



**MINUTES**  
**BOARD OF DIRECTORS MEETING**

**ATLANTA, GA**  
**Sunday, February 5, 2023**

**Approved by the Board of Directors on June 25, 2023**

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**PRINCIPAL APPROVED MOTIONS**

Board of Directors Meeting

Sunday, February 5, 2023

<b>No. - Pg.</b>	<b>Motion</b>
1 - 3	The minutes from the August 15, 2022, October 13-14, 2022, and December 6, 2022 BOD meetings be approved.
2 - 4	ExCom recommends that the Board of Directors waive Rule of the Board 1.201.004.9 (B), (C) and (D), Indoor Air Quality or Ventilation Standards and Rule of the board 2.425.003.1 (C), Operation/General Requirements for the development of previously approved Standard 241P, <i>Standard to Address Mitigation of Airborne Infection Transmission</i> .
3 - 5	The Executive Committee recommends that the Board of Directors approve the Memorandum of Understanding (MOU), shown in ATTACHMENT C, between ASHRAE and the Pan American Health Organization (PAHO), a division of the World Health Organization (WHO).
4 - 5	Planning Committee recommends to the Board of Directors that the 2019-25 Strategic Plan be revised as presented in ATTACHMENT D to include additional elements of decarbonization.
5 - 6	Building EQ recommends that the Board of Directors change the Building EQ committee structure from a Board level standing committee to a Functional Group (FG) under Technology Council effective July 1, 2023.
6 - 7	An annual half-day retreat of the ASHRAE Board be called with the members of the Planning Committee to review the ASHRAE Strategic Plan and its implementation.
7 - 8	MOTION 6 be amended as shown: An annual half-day <del>virtual</del> retreat of the ASHRAE Board be called with the members of the Planning Committee to review the ASHRAE Strategic Plan and its implementation.
8 - 12	The February 5, 2023 BOD meeting be adjourned.

## ACTION ITEMS

Board of Directors Meeting  
Sunday, February 5, 2023

No. - Pg.	Responsibility	Summary of Action	Status	Goal Date
1 - 3	Macauley	Investigate the possibility of developing region specific ALI courses. Region specific courses would be developed by members outside of North America and presented by members from the regions where they were developed. (Carryover from October 13-14, 2022)		
2 - 9	Staff	Refer motion – <i>That an annual half-day retreat of the ASHRAE Board be called with the members of the Planning Committee to review the ASHRAE Strategic Plan and its implementation</i> – to the Planning Committee for implementation.		
3 - 9	Hayter	Work with AASA to review and provide recommendations on external actionable items from the Global HVAC Summit.		
4 – 9	Wentz and Olesen	Review the Global HVAC Summit report and provide a list of actionable items for external groups.		
5 – 10	Macauley	Work with the Planning Committee to review the Global HVAC Summit report and consider recommendations as part of the development of the upcoming Strategic Plan		



## MINUTES

### BOARD OF DIRECTORS MEETING

Sunday, February 5, 2023

#### MEMBERS PRESENT:

Farooq Mehboob, President  
Ginger Scoggins, President-Elect  
Dennis Knight, Treasurer  
Billy Austin, Vice President  
Dunstan Macauley, Vice President  
Sarah Maston, Vice President  
Ashish Rakheja, Vice President  
Jeff Littleton, Secretary  
Steven Sill, Region I DRC  
Ronald Gagnon, Region II DRC  
Mark Tome, Region III DRC  
Bryan Holcomb, Region IV DRC  
Jim Arnold, Region V DRC  
Susanna Hanson, Region VI DRC  
Chris Gray, Region VII DRC  
Randy Schrecengost, Region VIII DRC

Tyler Glesne, Region IX DRC  
Devin Abellon, Region X DRC  
Eileen Jensen, Region XI DRC  
John Constantinide, Region XII DRC  
Cheng Wee Leong, Region XIII DRC  
Andres Sepulveda, Region XIV DRC  
Richie Mittal, RAL DRC  
Blake Ellis, DAL  
Luke Leung, DAL  
Wei Sun, DAL\*  
Dru Crawley, DAL  
Ken Fulk, DAL  
Art Giesler, DAL  
Wade Conlan, DAL  
Kishor Khankari, DAL  
Adrienne Thomle, DAL

\*Virtual Attendee

#### GUESTS PRESENT:

Chad Smith	Petros Dalavouras	Berry Dillard	Bassel Anbari
Joe Sanders	Lambros Doulos	Roberto Aguilo	Ahmed Alaa Eldin Mohamed
Michele Mihelic	Nifin Naik	Guillermo Massucco	Michael Cooper
Lakisha Woods	Sierra Spitulshi	Franco D'Atri	Shaun Nienhueser
Emily Grandstaft-Rice	Katherine Neeld	Eleazar Rivera Mata	Edwardo Conghos
Mark Miller	Stephanie Kunkel	Mick Schwedler	Keith Reihl
Doug Cochrane	George Pantelidis	Cindy Davis	Frank Mills
David Underwood	Alkis Triantafyllopoulos	Spencer Morasch	Katherine Hammack
John Nix	Danielle Passaglia	Ioan Dobosi	Chuck Gullede
Krishnan Viswanath	Zeki Poyraz	David Arnold	Tim Wentz
Aakash Patel	Osama Khayata	John Harrod	Randy Jones
Ashok Patel	Ade Awujoola	Farhan Mehboob	Bill Bahnfleth
Kay Thrasher	Samir Traboulsi	Abdallah Mahmoud	Bjarne Olesen
Costas Balaras	Anuj Gupta	Amr Adel Galal	Ron Jarnagin
Dimitris Charalambopoulos	Anoop Peediyakkan	Sayani Haribabu	Apichit Lumlertpongpana
Iliana Georgia Georgakakou	Alekhya Kaianathibhatta	Cailin Noll	Yaap Hogeling
Nikoletta Develekou	Keiron Nanan	Kyle Harasyn	Buzz Wright
Chrysostomos Bouras	Douglas Fick	Eid Mohammed	Cindy Sheridan
Bratislav Blagojevic	Christine Smith	Varun Jain	Eduardo Maldonado
Nikolas Nikolopoulos	Dan Russell	Jawad Anbari	Elicia Magruder
	Roger Jones	Trent Hunt	Joel Lang

Louise McKenzie	Matthew Young	Amlan Murkherjee	Joel Long
Jonathan Smith	Mary Dean Giesler	Heather Schopplein	Pam Duffy
Scott Peach	Michael Patton	Robert Kunkel	Amber Thomas
Lionel Davis II	Chris Phelan	Chandra Sekhar	Jim Cika
Mariel Meegan	Stan Westhoff	Kyle Schumann	Jayson Bursill
Danny Bronshvayg	Carl Huber	Duncan Green	Den Low
Sherry Abbott-Adkins	Vicki Worden	Joseph Chin	Florence Chan
Don Brandt	Kevin Marple	Hanadi Salamah	Tom Watson
Bill McQuade	Julie Thomet	Jake Lenahan	John Falcioni
Kent Peterson	Matt Archey	Chris Krieps	Mahroo Eftekhari
Jayson Bursill	Conor Murray	Tom Pollard	Rachel Romero
Esteban Baccini	Sheila Hayter	Laurie Gilmer	Derrick Nesfield
Michael Deru	Don Colliver	Don Gilpin	Van Baxter*
Harshal Surange	Jim Wolf	Rob McManamy	Vinod Venugopal*
Bill Walter*	Julia Keen	Drew Samuels	Yasir Qahtan Alezzi*
Ather Naseem Siddiqui	Chee Sheng*	Marko Ignjatovic*	

\*Virtual Attendee

**STAFF PRESENT:**

Candace DeVaughn, Manager - Board Services  
 Chandrias Jolly, Assistant Manager - Board Services  
 Joyce Abrams, Director - Member Services  
 Vanita Gupta, Director - Marketing  
 Kim Mitchell, Chief Development Officer  
 Mark Owen, Director - Publications & Education  
 Stephanie Reiniche, Director - Technology  
 Alice Yates, Director - Government Affairs  
 Craig Wright, Director of Finance

Margaret Smith, Development Mgr. – Foundation  
 Kirstin Pilot, Development Manager  
 Lilas Pratt, Manager – Special Projects  
 Joslyn Ratcliff, Sr. Mgr. – Marketing Communications  
 Tony Giometti, Sr. Mgr. – Conference Programs  
 Emily Porcari, Manager - Codes

**CALL TO ORDER**

Mr. Mehboob called the meeting to order at 1:36 pm.

**CODE OF ETHICS**

Mr. Mehboob read the code of ethics statement.

**ROLL CALL/INTRODUCTIONS**

Introductions were conducted; members, guests, and staff in attendance as noted above.

**REVIEW OF MEETING AGENDA**

Mr. Mehboob reviewed the meeting agenda. 'IAQ Related Residential Stoves' was added to *New Business*.

**APPROVAL OF MINUTES**

Mr. Macauley moved and Mr. Rakheja seconded that

1. The minutes from the August 15, 2022, October 13-14, 2022, and December 6, 2022 BOD meetings be approved.

**MOTION 1 PASSED** (Unanimous Voice Vote, CNV).

**REVIEW OF ACTION ITEMS****JUNE 29, 2022**

All action items were reported as complete.

**AUGUST 15, 2022**

The action item was reported as complete.

**OCTOBER 13-14, 2022**

Action item 1 was reported as ongoing. All other action items were reported as complete.

**AI - 1****OPEN SESSION – ADDRESSES TO THE BOARD OF DIRECTORS**

Mr. Knight read comments from Victor Goldschmidt (ATTACHMENT A).

There were no additional comments.

**NOMINATING COMMITTEE REPORT**

Mr. Gulledge presented the 2023-24 slate of officer and director nominees (ATTACHMENT B).

**TREASURER'S REPORT****2022-23 FINANCIAL UPDATE**

Mr. Knight provided the BOD with a financial update. The full report was included as an attachment to the agenda.

He reported that Society is closer to the targeted budget than it has been in recent years.

Mr. Knight reported that publication costs have been higher but there has been a decrease in promotion expenses. There has also been a decrease in training and education revenue due to fewer courses conducted at the Dubai Training Center; indicators point to the market rebounding soon.

He reported that the cumulative net revenue and expenses were trending as normal.

**FINANCE COMMITTEE REPORT**

Mr. Knight reported on behalf of the Finance Committee. He reported that there were no recommendations for the BOD's consideration. He reviewed informational items.

He encouraged members of the BOD to delve into the details of the financial statements. Members of the BOD were instructed to contact Mr. Knight with any questions regarding the statements.

He reported that the Committee is planning to standardize finance training that is presented at CRCs. The goal is to ensure that Chapter Treasurers receive good and consistent training.

## **COMMITTEE REPORTS**

### **EXECUTIVE COMMITTEE**

#### **October 14, 2022**

Mr. Mehboob reported on behalf of the Executive Committee. He reported that there were no recommendations for the BOD's consideration. He reviewed information items from the report.

#### **November 1, 2022**

Mr. Mehboob reported on behalf of the Executive Committee. He reported that there were no recommendations for the BOD's consideration. He reviewed information items from the report.

#### **February 4, 2023**

Mr. Mehboob moved that

2. ExCom recommends that the Board of Directors waive Rule of the Board 1.201.004.9 (B), (C) and (D), Indoor Air Quality or Ventilation Standards and Rule of the board 2.425.003.1 (C), Operation/General Requirements for the development of previously approved Standard 241P, *Standard to Address Mitigation of Airborne Infection Transmission*.

Mr. Mehboob provided background on the motion. He reported that during the December 6, 2022, web meeting the Board approved the following motion: "ASHRAE develop a non-ANSI standard to mitigate the risk of respiratory pathogens in buildings as defined in Attachment B." After the call for members was announced along with the press release, concerns were received from members in good standing that this action may have conflicted with several Rules of the Board. These rules address the policies of how ASHRAE standards are to be developed and restrict technical content of the standards. In particular standards may:

- A. Only limit pollutants that "normally considered in the design" of HVAC Systems.
- B. Only address contaminants or other airborne concentrations that can be measured with test equipment that is available to test and balance technicians or common to building ventilation assessment.
- C. Shall not make claims/guarantees that compliance will provide health, comfort or occupant acceptability but strive to achieve those objectives.
- D. Only specify contaminants or other airborne concentrations that an internationally recognized authority has established permissible limits and there are established test procedures.

EHC has agreed to recommend revisions to the Rule of the Board 1.201.004.9 by the 2023 Annual Conference that are more in tune with current times. Technology Council will work on revisions to Rule of the Board 2.425.003.1 to allow the development of non-ANSI standards.

Mr. Mehboob reported that there was no fiscal impact.



Mr. Khankari spoke in favor of the motion. He suggested that the rules not be changed.

**MOTION 2 PASSED** (Unanimous Voice Vote, CNV).

Mr. Mehboob moved that

3. The Executive Committee recommends that the Board of Directors approve the Memorandum of Understanding (MOU), shown in ATTACHMENT C, between ASHRAE and the Pan American Health Organization (PAHO), a division of the World Health Organization (WHO).

Mr. Mehboob provided background on the motion. He reported that both ASHRAE and PAHO/WHO recognize the benefits of technical collaboration that will contribute to the shared goals of serving humanity by advancing healthy, sustainable, efficient, and resilient buildings including, in particular, buildings in the public sector of developing countries.

To provide a strong foundation for this new relationship, we are recommending the approval of the attached MOU, which is based upon a WHO template. A WHO template was chosen by the Work Group to ease its approval through the WHO legal department, where the document is currently pending.

Additional initiatives are envisioned between ASHRAE and PAHO/WHO, as described. These future initiatives can be incorporated into the MOU as an annex, on a case by case basis.

Mr. Mehboob reported that last year, under the leadership of then President Schwedler, meetings were held in Washington, DC with PAHO. At that time, leadership saw a great opportunity for ASHRAE to raise its profile, connect with an organization like the WHO. As a result, a committee was established with Mr. Wentz, Mr. Rakheja, and Mr. Conlan, to develop an MOU.

He reported that WHO requires an MOU before work can begin. He stated that Society would best be served working with WHO because it puts Society front and center in front of the world.

**MOTION 3 PASSED** (Unanimous Voice Vote, CNV).

Mr. Mehboob reviewed information items from the report.

He recognized Mr. Conlan for the speed and efficiency with which Mr. Conlan carried out the task of developing a draft Region/Chapter Publications Policy. The intent of the effort was to evaluate and determine an approach to allow for Chapters or Regions to submit a document that they created. He stated that Society has begun encouraging Chapters and Regions to develop technical content. The process will take about 45 days, give or take.

Mr. Mehboob thanked Ms. Hayter for her leadership during her Presidential Year in putting building electrification front and center.

#### **PLANNING COMMITTEE**

Mr. Macauley reported on behalf of the committee.

Mr. Macauley moved that

4. Planning Committee recommends to the Board of Directors that the 2019-25 Strategic Plan be revised as presented in ATTACHMENT D to include additional elements of decarbonization.

Ms. Kunkle provided background information on the motion. He reported that the Task Force for Building Decarbonization (TFBD), at the request of the ASHRAE President, reviewed the current strategic plan to determine how the plan could be edited to include a greater decarbonization focus. After much discussion, edits that have been presented represented the removal of initiative 1 regarding resiliency to be replaced with building decarbonization.

There were originally two motions made during the meeting regarding the changes. The first motion was to approve the changes. The second motion was to change the title of initiative 1 to *Resilient Buildings and Decarbonization*. Both motions were approved as noted below:

PASSED: 7:3:0 (CV)

PASSED: 6:0:4 (CV)

Mr. Knight spoke in favor of the motion. He stated that comments submitted to the Planning Committee were taken to heart. Resiliency was not removed, instead, initiative one was simply modified.

Mr. Peterson stated that the title was clunky and did not mean anything as currently written.

Mr. Mehboob responded that title changes would be simply editorial.

**MOTION 4 PASSED** (Unanimous Voice Vote, CNV).

Ms. Kunkel thanked BOD members that attended Planning Committee meetings. She reviewed information items from the report.

Mr. Mehboob stated that in the business, world strategic plans are typically not as short as what was being proposed. Strategy means going from A to B and having a goal that doesn't change; instead, the road map needs to change.

He suggested that the Planning Committee consider the long-range aspects of the plan to be the Strategic Plan and that the short-range plans serve as an action plan that could be modified each year.

Ms. Kunkel clarified that members wanted to attend more in person meetings as opposed to virtual ones. She stated that additional detail was available in the attachment to the Planning Committee report.

Mr. Mehboob thanked Ms. Kunkel for the report and conveyed the BOD's appreciation to the Planning Committee for their work.

## **BUILDING EQ**

Ms. Maston moved that

5. Building EQ recommends that the Board of Directors change the Building EQ committee structure from a Board level standing committee to a Functional Group (FG) under Technology Council effective July 1, 2023.

Ms. Maston reported that as part of this change, Building EQ committee recommends that transportation reimbursement be provided for only the chair, vice-chair, and two subcommittee chairs at only the Winter and Annual conference meetings. This would reduce the current \$15,000 transportation budget to roughly \$5,000; resulting in a savings of \$10,000 per year.

The background information for the motion was shown on screen and was included in an attachment to the agenda.

Mr. Gagnon spoke in favor of the motion. He stated that it supports Society streamlining.

Mr. Giesler stated that there is not a definition of a functional group anywhere within Society. He asked if Society was looking to establish something different.

Mr. Constantinide stated that the TAC MOP consolidated terms to create 'Functional Groups' and that this proposed new functional group would likely report to TAC. Building EQ wants to be part of that movement to be an MTG and perhaps see MTGs transform into the new entity.

Ms. Maston stated that the term 'functional group' was meant to be an amalgam of all the groups that reside in TAC. She clarified that reimbursement of the proposed functional group and changes to the ROB were currently under review by TAC. Building EQ felt it was better to be up front with the fiscal impact as part of this motion.

**MOTION 5 PASSED** (Unanimous Voice Vote, CNV).

Mr. Deru reviewed information items from the report. MBOs were summarized at the bottom of the report.

He reported that when the work of the task force is complete, Building EQ will consider embodied carbon into the BEQ.

### **BOD STRATEGIC PLANNING RETREAT**

Mr. Khankari moved and Ms. Jensen seconded that

6. An annual half-day virtual retreat of the ASHRAE Board be called with the members of the Planning Committee to review the ASHRAE Strategic Plan and its implementation.

Mr. Khankari provided background information for the motion. He reported that per the Rules of the Board, the ASHRAE Board is to be involved in the strategic plan and evaluation of Society's short-term and long-term vision. ASHRAE Strategic Plan is the guiding document that defines Society's long-term vision. Although ASHRAE Board members are actively involved during the development of the ASHRAE strategic plan, in order to accomplish ASHRAE's mission and vision it is necessary for ASHRAE Board members to be continuously engaged into the revision and implementation of the ASHRAE Strategic Plan. Currently the major responsibility of the Strategic Plan revision and implementation is primarily left to the Planning Committee. By virtue of the Rules of the Board stated below, the proposed half day retreat with the member of the Planning Committee will serve the purpose and actively engage ASHRAE Board members into strategic activities of the Society. Since the proposed retreat will be conducted virtually there is not a direct fiscal impact of this activity.

2.200.009 BOARD GOVERNANCE

(08-06-22-04)

2.200.009.1 The Board of Directors adopts the following resolution committing itself to assuming a high-impact governing role:

2.200.009.2 Whereas, ASHRAE's long-term effectiveness and growth in a changing, challenging environment depend on the high-impact leadership of a Board that continuously answers three critical

questions in a full and timely fashion: Where should ASHRAE be headed, and what should it become, over the long run? What should ASHRAE be now and in the near-term? And how is ASHRAE performing as a nonprofit corporation, both financially and programmatically?

2.200.009.3 Whereas, the ASHRAE Board needs to transition itself from a body immersed in technical and operational detail to a body that focuses on governance and high-level strategic decisions.

Mr. Gray spoke in favor of the motion. He expressed agreement with the logic of the motion. He stated his opinion that a motion is not needed but it is a good formality. He stated that the proposed retreat should be an annual, repetitive process.

Mr. Ellis stated that he was for the idea but spoke against the motion as written. He stated that virtual strategic sessions have limited viability. He also did not like standing meetings. The motion, as written, provided no information on who will run the meeting. He suggested that the motion needed more baking.

He stated that the Planning Committee is allowed four travel authorizations; one could be an extra half day at the annual fall meeting to conduct a strategic planning retreat. He suggested that this motion be referred to the Planning Committee.

Mr. Knight stated that he was not speaking for or against the motion. He stated that Section 4.4 of the Bylaws is very clear and lays out the powers of the BOD and it is very oversight oriented. He recommended that the Bylaws be reviewed and that the ROB and Bylaws be in alignment.

Mr. Khankari stated that details were purposefully omitted from the motion. The purpose of the motion is that the BOD should meet with the Planning Committee. The Strategic Plan is the heart of the Society. He suggested that the details could be worked out later.

Mr. Austin spoke in favor of the motion.

Ms. Maston spoke against the motion. She stated that her experience over the last three years is that virtual strategic planning efforts are limited in their efficacy. She stated that this type of discussion is much better had in person.

Mr. Rakheja spoke in favor of the motion and the spirit with which it was brought forward. He expressed agreement that the details could be worked out later. He stated that if the motion were approved, it could be forwarded to the Planning Committee to work out the details.

Mr. Fulk spoke in favor of the motion. He stated that the BOD did something similar in the past, as part of the fall meeting. He stated that he would like to see that exercise return.

Mr. Khankari stated that he suggested a virtual meeting to limit the total cost. He stated that his goal was to have the BOD agree on the principle of the motion; and that if the BOD felt that the retreat should happen in person, he would agree to that.

Mr. Macauley moved and Ms. Hanson seconded that

7. MOTION 6 be amended as shown:

An annual half-day ~~virtual~~ retreat of the ASHRAE Board be called with the members of the Planning Committee to review the ASHRAE Strategic Plan and its implementation.

There was no discussion of the proposed amendment.

**MOTION 7 PASSED** (Unanimous Voice Vote, CNV).

There was no additional discussion of amended MOTION 6.

**MOTION 6 PASSED** (Unanimous Voice Vote, CNV).

Refer motion – *That an annual half-day retreat of the ASHRAE Board be called with the members of the Planning Committee to review the ASHRAE Strategic Plan and its implementation* – to the Planning Committee for implementation.

**AI - 2**

#### **ASHRAE GLOBAL HVAC SUMMIT FINAL REPORT**

Mr. Wentz reported that the summit was successful at a surface level. He reviewed the full report which was included as an attachment to the agenda.

He reported that roundtables are the voice of the customer and are very tactical and ground floor. The summit is a strategic view of how Society should act moving forward.

He stated that it is unclear if the summit will be successful going forward. He stated that the BOD has a lot of decisions to make.

He provided the following strategic questions related to discussions of global north and global south:

*What partners do we need to make a difference?*

*What resources need to be brought to bear to make a difference?*

*How do we get this information to our regions, chapters, and councils?*

Mr. Wentz thanked members and staff for all of their assistance. He reported that Cindy Michaels did a great job on the final report and finalized it in record time.

Mr. Glesne stated that final report was very enlightening. Can more be done with what was done at the summit? He suggested that information be communicated to the membership. He suggested that a Journal article be written.

Mr. Wentz stated that coordinating staff has discussed what the next steps are regarding the summit and the final report.

Mr. Khankari stated that a lot of valuable information had been gathered. He expressed that this BOD would put thoughts together to bring this good information to implementation.

Mr. Olesen stated that Society is lucky to have had so much representation from so many global societies. He suggested that action needed to be taken so as not to lose momentum. He stated that Society should also determine if there are topics that other organizations can champion and report back to Society at a future summit.

Ms. Hayter will work with AASA to review and provide recommendations on external actionable items from the Global HVAC Summit.

**AI - 3**

Mr. Wentz and Mr. Olesen will review the Global HVAC Summit report and provide a list of actionable items for external groups.

**AI - 4**

Mr. Macauley will work with the Planning Committee to review the Global HVAC Summit report and consider recommendations as part of the development of the upcoming Strategic Plan.

AI - 5

#### **FUTURE SUMMITS AND INTERNATIONAL CONFERENCES**

Mr. Mehboob asked the BOD if the HVAC Summit were an event that Society should continue. He opened the floor to discussion. A summary of that discussion is below:

*Mr. Gagnon – We are their BOD and it was nice to have direct contact. If we want to be global, need to interact with our members on a very, very regular basis.*

*Mr. Austin – Everyone who was at that summit will roll off the BOD very soon. What's really important is that an executive summary be developed. Recommend an executive summary be developed.*

*Mr. Gray – Yes, Society should have this event again. Believe that every three years is the right timing. If we host summits every year, the results are going to get lost; must be strategic and pointed in our actions. Suggest hosting them in conjunction with CRCs to offset travel costs.*

*Mr. Sepulveda – Combine international conference and global summit. Will be difficult and will cost money. Many people who are not members and who attended the summit are very eager to get information. Planning activities in between the global summit will be good.*

*Ms. Hanson – The summit should be held every two years with the year in between to implement items. Think we might consider moving one to the global south.*

*Mr. Leung – Visiting the local chapters is important. Every other year seems to be better. Would be helpful to have that strategic section. After the global summit it informed the way I think about ASHRAE. Would be helpful to have the summit to help inform how we serve.*

*Mr. Khankari – We have to keep in mind that volunteer time is not free. Don't mind doing this on a regular basis; however, we don't want to come up with new strategic items in every meeting and not talk about what we achieved in the previous meetings. BOD members who attended should develop actionable items.*

*Mr. Conlan – Serving the members equates to an international BOD meeting every two years. There are three in person BOD meetings a year and 20% of the membership is outside of North America.*

*Mehboob – Mustn't forget that our BOD rolls off and gets overhauled every three years. This summit focused on critical issues of the day. Future summits could be a different focus.*

*Olesen – In general, such a summit should be in the fall. If you do it in the spring, 1/3 of the BOD won't be on the BOD anymore. See fall 2024 as the earliest time for another summit. There is a summary as part of the current report.*

*Macauley – Having a summit on a regular basis provides a lot of value. Doing an annual summit continuously adds items to volunteers that are already taxed. We need some time after the summit to implement the recommended items before we start generating the next list of items to work on; otherwise, the summit will lose impact.*

*Constantinide – CRCs are held every year. Why not harness those to look at what is done at these summits every so often and see how we are doing? Don't have to create something new all the time, items can be added.*

*Scoggins – In order to plan and finance something for 2023-24, planning needs to start soon and finances need to be included in the budget. What is the appetite of the BOD to consider an international event in 2023-24?*

A straw poll was conducted. The majority of the BOD was in favor of conducting an international BOD event in 2024-25. Ms. Scoggins stated that she and Mr. Knight would begin work accordingly.

*Giesler – If an event were held in the spring, BOD nominees could attend. There are pros and cons any way you do it. A spring event would cost more because more people would be attending.*

*Khankari – This summit will help us establish ASHRAE leadership in global minds. My suggestion is that whatever we do, we need to involve the organizations that were part of the summit. Will further strengthen Society's leadership.*

*Leung – If we want to be strategic, the growth in the US is in the sunbelt. The growth globally is in the global south. Would be helpful to identify the areas where the growth will be. Let's think strategically.*

## **BOD SUBCOMMITTEE REPORTS**

### **DEI ADVISORY**

Ms. Thomle reported on behalf of the subcommittee. She reported that there were no recommendations for the BOD's consideration. She reviewed information items from the report, which was attached to the agenda.

Mr. Constantinide reported that Region XII has a diversity committee and would be willing to help with drafting articles.

### **FINANCIAL FOCUS**

Mr. Knight reported on behalf of the subcommittee. There were no recommendations for the BOD's consideration. He reviewed information items from the report, which was attached to the agenda.

Mr. Wright reported that reports that used to take nearly a week, can now be run in a matter of an hour or so. The plan is to get feedback from the BOD after the new dashboard has been in circulation for a few months.

He reported that nearly \$600 is spent on services per dues paying member.

## **PRESIDENTIAL AD HOC COMMITTEE AND BOD TASK GROUP REPORTS**

### **BUILDING DECARBONIZATION EXCOM**

Mr. Peterson reported on behalf of the group. He reviewed key objectives from the report, the full report was attached to the agenda.

He reported that the group has plans for an increased presence on social media.

All of the organizations that participate in the Building Industry Collaboration have a grassroots structure and are aligned on workforce education and development. Hope to announce this collaboration in the near future.

Mr. Khankari asked how things were going financially.

Mr. Peterson reported that the group is doing great, and the group budgeted conservatively. The website was launched without using any outside resources. Anticipate needing money for the expedited standard soon.

He reported that the group would be meeting on February 6 from 9:00-11:00 am.

Mr. Mehboob stated that when the TFBD was appointed, there were great expectations and he expressed happiness that the group exceeded those expectations. He stated that if the group has an ask of the BOD they should not feel shy about bringing it forward.

### **ADJOURNMENT**

It was moved and seconded that

**8.** The February 5, 2023 BOD meeting be adjourned.

**MOTION 8 PASSED** (Unanimous Voice Vote, CNV).

The meeting adjourned at 5:30 pm.

A handwritten signature in black ink, appearing to read 'J. Littleton', with a horizontal line extending to the right.

Jeff H. Littleton, Secretary

### **ATTACHMENTS:**

- A. Open Session Addresses to the Board of Directors
- B. 2023-24 Officer and Director Slate
- C. PAHO/WHO MOU
- D. 2019-25 Strategic Plan Revisions



## OPEN MIKE COMMENTS 2023 BOARD OF DIRECTORS WINTER MEETING

Victor W.Goldschmidt  
Creating2@earthlink.net

Fellow, Life Member, ESA

Thank you; I appreciate the trend we are following of virtual meetings and I thank our President for his leadership for us to grow as a professional and world -wide Society embracing the “Advancement of the Arts and Sciences of HVAC&R for the benefit of humanity” I will just highlight, pseudo-chronologically, a few hot items, with some controversy’.

- 1) c1975- Standard 90 this one is history. Jack Tumilty was a tremendous chair of the project committee and I learner - as vicechair. We hit the delicate issue on the battle of the fuels and it was getting tough. The EEI and the AGA reps were literally locked -in a room and allowed to emerge only after reaching an agreement on the wording in the standard. Consensus is always possible
- 2) 1983- ODP Wuebbles one of the pioneers-computer simulation models and ozone depletion reducing potential numbers .I found data tabulating temperature, date, and ozone concentration, for different years (during which the supposedly contaminating source was changing) All the measured data was taken at the same station. Sort of alarming., The ozone popped as having a unique dependance on the temperature
- 3) 1996-IPPC; 1997 Kyoto GWP - This merits engineering discussion. This is based on unvalidated computer models. Unfortunately it has become political
- 4) 1713 - The concept of “sustainability,” or “Nachhaltigkeit” in German, can be traced back to Hans Carl von Carlowitz (1645–1714), who managed mining operations. But now, more recently been applied to justify renewables – and sometimes not including life-cycle costs
- 5) 2016-ZNE(nergy)-Looks like this concept originated with the California Public utilities; and a good driver for many designs.
- 6) 2015-ZNE(mission) , aka ZNC(carbon) Bhutan claims to be the first country to meet (and exceed) world targets

And this is exactly where we are. We believe (through unvalidated computer models) that we can significantly affect climate by reducing carbon dioxide. At one time I was fluent enough to understand the governing equations in the models. They are very complex and call for quite a few empirical coefficients.

We might now be challenged, 1) to endorse CO2 removal and join international agreements, or 2) to search through real data to see any hints on the potential of culpability of CO2; as well as the benefits of CO2 3) be alert when a Position Document, Memoranda of Understanding, or similar document is being drafted that it is fully in accord with ASHRAE’s purpose as found in our Certificate of Consolidation.



## SLATE OF OFFICERS AND DIRECTORS FOR 2023-24

**PRESIDENT-ELECT:**

Dennis Knight

**TREASURER:**

Bill McQuade

**VICE PRESIDENTS:**

Billy Austin

Ashish Rakheja

Wade Conlan

Chandra Sekhar

**DIRECTORS AND REGIONAL CHAIRS:**

*Region VII* – Scott Peach

*Region VIII* – Joe Sanders

*Region IX* – Jonathan Smith

*Region X* – Buzz Wright

*Region XIV* – Mahroo Eftekhari

**DIRECTORS-AT-LARGE:**

Doug Cochrane

Corey Metzger

Heather Schopplein

Patrick Marks (Alternate)

## MEMORANDUM OF UNDERSTANDING

between

**the World Health Organization,  
20 avenue Appia, 1211 Geneva, Switzerland  
("WHO")**

and

**ASHRAE  
180 Technology Parkway  
Peachtree Corners, Georgia 30092**

**WHEREAS** the World Health Organization (Hereinafter referred to as "WHO"), having its headquarters in Geneva, Switzerland, is an international intergovernmental organization and specialized agency of the United Nations and the directing and coordinating authority on international health, and provides leadership on global health matters, shapes the research agenda, sets health norms and standards, articulates evidence-based policy options, provides technical support to countries, and monitors and assesses health trends.

**WHEREAS** the aims of ASHRAE, a not-for-profit corporation, are to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields

**WHEREAS** WHO and ASHRAE, hereinafter also referred to as "the Parties", believe that technical collaboration between the two organizations will contribute to the shared goals of serving humanity by advancing healthy, sustainable, efficient and resilient buildings including in particular, buildings in the public sector of developing countries;

**WHEREAS** the Parties furthermore believe that agreement in advance on certain aspects of individual collaborative projects (as the Parties may identify on a case-by-case basis) will facilitate the early implementation of such projects, in particular by facilitating the conclusion of the agreements to which such projects would be subject;

**NOW**, therefore, the Parties hereby agree as follows:

**1. Areas of collaboration**

The parties agree to investigate and identify potential collaborative projects of mutual interest which are consistent with the goals of each organization. Collaborations in publications will be done under the terms of specific agreements for each publication on a case-by-case basis.

## **2. Collaborative activities**

Any collaborative activity as outlined in article 1 above shall be subject to the availability of sufficient financial and human resources for that purpose, as well as each Party's programme of work, priority activities, internal rules, regulations, policies, administrative procedures, and practices. Each collaborative activity shall thus be agreed on a case-by case-basis, subject to a separate exchange of letters or agreement, including the development of a work plan.

## **3. Funding**

- 3.1 Each Party hereto shall be fully responsible for the funding of its activities under this Memorandum of Understanding (MoU), except as may otherwise expressly be agreed in any subsequent letter of agreement.
- 3.2 Each Party shall administer the funds handled by it in accordance with its financial regulations, rules, and administrative practices.

## **4. Confidentiality**

It is acknowledged that each Party may possess confidential information, which is proprietary to it or to third parties collaborating with it. Any such information shall only be shared between the Parties under a separate confidential disclosure agreement, specifically covering such information.

## **5. Publications**

- 5.1 Subject to each Party's proprietary rights and/or the proprietary rights of others, and without prejudice to obligations of confidentiality, the results of any collaborative activity under this MoU may be published by either Party. The Parties are encouraged to publish the results of their joint work in a collaborative fashion. Guidelines for authorship of major, international, peer-reviewed journals will be used to establish authorship of collaborative publications. In regard to separate publications, it is agreed that in order to avoid prejudicing proprietary rights and the confidentiality of information, the publishing Party shall transmit to the other party for its review the material intended to be published at least 60 days before a proposed publication is submitted to any editor, publisher, referee, or meeting organizer. In the absence of any objection by the other Party within that 60 day period, concerning prejudice to proprietary rights or confidentiality of information, the publication may proceed.
- 5.2 Copyright in any publications resulting from or relating to any of the collaborative activities under this MoU and prepared by one of the Parties hereto on its own, shall

be vested in that Party, provided however, that any such publication shall be submitted to the other Party for review and comment in accordance with paragraph 5.1 above.

5.3 In the event that any publications are jointly prepared by WHO and ASHRAE, the Parties shall consult in good faith and designate one of the Parties to act as the lead publishing Party in each case. – If the Parties designate WHO to act as the lead publishing Party, ASHRAE will retain copyright in its contribution to the publication and will grant WHO a non-exclusive, sub-licensable, world-wide, royalty-free license to deal with the contribution for all purposes, in all manners and in all formats, as part of the publication. In such case, copyright in the final published work will vest in WHO.

- If the Parties designate ASHRAE to act as the lead publishing Party, WHO will retain copyright in its contribution to the publication and will grant ASHRAE a non-exclusive, sub-licensable, world-wide, royalty-free license to deal with the contribution for all purposes, in all manners and in all formats, as part of the publication. In such case, copyright in the final published work will vest in ASHRAE.5.4 Both Parties shall be duly acknowledged in any publication resulting from the collaborative activities and the wording of such acknowledgement shall be agreed between the Parties. In addition to review of the content of publications as referred to in paragraph 5.1 above, each Party shall have the right to review the acknowledgement and request reasonable changes to the use of its name, or request that its name be deleted altogether.5.5 No publication or other work resulting from the collaborative activities under this MoU shall contain commercial advertising or be used for the promotion of any commercial product or service.

## **6. Products resulting from the collaboration**

- 6.1 The Parties shall make appropriate arrangements to promote that any product which may result from collaborative research and development work undertaken as a result of this MoU, shall be made widely available to the public on reasonable terms, including in particular to the public sector of developing countries on preferential terms. Any possible additional benefits, including royalties, shall be granted to each Party with due account being taken of the relative value of each Party's financial, intellectual, and other contributions to the product (provided that priority shall always be given to the objective of the Parties set forth in the first sentence of this paragraph 6.1).
- 6.2 Ownership of any intellectual property rights arising from collaborative activities under this MoU shall be agreed by the Parties on a case-by-case basis. However, regardless of whether the Parties shall agree that ownership of the intellectual property rights of a particular collaborative activity shall be vested in WHO or in ASHRAE alone, or in any third party, the Parties agree that the industrial or commercial exploitation of such rights shall be designed to achieve the objectives set forth in paragraph 6.1 above and shall be subject to and exercised in accordance

with an agreement to be negotiated in good faith between WHO or ASHRAE and the third party concerned, as the case may be.

## **7. Liability**

7.1 Each Party shall be solely responsible for the manner in which it carries out its part of the collaborative activities under this MoU. Thus, a Party shall not be responsible for any loss, accident, damage, or injury suffered or caused by the other Party, or that other Party's staff or sub-contractors, in connection with, or as a result of, the collaboration under this MoU.

7.2 The Parties shall make appropriate arrangements to cover liability risks for any collaborative activities involving product research and development.

## **8. Compliance with WHO Policies**

By entering into this MoU, ASHRAE acknowledges that it has read, and hereby accepts and agrees to comply with, the WHO Policies (as defined below). In connection with the foregoing, ASHRAE shall take appropriate measures to prevent and respond to any violations of the standards of conduct, as described in the WHO Policies, by its employees and any other natural or legal persons engaged or otherwise utilized to perform any Project activities under the MoU. Without limiting the foregoing, ASHRAE shall promptly report to WHO, in accordance with the terms of the applicable WHO Policies, any actual or suspected violations of any WHO Policies of which ASHRAE becomes aware. For purposes of this MoU, the term "WHO Policies" means collectively: (i) the WHO Code of Ethics and Professional Conduct; (ii) the WHO Policy on Preventing and Addressing Sexual Misconduct; (iii) the WHO Policy on Preventing and Addressing Abusive Conduct; (iv) the WHO Code of Conduct for responsible Research; (v) the WHO Policy on Whistleblowing and Protection Against Retaliation; (vi) the WHO Policy on Prevention, Detection and Response to Fraud and Corruption, and (vii) the UN Supplier Code of Conduct, in each case, as amended from time to time and which are publicly available on the WHO website at the following links: <http://www.who.int/about/finances-accountability/procurement/en/> for the UN Supplier Code of Conduct and at <http://www.who.int/about/ethics/en/> for the other WHO Policies.

## **9. Zero tolerance for sexual misconduct and other types of abusive conduct**

WHO has zero tolerance towards any form of sexual misconduct, which includes sexual exploitation, sexual abuse, sexual violence, and sexual harassment, and other types of abusive conduct. In this regard, and without limiting any other provisions contained herein, each Party warrants that it shall: (i) take all reasonable and appropriate measures to prevent sexual misconduct as described in the WHO Policy on Preventing and Addressing Sexual Misconduct and/or other types of abusive

conduct as described in the WHO Policy on Preventing and Addressing Abusive Conduct by any of its employees and any other persons engaged by it to perform any services under the MoU, and, in the case of the other Party, (ii) promptly report to WHO and respond to, in accordance with the terms of the respective Policies, any actual or suspected violations of either Policy of which the other Party becomes aware.

#### **10. Anti-Terrorism and UN Sanctions; Fraud and Corruption**

ASHRAE warrants for the entire duration of the MoU that:

- (i) it is not and shall not be involved in, or associated with, any person or entity associated with terrorism, as designated by any UN Security Council sanctions regime, that it shall not make any payment or provide any other support to any such person or entity and that it shall not enter into any employment or other contractual relationship with any such person or entity;
- (ii) it shall not engage in any fraudulent or corrupt practices, as defined in the WHO Policy on Prevention, Detection and Response to Fraud and Corruption, in connection with the implementation of the Project;
- (iii) it shall take all necessary measures to prevent the financing of terrorism and/or any fraudulent or corrupt practices as referred to above in connection with the implementation of the Project; and
- (iv) it shall promptly report to WHO, through the WHO Integrity Hotline or directly to the WHO Office of Internal Oversight Services (IOS), any credible allegations of actual or suspected fraudulent or corrupt practices, as defined in the WHO Policy on Prevention, Detection and Response to Fraud and Corruption of which the contractor becomes aware and respond to such allegations in an appropriate and timely manner in accordance with its respective rules, regulations, policies and procedures. Furthermore, ASHRAE agrees to cooperate with WHO and/or parties authorized by WHO in relation to the response. Relevant information on the nature of any credible allegations of such actual or suspected violations, as well as the details of the intended response and the outcome of any such response, should be communicated and coordinated with WHO, with the understanding that, subject to the terms of the WHO Policy on Prevention, Detection and Response to Fraud and Corruption, Confidentiality, and the due process rights of those involved will be respected.

#### **11. Breach of essential terms**

ASHRAE acknowledges and agrees that each of the provisions of article 8 (Compliance with WHO Codes and Policies), article 9 (Zero tolerance for Sexual Misconduct), and article 10 (Anti-Terrorism and UN Sanctions; Fraud and Corruption)

above constitutes an essential term of this MoU and that in case of breach of this provision, WHO may, in its sole discretion, decide to terminate this MoU and/or any other agreement concluded by WHO with ASHRAE , immediately upon written notice to ASHRAE, without any liability for termination charges or any other liability of any kind.

## **12. Use of the Parties' names**

Except as explicitly provided in this MoU, neither Party shall, in any statement or material of a promotional nature, refer to the relationship of the other Party to the collaboration pursuant to this MoU, or otherwise use the other Party's name, acronym and/or emblem, without the prior written consent of the other Party.

## **13. Relationship of the Parties**

For the purposes of this MoU, each Party is an independent contractor and not the joint venturer, agent, or employee of the other Party. Neither Party shall have authority to make any statements, representations, or commitments of any kind, or to take any action which shall be binding on the other Party, except as may be explicitly provided for in this MoU or any subsequent agreements or authorized in writing by the other Party.

## **14. Termination**

This MoU may be terminated by either Party, subject to three (3) months' advance written notice to the other Party. Notwithstanding the foregoing, it is agreed that any termination of this MoU shall be without prejudice to: (i) the orderly completion of any ongoing collaborative activity; and (ii) any other rights and obligations of the Parties accrued prior to the date of termination of this MoU.

The term of this Memorandum of Understanding shall begin when signed by both parties and shall terminate at the end of three (3) years unless extended at that time by written agreement.

## **15. Amendments**

This MoU may only be amended in writing by mutual consent of the Parties.

## **16. Settlement of disputes**

Any dispute relating to the interpretation or execution of this MoU, or of any subsequent exchange of letters or agreement with respect to individual collaborative activities shall, unless amicably settled, be subject to conciliation. In



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the event of failure of the latter, the dispute shall be settled by arbitration. The arbitration shall be conducted in accordance with the modalities to be agreed upon by the Parties, or in the absence of agreement, in accordance with the rules of arbitration of the International Chamber of Commerce. The Parties shall accept the arbitral award as final.

**17. Privileges and Immunities of WHO**

Nothing contained herein shall be construed as a waiver of any of the privileges and immunities enjoyed by WHO under national or international law, and/or as submitting WHO to any national court jurisdiction.

Agreed and accepted:

For the World Health Organization

For ASHRAE

Signature:

Signature:

Name:

Name:

Title:

Title:

Date:

Date:



# 2019–2025 ASHRAE Strategic Plan Midterm Update



Prepared by ASHRAE Planning Committee

Approved by ASHRAE Board of Directors, May 6, 2019

Midterm Update Approved by ASHRAE Board of Directors, November 17, 2021

## 2017-2018 ASHRAE Planning Committee

William P. Bahnfleth, Ph.D., P.E., Chair  
Thomas H. Phoenix, P.E., Vice Chair Michael  
P. Cooper, P.E.  
Jennifer A. Isenbeck, P.E.  
Malcolm D. Knight, P.E., Chair,  
2014 Strategic Plan Tracking Subcommittee  
Karine Leblanc  
Sarah E. Maston, P.E.  
William F. McQuade, P.E., LEED AP, Chair,  
2019 Strategic Plan Development  
Subcommittee  
Sarah Poursharafeddin  
Ashish Rakheja Hassan  
Ali Sultan

Timothy G. Wentz, P.E., Chair,  
Document Subcommittee  
Stefano P. Corgnati, Ph.D., Consultant Mark  
P. Modera, Ph.D., P.E., Consultant  
Michael C.A. Schwedler, Coordinating Officer Jeff H.  
Littleton, Executive Vice President George W.  
Austin, Jr., BOD Consultant  
Constantinos A. Balaras, Ph.D., P.Eng.,  
BOD Consultant  
Marites Dagulo Calad, BOD Consultant Tim J.  
McGinn, P.E., BOD Consultant Daniel R.  
Rogers, P.E., BOD Consultant  
W. Stephen Comstock, Staff Director  
Vanita Gupta, Staff Director  
Mary Dean Townsend, Staff Liaison

## 2021-2022 ASHRAE Planning Committee

William K. Klock, Chair  
Heather Platt Gullledge, P.E., Vice Chair  
David Arnold, Ph.D.  
Wade H. Conlan, P.E.  
Blake E. Ellis, P.E., Vice Chair, Monitoring  
Subcommittee  
Vanessa Freidberg P.E.  
Trenton S. Hunt, Chair, Implementation  
Subcommittee  
Stephanie Kunkel, P.E., Chair, Monitoring  
Subcommittee

Thomas M. Lawrence, Ph.D. Mark  
F. Miller  
Ahmed Alaa Eldin Mohamed, Ph.D.  
Andres J. Sepulveda  
Dunstan Laurence Macauley, III  
Jeff H. Littleton, Executive Vice President  
Stephanie C. Reiniche, Staff Director  
Chandrias Jolly, Staff Liaison

Additional edits outside of the 1<sup>st</sup> motion to approve noted in **blue**

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## INTRODUCTION

This plan, developed by the ASHRAE Planning Committee in collaboration with the Board of Directors, will guide the work of the Society during the five-year period from 2019-2024. It was developed during 2018-2019 through a process initiated by a stakeholder engagement exercise involving members of ASHRAE and key industry organizations who gave their views on ASHRAE's position in the industry and its perceived strengths and challenges. With facilitation by the Planning Committee, the Board then conducted a brainstorming session to develop preliminary objectives and initiatives. These addressed both outward-facing issues affecting the industry and society as well as inward-facing issues related to the needs of ASHRAE members and organizational efficiency. The final plan was drafted by the Planning Committee with Board oversight following multiple reviews including review by regional leadership teams. The final phase of development was preparation of implementation and tracking procedures, roll-out plans and budget estimates. Communication of the new plan to councils and committees began in Spring 2019 with formal implementation beginning in July 2019.

## 2021 MIDTERM UPDATE AND 1-YEAREXTENSION

In Spring 2021, the Board of Directors approved a midterm update and one-year extension of the 2019-2024 Strategic Plan. This update was recommended by the 2020-2021 Planning Committee due to recent events that altered how the Society completes its work and serves the industry. Revisions to the 2019-2024 Strategic Plan include lessons learned during the COVID-19 pandemic as well as rebooted/restarted initiatives to redirect resources.

Initiatives and goals reviewed were addressed in a way that would allow ASHRAE councils and committees to make significant traction with the already assigned tasks while considering any work in progress or already completed. Feedback from the Planning Committee liaisons assigned to each of the Presidential Ad Hocs was also taken into consideration to ensure efforts regarding the streamlining initiatives were addressed.

## MISSION, VISION AND VALUES

As part of the Strategic Plan development process, the Planning Committee recommended that the Mission and Vision statements be revised to reflect ASHRAE's current work and aspirations more clearly. No changes were recommended to ASHRAE's Core Values.

### Mission

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

### Vision






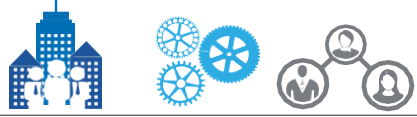


A healthy and sustainable built environment for all.

### Values

- Excellence
- Integrity
- Volunteerism
- Commitment
- Collaboration
- Diversity

## GOALS AND OBJECTIVES

ASHRAE’s leadership has identified **three goals**: to advance the industry, provide value to ASHRAE members and prepare the Society for the future and **objectives** that support each goal. **Four initiatives** have been identified to respond to these goals and objectives as shown in the table below. The initiatives are described in detail on the next page (p. 7).

GOAL 1 Position ASHRAE as an Essential Knowledge Resource for a Sustainable, High-Performance Built Environment	
OBJECTIVES	INITIATIVES
a. Utilize a holistic approach to ASHRAE’s offerings and activities to drive positive economic, environmental and social impact through innovation in building design and operations	
b. Expand capabilities globally to create, aggregate and disseminate essential information and knowledge focusing on emerging market trends and transformative approaches	
GOAL 2 Maximize Member Value and Engagement	
OBJECTIVES	INITIATIVES
a. Infuse enthusiasm, vitality and diversity throughout ASHRAE events and services	
b. Expand the impact of collaboration and partnerships with industry organizations, universities and government agencies	
c. Leverage technology to increase member engagement, awareness and value	
GOAL 3 Optimize ASHRAE’s Organizational Structure to Maximize Performance	
OBJECTIVES	INITIATIVES
a. Prototype and launch new approaches that will increase ASHRAE’s relevance and speed to market for key offerings	
b. Optimize ASHRAE’s organizational systems and structures to increase capacity, efficiency and effectiveness	
c. Cultivate industry and member philanthropy to extend ASHRAE’s impact and reach	

<b>KEY</b>	 Resilient Buildings and Communities	 Indoor Environmental Quality	 Organizational Streamlining	 Improve Chapter Engagement, Capacity and Support

# STRATEGIC PLAN AREAS AND INITIATIVES

Initiatives provide a focus for the Society to drive advancement

## Initiative Area: Built Environment of the Future

### 1 RESILIENT BUILDINGS and COMMUNITIES

The cycle of building development, design and construction is moving more rapidly than ever. Key stakeholders in the design, construction, and operation of buildings face new challenges of responding to a range of environmental, market and consumer-driven pressures. Increasingly, it is being recognized that “smart” buildings and integrated systems are central to successfully addressing challenges posed by climate change, natural disasters, accidents, disease and terrorism. ASHRAE must stimulate innovation and exploration related to these challenges, and promote best practices that enable adaptability, resilience and recovery of buildings and communities.

### 2 INDOOR ENVIRONMENTAL QUALITY

The indoor environment is increasingly recognized as the leading priority for built environment, with implications extending beyond simple acceptability of indoor conditions to its influence on productivity, learning and health. The indoor environment of the future identifies and optimizes interactions among air quality, thermal comfort, lighting and acoustics, based on a firm understanding of implications for occupants’ health and wellness. ASHRAE convenes and collaborates with experts and stakeholders across the industry to engage in discussion and exploration of this topic to accelerate collective knowledge in the field. This initiative aims to elevate ASHRAE’s role in facilitating this discussion, generating thought leadership and promoting understanding of indoor environmental quality (IEQ) among practitioners.

## Proposed Edit for Initiative 1:

### INITIATIVE 1 RESILIENT BUILDINGS AND DECARBONIZATION

The pace of change in building design, development, construction, and operation is increasing rapidly, driven by increasing global challenges associated with increasing building-related GHG emissions. By 2030, all new buildings must be built to achieve net zero operational GHG life cycle emissions, with all existing buildings retrofitted to net zero emissions standards by 2050. ASHRAE must work with building industry partners to accelerate innovation, define global best practices, and develop technical guidance, standards, training, and other tools to support building decarbonization while assuring high levels of indoor environmental quality, sustainability, and resilience.

and resources to the most impactful pursuits. This initiative intends to improve internal governance, volunteer and staffing structures to ensure a strong connection across the societal organization and its chapters around the globe.

### 4 IMPROVE CHAPTER ENGAGEMENT, CAPACITY and SUPPORT

ASHRAE must evaluate and develop methods to better engage chapters, regions and the members they serve in an integrated way. A more supportive and proactive strategy for chapter and regional oversight will minimize variability and ensure that all ASHRAE members experience a strong and valuable connection to the local and societal component.



# INITIATIVE 1 RESILIENT BUILDINGS and COMMUNITIES



## BACKGROUND

Buildings and integrated systems are central to successfully addressing challenges posed by climate change, natural disasters, accidents, disease, and terrorism.

ASHRAE must stimulate innovation and exploration related to these challenges, and promote best practices that enable adaptability, decarbonization, resilience and recovery of buildings and communities.

Table 1 provides more detail:

**TABLE 1**

BUILT ENVIRONMENT OF THE FUTURE: Resilient Buildings and Communities Building Decarbonization	
<b>Resources</b>	In addition to normal financial resources (e.g., research and publications budgets and reserve fund), there is an opportunity for funding from government agencies, foundations, and international agencies such as the United Nations, World Bank, and other humanitarian organizations.
<b>Benefits</b>	<p><u>To the Society:</u> Establish a leadership role in advancing new practice paradigms and raising awareness about the importance of resilient buildings and communities. Revenue resulting from repurposing of existing guidelines, development of new content and guidelines.</p> <p><u>To the Member:</u> Access to new research results and practice tools. Association with ASHRAE mission to serve humanity.</p>
<b>Desired Outcomes</b>	<ol style="list-style-type: none"> <li>1. Establish and maintain at least two new partnerships (MoU or leverage existing partnerships) with external organizations, societies, or government agencies and collaborate on resilient buildings and communities research and the development/adoption of standards, guidelines, programs, rating systems and educational materials.</li> <li>2. Develop, publish and maintain a Resilient Building or Resilient Building/Community Standard, accompanying Design Guide(s) and design tools, educational programs and materials for adoption and use in adapting to climate change in vulnerable geographic areas.</li> <li>3. Benchmark and track membership awareness of resilience practices and set targets for improved awareness over the next 5 years.</li> </ol>
<b>Key Stakeholders</b>	<ul style="list-style-type: none"> <li>▲ Contractors</li> <li>▲ Engineers</li> <li>▲ Architects</li> <li>▲ Building Operators</li> <li>▲ Relief Organizations</li> <li>▲ Insurance Companies</li> <li>▲ Governments</li> <li>▲ Law Enforcement Agencies</li> <li>▲ Financial Institutions</li> <li>▲ United Nations Office for Disaster Risk Reduction</li> <li>▲ Manufacturers</li> <li>▲ Retailers Related</li> <li>▲ Society Committees</li> </ul>

# INITIATIVE 1

## RESILIENT BUILDINGS AND DECARBONIZATION

Proposed edit for Initiative 1



### BACKGROUND

Eliminating GHG emissions from the built environment is essential to addressing global climate change's negative human and environmental impacts.

ASHRAE must work with building industry partners to accelerate innovation, define global best practices, and develop technical guidance, standards, training, and other tools to support building decarbonization while assuring high levels of indoor environmental quality, sustainability, and resilience.

Table 1 provides more detail:

**TABLE 1**

<b><u>BUILT ENVIRONMENT OF THE FUTURE: Building Decarbonization</u></b>	
<b><u>Resources</u></b>	<u>Funded through ASHRAE research and publications budgets along with ASHRAE reserve funds. The potential exists for funding partnerships with other foundations, government entities, and non-governmental organizations.</u>
<b><u>Benefits</u></b>	<p><u>To Humanity: Help reduce building greenhouse gas emissions impact on the environment resulting in reduced indoor and outdoor air pollution, lower energy consumption and costs, and improved community health and wellbeing.</u></p> <p><u>To the Society: Establish a leadership role in advancing new industry practices and raising awareness about the importance of reducing building greenhouse gas emissions and increasing community resilience. Revenue resulting from sales of standards, other publications, and educational programs.</u></p> <p><u>To the Member: Access to new research results, practices, and tools. Association with ASHRAE mission to serve humanity.</u></p>
<b><u>Desired Outcomes</u></b>	<ol style="list-style-type: none"> <li><u>Add to body of scientific knowledge to advance technologies and industry practices to minimize building GHG emissions while assuring high levels of building indoor environmental quality, sustainability, and resilience.</u></li> <li><u>Establish and maintain at least two new partnerships (through Memorandums of Understanding or by leveraging existing partnerships) with external organizations, societies, or government agencies to collaborate on resilient buildings and communities research and the development/adoption of standards, guidelines, programs, rating systems and educational materials.</u></li> <li><u>Develop, publish, and maintain a Whole Life Carbon Building Standard, accompanying Design Guides and design tools, educational programs and materials for adoption and use to address building decarbonization.</u></li> <li><u>Establish partnerships with key scientific, technical, government, and non-governmental organizations to advance building decarbonization research, technology, education, and policy. Seek to promote communication among researchers, practitioners, and policymakers through conferences, publications, and marketing efforts.</u></li> </ol>
<b><u>Key Stakeholders</u></b>	<ul style="list-style-type: none"> <li>• <u>General Public</u></li> <li>• <u>Architects</u></li> <li>• <u>Financial Institutions</u></li> <li>• <u>Policymakers</u></li> <li>• <u>Contractors</u></li> <li>• <u>Educational Institutions</u></li> <li>• <u>Building Owners</u></li> <li>• <u>Governments</u></li> <li>• <u>Society Councils &amp; Committees</u></li> <li>• <u>Engineers</u></li> <li>• <u>Manufacturers</u></li> </ul>



### BACKGROUND

The indoor environment is increasingly recognized as the leading priority for built environment as we navigate the current pandemic, with implications extending beyond simple acceptability of indoor conditions to its influence on individual and environmental health, learning, and productivity. The indoor environment of the future identifies and optimizes interactions among outdoor air quality, indoor air quality, thermal comfort, lighting, and acoustics, based on a firm understanding of implications for occupants’ health and wellness. ASHRAE convenes and collaborates with experts and stakeholders across the industry to engage in discussion and exploration of this topic to accelerate collective knowledge in the field. This initiative aims to elevate ASHRAE’s role in facilitating this discussion, generating thought leadership and promoting understanding of indoor environmental quality (IEQ) among practitioners.

Strategically, ASHRAE created the Epidemic Task Force to develop and provide guidance surrounding Sars-COV-2 which greatly impacted the indoor air quality environment.

Table 2 provides more detail:

**TABLE 2**

BUILT ENVIRONMENT OF THE FUTURE: Indoor Environmental Quality	
<b>Resources</b>	Can be funded through technology, publishing and education budgets. Potential exists for funding partnerships with foundations and non-governmental organizations.
<b>Benefits</b>	<p><u>To the Society:</u> Establish leadership role in advancing new practice paradigms and improving quality of indoor environmental health for buildings and their occupants. Revenue resulting from sales of standards, other publications, and educational programs.</p> <p><u>To the Member:</u> Access to new research results and practice tools. Association with ASHRAE mission to serve humanity.</p>
<b>Desired Outcomes</b>	<ol style="list-style-type: none"> <li>1. Add to body of scientific knowledge on the relationship of IEQ to health, productivity, and well-being of building occupants and develop practical methods for estimating the economic value of improvements in IEQ such as reduced sick days, reduced health care costs, and improved student learning.</li> <li>2. Develop knowledge and guidance on understanding the ability to reduce the risk to occupant’s health and wellness through different applications and adaptations of HVAC&amp;R systems.</li> <li>3. Develop an IEQ standard based on health and productivity objectives that addresses air quality, thermal environment, light, sound, and vibration in an integrated way.</li> <li>4. Establish partnerships with key scientific, technical, and government organizations to advance IEQ research, technology, and policy. Seek to promote communication among researchers, practitioners, and policymakers through conferences, publications, and marketing efforts.</li> </ol>
<b>Key Stakeholders</b>	<ul style="list-style-type: none"> <li>• Policymakers</li> <li>• General Public</li> <li>• European Committee for Standardization (CEN)</li> <li>• Environmental Health Committee and Councils and Committees affected</li> <li>• International Well Building Institute</li> <li>• Regulatory bodies</li> <li>• US General Services Administration (GSA)</li> <li>• US Dept. of Housing and Urban Development (HUD)</li> <li>• International Standards Organization (ISO)</li> <li>• Green Building Councils</li> <li>• National Center for Healthy Housing</li> <li>• Foundations interested in wellness/health</li> </ul>



## BACKGROUND

ASHRAE is a large and complex organization with hundreds of technical, standards, and managerial committees, supported by a rich network of leaders and subject matter experts. ASHRAE will reach its potential for leadership and influence through an organizational structure that eliminates redundancy, has flexibility to adapt to regional differences, and allocates valued time and resources to the most impactful pursuits. This initiative intends to improve internal governance, volunteer, and staffing structures to ensure a strong connection across the societal organization and its chapters around the globe.

Table 3 provides more detail:

**TABLE 3**

FUTURE OF ASHRAE: Organizational Streamlining	
<b>Resources</b>	Financial contributions, which are expected to be minimal, from the operating budgets of the Councils and Standing Committees. The major resource needed will be time from our volunteer members/leaders at the grassroots and Society level, as well as staff.
<b>Benefits</b>	<p><u>To the Society:</u> A more flexible, efficient and effective operational framework allowing volunteer time, staff talent and other resources to be reinvested in targeted areas to drive this plan.</p> <p><u>To the Member:</u> A more accessible association that is using resources to the highest and best use to advance the profession. Ability to move to market more rapidly will result in increased credibility and relevancy of the Society with members and the industry as a whole.</p>
<b>Desired Outcomes</b>	<ol style="list-style-type: none"> <li>1. Evaluate the staff/volunteer support structure to optimize volunteer engagement, efficiency and effectiveness of the Society (e.g. volunteer time efficiency). Present and implement findings to support the delivery of key products and services (e.g. Guidelines, Standards, Research, Publications, and Programs) with less cost, reduced time to market and an advancement in market responsiveness.</li> <li>2. Redesign leadership/governance structure to support increased operational efficiency and effectiveness of the organization.</li> <li>3. Targeted streamlining for operational efficiency and effectiveness through reduction of overlap and optimization of quantity, scopes, and processes (e.g. merging of technical committees for cross communication, efficiency and effectiveness).</li> <li>4. Increase efficiency of Winter and Annual conferences by reducing volunteer time, staff time, and financial expenditures at Winter and Annual conferences by at least 20%.</li> </ol>
<b>Key Stakeholders</b>	<ul style="list-style-type: none"> <li>• ASHRAE Membership</li> <li>• Industry</li> <li>• Leadership of the Board, Councils and Committees affected</li> </ul>

# INITIATIVE 4 IMPROVE CHAPTER ENGAGEMENT, CAPACITY and SUPPORT



## BACKGROUND

ASHRAE must evaluate and develop methods to better engage chapters, regions, and the members they serve in an integrated way. A more supportive and proactive strategy for chapter and regional oversight will minimize variability and ensure that all ASHRAE members experience a strong and valuable connection to the local and societal components.

Hybrid<sup>1</sup> learning and meetings are an integral part of this connection.

Table 4 provides more detail:

**TABLE 4**

FUTURE OF ASHRAE: Improvement of Chapter Engagement, Capacity and Support	
<b>Resources</b>	Can be funded through Members Council budget. Other resources in place include Manual of Chapter Operations, Basecamp and <a href="http://www.ashrae.org/chapterresources">www.ashrae.org/chapterresources</a> .
<b>Benefits</b>	<p><u>To the Society:</u> Improve operational efficiency to enable chapters, regional leadership and the society to share resources and information more effectively. Accountability for Chapter success is clearer with standardized guidelines and performance metrics. The Society will receive additional revenue resulting from increased Chapter member recruitment and retention.</p> <p><u>To the Member:</u> Ability to more deeply and more meaningfully engage with ASHRAE’s mission.</p>
<b>Desired Outcomes</b>	<ol style="list-style-type: none"> <li>1. Use a standardized Society-wide system for collecting, recording and benchmarking Chapter-level data and performance metrics. The system will provide an efficient and streamlined process for the exchange of resources and information among Society, Regional leadership and the Chapters.</li> <li>2. Develop and standardize program guidelines, training, and associated resources based on best practices for all ASHRAE Chapters where possible. When regional differences require flexibility, adapt those guidelines as needed while maintaining the desired outcome (templates, examples, CRC and centralized training).</li> <li>3. Evaluate methods to “coach” new officers/chairs in each chapter on the duties of their position/role and how best to accomplish them. Also assist them in seeking coordinated collaboration with outside groups when beneficial.</li> <li>4. Strengthen chapter programs, for example by expanding the Distinguished Lecturer program and reviewing the Short Course business model.</li> <li>5. Develop methods for promoting the value and benefits of employee participation in ASHRAE to employers to encourage sponsorship and support.</li> </ol>
<b>Key Stakeholders</b>	<ul style="list-style-type: none"> <li>• Chapter leadership</li> <li>• Industry associations and organizations within and outside of the US</li> <li>• ASHRAE Members</li> <li>• Universities</li> <li>• A/E Firms</li> </ul>

<sup>1</sup>Hybrid is defined as a combination of virtual and face to face meetings.

## FINANCIAL IMPACT, BUDGETING PROCESS AND RECOMMENDATIONS

The fiscal impacts of the 2019-2024 Strategic Plan are built into the ASHRAE annual budgeting process. This is done in concert with annual planning for the Society theme activities and current cost reduction efforts. The councils and committees provided updates and submitted their budget forecasts in early March 2019 to Finance Committee, Planning Committee and Executive Committee. The updates included support for the 2019-2024 Strategic Plan.

ASHRAE Executive Committee reviewed all budget forecast proposals during their Spring 2019 meeting and developed a list of program and financial priorities. Based on these recommendations, Finance Committee updated the current-year ASHRAE budget and forecasts through 2022. The Treasurer presented this budget to the Board for approval at the 2019 Annual Conference in Kansas City.

Proposals for future work for Society years 2020-2025 resulting from the Society theme initiatives, ad hoc recommendation, or council or committee program must include a minimum three-year budget analysis along with the project's fiscal impact statement and the resulting benefits to the Society. The fiscal impact analysis shall be submitted initially for approval by the Board through Finance Committee and then be updated with actual cost to date for the current fiscal year, cost since inception and updated budget forecasts for the next three fiscal years if the project is expected to extend beyond the current fiscal year. For inclusion in the next fiscal year's budget and future year's forecasts, updates shall be submitted for approval by the Board annually at the winter meeting by the council or committee responsible for the project's oversight and management.

No additional fiscal impact was implemented as a result of the extension of the Strategic Plan.



## IMPLEMENTATION

The following measures will be used to assist with the implementation of the Strategic Plan.

1. **Member Satisfaction:** Member Services, under the leadership of the Planning Committee, to establish an annual member survey with consistent satisfaction metrics to allow for year-over-year evaluation of the Strategic Plan.
2. **Member Engagement and Retention:** Institute effort and imagination in developing member retention programs similar to what has been successfully implemented for new member retention activities. Institute special initiatives to increase volunteer engagement:
  - a. Planning Committee should coordinate and conduct a focused workshop/focus group exercise with Membership Promotion Committee, Chapter Technology Transfer Committee, ASHRAE Learning Institute, and Handbook Committee to develop a common collaboration and integration strategy for member retention.
  - b. Strengthen volunteer engagement at the Chapter level by expanding recommended chapter committee and subcommittee structures within Chapter Operations Manual and promote consistent annual population of the structure through the PAOE program.
  - c. Expanding chapter committee and subcommittee structures for non-North American Chapters recognizing the unique needs and opportunities for these chapters to engage chapter members.
  - d. Institute a yearly membership drive to promote and increase active membership and participation in Technical and Standards Committees.
3. **Operational Efficiency:** ExCom to study and focus on trends in the Operating Cost per Member and develop strategies and action items to bring to the Board to optimize operational efficiency.
4. **Market Responsiveness:** Pub Ed Council and Tech Council to redesign their respective product to market processes to reduce the average time to market for our products. The current average time to market of 6.8 years must be shortened if we are to stay relevant as market leaders. This metric might only be improved by concentrating on processes such as “one product at a time.”
5. **Research Leadership:** Focus on leveraging ASHRAE Research dollars with matching funds from other research partners and funding sources. This may require dedicated staff to track and manage if we are to be effective. Senior thought leadership should be engaged along with the Manager of Research, Tech Council, RAC and TAC to develop strategies and metrics to maximize the return on investment and conversion of research into practical application guidelines and standards in research topics of interest and concern to the ASHRAE membership.