:

Forms and Other Information

- [TAC Breakfast Meeting Presentation](#)
 - [Presentation Part 1](#)
 - [Presentation Part 2 – Training Breakout](#)
 - [TC Breakfast Handout](#)
- [TC Activity Form \(v20-D5\)](#)
- [Functional Group Evaluation Workbook](#)
- [TAC Breakfast feedback survey](#)
- [Introduction to TAC](#)
- [Example TC Activity Form Reports](#)

Any other questions? Please email ASKTAC@ashrae.net

- e. Breakfast Meeting Discussion
TAC took time in the meeting to edit slides in the Part 1 and Part 2 presentation. The final version of the slides is included as **Attachment B**. A number of changes were made to Roster Update slide:



F. TRAINING (Bennett & Mercer)

No formal training topic will be focused on in Las Vegas, except for the content in Part 2 of the Sunday Breakfast meeting presentation.

G. BOD Ex-O (Hermans) and COORDINATING OFFICER (McGinn)

Hermans gave PEAC presentation (**Attachment C**). Highlights include:

- Encouraged to attend President's Luncheon – Personal Growth. Global Impact. Feed the Roots.
- Report from Diversity, Equity & Inclusion committee – www.ashrae.org/DiversityEquityInclusion
- Task Force for Building Decarbonization and Epidemic Task Force work is ongoing.
- ASHRAE Membership voted to approve changing the title of 'Member' grade to 'Full Member' grade to differentiate between those who have provided necessary education and professional background information
- Encouraged all to nominate for Committees (www.ashrae.org/committee-nominations) and Awards (www.ashrae.org/honorsandawards)
- ASHRAE HQ now operational and is Net Zero Energy building (www.ashrae.org/newhq)

RECONVENE – PART B MEETING

H. Smith reconvened Part B of the TAC Meeting on February 2, 2022 at 7 AM PST.

a) Section Head reports

Messmer asked all for brief reports presenting highlights of meetings you attended, issues for TAC attention and to please submit written reports with more detail to Basecamp with activity reports (**Action Item 24**). Smith noted TAC will meet again in early March so there is no need to submit immediately.

Section 1 – Metzger & Meredith

- Metzger noted TC 1.11 asked questions with new balance requirements – how to define various interest categories. In short, TC chairs should assign using their discretion and assure they have Section Head agreement. If balance is lacking, SH and TAC can be made aware, but mandates wouldn't be imposed.
- Meredith noted TC 1.5 is considering a name/scope change. 'Emerging Technology' has been floated as a possible title, but they are still working out. (**Action Item 25**)

Section 2 - Cohen

- Section 2 asked for request to have Hightower award presented at plenary or higher profile venue. Staff and Smith would work on a proposal (**Action Item 15i**).

Section 3 – Dols

- Questions raised in various meetings:
 - do we need standard protocol for cancelling meetings?

- do we need method of verifying email alias addresses?
- How can TAC make e-meeting instructions more readily available to TCs?
- Can we make charts and reports from Activity Forms available? Messmer noted yes, they are available on TAC/TC basecamp with plans to put on website (FG eval worksheet and activity report) for all to see/use but need to be scrubbed of names/contact information. (**Action Item 26**)

Section 4 – Payne

- Reported section 4 is generally in good shape. All websites updated.
- A number of TCs noted issues with content on website being missing. Staff noted an update/reconfiguration is underway and would be completed shortly. Staff will let TCs know when updates are complete.

Section 5 – Marple

- TCs had discussion on new roster balance rules noting depending on the TC scope they may only attract attracting certain stakeholders so balance can be difficult. TAC response is that TAC/SH's may have to consider and try to be as balanced as possible, realizing it's not always the case, but at least TAC/SH is aware of issue, that it is transparent.

Section 6 - Reindl

- Reindl was not able to attend TAC Part B but would submit activity reports after meeting.

Section 7 – Kulankara

- Kulankara was not able to attend face to face meetings, but Bennett helped attend in Vegas meetings.
- TC 7.9 noted research and RTAR projects was a bit daunting. Need to think about how some TCs in areas like commissioning or operations and maintenance can make contributions in ASHRAE research.
- TC 7.3 asked if "OMPF" certification/badge from ASHRAE be reinstated to help attract more O&M professionals in ASHRAE.
- Noted many TCs are keeping very large rosters with members who have not confirmed or participated in quite some time. TAC noted there is no need to include corresponding members if they are not responsive. Perhaps an annual reminder or request for members to confirm their participation would be appropriate so rosters can be culled or maintained as appropriate.

Section 8 – Mercer & Henck

- Similar comments on rosters, IT, etc. issues but generally successful.
- Comment that hybrid meetings are likely to stay and ASHRAE can work out issues to make successful.
- Mercer challenged his TCs to focus on objectives and activities that will innovate and attract members.
- Comment that when TCs merge – TAC need to do better job of letting them know logistics like what handbook chapters, standards, publications, research, etc. they have responsibility for. Staff agreed to develop and post list (**Action Item 15j**)
- Henck noted TC 8.10 thinks they have two basecamps and asked staff to delete the 8.10 basecamp they created

Section 9 – Cochran

- Comment on hybrid meetings – it is tough to prepare AV without knowing specifics of room until walking in (number of mics needed, etc.) Perhaps this could be improved.
- Seconded comments on hats being great to identify yourself as TAC resource.
- For hybrid meetings TCs suggested having each TC meeting assign a member to serve as the AV tech to set up and run hybrid meeting equipment. Perhaps a pre meeting run through can be done to show people what's being provided, how this works. (All staff to communicate idea to meetings)
- Staff would implement TC 9.8 name change as appropriate on website (**Action Item 22**)

Section 10 – Henck

- Henck noted TCs did not meet or formally request merge between TC 10.7 & 8.9. They will hold an interim meeting before Toronto to conduct this vote.

MTG - Dettmers

- Focused at this meeting on MTG roster to assure all are cleaned up and current, they have member, and are still active and working.
- Dettmers will work with staff to assure websites, rosters, etc. are updated.

(3) It was moved (Dettmers) and seconded (Cohen) that TAC approve the formation of MTG.RES (Resiliency) with the following scope:

MTG.RES will coordinate TC/TG/TRC activities related to resilience including promoting the ASHRAE definition of “resilience”, finalizing a roadmap for ASHRAE to follow, prioritizing activities, and providing guidance to functional groups regarding developing their resilience plans. The MTG will develop documents as necessary to formalize resilience concepts and procedures.

Background: The MTG voted to approve this at their last meeting.

Motion 3 Vote: 14-0-0 CNV PASSED

b) Review FG success & failures

1. Sunday TAC breakfast meeting part 1
Many noted issues with audio in virtual component of Breakfast in their section report. Staff will learn from issues that became apparent and improve going forward.
2. Sunday TAC breakfast meeting part 2
Lots of great feedback from Part 2 meeting.
3. Functional Group Evaluation Form
TAC can analyze after meeting. There is conflicting guidance in when TAC asks for forms (Winter) and in MOP (Annual) that should be clarified and communicated.
4. Roster process + balance
Roster process and balance issues were communicate in Part 2 of Breakfast training. Will have to measure impact later:

Rostering, Appendix B - Procedure for TC/TRG Membership Update

- At least three weeks prior to the Society Winter Meeting, the Administrative Assistant for Technical Services sends each FG Chair and TAC Section Head a Roster Update link
- FG Chair reviews the Roster Update Webform, making changes and additions, and clicks SAVE (do not click SUBMIT)
- FG Chair notifies the appropriate TAC Section Head (no later than the Wednesday of the Winter Conference) that the proposed changes are completed
- Section Head reviews, approves and SUBMITS the Roster Update Webform or returns it to the FG Chair for corrections by February 15
- Section Head and FG Chair finalize and SH SUBMITS by February 25
- If no roster update is submitted, voting members rolling off will automatically be dropped off the roster
- Staff sends draft roster to Section Head for review against the approved Roster Update Webform
- Repeat until the Section Head has approved the draft roster
- The purpose of this procedure is to minimize Emergency Roster Actions
- All roster changes take effect at the close of the Annual Conference



Maintaining Balance— changes to TC MOP (approved by TAC)

1.4.2 Committee Voting Membership shall be comprised of individuals:

New section 1.4.2.2

1.4.2.2 Who represent a stakeholder interest category of the industry such as users, contractors, product manufacturers, academics, consulting engineers, government agencies, independent sales representatives, trade organizations and research organizations. The Committee Chair shall develop a list of relevant stakeholder interest categories for approval in accordance with section 2.4.4, 3.2.4 and Appendix B and **shall maintain a balance of Members in these stakeholder interest categories.** No single stakeholder interest category shall constitute a majority of the Voting Members of a Committee. TAC Chair approval is required when achieving balance is not possible.

Old section 1.4.2.2

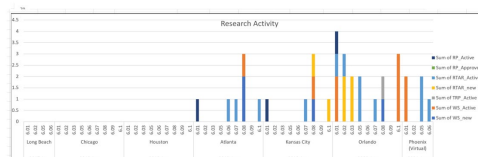
1.4.2.2 Who represent segments of the industry such as users, contractors, product manufacturers, academicians, consulting engineers, and research organizations. **The committee chair should work to develop and maintain a balance of these interests, but in some situations a balance may not be possible, therefore, this is not a formal requirement.**



5. Activity Form

TAC continues to compile data from Activity Forms and agreed to start sharing data with TCs. The following example was shared in Part 2 of Breakfast meeting:

FG Activity Data Tracking



6. FG leadership succession planning

TAC Breakfast included slide on planning to help TCs start thinking about and implementing their own TC succession plan that works best for them:

Succession Planning

- Rostering for voting members and FG leadership is crucial to succession plan implementation

TC 5.3 "Get on the ladder!"

Four-step ladder / eight-year period

1. Handbook Subcommittee Chair (2 years)
2. Secretary (2 years)
3. Vice Chair/Research Subcommittee Chair (2 years)
4. Chair (2 years)



c) Other

1. "Wings"

Smith want to emphasize to Section Heads and TAC members the ideas of 'earning their wings'. This refers to TAC members now being trained and empowered to do what they need or want to do in TAC. Smith encouraged all members to embrace this concept going forward to make improvements.

d) Planning for rest of Society Year

Smith described his vision for the remainder of his term on TAC where the Chair would take on long term strategic projects and the Vice-Chair would oversee TAC operations. The idea is that Chair would examine larger issues and the Vice-Chair would get a head start and be better prepared for their terms as Chair in July. The incoming Vice Chair will oversee training.

Projects that the Chair may oversee in the rest of the Society Year include:

- Virtual meeting best in class – idea for ASHRAE to have best virtual / hybrid meetings.
- CTTC initiative – Work with Chapter Technology Transfer Committee (chair John Constantanide) to inform grass roots about TC side of ASHRAE and get them involved. (Metzger and guest Michelle Hall volunteered to help) to help with effort.
- ETF implementation - Work of ETF winding down and looking for home of their technical guidance. Smith and Metzger leading for TAC. TAC implementation starts now.
- PDH credits for auto tutorials – Smith and Goldschmidt working on this now. Posted to website. Education Staff has been contacted.
- Electronic roster implementation – Tech Council transferred money to pay for electronic roster implementation. Smith (and another TAC volunteer will help work with staff working on this)
- Work with Goldschmidt/Marple to revise the TC MOP and Reference Manual with separate MTG documents. Goldschmidt and Kevin Marple to head up this issue. Aim for revisions to be done and approved by TOR meeting. Dettmers volunteered to help with MTG guidance documents.

Each member on this committee will be asked to take on additional responsibilities to champion initiatives as identified on Chair's strategic initiatives identified above.

I. CONCLUDING REMARKS (10-minutes)

Members noted the consensus for in-person vs. virtual attendees to TC meetings was about 50/50, perhaps slightly more virtual in some meetings. MTGs seemed to be primarily virtual attendance.

TAC's next meeting will be a virtual meeting in early March. Details will be forthcoming.

J. ADJOURN

Messmer adjourned meeting at 918 am (PST)



2021 ASHRAE Member Satisfaction Survey Summary

Monitoring Subcommittee of
Planning Committee
January 2022

1

General Information

- Survey Conducted from 25 Oct 21 to 2 Nov 2021
- Sent to all ASHRAE Members
- Questions
 - Questions in first half of survey are intended to be repeated annually
 - Questions were designed to force a choice (i.e., no “all of the above” options were allowed).
 - Respondents were not required to answer all questions (i.e., questions can be skipped)
- Total of 1,863 Responses (≈4% of ASHRAE Members)

October 2021							November 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2		1	2	3	4	5	6
3	4	5	6	7	8	9	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28	29	30				
31													



2

Main Themes

- Technical Content is Highly Valued
- Digital Resources are valued
- Most ASHRAE Members pay or (or would pay for) their membership
- Membership is slightly leaning towards in-person meetings
- The Strategic Plan is not known by most Members



3

Recommendations

- Perform survey on an annual basis
- Track trends of common questions
- Take action on information gathered
 - Item #1 – Improve the Strategic Plan Awareness
 - Item #2 – To be developed 4 Jan 22
 - Item #3 – To be developed 4 Jan 22



4



Appendix

Individual Question Responses

5

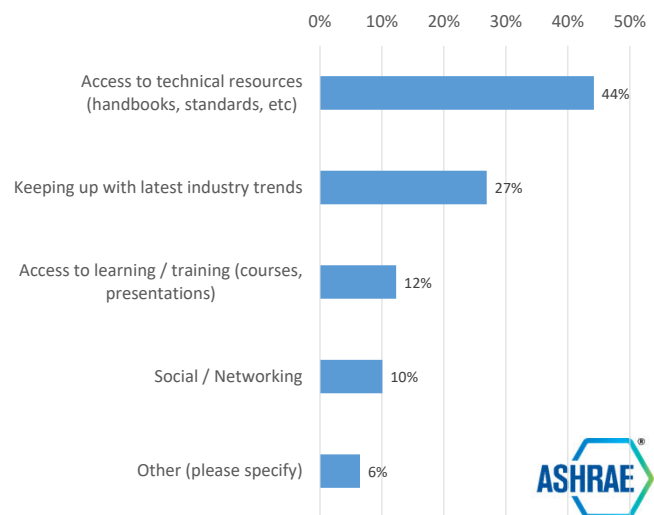
1. What is your primary reason for being a member of ASHRAE?

- Takeaways

- ASHRAE is a technical society
- Technical content is valued
- ASHRAE is a source of the latest info

- Other Comments

- 25% was “all of the above”
- 10% was due to a requirement for participation on committees



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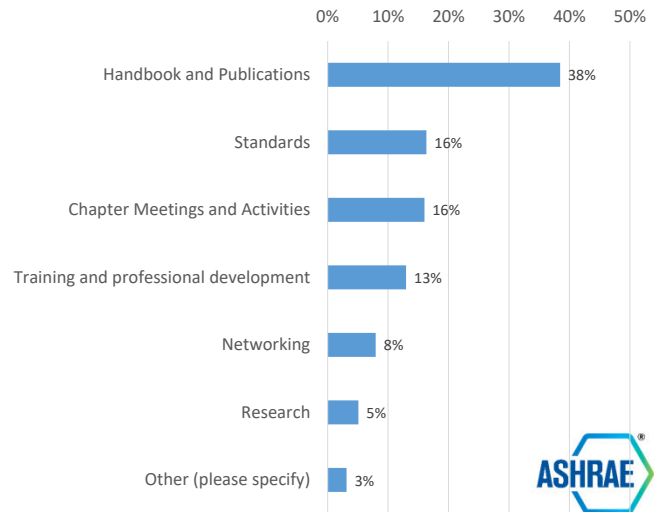
2. What ASHRAE service provides the most value to you?

- Takeaways

- Technical content is highly valued
- Research had a low response

- Other Comments

- 27% was “all of the above”
- 10% was “Conferences”
- 10% was “Committees”

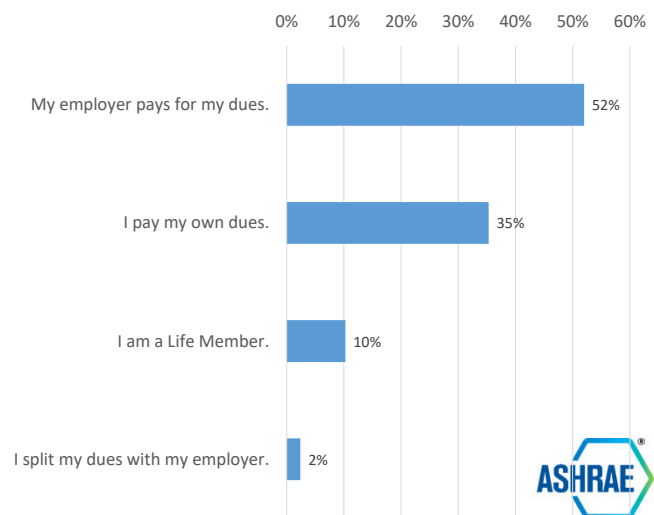


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3. Who covers the cost of your ASHRAE membership dues?

- Takeaways

- 40% of dues paying members pay themselves
 - ASHRAE is valuable enough to spend their own money
- Employer paid dues is lower than expected
- Watching the trend on this question will be interesting



8

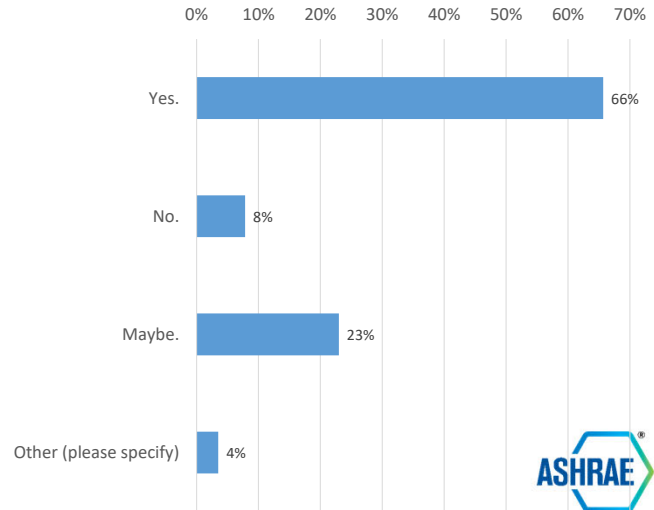
4. If your company did NOT pay or help pay for your membership in ASHRAE, would you pay for membership yourself?

- Takeaways

- Confirms that ASHRAE is viewed as very valuable by members. Enough to pay themselves.

- Other Comments

- About 50% were Life Members or already pay their dues.



9

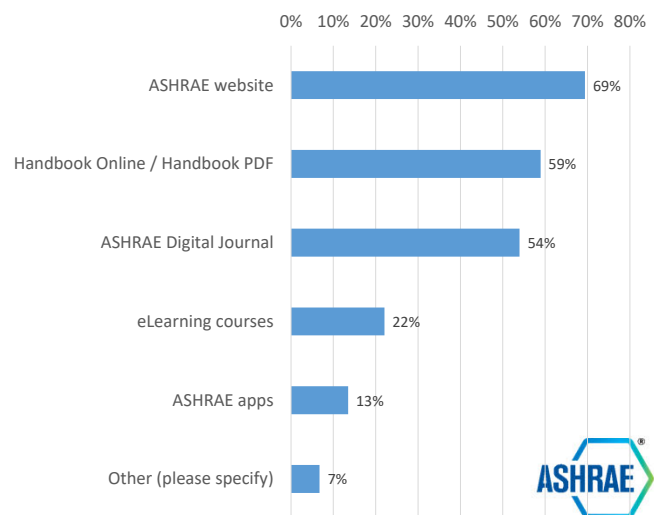
5. What ASHRAE digital resources are you actively using? Select all that apply

- Takeaways

- 95% of ASHRAE members use some digital resources
- A strong website is important
- Apps have little penetration

- Other Comments

- 30% of "other" are not using any digital resource
- 11% of "other" mention hard copy resources



10

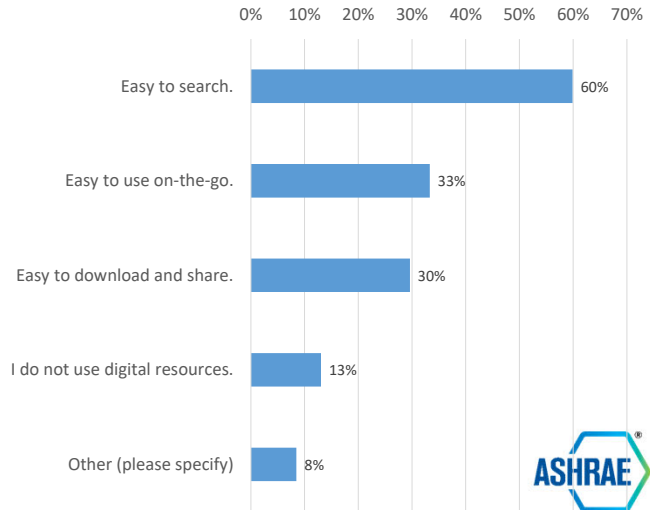
6. Why do you use ASHRAE digital resources? Select all that apply

• Takeaways

- 60% value the search function
 - Likely more use the search function
- Portability and Flexibility
- 13% don't use digital resources
 - Slightly different result than question #5

• Other Comments

- 10% mention "Easy" / "Ease of Use"
- Hardcopy preference by some members continues



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7. How do you plan to attend meetings moving forward?

• Takeaways

- Virtual only and in-person only responses are similar
- General leaning towards in-person

Note: Survey taken between the Delta variant and Omicron variant peaks

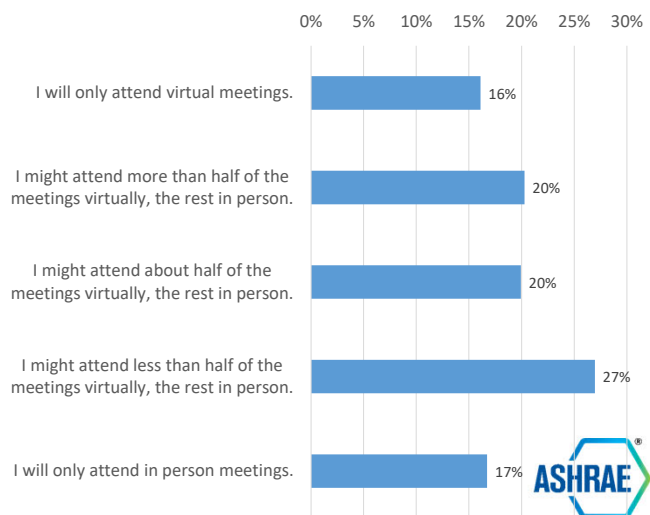
Virtual



Neutral



In Person



12

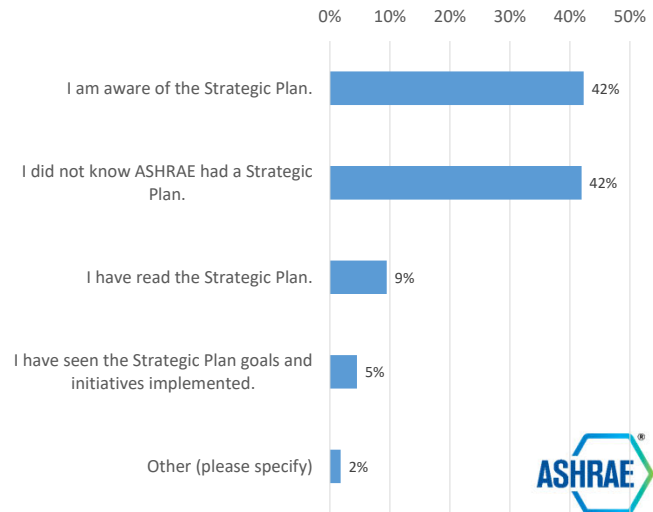
8. Did you know ASHRAE had a strategic plan and have you reviewed it?

- Takeaways

- 90% have not read the Strategic Plan
- 40% were not even aware of the Strategic Plan
- Different “Delivery Mechanisms” are needed

- Other Comments

- Only 8 negative comments



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9. What goals and initiatives should be included in future Strategic Plans?

- This was an open-ended response, but compilation of key topics are:

- Better integration of ASHRAE with the ‘world’, and not just Europe but also include Africa, etc. Not imposing American Standard on the world.
- Adapting to the new post-pandemic way of operation, networking and meetings. Training for chapter leaders on this topic.
- Guidance, documents and training/speakers for focus on new societal trends, such as climate change, resilience, electrification versus cleaner natural gas (CHP). [See discussion on topic #10, next slide]
- Concern about the cost / benefit ratio of membership, consider new membership benefit models (concurrent seat license for standards, etc.).
- Re-evaluate the regional alignment and board structure to reflect the evolution of the society and overall membership. This could be looked as a follow-up to the “lean assessment” process for committees.

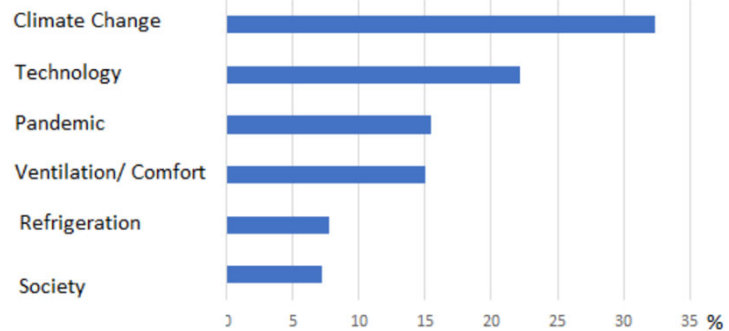


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10. What industry challenges do you envision in the future that ASHRAE members will be facing, and what should ASHRAE be doing to provide members with information to address these issues?

Main topics of interest:

- ✓ 32% of ASHRAE members want information about Climate Change (Particularly among younger members)
- ✓ 22% of members want new information on Technology from ASHRAE
- ✓ 15% want new information on the Pandemic
- ✓ IAQ retains high interest from members



Note. Respondents did not all share the same view on topics



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What Does this Mean for TAC / Tech Council?

- Keep in mind member focus topics
 - Information on how to adapt climate change into a member's 'day job'
 - Resilience (medical and otherwise)
 - Decarbonization trends (more than just electrification)



16

Announcements and Reminders for TC/TG/TRG & MTG Chairs

Virtual Winter Meeting 2022

A. NEW!

1. Discuss and confirm that TCs, TGs, TRGs, and MTGs in section will continue in 21-22 Society Year

This will be an annual activity and FG agenda item for Winter Meeting but wish to highlight here as well. TCs are encouraged to work with Section Head on new FG Evaluation worksheet.

From TC MOP:

1.5. Review

- 1.5.1.** Once a year, preferably at, or prior to, each Annual meeting, the Committee Chair and Committee Membership shall evaluate their progress in accomplishing the purpose for which they were constituted and recommend one of the following actions to their Section Head:
- Continue as a TC, TG, MTG, or TRG
 - Convert from a TG to a TC
 - Convert from a TRG to a TG or TC
 - Merge with a TC/TG/TRG and submit a revised scope for the merged committee
 - Dissolve the TC, TG, MTG, or TRG.
 - If a TC/TG/TRG/MTG votes to disband, it must establish whether any current responsibilities should be continued and, if so, recommend existing TC/TRG/MTG(s) to assume responsibility and obtain those committee's written concurrence

2. Open Mic

Technical Activities Committee (TAC) Open Mike Policy

Purpose: Allow the ASHRAE membership to have a voice to express their concerns and offer improvements.

When: TAC traditionally meets during in-person conferences the Saturday before the summer and winter conferences and the Wednesday at the conclusion of the conference. Likewise, during a virtual conference, the TAC meetings are conducted prior to the start and after the conclusion of the conference.

You need to check the conference schedule for the correct date/time of the meetings.

TAC also conducts virtual meetings between the formal conferences. If you want "open mike" time just send your request using ASKTAC@ASHRAE.net.

How: It would be appreciated if you would send a written request to ASKTAC@ASHRAE.net with the topic, however, this is not required.

It is the prerogative of the chair to advise how much time is available and when you can be heard. A 3-minute time limit is preferred. It would be preferable to be present at the beginning of the meeting so that you may be heard and not have to wait a prolong period of time.

Please make sure you make your presence is recognized by the chair upon your arrival.

When in doubt email: ASKTAC.ASHRAE.net

3. FG Motions

New form to submit motion to TAC for consideration. Intent to give FGs a method to require TAC response, report ideas, etc. Will be added to www.ashrae.org/TCs and Basecamp:

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

MOTION TYPE: TAC / Society

If a motion impacts only TAC, it will stay a TAC Motion and will be completed at the TAC level. Indicate only one here. **If you are using this as a template, erase all red text**

MOTION:

Write your motion here.

- This should be short and to the point. It should state exact action you are requesting, by whom, and by when.
- This is the ONLY part of your motion that is voted on. Any change to this portion must be submitted as a motion in of itself to amend this motion (unlike the background and fiscal impact portions)
- Do not include/repeat background and fiscal impact here.
- Dates of implementation are important.
- Work with your Section Head, if necessary, where dollar amounts that vary year to year
- Try to be as specific as possible and not use words like "recommend", "investigate", "look in to", or "try".
- Do not include background or fiscal impact portions.
- The rest of the information (background and fiscal impact) are for information only.
- If you don't know how to work something, ask, your Section Head can help you with this.

BACKGROUND:

Write background here.

- This area is where you provide your anecdotes necessitating change.
- You can provide historical context, precedents set, etc.
- You can also use this area to explain your logic or experiences that led your committee to believe this will make the overall Society better because of your motion.
- It is best to appeal to the greater good of Society (as opposed to requesting Society change to fit the goals of one or two committees only)

FISCAL IMPACT

Fiscal impact should not exceed \$ ____ annually.

-or-

Fiscal impact is expected to be negligible.

- Estimate what the total cost impact of the motion is to society. Leadership understands this is the framers best guess.
- "Fiscal impact is zero" is not well received by some members. Better to say "minimal" or "negligible".
- If you don't know, it is ok to admit it, like "Fiscal impact is unknown." But it is better to indicate to some degree whether the impact is minimal, large, etc. Leadership should have an idea if the framer appreciated the large potential fiscal impacts when they are significant, or where the framer believed the potential impacts to be negligible.
- It is best practice to use some sort of justification and the broad impacts. If your motion impacts all members of society, it is best to extrapolate the impact of one person to 50,000 members. If it is travel-related work to get an average cost that Society uses to estimate expenses.
- Your Section Heads can help you with this.

4. asktac@ashrae.net

Resource for all TAC/TC related questions, comments, etc. Any questions, please email.

5. TC Meeting schedule and protocols

TC committee meeting schedules posted at www.ashrae.org/conferences/2021-annual-conference. Access to virtual committee meetings will available to all. The meeting access information is included in the program.

6. Collaborative Meeting Space at ASHRAE Winter Meeting

- **TC Collaboration Area** (Caesars Palace, Octavius 4 or 11 (PS))
- Available for your use
- Sunday, Monday, Tuesday 7:30 AM – 4:00 PM,
- Wednesday 7:30 AM – 1:00 PM
- You are encouraged to use it for various TC functions – meetings that did not make the official schedule, ad hoc meetings, any other TC related activity

7. Two new Functional Groups have been formed since last Meeting

- **TG2.RAST** (Reactive Air and Surface Treatment)
- **MTG.RES** (Resilience)

8. 21-22 Roster Rollover

Remember, the current 2021-2022 roster for your TC, TG or MTG is in effect until after the Annual meeting later this year.

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

- ❑ At least three weeks prior to the Society Winter Meeting, the Administrative Assistant for Technical Services sends each FG Chair and TAC Section Head a Roster Update link
- ❑ FG Chair reviews the Roster Update Webform, making changes and additions, and clicks SAVE (do not click SUBMIT)
- ❑ FG Chair notifies the appropriate TAC Section Head (no later than the **Wednesday of the Winter Conference**) that the proposed changes are completed
- ❑ Section Head reviews, approves and SUBMITS the Roster Update Webform or returns it to the FG Chair for corrections by **February 15**
- ❑ Section Head and FG Chair finalize and SH SUBMITS by **February 25**
- ❑ If no roster update is submitted, voting members rolling off will automatically be dropped off the roster
- ❑ Staff sends draft roster to Section Head for review against the approved Roster Update Webform
- ❑ Repeat until the Section Head has approved the draft roster
- ❑ The purpose of this procedure is to minimize Emergency Roster Actions
- ❑ All roster changes take effect at the close of the Annual Conference



TC Chairs should be working to revise and submit 2022-23 SY roster. There was a unique link sent to an online workbook for your particular TC to allow you to update membership and roster assignments.

9. Interim TC Meeting Procedures

TAC is encouraging TC's to meet in between ASHRAE Meeting. TAC will implement the following:

- Maintain a listing of the interim meetings on the Technical Committees webpage (www.ashrae.org/technical-resources/technical-committees), similar to the listing done for Standards.
- TC interim meetings should be posted (by emailing shammerling@ashrae.org) two weeks or more before an online meeting and four weeks before a face-to-face meeting. The person emailing should also include the meeting call-in info/ link for posting.
- To keep our members apprised of the meetings, we will add a notice in the ASHRAE Journal Newsletter (bimonthly) to remind our members to check the listing and to provide a link to the list.

10. New Section Head/TC leadership Basecamp

A new Basecamp (<https://3.basecamp.com/3106353/projects/15520814>) is set up to communicate and transfer documents between TAC Section Heads and TC leadership (Chairs, Vice Chairs).

Current documents include breakfast presentations, forms, etc. This can be used to send documents to your section head as well.

Send staff (shammerling@ashrae.org) an email if you need access.

11. TC Re-Org update

TAC has finished their work to re-organize TCs but TCs can continue to work towards effort of streamlining and improving efficiency.

For those TC's that wish to merge, you need to:

- Vote on the revised Title & Scope. Any combining TC's need to be voting on the same TPS.
- Proposed leadership and voting roster need to be completed.
- Please work closely with your Section Head.
- So far, TAC has numerous TC mergers – 3.2 & 3.3, 8.10 & 8.12, 9.4 & 9.8, 7.3 & 7.8, 10.5 & 10.8 & 10.2 and 10.1 & 10.3. More (8.9 & 10.7) are in the works.
- For those TC's still in the discussion phase, please keep your Section Head aware of your discussion status.

12. How to Import Your TC Roster Information into MS-Outlook

Detailed instructions on how to import your TC roster information into MS-Outlook has been created and an e-mail announcement will be issued to all TC chairs, vice chairs, and secretaries once these instructions and the restructured TC MOP are posted to the TC page of the website (www.ashrae.org/TCs)

B. VIRTUAL WINTER MEETING

1. Free Wi-Fi Access at this Society meeting

Caesars Palace Wi-Fi Access: Network Name: **ASHRAE**, PWD: weareback!

2. Training Options

i. TC/TG/TRG/MTG Chair's Training Topic

A set of training blocks (ASHRAE Leadership Development Auto-Tutorial) related to leadership training are complete and posted at TAC website

(www.ashrae.org/communities/committees/standing-committees/technical-activities-committee), TC website (www.ashrae.org/technical-resources/technical-committees), and TAC/TC basecamp (<https://3.basecamp.com/3106353/projects/15520814>):

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

ASHRAE Leadership Development Auto-Tutorial

Block A: Five E's - Envision, Equip, Empower, Edit, Evaluate

- (A) Intro to Block A
- (B) A.1.a - Envision
- (C) A.1.b - Equip
- (D) A.1.c - Empower
- (E) A.2.d - Edit
- (F) A.2.e - Evaluate
- Block A Introspections

Block B: Three C's - Change, Communication, Character

- (G) Intro Block B
- (H) B.1.a - Leadership and Change
- (I) B.1.b.i - Communication
- (J) B.1.b.ii - Communication Applied
- (K) B.1.c - Leadership and Character
- Block B Introspections

Block C: Committee Dynamics; Consensus; Decision Making

- (L) Bridge to Block C
- (M) C.1.a.1 - Typical or Atypical Meetings
- (N) C.1.a.ii - Flow
- (O) C.1.b - Consensus
- (P) C.1.c - Decision Making
- Block C Introspections

Block D: Creativity; Ideation; Problem Solving; Planning

- (Q) Bridge to Block D
- (R) D.1.a.i - Creativity
- (S) D.1.b - Ideation
- (T) D.1.c.i - Problem Solving Intro
- (U) D.1.c.ii - Problem Solving Blocks
- (V) D.1.c.iii Part 1 - Thinking Like an Engineer
- (W) D.1.c.iii Part 2 - Failure to Think
- (X) D.1.d - Strategic Planning
- (Y) E.1.a - Think Like a Leader
- Block D Introspections

TAC is exploring making PDH credits available. Part of training will be presented at TC Chair's Breakfast meeting.

TAC TC Breakfast presentations also posted at TAC website (www.ashrae.org/communities/committees/standing-committees/technical-activities-committee) and TAC/TC basecamp (<https://3.basecamp.com/3106353/projects/15520814>)

ii. TC Program Subcommittee Chair Training

Tuesday, February 1, 2022 PST

11:15 AM - 12:00 PM PST

 **TC Program Subcommittee Training**

Caesars Palace, Milano VIII (P)

In-Person

Session Type: Technical Committee

Room: Milano VIII (P)

iii. RAC's Research Subcommittee Chair's Breakfast

6:30 AM - 9:15 AM PST

 **Research Subcommittee Chair's Breakfast**

Caesars Palace, Palace I/II (E)

In-Person

Session Type: Technical Committee

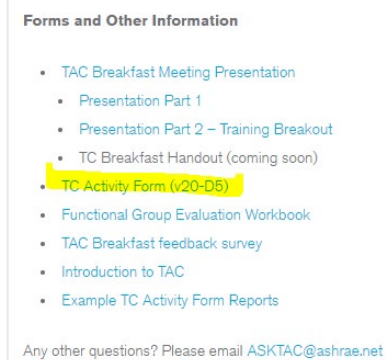
Room: Palace I/II (E)

C. UPCOMING DEADLINES

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

1. **TC Activity Forms for the 2022 Winter Annual Meeting are due to Your Section Head before Friday February 4, 2022**

TC/TG/TRG Activity Feedback Form (Excel) can be downloaded from the TAC website (www.ashrae.org/communities/committees/standing-committees/technical-activities-committee):



or /TC basecamp (<https://3.basecamp.com/3106353/projects/15520814>).

2. **ASHRAE is planning for face-to-face meeting in Toronto, ON, Canada, June 25 – 29, 2022. Seminar and Forum proposals are due by Thursday, February 17, 2022.**

Please visit the following site to submit your proposal: For more information, go to: www.ashrae.org/conferences/2022-annual-conference-toronto. Here's the deadlines:

Thursday, February 17, 2022: Extended Abstract Paper Due

Thursday, February 17, 2022: Program (Seminar, Forum, Workshop, Debate and Panel) Proposals Due

Friday, February 18, 2022: Conference and Technical Paper Final Accept/Reject Notifications

Friday, March 18, 2022: Extended Abstracts Accept/Reject Notifications

Friday, April 01, 2022: Debate, Panel, Seminar, Forum, Workshop Accept/Reject Notifications

3. **2021-2022 Hightower Award Nominations by Wednesday, September 1st**

There were 4 nominations for this year's award. Thanks to all TCs that nominated! All that did not win are encouraged to resubmit.

TAC wishes to encourage TCs to make nominations for the 2021-2022 *George B. Hightower Technical Achievement Award*. Nominations are due to Section Heads by September 1, 2022 or sooner. The award recognizes outstanding technical leadership and contributions on a TC/TG/TRG during the past four years, excluding research and standards activities. Please go to the Technical Committee page of the ASHRAE website at the following link under the "Procedures, Forms..." heading: www.ashrae.org/tcs.

D. **REMINDERS**

1. **22-23 Roster Rollover**

Remember, the current 2021-2022 roster for your TC, TG or MTG is in effect until after they meet for the ASHRAE Annual Conference. Rosters will roll over to 2022-2023 at

that point.

2. Useful TC/TG/TRG/MTG Chair Information and forms on ASHRAE website

Information for TC/TG/TRG and MTG chairs can be found on the Technical Committee page of the ASHRAE website at the following link: www.ashrae.org/tcs

3. Request for each TC to briefly review ASHRAE Code of Ethics at start of meeting

See the following link for the latest version of the ASHRAE Code of Ethics:

www.ashrae.org/about-ashrae.

4. Make a Special Effort to welcome new Members, and Visitors to TC meeting

Potential new members for your committee have been encouraged to drop-by your meeting. As a result, please make a special effort to recognize and warmly welcome all visitors to your meeting – A TC can never have too many willing and able volunteers.

5. Option for TC Subcommittee Meetings via Conference Calls and Web Meetings

TCs and TC subcommittees are encouraged to use Interim Meeting procedures described above for subcommittee meetings as well.

6. Is Your Committee Website up to Date?

If not, please ask your webmaster to at least post the latest minutes and the Virtual Annual meeting times and agenda. If your website has been neglected, add an action item for this meeting to appoint a responsible member of the TC/TG/TRG who will bring it back to life. The new TC website template has greatly simplified the duties of the TC webmaster and this form of communication is critical to the efficient operation of your committee, and for attracting new members. Please note a listserv is available to TCs to communicate with rostered members and all interested in keeping track of TC activities.

The conversion to a new TC website platform highlighted a couple areas where a refresher of the ASHRAE rules on website maintenance is warranted. First be aware that ASHRAE Products (i.e., handbook chapters, journal articles, final reports from research projects, etc.) cannot be published on your TC's website. It is very appropriate to post the title and scope of the product and then link the reader to the ASHRAE bookstore or other location on the ASHRAE site where the product may be purchased. Any possible exceptions to this rule must be sent through Mark Owen for review and approval (mowen@ashrae.org). The second issue involves timely posting of the draft minutes. Draft minutes (and final, approved minutes from the prior meeting) should be posted to your website (or otherwise distributed to the members) within 60 days after the meeting. Please ensure that your secretary and webmaster are aware of this deadline. To assist your secretary in understanding the procedures for taking and reporting minutes, a video has been developed and posted on the Technical Committees' Training page <http://www.ashrae.org/tcs>). On the same page, a video has also been posted for use by webmasters to learn about the procedures and schedule to maintain the new websites.

- 7. TC Master Calendar – Now Available through Google** - The Technical Committee Master Calendar is now available through Google. In order to access this calendar you need to have a Google account.

Once you log into your Google account, follow the instructions below:

To add a friend's calendar, just follow these steps:

- At the bottom of the calendar list on the left, click Add and select Add a friend's calendar.
- Enter the appropriate email address (techservices1791@gmail.com) in the field provided, then click Add.

This calendar is public and will appear under 'Other Calendars' in the left column.

To set up Google Calendar Sync to your Outlook:

- Make sure you're using a supported operating system and Outlook version.
- Download Google Calendar Sync (version 0.9.3.6) at
- <https://google-calendar-sync.en.softonic.com/>
- Once a dialog box appears, click Save File. The downloaded file should open automatically. If it doesn't, manually open it from your browser's download window.
- Click OK to confirm that you're aware this is an executable file.
- Read through the Google Calendar Sync Terms of Service, and click I Agree.
- Follow through the Installation Options and click Install to finish the set-up process.

Once Google Calendar Sync is installed on your computer, the Google Calendar Sync Settings window will appear:

In the Settings window, enter your email address and password and select the Sync Option you prefer. Read about each Sync Option.

You'll also be able to set the time interval for syncing to occur. Please keep in mind that 10 minutes is the minimum time interval allowed.

After the initial set-up, you can access the Google Calendar Sync Settings window again by double-clicking the calendar icon in your Windows System Tray.

13. TC E-mail Position Aliases available

SY 21-22 TC Position e-mail alias addresses for the mandatory positions of the Technical Committee management team (Secretary, Standards Sub. Chair, Program Sub. Chair, Handbook Sub. Chair, and Webmaster) will stay in effect until July 1st. The 20-21 E-mail Alias list with these position aliases is posted on the ASHRAE website www.ashrae.org/TCs under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*.

14. Restructured TC MOP (Manual of Procedures)

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

TAC has restructured the TC MOP so that it is easier to navigate and find information. The new TC MOP can be found on the ASHRAE website www.ashrae.org/TCs under the heading *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs*.

15. Distribution of TC minutes changed in TC MOP

The TC MOP and *TC/TG/MTG/TRG Minutes Cover Sheet* form have both been updated and you are no longer required to send the TAC chair a copy of your minutes after each meeting. The new minutes cover sheet can be found on the ASHRAE website www.ashrae.org/TCs under the headings *Procedures, Forms & Information for TCs/TGs/MTGs and TRGs – Routine Forms for TC/TG/MTGs/TRGs*.

16. Updated TAC Presentation Template Available for TC members to use with local Chapter

TAC recently updated the standard presentation and presentation notes that TC members can use, without a lot of effort, to explain what TCs do for the Society and how that work benefits members in your local ASHRAE Chapter.

The new presentation and presentation notes files are posted now at the following link www.ashrae.org/tcs under the heading *General TC Information* at the top of the page in case you prefer to direct others to these files posted online. The presentation material is now also available in both English and Spanish.

17. Basecamp and Virtual Meeting Information from Communications Committee

More and more TCs and standing committees are making use of ASHRAE's subscription to Basecamp3 to better organize, store, and distribute on-line committee files that are needed for their meetings through a dedicated committee Basecamp site. If you would like to learn more about Basecamp and how to request a site for your particular committee, please go to the Communications Committee (CC) web page: www.ashrae.org/communities/committees/standing-committees/electronic-communications-committee) and scroll down to the section titled *Basecamp Guidance*

E. RECENT ANNOUNCEMENT

1. CEC's Standing Request for Future Society Meeting Program Track Suggestions

The Conferences and Expositions Committee (CEC) oversees ASHRAE's annual and winter conferences and other specialty conferences and expositions globally. The CEC continually works to improve the conference experience for all attendees. To help keep a "pulse" on the technical issues facing professionals in the HVAC&R marketplace, and to create meetings that reach all of ASHRAE's constituencies, the CEC seeks ideas for tracks for the 2023 meeting conferences as well as topics for specialty conferences from TC members.

Please submit your suggestions to ASHRAE Staff member Tony Giometti (Giometti@ashrae.org). You can also add your track suggestion in the "Comment" section of the TC Activity form for the Toronto or Atlanta meetings.

2. CEC Always Seeks TC Volunteers willing to Support Content Development and Quality Control for Society Technical Program at Society Meetings

Provide to your Section Head after each Society meeting a list of qualified volunteers from your TC that are potential Technical Session chairs and reviewers of session papers that are related to TC's scope for use by the Conferences & Expositions Committee (CEC) in developing technical content for future technical programs.

3. The Professional Development Committee (PDC) is seeking ideas for new ASHRAE Learning Institute (ALI) courses.

The Professional Development Committee (PDC) is actively seeking ideas for new ASHRAE Learning Institute (ALI) courses. We need practical courses of broad interest to be presented as face-to-face seminars or short courses, instructor-led online courses and self-paced courses. Examples include courses with a focus on new technologies that need to be shared, fundamentals for engineers new to the discipline, standard applications that need explanation, and courses based on new design guides. Does your TC have a potential course idea?

Contact Karen Murray (ASHRAE staff) kmurray@ashre.org or PDCchair@ashrae.net with your course ideas.

4. ASHRAE Certification Committee seeking ideas from TCs for possible professional certification programs

Certification Committee seeking ideas from TCs for possible professional certification programs related to 1) support adaptability, resilience and recovery of buildings and communities, 2) promote understanding of indoor environmental quality (IEQ) among practitioners). Representatives from the Certification Committee will meet with TCs in Orlando that expressed an interest or had ideas.

F. CURRENT & UPCOMING ASHRAE CONFERENCE PROGRAMS

1. Las Vegas Winter – Jan. 29 – Feb. 2, 2022

Conference Website: www.ashrae.org/conferences/2022-winter-conference-las-vegas

Program Focus at Las Vegas Winter Conference

- i. Track 1: HVAC&R Systems and Equipment
- ii. Track 2: Fundamentals and Applications
- iii. Track 3: Refrigerants and Refrigeration
- iv. Track 4: Buildings at 360°
- v. Track 5: Energy System Integration
- vi. Track 6: Environmental Health and IEQ in the International Arena

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

- vii. Track 7: HVAC for Industrial and Commercial Purposes - Challenges and Opportunities
- viii. Track 8: Refrigerants, Safety, Performances
- ix. Track 9 (mini-track) to be announced

2. Toronto Annual– Jun 25-29, 2022

Conference Website: www.ashrae.org/conferences/2022-annual-conference-toronto

Program Focus at Toronto Annual Conference

- i. **Track 1 Fundamentals and Applications:** Fundamentals are the foundation for understanding applications in engineering. Key components of ASHRAE fundamentals include thermodynamics, psychometrics, fluid and mass flow. This track provides opportunities for papers and presentations of varying levels across a large topic base. Concepts, design elements and shared experiences for theoretical and applied concepts of HVAC&R design are included.
Track Chair: Erik D Sanchez esanchez@prmech.com
- ii. **Track 2 HVAC&R Systems and Equipment:** HVAC&R systems and equipment are constantly evolving to address the changing requirements of the built environment. Papers and programs in this track focus on the development of new systems and equipment, improvements to existing systems and equipment and the proper application and operation of systems and equipment.
Track Chair: Marites Calad mcasad@norman-wright.com
- iii. **Track 3 Research Summit:** Active research, and the exchange of those research findings, are critical to the development of our HVAC&R industry and built environment. The 9th annual research summit invites researchers to share those results, including ASHRAE-sponsored research and research of interest to the ASHRAE community. Researchers are invited to present papers, extended abstracts, seminars, forums or participate in panel discussions. The Research Summit includes a partnership with ASHRAE's archival journal, Science and Technology for the Built Environment.
Track Chair: Brian Fronk brian.fronk@oregonstate.edu
- iv. **Track 4 Connected Buildings, Connected Communities:** As buildings become smarter, and as sensor systems, internet connectivity and data collection become more ubiquitous, there are substantial opportunities to improve the performance and efficiency of buildings. Similarly, as renewable energy resources, including wind and solar energy and energy storage, becoming increasingly common, buildings can be used as electric grid assets, to strategically support energy efficiency and demand flexibility. To accomplish this requires many stakeholders, coordinated efforts and a diversity of buildings and buildings systems components and controls.
Track Chair: Ahmed Abdel Salam ahmed.abdel-salam@usask.ca
- v. **Track 5 Cold Climate Building System Design, Operation and Resilience:** The design, construction and operation of buildings in cold climate regions which experience extreme winter conditions require specific considerations for the building envelope and HVAC&R

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

systems and resulting thermal and hygrothermal performance. Resilience in the face of extreme temperature shifts, and in some cases remoteness and permafrost, should be considered to ensure buildings maintain interior design conditions. This track covers efforts and topics specifically focused on buildings, building systems and equipment in cold, arctic and subarctic climates.

Track Chair: Davide Ziviani dziviani@purdue.edu

- vi. **Track 6 IAQ, Energy Use, Comfort and Health of Sustainable Buildings:** Indoor environmental quality, energy use and efficiency and occupant comfort and health are all priorities buildings must balance. Sustainability priorities in buildings continue to increase, requiring careful consideration of how to achieve sustainability goals without sacrificing other building functions and owner/operator priorities. This track covers each of these topics, and how they interact and impact one another.

Track Chair: Rafi Karim rkarim@aeieng.com

- vii. **Track 7 Professional Development and Education:** As members of a professional organization, we not only participate for the great value of technical exchange, but also the interpersonal exchange. We recognize that the single greatest strength of our organization is its membership. This track is designed to allow those professionals and educators an opportunity to develop and share knowledge in the areas of presentation skills, leadership, team-building, understanding various business operations, lean collaboration strategies, interpersonal skills, etc., and an opportunity for educators to share knowledge in the teaching and education of current and future generations of professionals. Submissions to this track may lend themselves to interactive session types such as workshops, panels and forums.

Track Chair: Maggie Moninski maggie.moninski@gmail.com

- viii. **Track 8 Buildings in the Aftermath of COVID-19:** The pandemic has had significant impacts on how buildings are used, and the priorities associated with building operations to ensure a healthy environment for occupants. More people are working remotely; commercial building interior design and functionality and occupant use of these buildings, ventilation and system needs and building owner, operator and occupant priorities have been impacted. This track covers these topics as our buildings transition to design and operation in the aftermath of the pandemic.

Track Chair: Andy Cochrane acochrane@industrialairinc.com

G. OTHER UPCOMING WORKSHOPS, CONFERENCES AND EVENTS

1. 2022

1. IAQ 2020: Indoor Environmental Quality Performance Approaches: Transitioning from IAQ to IEQ – May 4-5, 2022 – Athens, Greece - www.ashrae.org/iaq2020
2. ASHRAE Winter Meeting, January 31 – Feb. 2, 2022 Las Vegas, NV - www.ashrae.org/conferences/2022-winter-conference-las-vegas
3. Ventilation 2022: 13th International Industrial Ventilation Conference for Contaminant Control, June 22-24, 2022 Toronto, Canada - www.ashrae.org/conferences/topical-conferences/ventilation-2022

Announcements & Reminders for TC/TG/TRG & MTG Chairs Virtual Winter Meeting 2022

4. 2022 Building Performance and Analysis Conference and SimBuild Co-organized by ASHRAE and IBPSA-USA. Sept. 14-16, 2022. Chicago, IL. www.ashrae.org/buildperform2022.
5. The Fifth International Conference on Efficient Building Design – Materials and HVAC Equipment Technologies. Oct. 20-21, 2022. Beirut, Lebanon. www.ashrae.org/beirut2022.
6. Buildings XV Conference: Dec. 5-8, 2022. Clearwater FL. www.ashrae.org/buildingsXV.

2. 2023

1. ASHRAE and SCANVAC – HVAC Cold Climate Conference 2023. March 6-8, 2023. Anchorage AK. www.ashrae.org/2023HVACColdClimate
2. 14th IEA Heat Pump Conference – Resilient and Efficient. May 15-18, 2023. Chicago IL. www.hpc2023.org

Publications Committee Scope

The following are ASHRAE publication types that fall under the scope of Publications Committee, with information on how to submit proposals or contact ASHRAE staff with questions:

Publication Type	How to Submit Proposals	ASHRAE Staff Contact
ASHRAE Journal articles (technical, for practicing engineers)	www.ashrae.org/technical-resources/ashrae-journal/submission-guidelines-for-ashrae-journal	ASHRAE Journal Managing Editor, Mary Kate McGowan, MMcGowan@ashrae.org
Books	Individual authors, authoring groups, and TC/TG/MTG volunteer efforts: http://cms.ashrae.biz/forms/pubplan/index.php TC/TG/MTG paid efforts: Use the Publication Topic Acceptance Request template available at https://www.ashrae.org/technical-resources/research	Special Publications Editor, Cindy Michaels, cmichaels@ashrae.org
Articles for <i>Insights</i> , <i>HVAC&R Industry News</i> , and <i>ASHRAE Journal Newsletter</i>	Contact ASHRAE Journal Managing Editor, Mary Kate McGowan, MMcGowan@ashrae.org	ASHRAE Journal Managing Editor, Mary Kate McGowan, MMcGowan@ashrae.org
CDs/DVDs/Software/Online databases	http://cms.ashrae.biz/forms/pubplan/index.php	Special Publications Editor, Cindy Michaels, cmichaels@ashrae.org
Apps	https://xp20.ashrae.org/secure/special_pubs/app_propose/	Special Publications Editor, Cindy Michaels, cmichaels@ashrae.org

Your Publications Committee TAC Section Liaison will establish contact with you via email. The Publications Committee Chair can be reached at pubchair@ashrae.net.

The Publications Committee can help your vision become a reality!

Tools to Assist You in Writing Content

- **ASHRAE Terminology** (www.ashrae.org/ASHRAETerms)
Ensure consistency using this free online glossary of more than 3700 terms related to the built environment.
- **ASHRAE Authoring Portal** (<https://authoring.ashrae.org/>)
Collaborate with coauthors using this secure platform for copyrighted intellectual property.
- **ASHRAE Technology Portal** (www.ashrae.org/technologyportal)
Find published source material in downloadable PDF format.
 - Current volumes of ASHRAE Handbook (free to members!)
 - ASHRAE Journal articles (free to members!)
 - ASHRAE Research Reports (free to members!)
 - ASHRAE Technical and Conference Papers (available by subscription)
 - ASHRAE Conference Seminars (available by subscription)
- **Authoring Tools** (www.ashrae.org/technical-resources/authoring-tools)
 - Links for learning about writing for various ASHRAE Publications
 - Interactive Authors' Manual for Books and Papers
 - ASHRAE SI Guide for HVAC&R
- **Free Resources** (www.ashrae.org/freeresources)
Obtain resources available freely to the public as well as resources available to Members only.
- **Latest Publications** (www.ashrae.org/bookstore)
Learn more about ASHRAE's most recent publications.
- **Upcoming Publications** (www.ashrae.org/technical-resources/bookstore/upcoming-ashrae-publications)
See what publications are in the works at ASHRAE.



ABOUT IEA HPT TCP

The International Energy Agency Technology Collaboration Programme on Heat Pumping Technologies is a nonprofit organization working in the field of heat-pumping technologies. The IEA HPT TPC is composed of 17 member countries and an executive committee leads a strategy to accelerate heat pump use in all applications that can reduce energy consumption and increase the use of renewable energy. The IEA HPT TPC has staged the IEA Heat Pump Conference every three years since its founding in 1978.

Chairman for HPT TCP is Mr. Stephan Renz (Switzerland).
E-mail: info@renzconsulting.ch
Read more about IEA HPT TCP at our website
www.heatpumpingtechnologies.org

CONFERENCE ORGANIZATION

The conference is organized by the International Organizing Committee (IOC), the Scientific Committee (SC) and the National Organizing Committee (NOC) on behalf of the Executive Committee of the IEA HPT TCP.

NATIONAL ORGANIZING COMMITTEE (NOC)

Karim Amrane, KA Consulting Services, LLC
Zahid Ayub, Isotherm, Inc.
Kunal Bansal, Heatcraft Worldwide Refrigeration
Van Baxter, Oak Ridge National Laboratory
Roy R. Crawford, Johnson Controls
Lorenzo Cremaschi, Auburn University
Piotr Domanski, NIST
Ron Domitrovic, Electric Power Research Institute (EPRI)
Daniel Ellis, Comfortworks, Inc.
Kyle Gluesenkamp, Oak Ridge National Laboratory
Eckhard Groll, Purdue University
Brian Fricke, chair NOC, Oak Ridge National Laboratory
Glenn Hourahan, Hourahan Consulting, LLC
Joshua Hughes, Chemours
Ajay Iyengar, Lennox International, Inc.
Konstantinos Kontomaris, Chemours
Wayne Kraft, Trane Technologies
Melissa Lapsa, Oak Ridge National Laboratory
Kashif Nawaz, Oak Ridge National Laboratory
Reinhard Radermacher, University of Maryland
Wayne Reedy, Carrier (retired)
Jeff Spitler, Oklahoma State University
Michael Vaughn, ASHRAE
Ed Vineyard, U.S. Department of Energy
Xudong Wang, Air-Conditioning, Heating, and Refrigeration Institute (AHRI)

INTERNATIONAL ORGANIZING COMMITTEE (IOC)

Thomas Fleckl, IOC Chair
Sophie Hosatte, IOC Vice-Chair
Minsung Kim, IOC Vice-Chair
TBD, chair Scientific Committee (SC)
Regional Coordinators (RC) from America, Asia, and Europe (TBD)
Other IOC members (TBD)

HEAT PUMP CONFERENCE SECRETARIAT

Oak Ridge National Laboratory Conference Office
Judy R. Potok; potokjr@ornl.gov
Laurie Arnish; arnishlm@ornl.gov



14th IEA HEAT PUMP CONFERENCE

*RESILIENT
AND EFFICIENT*

RENAISSANCE CHICAGO
DOWNTOWN HOTEL
MAY 15–18, 2023, CHICAGO, IL





CONFERENCE INFORMATION AND REGISTRATION

14th EA Heat Pump Conference

Renaissance Chicago Downtown Hotel

May 15–18, 2023, Chicago, IL

Visit the conference website (www.hpc2023.org) for information, including registration and hotel accommodation forms.

CONFERENCE THEME

The conference theme is *“Heat Pumps—Resilient and Efficient.”* Clean, efficient, and reliable energy systems are essential to meeting basic needs for comfortable, secure, and environmentally friendly building environments; food processing, transport, and storage; and industrial processes. Many analysts estimate that it will not be possible to achieve long-term climate, security, and energy goals without increasing the use of renewable heating and cooling hand in hand with large scale refurbishment and renovation of the world’s existing buildings and industrial infrastructure. Heat pumps driven with renewable power sources are the key technical solution for these challenges.

CONFERENCE GOALS

The goal of the conference is to serve as a forum to discuss the latest heat pumping technologies and applications and to exchange knowledge in research, market, policy, and standards information on related technologies. Exhibitions will be held at the conference to share products and technologies.

CONFERENCE VENUE

The Renaissance Chicago Downtown Hotel is excited to welcome the 14th IEA Heat Pump Conference, “Resilient and Efficient,” May 18-23, 2023. Located in the prime area of the Theater District provides attendees with easy access to Chicago’s vibrant cultural infrastructure, including a wide variety of traditional pubs, eclectic bars, and clubs. Chicago is also home to a wide variety of restaurants satisfying most any palate. The Chicago O’Hare International Airport (ORD) and Midway International Airport (MDW) are international and domestic arrival hubs offering light rail service to downtown, as well as taxis and rideshare services.



CONFERENCE PROGRAM HIGHLIGHTS

The conference starts on Monday with a series of workshops on international collaborative projects (annexes) within the IEA HPT TCP and other related topics. Highlights include

- High-level invited speakers for the opening plenary sessions
- High-level invited keynote speakers leading each major conference oral technical session
- A poster session associated with each oral technical session
- Exhibition of equipment and information kiosks
- Technical visits
- Social and sightseeing program

The oral and poster technical sessions will include topics related to heat pumps, including but not limited to the following:

- Residential and commercial building comfort conditioning, focusing on topics such as: space heating, air-conditioning, net zero buildings, renovation, hybrids, domestic hot water, multifamily buildings;
- Nonresidential applications, focusing on industrial heat pumps, waste heat, district heating, commercial refrigeration, transport air conditioning and refrigeration;
- Innovation and R&D, focusing on ground sources, advanced storage systems, working fluids, sorption technologies, advanced vapor compression, non-vapor compression technologies, smart grids/energy, cold and hot climate applications, advanced air conditioning technologies, gas driven heat pumps and combination with other renewable technologies; and
- Policy topics and market status, trends, strategies, and future opportunities.




WHO SHOULD ATTEND?

- Policy makers, government officials, energy efficiency program leaders
- Executives and representatives from industry, utilities, and the public sector
- Manufacturers, distributors, and technology supporters.
- Designers and developers of heat pump systems and components
- Researchers from industry, utilities, academia, and private and public R&D institutes

CALL FOR PAPERS

Abstracts (250 words maximum) may be submitted on the conference web site beginning November 15, 2021. The abstracts will be screened, and authors will be advised of acceptance.

Deadlines

- November 15, 2021: Abstract submission open
 - May 15, 2022: Abstracts due
 - June 15, 2022: Authors advised of acceptance
 - November 15, 2022: Full paper submission due
 - February 15, 2023: Final paper submission due
- 



Please get your breakfast and find a seat

**We will start PROMPTLY at 7 am
and finish by 9 am**

1



TAC Breakfast Meeting January 2022

To serve humanity by advancing the arts and sciences of
heating, ventilation, air conditioning, refrigeration and
their allied fields

Larry Smith, PE - Chair
Craig Messmer, PE - Vice Chair

2

OBJECTIVES

1. Introduction and review today's objectives
2. Code of Ethics and ASHRAE Policies
3. Ground Rules
4. Announcements
5. Tip of the Spear
6. VISION 2022
7. Strategic Plan
8. Success Stories (pre-recorded)
9. Liaison Highlights (pre-recorded)
10. Think Like a Leader (pre-recorded)
11. Section Talk (40-minutes)
12. Open Mike (20-minutes)

Part A (1-hour)

Part B (1-hour)



3

Code of Ethics & 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."

Sexual Harassment

ASHRAE is committed to educating members to eliminate all instances of sexual harassment. The Society will deploy an online training program for volunteers to help educate and protect all members, and to sustain the professional environment members deserve and expect. This training will be required prior to serving on certain standing committees and/or in leadership positions.

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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.

[ewlveizvk3gsq q ivgngmg](#)

View ASHRAE Governing Documents at ashrae.org/about/governance

4

ANNOUNCEMENTS

1. ASKTAC@ASHRAE.net
2. Open Mike Policy
3. Submit a motion to TAC
4. TAC has conducted seven (7) 1-hour virtual meetings since July 2021
5. TAC has reduced their meeting time during the winter conference by 50%
6. TAC has conducted five (6) Section head training sessions since June 2021 in preparation for the Winter Conference
7. TAC has made significant changes to the TC MOP to avoid any perceived conflicts of interest
8. TAC, under the leadership of Victor Goldschmidt, has completed a 10-hour, 4-segment, ASHRAE Leadership Development Auto-Tutorial
9. Electronic Roster, Activity Form, and FG Evaluation are in the budgeting process! (located on TAC website)
10. Special Covid Protocols



5

YOU are the Tip of the Spear!

Standards			
Active	131		
Under development	15		
Guidelines			
Published	29		
Under development	8		
Handbook Chapters	209		
Research Projects			
Total Projects	918	since 1960	
Current Projects	50		
\$\$'s Spent	\$77,008,000	not adjusted for inflation	
Program Presentations (Annual)	660		
Publications			
Last 5-years	228		
Under Development	75		



6

VISION 2022 - Breakdown Silos - Challenges



Standards
Research
Handbook
Programs
CTTC
TAC

RBC
EHC
PubED
Members Council
CEC
YEA

- Request silos to join the conversation at TAC to establish proactive communications on how TAC can assist and facilitate a transformative change
- The FG's are the recognized ASHRAE experts and therefore will be consulted to review ASHRAE Journal articles prior to publication
- TAC Chair will work with the CTTC to determine how TAC can open lines of communication with the grass roots members



7

VISION 2022 - What is the most important & urgent action TAC can take?

2.428.004 STRATEGIC PLAN

(09-06-21-12C)

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee's assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee's constituents prior to the Annual Meeting.

2.428.004 STRATEGIC PLAN

Align the FGs' MBOs with ASHRAE's Strategic Plan and make recommendations to the BOD for changes to the plan

The Society Planning Committee, which monitors and updates the Strategic Plan, is currently working on a mid-term update, to the Plan, to be rolled-out in Las Vegas. Now would be a great time to provide comments/recommendations.



8

What is the Strategic Plan?

1. Being an essential knowledge resource for a sustainable, high-performance built environment
2. Maximizing, member value and engagement
3. Optimizing ASHRAE's organization structure to maximize performance



9

Success Stories

1. TC5.2 Duct Design – Marketing Membership
2. TC2.6 Sound and Vibration – monthly virtual meetings
3. Herman & Dorothy Behl's Endowment Fund
4. TGR2.RAST (Reactive Air and Surface Treatment)
5. MTG-RES (Resiliency)
6. TC5.3 Air Distribution - Get on the Ladder
7. ISI (International Standards Interaction)
8. RAC (Research Administration Committee)
9. TFBD (Decarb Task Force)
10. RBC (Residential Building Committee)
11. GAC (Government Affairs Committee)



10

TC5.2 (Duct Design) Marketing Success!



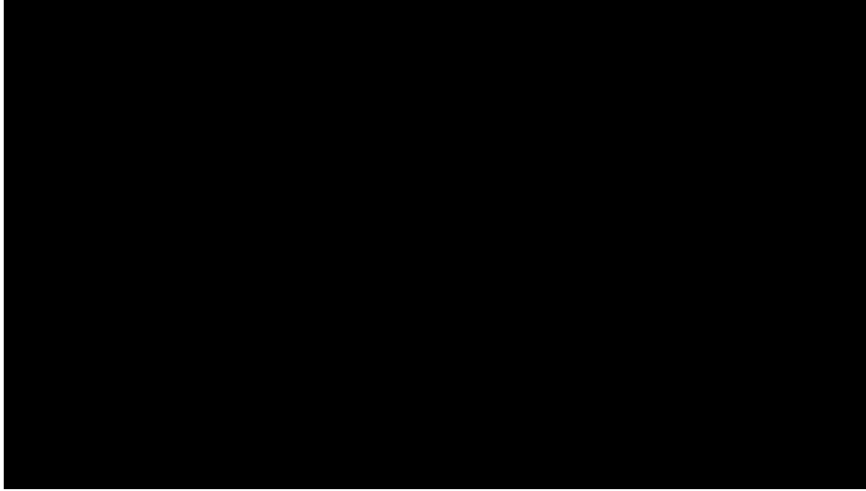
11

TC2.6 Sound and Vibration (Monthly Meeting)



12

TC5.2 Herman & Dorthy Behl's Endowment Fund



13

Newly constituted TG2.RAST (Reactive Air and Surface Treatment)



14

MTG.RES (Resilience)



15

TC 5.3



16

ISI (International Standards Interaction Task Force)

ASHRAE's Role in the Globalization of Standards The International Standards Interaction Task Force



Craig Messmer
Las Vegas (W22)
1/26/22



17

Research Administration Committee (RAC) Speaks!

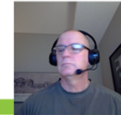


18

TFBD (Task Force Building Decarbonization)

Formation of the Task Force for Building Decarbonization (TFBD)

Realization that our successful initiatives in building energy efficiency should be expanded to building decarbonization



19

A few words from the RBC (Residential Building Committee)



TAC

TC Chair / Vice-Chair Breakfast
Winter Meeting 2022

Las Vegas

Residential Buildings Committee (RBC)

Rick Karg, Chair



20

The Government Affairs Committee

NEEDS
YOU



The Government Affairs Committee (GAC) organizes ASHRAE members at the state and local grassroots levels to educate government bodies and officials in areas of interest to ASHRAE members. In SY 20-21, 304 members participated in 75 events. Thus far in SY 21-22, 31 events have taken place.

The purpose of these activities is to benefit the public by providing responsible and balanced input and advice to policymakers in our area of expertise.

The technical expertise of ASHRAE is concentrated in its Technical Committees, Task Groups, Technical Resource Groups, and Multidisciplinary Task Group.

The GAC invites members of ASHRAE's technical groups to extend their participation to the chapter level where many relevant policy decisions are made. Please consider:

- Chairing or becoming a member of your local chapter's GAC
- Liaising with GAC to share technical developments that could be of interest to policy makers
- Participate in meetings of:
 - state or municipal construction codes boards
 - state affiliates of the Association of School Business Officials
- Joining local planning commissions or similar bodies

For more information on the Government Affairs Committee, contact us at GovAffairs@ashrae.org.

We're waiting to hear from YOU!

21

Think Like a Leader



Leadership:
Fully Empowered for the Advance
E.1.a "Think Like a Leader"

Created by - Victor Goldschmidt, PhD
Professor Emeritus Purdue University School of Mechanical Engineering, past ASHRAE Director-at-Large, ASHRAE Exceptional Service Award recipient, ASHRAE Fellow, and trained as a Synectics (special brainstorming) facilitator



22



TAC

Chairs Breakfast Training

Section Breakout Session

January 2022

Jamie Bennett, TAC Training Coordinator
Kevin Mercer, Section 8 Head

1

Breakfast Session Goals

- ☐ Get to know each other
- ☐ Explain the Section Head role as TAC liaison, advocate and guide for FG's
- ☐ Review FG operations
- ☐ Empower FG leadership
- ☐ Answer questions



2



***Dave Meredith
Section Head
TAC Section 1– Fundamentals and General***

3

Session Outline

1. Special reminders for Las Vegas and COVID
[2022 ASHRAE Winter Conference | ashrae.org](https://www.ashrae.org) click on “Health and Safety”
2. “Get on the ladder”– succession planning
3. Maintaining balance– changes to TC MOP
4. Roster update process– Appendix B of TC MOP
5. Strategic Plan– each FG appoints a liaison to MTG.RES
6. Strategic Plan– alignment and tracking of FG MBO’s
7. FG evaluation, Activity form, vote to continue, merge or disband
8. *(optional)* FG meeting template



4



Vance Payne

Section Head

TAC Section 4– Load Calculations and Energy Requirements

5

Succession Planning

☐ Rostering for voting members and FG leadership is crucial to succession plan implementation

☐ TC 5.3 “Get on the ladder!”

Four-step ladder / eight-year period

1. Handbook Subcommittee Chair (2 years)
2. Secretary (2 years)
3. Vice Chair/Research Subcommittee Chair (2 years)
4. Chair (2 years)



6



Kevin Marple
Section Head
TAC Section 5– Ventilation and
Air Distribution

7

Maintaining Balance– changes to TC MOP (approved by TAC)

1.4.2 Committee Voting Membership shall be comprised of individuals:

New section 1.4.2.2

1.4.2.2 Who represent a stakeholder interest category of the industry such as users, contractors, product manufacturers, academics, consulting engineers, government agencies, independent sales representatives, trade organizations and research organizations. The Committee Chair shall develop a list of relevant stakeholder interest categories for approval in accordance with section 2.4.4, 3.2.4 and Appendix B and **shall maintain a balance of Members in these stakeholder interest categories.** No single stakeholder interest category shall constitute a majority of the Voting Members of a Committee. TAC Chair approval is required when achieving balance is not possible.

Old section 1.4.2.2

1.4.2.2 Who represent segments of the industry such as users, contractors, product manufacturers, academicians, consulting engineers, and research organizations. **The committee chair should work to develop and maintain a balance of these interests, but in some situations a balance may not be possible, therefore, this is not a formal requirement.**



8



Brad Cochran
Section Head
TAC Section 9– Building Applications

9

Rostering. Appendix B - Procedure for TC/TG/TRG Membership Update

- ❑ At least three weeks prior to the Society Winter Meeting, the Administrative Assistant for Technical Services sends each FG Chair and TAC Section Head a Roster Update link
- ❑ FG Chair reviews the Roster Update Webform, making changes and additions, and clicks SAVE (do not click SUBMIT)
- ❑ FG Chair notifies the appropriate TAC Section Head (no later than the Wednesday of the Winter Conference) that the proposed changes are completed
- ❑ Section Head reviews, approves and SUBMITS the Roster Update Webform or returns it to the FG Chair for corrections by February 15
- ❑ Section Head and FG Chair finalize and SH SUBMITS by February 25
- ❑ If no roster update is submitted, voting members rolling off will automatically be dropped off the roster
- ❑ Staff sends draft roster to Section Head for review against the approved Roster Update Webform
- ❑ Repeat until the Section Head has approved the draft roster
- ❑ The purpose of this procedure is to minimize Emergency Roster Actions
- ❑ All roster changes take effect at the close of the Annual Conference



10



Kevin Mercer Section Head

TAC Section 8– Air-conditioning and Refrigeration System Components

11

Strategic Plan Alignment– MBO's

- ☐ MBO– Management by Objective
- ☐ Download MBO Template Worksheet from Basecamp: TAC Sections & TC Leadership
[MBO template for Strategic Plan alignment.xlsx \(basecamp.com\)](#)

MBO Submission to Planning

Council: TAC through SH4
 Committee: name of your FG

Chair: _____
 Vice-chair: _____

MBO #	Description	Metric (how do we determine success?)	Initiative #	Goal #	Completion % /Date	Financial Assist Req'd?
1	Formalize TC continuation procedures (no assumptions)	Procedures formalized	3	3a, 3b	On-going	No
2	Establish solid basics/functional training (including virtual meeting basics)	Number of training blocks developed	3	2c, 3a, 3b	On-going	No
3	Automate TC reporting (e.g., activity form and Section Head data rollup)	Web Tool specification created Web Tool developed	3	3a, 3b	On-going	Yes
4	Formalize TC best practices	Best Practices finalized and documented	3	3a, 3b	On-going	No
5	Improve time/resources at in-person meetings (breakfast and training sessions in particular)	Improved breakfast format finalized	3	3a, 3b	On-going	No
6	Establish effective and modern leadership training	Number of training blocks developed	3	2a, 3a, 3b	On-going	No



12

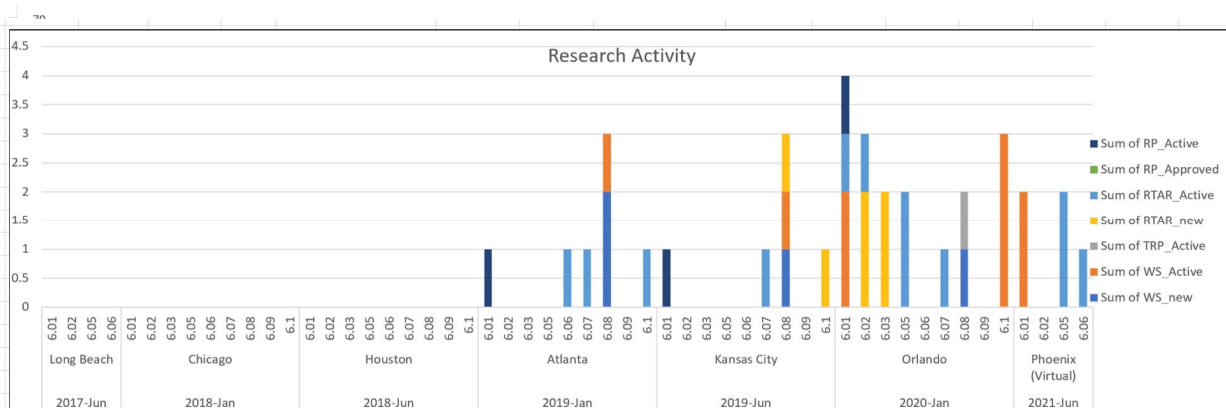
FG Operations

- ❑ Section Heads are answerable for everything the FG's do or don't do, with the consent of the TAC Chair
- ❑ Required reporting: Activities->[Upcoming dates \(basecamp.com\)](#)
 - ❑ [Docs & Files \(basecamp.com\)](#) TAC Sections & TC Leadership->Docs & Files
 - ❑ FGEW, Activity Form (Hybrid meetings: count "Present" & "Remote")
- ❑ Meeting agenda template (*.docx)
 - ❑ TAC Sections & TC Leadership-> FG Main Meeting Agenda Template.docx (basecamp.com)
 - ❑ *All forms available on ASHRAE website:* Technical Activities Committee (ashrae.org) [Technical Activities Committee \(ashrae.org\)](#)



13

FG Activity Data Tracking



14

The Section Head is Your Servant Leader

- ☐ Envisioning FG goals and significance
- ☐ Equipping with ASHRAE process and productivity skills
 - ☐ Get to know your TC MOP (rolling updates)
 - ☐ [Technical Committees \(TCs\) \(ashrae.org\)](https://www.ashrae.org/technical-committees)
- ☐ Empowering Chairs and Vice-chairs to actively lead
- ☐ [TAC-open-mic-policy.pdf \(ashrae.org\)](https://www.ashrae.org/tac-open-mic-policy)
- ☐ ASKTAC@ASHRAE.net
- ☐ **“The TC’s are ASHRAE’s best resource”** – Board of Directors



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Corey Metzger
Section Head
TAC Section 1– Fundamentals and General

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Thank you TAC Section Heads! (Society Year 2021-2022)

SECTION	FIELD	NAME
MTG	Multidisciplinary Task Groups	DAN DETTMERS
1	Fundamentals and General	DAVE MEREDITH COREY METZGER
2	Environmental Quality	JON COHEN
3	Materials and Processes	STUART DOLS
4	Load Calculations and Energy Requirements	VANCE PAYNE
5	Ventilation and Air Distribution	KEVIN MARPLE
6	Heating Equipment, Heating and Cooling Systems and Applications	DOUG REINDL
7	Building Performance	SATHEESH KULANKARA
8	Air-conditioning and Refrigeration System Components	KEVIN MERCER CHARLIE HENCK
9	Building Applications	BRAD COCHRAN
10	Refrigeration Systems	CHARLIE HENCK



ASHRAE Leadership Presentation

Rick Hermans
2022 Winter Conference
Las Vegas, NV

1

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."

Sexual Harassment

ASHRAE is committed to educating members to eliminate all instances of sexual harassment. The Society will deploy an online training program for volunteers to help educate and protect all members, and to sustain the professional environment members deserve and expect. This training will be required prior to serving on certain standing committees and/or in leadership positions.
ashrae.org/about/governance/ashrae-discrimination-and-harassment-policy

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

View ASHRAE Governing Documents at ashrae.org/about/governance

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ASHRAE Commitment to Care Statement



The health and safety of all ASHRAE conference attendees is a top priority. Out of respect for our fellow attendees, we commit to wear masks indoors, monitor our health, seek medical attention if symptoms develop and adhere to all ASHRAE Commitment to Care protocols. We are committed to the well-being of one another.

View the full Commitment to Care at ashrae.org/2022WinterCTC



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ASHRAE Collaborations and Partnerships



- The American Society for Health Care Engineering (**ASHE**)
- The Building Owners and Managers Association (**BOMA**)
- The Chartered Institution of Building Services Engineers (**CIBSE**)
- Brazilian Congress on Refrigeration, Air Conditioning, Ventilation, Heating and Air Treatment (**CONBRAVA**)
- International Facility Management Association (**IFMA**)
- Federation of European Heating, Ventilation and Air Conditioning Associations (**REHVA**)
- The Sheet Metal and Air Conditioning Contractors' National Association (**SMACNA**)
- United Nations Environment Programme (**UNEP**)

And many more!



CONBRAVA



IFMA
International Facility Management Association



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President's Luncheon



**Monday, January 31
12:15 – 2:00 pm**

***Personal Growth. Global Impact. Feed the
Roots.***

**2021-22 ASHRAE President
Mick Schwedler, P.E., Fellow ASHRAE, LEED AP**

5

Board of Directors *Executive Committee*



Through an elaborate committee structure, including committees and councils, ASHRAE policies are established by a **Board of Directors** comprised of Society members elected by the membership. Board members serve terms of one to three years, including the President who serves a one-year term.

President



Mick Schwedler, P.E.
Fellow ASHRAE, LEED AP,
La Crosse, Wisconsin

President-Elect



Farooq Mehboob, P.E.
Fellow ASHRAE, Life Member
Karachi, Pakistan

Treasurer



Ginger Scoggins, P.E.
Raleigh, North Carolina

Vice President



Dunstan Macauley, P.E., HBDP
Arlington, Virginia

Vice President



Tim McGinn
Calgary, Alberta, Canada

Vice President



Donald L. Brandt
Life Member
Phoenix, Arizona

Vice President



Sarah E. Maston, P.E., BCxP
Hudson, Massachusetts

Secretary



Jeff H. Littleton
ASHRAE
Atlanta, Georgia

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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



Steven Marek, P.E.
Hanahan, South Carolina

Region V



Douglas Zentz
Big Rapids, Michigan

Region VI



Richard Hermans, P.E., HFDP
Lino Lakes, Minnesota

Region VII



Chris M. Gray, Ph.D., P.E.
Atlanta, Georgia

Region VIII



Randy C. Schrecengost, P.E., BEAP
Austin, Texas

Region IX



Tyler J. Glesne, BCxP, BEAP
Omaha, Nebraska

Region X



Devin A. Abellon, P.E.
Los Angeles, California

Region XI



Eileen Jensen, P.E.
Vancouver, Washington

Region XII



Robin Bryant
Fort Myers, Florida

Region XIII



Apichit Lumertpongpana
Bangkok, Thailand

Region XIV



Andres J Sepulveda
Madrid, Spain

Region-at-Large



Richie Mittal
New Delhi, India

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Board of Directors

Directors-at-large



Wade Conlan, BCxP
Maitland, Florida



Kelley P. Cramm, PE
Lenexa, Kansas



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



Kenneth Fulk
Allen, Texas



Art Giesler
Colleyville, Texas



Jaap Hogeling, P.Eng., MSc, ME
Lienden, Netherlands



Kishor Khankari, Ph.D.
Ann Arbor, Michigan



Ashish Rakheja
Noida, Uttar Pradesh, India



Adrienne Thomle
Reno, Nevada

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2019-2025 ASHRAE Strategic Plan Update



New! See the Midterm Update and 1-Year Extension

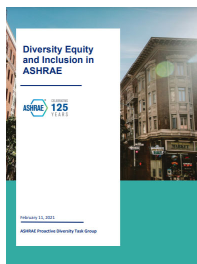


To learn more, visit ashrae.org/strategicplan

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Diversity, Equity, & Inclusion (DEI) in ASHRAE

BOD Subcommittee created by the Board January 2021, and active in the 2021-22 Society Year



Download the Report

ashrae.org/DiversityEquityInclusion

The purpose of the BOD DEI Subcommittee is to advise and engage the Board of Directors on:

- All matters relating to diversity, equity and inclusion - with a view to improving organizational awareness and performance in these areas amongst both staff and the Society membership
- The establishment of annual budgets for DEI program and ongoing initiatives
- The prioritization of inclusivity issues which have relevance to ASHRAE, together with plans for addressing these issues
- Potential DEI training modules for Chapters and Committees

Members of the BOD DEI Subcommittee

Andres Sepulveda (Chair); Adrienne Thomle (Vice Chair); Devin Abellon; Robin Bryant; Art Giesler; Eileen Jensen; Kishor Khankari; Tanisha Meyers-Lisle; Dunstan Macauley; Richie Mittal; Farooq Mehboob (Consultant); Steven Sill



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Task Force for Building Decarbonization



- Initiative of ASHRAE President and President-Elect, with the realization that our successful initiatives in building energy efficiency should be expanded to building decarbonization
- **15** members, Co-Chaired by Presidential Members Don Colliver and Tom Phoenix
- **9** working groups with over **100** international volunteers, developing resources and tools to:
 - Provide policy makers with information on how they might achieve goals
 - Provide recommendations and best practices for industry stakeholders

Your input is welcome!

- What products, tools, or outcomes do you as ASHRAE members need from this group?
- What educational or training products do you need to assist your understanding of decarbonization? Timeframe?
- What metrics should be used in the carbon design process?

Email questions or input to decarb@ashrae.org

To learn more, visit ashrae.org/decarb



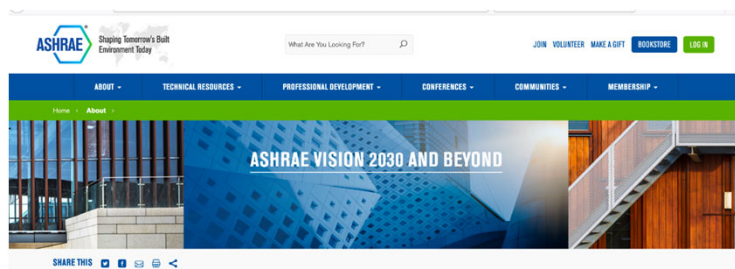
11

ASHRAE Vision 2030 and Beyond



Visit ashrae.org/vision2030 to view the complete **mission statement** along with all the resources and knowledge produced to transform tomorrow's built environment.

- **Serve as a knowledge base for defining how buildings of the future will be designed, constructed, and operated.**
- **Continually drive the innovative and strategic improvements needed during the revolution of the built environment.**



Email questions or comments to vision2030@ashrae.org

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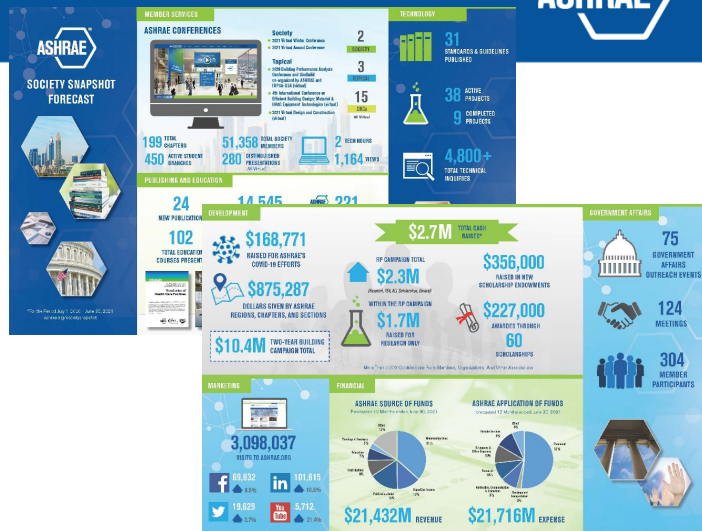
Society Updates

Approved By Laws Change: Full Member

ASHRAE Membership voted to approve changing the title of 'Member' grade to 'Full Member' grade to differentiate between those who have provided necessary education and professional background information to the Society in order to qualify as a Full Member grade.

Request to Advance to Full Member Grade

Associate and Affiliate members may request to advance to Full Member grade by updating their membership bio in their ashrae.org profile and notifying membership@ashrae.org.



View the latest Society Snapshot at ashrae.org/about/society-snapshot

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Nominations Needed!

Committee Nominations

- Due mid-February. Council, RAC, TAC, Standards and Handbook nominations are due mid-September.
- Speak with your committee ExO if your current appointment ends in June and you wish to be nominated for another committee.

ashrae.org/committee-nominations

Honors & Awards Nominations

ASHRAE's awards fall into one of six categories:

- Personal Honors
- Personal Awards for General & Specific Society Activities
- Paper Awards
- Society Awards to Groups or Chapters
- Chapter and Regional Awards

ashrae.org/honorsandawards

ASHRAE Technical Committees (TCs) at ashrae.org/communities

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New Global Headquarters



**180 Technology Parkway NW
Peachtree Corners, GA 30092**



ASHRAE has officially moved into a renovated **66,700 ft² building**, originally built in 1978.



Over **\$10.3M** in monetary and in-kind support was received from generous stakeholders to support this renovation project.



Grand opening event on Nov. 18, 2021, was live streamed to ASHRAE's **51,000 members** around the world.



PV system installation completed in October 2021, marking operation at NZE performance.

See the video tour, grand opening photos, building technical features and our generous sponsors at ashrae.org/newhq

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Epidemic Task Force (ETF)



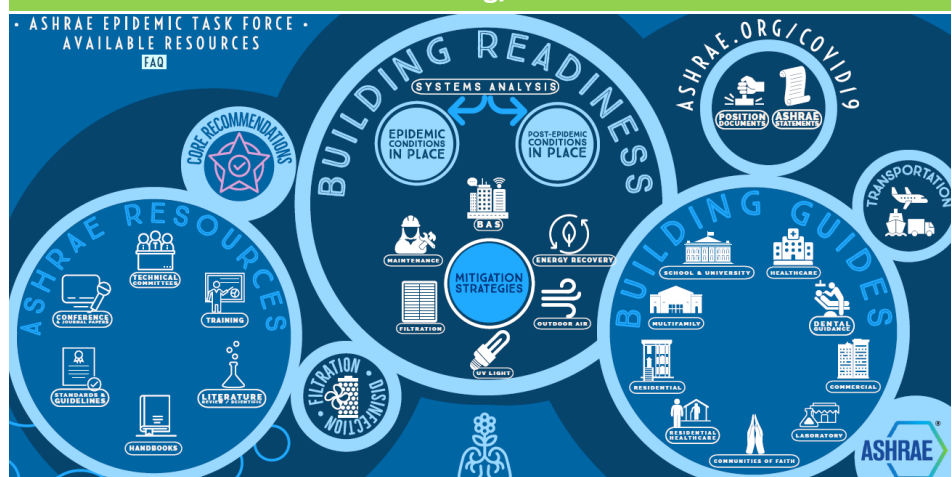
Continues to provide COVID-19 related resources, making ASHRAE a trusted source of critical guidance during the pandemic.

ashrae.org/covid19 averages more than **40,000 views per month!**



Clickable infographic for easy navigation, FAQ's and free resources

ashrae.org/covid19



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Membership & Communities



Your Benefits ashrae.org/membership

New Member Benefit Selection Effective Society Year 2021-22



Full dues paying Full and Associate Members joining or renewing into SY 21-22 may select from the following complimentary annual member benefits:

- ✓ ASHRAE eLearning Course
 - ✓ ASHRAE Standard (PDF)
 - ✓ ASHRAE Handbook (PDF)
- Members can add a Handbook Online subscription or printed copy of the Handbook for an additional fee.



51,000+ Society Members
including **5,200+** Student
Members



15 Regions with **199** Chapters
and **400+** Active Student
Branches



Connect-A-Colleague

Quickly invite peers to join ASHRAE and participate in committees using a pre-written email invitation at ashrae.org/connect

Your Community ashrae.org/communities

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ASHRAE Support



Research Promotion (RP)

The Research Promotion campaign supports ASHRAE Research, Education, YEA programs, Scholarships, Endowed Funds, and the RP General Fund.



Thank You to all the **donors and volunteers** for your support during this challenging year.

Society Year 2020-2021 total raised: **\$2,300,519**

- **\$1,769,785** in contributions for Research
- **\$332,698** for ASHRAE Foundation
- **\$134,666** for Scholarships
- **\$63,370** for General Fund, YEA, and Education

ASHRAE Foundation Grants & Scholarships

The ASHRAE Foundation is an endowed trust that provides funding for professional development and research programs, supplies qualified engineering students with much needed scholarship assistance, and provides grants to help support the Society's vital work.

SY 2021-22

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Society Scholarships totaling \$152,000

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Chapter-Awarded Scholarships totaling \$52,000

ASHRAE awards
\$450,000 in
scholarships
each year!!

Donate, Volunteer, Apply, and Learn More at
ashrae.org/support

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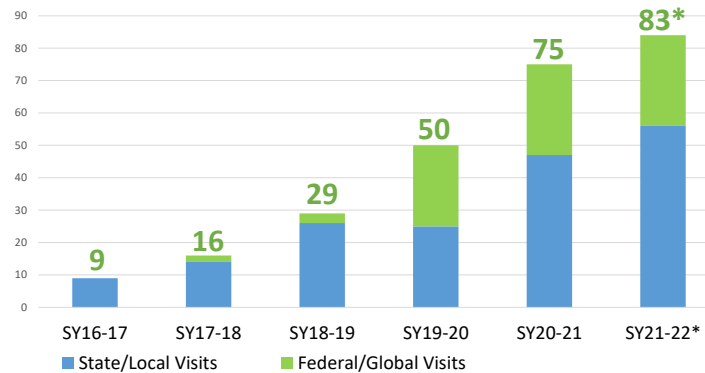
Government Affairs



ASHRAE Government Affairs program works to establish ASHRAE as a leading source of trusted expertise for policy-makers in the development of legislation and regulations affecting the public and HVAC&R industry.

- **Government Affairs Update** bi-weekly newsletter provides updates on government activities. Subscribe online or by emailing GovAffairs@ashrae.org.
- **Government Outreach Events** connecting ASHRAE volunteers with policy makers.
- Briefings & Testimony, Regulatory Meetings, Hearings, and Comments. Letters related to public policy priorities.

Government Outreach Events



*SY21-22 shows the goal, not total events held

Get Involved + Get Resources
ashrae.org/government-affairs

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Professional Development



eLearning

Convenient, on-demand courses for individuals or groups.

90+ online courses starting at **\$42** for members.

Group Rates Available

Updated Course Catalog:
elearningcatalog.ashrae.org



ASHRAE Learning Institute (ALI)

Instructor-led courses in a variety of formats.

See the Updated Schedule of In-Person and Virtual HVAC Design Courses!

- Level I – Essentials
- Level II – Applications

NEW Courses Added to the Instructor-led Online Series
ashrae.org/onlinecourses

Courses Available for ASHRAE Chapter, and In-Company Presentations.

Certification

Validate and promote your expertise via online examination and digital badging.

Building Design

- Energy Modeling (BEMP)
- Healthcare Facility Design (HFDP)
- High-Performance Building Design (HBDP)
- HVAC Design (CHD)

Building Performance

- Commissioning (BCxP)
- Energy Assessment (BEAP)

Building Operations

- Operations & Performance Maintenance (OPMP)

ashrae.org/professional-development

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Personal Growth. Global Impact. *Feed the Roots.*

Mick Schwedler, P.E., LEED AP
2021-2022 ASHRAE Society President

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New Initiatives from President Mick Schwedler

Learning Pathways

- HVAC Design – Basics
- Pathogen Mitigation

ASHRAE Learning Pathways provide a way for professionals in HVAC&R to organize and plan their professional development through topical groupings of educational resources. Pathways include:

- HVAC Design – Basics
- Pathogen Mitigation

Member to Member Connection Videos with Mick Schwedler
New monthly video series, fireside chat style, featuring guests and a variety of topics relevant to ASHRAE members.

SIX Videos Now Available! Watch at ashrae.org/president and ASHRAE social media channels.



ashrae.org/president

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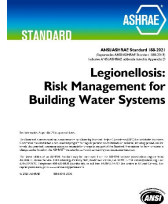
Publications and Standards



Recently published items available at ashrae.org/bookstore



Standard 170-2021
Ventilation of Health
Care Facilities (ANSI
Approved; ASHE Co-
sponsored)



Standard 188-2021
Legionellosis: Risk
Management for
Building Water Systems
(ANSI Approved)



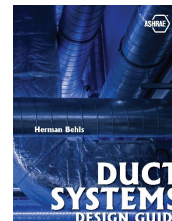
*Lucy's
Engineering
Adventure*



Guideline 36-2021
High-performance
Sequences of Operation
For HVAC Systems



**Standard 90.1 User's
Manual**
Based on
ANSI/ASHRAE/IES
Standard 90.1-2019



*Duct Systems
Design Guide*

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Resources



ASHRAE Technology Portal	Provides a one-stop location for ASHRAE papers, articles, reports, Handbook PDFs, and seminar recordings.
Online Standards Database	Allows access to public review drafts for standards, guidelines, and addenda to submit comments, to do online balloting, and to submit proposals to standards and guidelines.
Zero Energy Advanced Energy Design Guides (AEDG)	Are available for free download: offices and K-12 schools.
Science and Technology for the Built Environment	Provides free online access to archival research publication offering comprehensive reporting of original research.
ASHRAE Technical Apps	Deliver mobile design, calculation, and analysis tools to the palm of your hand.
Free Technical Resources	Offer downloads of a variety of well-known resources to everyone.
ASHRAE 365	Updates on all things ASHRAE, for free and year-round.

Find these resources and many more at ashrae.org

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ASHRAE Topical Conferences



MAY
2022

IAQ 2020: Indoor Environmental Quality Performance Approaches
May 4-6, 2022 | Athens, Greece

JUN
2022

**Ventilation 2022: 13th International Industrial Ventilation
Conference For Contaminant Control**
Jun 22 – 24, 2022 | Toronto, Canada

SEP
2022

2022 ASHRAE Building Performance Analysis Conference
Sep 14 – 16, 2022 | Chicago, IL

OCT
2022

The Fifth International Conference on Efficient Building Design
Oct 20–21, 2022 | Beirut, Lebanon

DEC
2022

Buildings XV Conference
Dec 5–8, 2022 | Clearwater Beach, FL



ashrae.org/conferences



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2022 ASHRAE Annual Conference



2022 ASHRAE Annual Conference
June 25-29, 2022
Toronto, ON, Canada

Registration opens February 2022

ashrae.org/2022Annual



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Questions or Comments?

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Thank You!

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