



**MINUTES**  
**EXECUTIVE COMMITTEE MEETING**

**Thursday, March 25, 2021**

**Approved by the Executive Committee June 21, 2021.**

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**PRINCIPAL APPROVED MOTIONS**

Executive Committee Meeting

Thursday, March 25, 2021

<b>No. - Pg.</b>	<b>Motion</b>
1 – 2	The minutes from the March 4, 2021 Executive Committee meeting be approved.
3 – 7	ExCom recommends to the Board of Directors that the Memorandum of Understanding (MOU) with the International Ultraviolet Association (IUVA), as shown in ATTACHMENT B, be approved.
4 - 7	The GAC recommends that ASHRAE leadership explore a Memorandum of Understanding (MOU) with AASA, The School Superintendents Association.
5 - 7	The GAC recommends that ASHRAE leadership <del>enter into</del> explore a Memorandum of Understanding (MOU) with AASA, The School Superintendents Association.
6 – 8	The following ETF statement on airborne transmission of SARS-CoV-2 be approved: <i>Airborne transmission of SARS-CoV-2 is significant and should be controlled. Changes to building operations, including the operation of heating, ventilating, and air-conditioning systems, can reduce airborne exposures.</i>
7 - 8	Technology Council recommends that the Board of Directors (BOD) ExCom approve the Public Policy Issue Brief (PIIB) on <i>Building Decarbonization</i> , as shown in ATTACHMENT C.

## ACTION ITEMS

Executive Committee Meeting

Thursday, March 25, 2021

No. - Pg.	Responsibility	Summary of Action	Status
1 -	Littleton	Work on a better MOU with CAR. (Carryover from June 22 and 30, 2020)	
2 -	Littleton	Reach out to MBI staff to better understand MBI's direction as it relates to off-site building trends. (Carryover June 22 and 30, 2020)	
3 -	Littleton	Work on (unsigned) MOU with Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH). (Carryover from June 22 and 30, 2020)	
4 -	Gulledge	NSF International; renew MOU that expired December 2016. (Carryover from June 22 and 30, 2020).	
5 -	Littleton and Brandt	Explore the possibility of an MOU with IEA. Work with Mr. Olesen to flush out recommendations and report back to ExCom. (Carryover from August 12, 2020).	
6 -	Littleton and Brandt	Coordinate a hybrid meeting with Caesar's Palace in summer 2021 and determine which members should attend from CEC and from an IAQ standpoint. Mr. Brandt will represent ExCom. (Carryover from October 1, 2020).	
7 -	Gulledge and Littleton	Explore the possibility of a new MOU with AABC/ACG and report back to ExCom. (Carryover from January 28, February 1 and 5, 2021).	
8 -		Conduct a review of the Bylaws. (Carryover from June 22 and 30, 2020)	<b>HOLD</b>
9 -	Littleton	Work with the Scholarship Trustees to explore the landscape of expanding scholarship coverage to technical schools, trade schools, and the OEM side of the industry. (Carryover from January 28, February 1 and 5, 2021).	
10 -	Littleton	Work with the Scholarship Trustees to create a comprehensive listing of the scholarship opportunities available at the Society and chapter level. This listing should include a grand total of all Society scholarships available for award. (Carryover from January 28, February 1 and 5, 2021).	
11 -	Littleton	Arrange a call with DOE and appropriate ASHRAE stakeholders to discuss possible new delivery models for AEDGs. (Carryover from January 28, February 1 and 5, 2021).	
12 -	Gulledge and Littleton	Investigate the appetite of NIBS to move forward with a more formalized MOU. (Carryover from January 28, February 1 and 5, 2021).	
13 -	Gulledge and Schwedler	Form a task force focused on international standards interaction. (Carryover from January 28, February 1 and 5, 2021).	
14 -	Littleton	Investigate simplified versions of parliamentary procedure and present the research to SRC for review and a final recommendation. (Carryover from March 4, 2021).	
15 – 7	Macauley	Work with GAC, ETF, and staff to develop the language and content for an MOU with AASA (The School Superintendents Association).	
16 – 9	Schwedler and Littleton	Disseminate the final CRC travel recommendations immediately. The recommendations should be sent under Mr. Schwedler's signature.	



**MINUTES**  
**EXECUTIVE COMMITTEE MEETING**  
Thursday, March 25, 2021

**MEMBERS PRESENT:**

Chuck Gulledge, President  
Mick Schwedler, President-Elect  
Farooq Mehboob, Treasurer  
Don Brandt, Vice President  
Bill Dean, Vice President  
Tim McGinn, Vice President  
Bill McQuade, Vice President  
Jeff Littleton, Secretary

**GUESTS PRESENT:**

Ginger Scoggins  
Sarah Maston  
Dunstan Macauley  
Dennis Knight  
Rick Hermans  
Heather Platt Gulledge

**STAFF PRESENT:**

Candace DeVaughn, Manager - Board Services  
Chandrias Jacobs, Coordinator - 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  
Annmarie Wilhoit, Accounting Manager

**CALL TO ORDER**

Mr. Gulledge called the meeting to order at 8:00 am.

**CODE OF ETHICS**

Mr. Gulledge read the code of ethics commitment and encouraged all in attendance to read the full Code of Ethics and Core Values, available online.

**ROLL CALL/INTRODUCTIONS**

Roll call was conducted. Members, guests, and staff in attendance as noted above.

**REVIEW OF MEETING AGENDA**

Mr. Gulledge reviewed the agenda. There were no changes or additions.

**APPROVAL OF MINUTES****MARCH 4, 2021**

Mr. Brandt moved and Mr. Dean seconded that

1. The minutes from the March 4, 2021 Executive Committee meeting be approved.

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

**REVIEW OF ACTION ITEMS****JANUARY 28, FEBRUARY 1 AND 5, 2021**

Action items 2-8, 11-12, 14-15, and 18 were reported as ongoing. Action item 9 was reported as on hold. All other action items were reported as complete.

**AI – 1-13****MARCH 4, 2021**

Action item 2 was reported as ongoing. The other action item was reported as complete.

**AI – 14****LIAISON REPORTS****AMERICAN SOCIETY OF HEALTHCARE ENGINEERING (ASHE)**

Mr. Hermans reported that a work plan was developed, using existing work plans as a template.

Mr. Brandt moved and Mr. Dean seconded that

2. The ASHE Work Plan (ATTACHMENT A) be approved.

Mr. Hermans stated that the draft work plan used other existing work plans as a template. The plan lays out a lot of tasks for both organizations. He stated that the work plan includes blank spaces to input names of people who could champion those tasks.

He stated that there is a small fiscal impact. The fiscal impact is comparable to what is provided to other organizations that Society has partnerships with.

Mr. Littleton stated that the work plan should be a one to three-page attachment to the existing MOU. He shared the current MOU with ASHE with the group. Mr. Littleton offered to share the existing work plans with Mr. Hermans and his group to help guide the creation of this one.

Mr. Hermans withdrew the motion. There was no objection.

#### **MOTION 2 WITHDRAWN**

Mr. Hermans was asked to bring the revised action plan to ExCom at a future meeting. Staff and Mr. Brandt will work with Mr. Hermans to format and finalize the work plan.

Mr. Hermans reported that at the request of ASHE, there were several meetings with members of ASHE staff. As ASHE is strongly staff led, there were no meetings with ASHE members. Some ASHE staff felt that guidance from the ETF read like new standards and they requested a disclaimer be added to guidance related to healthcare.

Mr. Hermans reported that ASHE hosted its first virtual meeting. He stated that CEC and Mr. Owens may benefit from learning more about ASHE's experience with a virtual meeting.

#### **NATIONAL COUNCIL OF EXAMINERS FOR ENGINEERING AND SURVEYING (NCEES) - PARTICIPATING ORGANIZATIONS LIAISON COUNCIL/LICENSING THAT WORKS TASK FORCE (POLC)**

Mr. Gulledge encouraged members of ExCom to review the written report.

He highlighted that the question was raised about the acceptance of continuing education (PDH for licensure maintenance) via online courses and training. It was pointed out that this is a state board decision if online training is acceptable in each state. Most states accept web-based training, but some do not, and others limit the amount of online training that is acceptable toward the annual requirement. He noted that this issue is significant to ASHRAE because of Society's significant number of online courses, both self-directed and instructor led.

Mr. Brandt stated that some states do not require any PDHs for renewal of PE licenses; California being one.

Mr. McQuade stated that he receives advertisements regularly for online courses. He was surprised to learn that some states do not accept web-based training for license renewal.

#### **NATIONAL COUNCIL OF EXAMINERS FOR ENGINEERING AND SURVEYING (NCEES) EXAM WRITER**

Mr. Littleton reported that this group is a variation of NCEES. He stated that there continues to be a push to require a master's degree to sit for the PE exam; Society has been staunchly opposed to this.

He reported that the number of PE licensing exams is down 50% compared to this time last year. This metric should be monitored closely by Society leadership.

Mr. Macauley stated that requiring a master's degree has come up multiple times over the past five to ten years. GAC has been involved in some states. He stated that this issue is critical to our members and as such, should be a top priority that is monitored closely.

Mr. Gulledge stated that this issue has been on ExCom's radar for a number of years. He agreed with Mr. Macauley that this is an issue that Society should be on top of.

**FGI HEALTH GUIDELINES REVISION COMMITTEE (HGRC)**

Ms. Platt Gulledge reported. She stated that the committee had no recommendations for ExCom. Meeting notes were attached to the committee's report.

She reported that during the last HGRC meeting, time was allotted to discuss Standard 170 and the work the committee has done to improve the standard and align it with the FGI books. At that meeting, a motion was made to ask the FGI board of directors to reconsider their previous motion to not publish Standard 170 with the FGI books. The motion was approved unanimously by the steering committee.

Ms. Platt Gulledge reported that Standard 170 will be published with the hospital and outpatient books. The residential book does not currently reference ASHRAE Standards and that committee has been given direction to start including the Standard as referenced.

Mr. Gulledge thanked Ms. Platt Gulledge for her report and the work of the committee. He stated that this is a huge win for ASHRAE.

Mr. Gulledge opened the floor to comments.

Mr. Littleton thanked Ms. Platt Gulledge and everyone involved. He stated that the original decision to not include Standard 170 was reversed with the guidance of Ms. Platt Gulledge and this group. He reported that the royalties associated with this are on the order of \$25,000-30,000 annually.

Mr. Hermans stated that the Standard 170 committee has been struggling while dealing with the continuous maintenance proposals and in spite of that, this group was able to convince FGI to go ahead with the publication. He asked if there was any chance that the residential guideline will be changed in time for publication.

Ms. Platt Gulledge responded that Standard 170 would have to get an amendment out and included before publication. Unfortunately, there is not enough time to get that done.

She reported that there is time to reference Standard 170 in the hospice section, and while the standard won't be published with the residential book, it will be referenced within the book. She stated that the hope is that in 2025, Standard 170 will be in alignment with FGI and will be included with that edition.

**NIBS BIM COUNCIL REPORT**

Mr. Knight reported. He stated that what used to be called the Building Smart Alliance has been realigned to the BIM Council. The Council was meeting weekly but is now meeting monthly.

He reported that the BIM Council is responsible for the national CAD standard and the national BIM standard in the US. The council is currently writing the 4<sup>th</sup> version of the international BIM standard. The international standard has a lot of modules and will be released in small pieces.

Mr. Knight reported that Society has a joint agreement to write Standard 224, which addresses the application of BIM. Currently, the BIM Council would require that the standard be available to all US users, which has made the situation a bit tenuous.

Most recently, the Council has been working with the BIM coalition in the UK. ISSO 150 has been adopted as a British standard. Anticipate having a 224 issue ready for public review this summer.



Mr. McGinn expressed concern that the grassroots are being bypassed in favor of reporting directly to ExCom.

Mr. Knight stated that a lot has to do with the fact that these are formal agreements. He stated that Standards tends to not deal with things until they are up for some level of approval for publication. TAC liaisons are aware and the section heads of the cognizant TCs are aware and sit in on the 224 meetings. He stated that as a member of Standards, the Committee does not have time for this type of discussion.

Mr. Hermans stated at the Standards level, this is the sort of thing that should go to Tech Council through the ExO.

Mr. McQuade stated that the ad hoc to address international standards belongs in this discussion as well, to understand how to address these issues in a timely manner and to allow Society to have influence.

Mr. Littleton stated that this has caused some strain between NIBS and ASHRAE. These relationship issues are particularly relevant to ExCom. He stated that Mr. Knight has done a great job navigating these issues. NIBS seems to be frustrated with Society's standing with respect to the ISO TAG; the moving parts are more about the moving relationship with NIBS.

Mr. Gulledge thanked Mr. Knight for his work and for protecting Society's interests.

#### **HQ AD HOC REPORT**

Ms. Scoggins reported that the PV installer lost subcontractors and there have therefore been delays in the install of HQ's PV. Will likely be May 18<sup>th</sup> when the PV is installed and operational.

She reported that work on dashboarding is ongoing. The ad hoc is meeting with ALC every other Friday to work through what is public and private facing on the dashboard.

Ms. Scoggins reported that a few commissioning items are still being worked through. She continued that the group is working through some issues with the donated equipment.

Mr. Gulledge thanked Ms. Scoggins for her work and for being on top of all of HQ's start up issues.

#### **STRATEGIC PLAN UPDATE**

Mr. McQuade reported that the Planning Committee did not meet the past month and there has been no specific movement. A meeting is scheduled for early April. The Planning Committee is considering a mid-year review of the strategic plan. There is no specific action for ExCom at this time.

Ms. Maston stated that there is some feeling that the IEQ and resiliency initiatives have stalled. She reported that the Planning Committee will be reaching out to the VPs for feedback on what should be included in the proposed committee and council leadership training. The training will address the disconnect between committee and council leadership and also assist members in thinking more strategically.

Mr. McQuade stated that the strategic plan initiatives that have had the greatest movement are those that have correlating BOD ad hocs. He suggested that a deeper dive may be needed if the consensus is that initiatives aren't moving quickly enough. Mr. McQuade stated that the slow or stalled initiatives could be due to the pandemic and could be due to members not knowing who is in the lead.

Ms. Maston was asked to provide an update on the one-year extension of the strategic plan.

Ms. Maston reported that discussions have been had with ExCom but the Planning Committee has not discussed extending the plan yet. The committee will be meeting on April 7<sup>th</sup> and the meeting time was increased to include this discussion. She stated that those in favor of extending the plan feel that the delay will help to offset costs and will allow additional time to accomplish initiatives. Those who are not in favor of extending the plan feel that just extending the plan will not motivate members. Ms. Maston stated that the upcoming meeting will give everyone on Planning an opportunity to voice their opinion. Once a consensus is reached with the Planning Committee Ms. Maston will update ExCom.

### **2021-22 DL TRAVEL PROGRAM**

Mr. Schwedler presented travel recommendations for the 2021-22 DL program:

1. Chapter scheduling may begin once the DL slate is announced.
2. Presentations remain virtual in July and August.
3. Face to face presentations may tentatively begin September 1<sup>st</sup>.
4. Flights and hotels should not be booked until ExCom confirms the reopening date.
5. ExCom will revisit the reopening date in late June or early July.
6. Safety verbiage developed as part of the CRC guidance document will be used.
7. Face to face or virtual presentations is a mutual decision between the chapter and the DL.

Mr. Brandt stated that he agreed with the recommendations. He stated that virtual DL visits should still be encouraged; not only has the program seen success with virtual visits, but the Society will still be under financial pressure in the next Society year and virtual visits will help to offset costs.

Members of ExCom were asked to share opinions on DLs attending upcoming CRCs face to face.

Mr. Macauley stated a lot of regions are planning on having hybrid CRCs. In this hybrid format, the business meeting and caucus would be in person and the majority of training would be conducted virtually.

Mr. Mehboob suggested that the regions be given equal opportunity to host DLs at the CRCs. He stated that a CRC DL visit is different from a DL chapter visit.

Mr. Brandt suggested that DLs not travel to CRCs in July and August, keeping with Mr. Schwedler's recommendations.

No members of ExCom objected to Mr. Schwedler's recommendations. Mr. Gulledge stated that a statement with guidance for the 2021-22 DL program will be issued through CTTC. Mr. Gulledge thanked Mr. Schwedler for being proactive and developing a strategy.

### **ASHRAE IUVA MOU**

Mr. McQuade reported that IUVA is hoping to partner with ASHRAE specific to developing guidance on the efficacy on UV systems and guidance on how to use them in buildings. The following have been suggested as areas of focus – method of test type standards on various types of equipment, determining and measuring efficacy of systems, determining how to best set up systems within a building or room and developing performance metrics, and development of standards and guidelines.

Mr. McQuade reported that there are also opportunities to work with IUVA jointly on webinars, presentations, research, developing papers and reports, and the like.

Mr. Littleton stated that IUVA is a highly technical and scientific group. He stated that there is a significant need for standardization of this technology. He expressed that the potential of being a standards partner with IUVA is a good opportunity for Society.

Mr. Brandt moved and Mr. McQuade seconded that

3. ExCom recommends to the Board of Directors that the Memorandum of Understanding (MOU) with the International Ultraviolet Association (IUVA), as shown in ATTACHMENT B, be approved.

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

**GAC MOTION FOR SCHOOL SUPERINTENDENTS ASSOCIATION (AASA) MOU**

Mr. Brandt moved and Mr. McQuade seconded that

4. The GAC recommends that ASHRAE leadership explore a Memorandum of Understanding (MOU) with AASA, The School Superintendents Association.

Ms. Yates stated that there is a lot of opportunity with schools and helping to ensure that the appropriate direction is given as it relates to maintenance and operations. She stated that there is also an opportunity to help guide the money that Congress has allotted to operating schools safely in the pandemic.

She stated that no MOU is presented here and she is unsure if GAC has communicated with AASA.

Mr. Littleton stated that the motion seems to imply that Society would definitely enter into an MOU with AASA. He stated that there seems to be exploration that still needs to be done.

Mr. Brandt moved and Mr. McQuade seconded that

5. Motion 4 be amended as follows:

The GAC recommends that ASHRAE leadership ~~enter into~~ explore a Memorandum of Understanding (MOU) with AASA, The School Superintendents Association.

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

Mr. McQuade spoke in favor of the amended motion. He stated that an MOU with AASA could increase Society's influence in this area and provide a seat at the table for these important discussions. He recommended that Society reach out to AASA soon.

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

Ms. Yates stated that this is an excellent opportunity for Society. Money is being sent in this area and it would be great to have ASHRAE guidance referenced. She stated that the ETF guidance has been shared with AASA staff, but it would be great to have volunteer leadership involved.

Mr. Macauley will work with GAC, ETF, and staff to develop the language and content for an MOU with AASA (The School Superintendents Association).

### **ETF STATEMENT ON SARS-COV-2 TRANSMISSION**

Mr. Littleton reported that ExCom previously approved two statements regarding transmission of SARS-CoV-2 and the operation of HVAC systems during the COVID-19 pandemic. The ETF has recently approved modifications to one of the statements and ExCom approval of the revisions is needed.

Mr. Hermans reported that the two statements of the ETF went out last April. The edits proposed make the statement much shorter and stronger.

Mr. Brandt moved and Mr. McQuade seconded that

6. The following ETF statement on airborne transmission of SARS-CoV-2 be approved:

*Airborne transmission of SARS-CoV-2 is significant and should be controlled. Changes to building operations, including the operation of heating, ventilating, and air-conditioning systems, can reduce airborne exposures.*

Mr. McQuade stated that early in the pandemic, the CDC wasn't willing to confirm airborne transmission; now that there has been additional research this is a more definitive statement.

Mr. Schwedler stated that he was uncomfortable with the implication that transmission can be controlled.

**MOTION 6 PASSED** (Voice Vote, Mr. Schwedler and Mr. Mehboob abstained, CV). Mr. Schwedler and Mr. Mehboob stated that they did not feel they had enough knowledge to vote positively or negatively.

### **DECARBONIZATION**

Mr. Gulledge reported that a new public policy issue brief (PPIB) has come from the efforts of the new Building Decarbonization Task Force.

Mr. McQuade moved and Mr. Brandt seconded that

7. Technology Council recommends that the Board of Directors (BOD) ExCom approve the Public Policy Issue Brief (PPIB) on *Building Decarbonization*, as shown in ATTACHMENT C.

Mr. McQuade reported that this PPIB has come out of the Building Decarbonization Task Force. The PPIB was drafted by GAC, reviewed and edited by the task force, and then sent to the document review subcommittee of Tech Council, per the methodology outlined in the ROB. The PPIB was approved by the document review subcommittee and then sent to the full Technology Council for review and approval before being presented to ExCom.

Mr. McQuade thanked staff for assistance with letter ballots and moving the document through the approval process. He stated that some suggestions to the PPIB were received, the majority of which were wordsmithing.

Ms. Yates stated that PPIBs are used to help explain issues of importance to ASHRAE to policy makers, in very simple language. A PPIB is not as technical as a position document (PD). Typically, a PPIB follows a PD as a sort of summary. This PPIB is the first instance of the PPIB coming before the PD. However, this PPIB is not breaking new ground, it reflects other ASHRAE documents and references ASHRAE Standards.

Ms. Yates stated that there was a great need for this PPIB because ASHRAE members were canvassing all over the world and were being asked about Society's position on building decarbonization. If approved, this PPIB will provide volunteers with language to help explain Society's position. She stated that she expects the document to evolve as the task force creates new materials and establishes new decarbonization positions for Society.

Mr. McQuade stated that the PPIB is intended to be an introduction to policy makers, not a definitive technical document. He stated that a PPIB is more general and the PD is an opportunity to be much more technical.

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

### **EXECUTIVE SESSION**

Executive session was called at 10:38 am.

Open session reconvened at 11:53 am.

### **OLD BUSINESS**

#### **CRC TRAVEL RECOMMENDATIONS**

Mr. Schwedler reported that at the last ExCom meeting recommendations on CRC travel for 2021 were presented. Since that time, some language was tightened up and the document is ready for final review.

Mr. Schwedler presented the final recommendations. There was consensus from ExCom to accept the final recommendations.

Mr. Schwedler and staff should disseminate the final CRC travel recommendations immediately. The recommendations should be sent under Mr. Schwedler's signature.

**AI – 16**

### **ADJOURNMENT**

The meeting adjourned at 11:59 am.



Jeff H. Littleton, Secretary

### **ATTACHMENTS:**

- A. Draft ASHE Work Plan
- B. Draft IUVA MOU
- C. Decarbonization PPIB

## 2020-2022 Work Plan of the Memorandum of Understanding

### ASHRAE and American Society of Health Care Engineering (ASHE)

ASHE and ASHRAE signed a Memorandum of Understanding in 2020 aiming to achieve several mutual goals within the mandate of both organizations including, but not limited to, Consistent Leadership Communication, attendance and participation at Conferences and Meetings, Young Professional Development, Advocacy and Public Outreach, Publications, Education, coordination of Technical Activities, Research, and Community Service. Implementation of these mutual goals is accomplished by adoption of a biennial work plan of which this document is the first.

#### I. CONSISTENT LEADERSHIP COMMUNICATION

- a. Conference calls regarding technical activities between designated staff and/or liaison of each organization shall occur at least quarterly and shall address the status of each action in this work plan. Two administrative meetings shall occur annually (either in person or via conference call) of designated ASHRAE/ASHE senior representatives to:
  - i. Ensure ongoing advancement of collaborative projects,
  - ii. Keep each respective organization informed of major initiatives of mutual interest, and
  - iii. Discuss new opportunities for collaboration.
- b. Action items with assigned responsibilities shall be recorded at each meeting. The parties responsible for ensuring this MOU is actively pursued through the term of the agreement are the Executive Vice President (ASHRAE) and the ASHE Deputy Executive Director (ASHE).
- c. Action: For ASHE \_\_\_\_\_, for ASHRAE \_\_\_\_\_.

#### II. CONFERENCES AND MEETINGS

- a. Each organization shall provide the other with a meeting invitation and two complimentary VIP registrations to their respective annual meetings. Upon request each organization will provide guidance to the other on how to submit a proposal for its technical program,
- b. ASHRAE and ASHE agree to explore opportunities to:

- i. provide speakers or panelists at the other organization's meetings, if possible, to help provide updates and perspectives on building industry technologies and trends,
  - ii. co-sponsor a topical conference covering issues of relevance to both organizations' constituencies,
  - iii. collaborate on conferences or meetings at the Regional or local level.
- c. Each organization shall publicize the other organization's meetings and promote attendance.
- d. ASHE will invite ASHRAE to appoint a representative to the PDC and ASHE Annual Conference planning committee.
- e. Action: For ASHRAE \_\_\_\_\_ for ASHE \_\_\_\_\_.

### III. YOUNG PROFESSIONALS DEVELOPMENT

- a. ASHRAE and ASHE shall assign the leaders of the Young Engineers in ASHRAE (YEA) and ASHE Young Professionals Task Force to develop joint activities that can help optimize collaboration between designers and facility managers early in career development.
- b. Action: For ASHE \_\_\_\_\_ for ASHRAE \_\_\_\_\_.

### IV. ADVOCACY AND PUBLIC OUTREACH

- a. To the extent allowed by law and corporate policies, ASHRAE and ASHE will work together on common public affairs goals and visions. During annual liaison meetings, public affairs strategies will be discussed and common goals identified. Collaborative opportunities to be considered include:
  - i. Joint promotion of codes and standards at the local, state and federal levels: Each organization will notify the other when ever an issue of mutual importance is proposed to federal government officials. Those issues include indoor air quality in health care facilities, water quality in health care facilities, certification or accreditation of designers and/or facility operators in health care facilities, adoption of building codes and standards for health care facilities,
  - ii. Promoting mutually beneficial positions during the development and passage of state and federal legislation: Each organization will provide to the other a calendar of local chapter, regional, or society level outreach events to state and local jurisdictions where issues of mutual interest may be discussed,
  - iii. Education of legislators on issues such as technical aspects of building design, professional liability aspects of design practices, and the importance of professional licensure, and certifications relevant to the members of each organization: when these issues pertain to healthcare facilities and are

discussed at the local, state, or federal level, each organization shall inform the other of the general content prior to any scheduled educational event.

- b. ASHRAE will invite ASHE to appoint a representative to serve as a non-voting liaison to the ASHRAE Government Affairs Committee. ASHE and ASHRAE will inform each other regarding policies, and position statements developed on technical subjects as they relate to buildings and community developments at each liaison coordination meeting.
- c. ASHE will include ASHRAE as one of its Industry Organizations for Advocacy.
- d. Action: For ASHRAE \_\_\_\_\_ for ASHE \_\_\_\_\_.

## V. PUBLICATIONS

- a. Recognizing that electronic and print publications are a primary means of disseminating new technologies, trends and practices, ASHRAE and ASHE will:
  - i. Provide at least one complimentary subscription the primary membership periodical to be received at the headquarters location of the other organization,
  - ii. Develop at least one jointly produce publication of mutual benefit,
  - iii. Cross-market each organization's publications where appropriate and with industry standard distributor discounts e.g. ASHRAE Journal Articles, ASHRAE Research Reports, ASHRAE Transactions Papers, ASHRAE Conference Seminars, ASHRAE Handbooks, Health Facilities Management articles, ASHE Management Monographs, ASHE Advocacy Tools, PDC and Annual ASHE Conference Transactions, and ASHE Handbooks.
  - iv. Use periodicals to promote the other organization's events, publications and other activities e.g. Health Facilities Management, Just Ask ASHE, ASHRAE Journal, ASHRAE Insights,
  - v. Provide member discounts on each other's publications,
- b. Invite representatives to participate in special publication product committees that pertain to health care facilities, e.g. Health Care Design Manual, Designing High Performance HVAC, Designing and Operating High Performance HVAC, ASHE Management Monographs, Alert and Issue Briefs, special subject task groups.
- c. Action: For ASHE \_\_\_\_\_ for ASHRAE \_\_\_\_\_.

## VI. EDUCATION

- a. As leading providers of conventional and online educational services and in recognition of the vital role professional development has for our respective members, ASHRAE and ASHE shall:
  - i. Cross-market educational offerings and the national and international levels



as possible, primarily via events calendars,

- ii. Co-develop and sponsor at least one new course, webinar, or other training program that takes advantage of overlapping and complimentary expertise between ASHRAE and ASHE, or a certificate or curated education content track,
  - iii. Develop at least one joint, chapter level training on subjects of mutual interest to members of both organizations.
- b. ASHE and ASHRAE will exchange ideas on how to promote Science, Technology, Engineering, Architecture and Math (STEAM) education and ensure our respective disciplines are included. The organizations will work together on STEAM and elementary/secondary education promotion at the local, national, and global levels through a joint meeting of representatives from both organizations to be held by June 30, 2021.
- c. Action: For ASHRAE \_\_\_\_\_ for ASHE \_\_\_\_\_.

#### VII. TECHNICAL ACTIVITIES COORDINATION

- a. Annually each organization shall invite the other to participate on technical committees and task forces that pertain to areas of mutual interest, (e.g. TC 9.6 *Health Care Facilities*). Many technical committees at ASHRAE do not require ASHRAE membership but do require a biographical description used for the purpose of assignments.
- b. ASHRAE will add an ASHE liaison to the Standards Actions Listserv so that ASHE members may participate in and comment on proposed standards and guidelines under development.
- c. Annually at the liaison meeting, the agenda shall include a review upcoming technical events of each to consider potential sponsorship opportunities.
- d. If the need arises, either organization may propose co-development of new standards that address topics of mutual technical interest when potential topics are discovered.
- e. ASHRAE will invite ASHE to appoint a representative to serve as a non-voting liaison to the ASHRAE Epidemic Task Force Healthcare Team.
- f. ASHE will invite ASHRAE to appoint a representative to serve on the ASHE Pandemic Recovery Action Group (PRAG).
- g. ASHRAE will invite ASHE to appoint a representative to serve on the Health Care Facility Design Professional Certification subject matter team at the next forming of that team.
- h. ASHRAE will invite ASHE to appoint a representative on the Special Publication teams that involve health care facilities when those Special Publications are created or renewed.

- i. ASHE will invite ASHRAE to appoint a representative to the 2021 PDC Summit Abstract Submissions review team.
- j. ASHE will invite ASHRAE to appoint a representative to the ASHE Editorial Advisory Group.
- k. Action: For ASHE \_\_\_\_\_ for ASHRAE \_\_\_\_\_.

**VIII. RESEARCH**

- a. At the annual liaison meeting the agenda will include the discussion of new joint research projects and/or the development of publication products, standards, guidelines, monographs, or policy arising out of the results of existing research.
- b. Upon request from ASHE, ASHRAE will provide training on how to apply for an ASHRAE research project.
- c. Action: For ASHRAE \_\_\_\_\_ for ASHE \_\_\_\_\_.

**IX. COMMUNITY SERVICE**

- X. Before June 30, 2021, ASHRAE and ASHE will create a joint committee on a community service project focusing on building health and welfare for communities.
  - a. Each organization is interested in the field of technical education for youth. One potential community service project could be a STEAM technical activity offered to any K-12 education organization.
  - b. For many years, ASHRAE has invited local chapters who are hosts to the Annual or Winter conferences to conduct a community service project which is showcased at the conference. Another potential joint effort could include such a project at either organizations conference.
  - c. Action: For ASHRAE \_\_\_\_\_ for ASHE \_\_\_\_\_.



# Shaping Tomorrow's Built Environment Today

180 Technology Parkway, Peachtree Corners, GA 30092 ▪ Tel 404.636.8400 ▪ Fax 404.321.5478 ▪ [www.ashrae.org](http://www.ashrae.org)

*Richard D. Hermans, PE, HFDP*  
ASHE Liaison

Reply to: 7200 Stagecoach Trail  
Lino Lakes, MN 55014  
[herma015@umn.edu](mailto:herma015@umn.edu)

Charles Gulledge, President  
Executive Committee

March 17, 2021

Dear Chuck,

My report this year is, like last year, only regarding ASHE and not FGI.

The American Society of Healthcare Engineering (ASHE) is a co-sponsor of Standard 170. ASHE conducts meetings twice each year with a product exposition. ASHE has requested ASHRAE become a partner with them in their two meetings each year. I have explained to the ASHE leadership that ASHRAE would not be able to be a co-sponsor of their conferences as long as they hold the product exposition.

The ASHE Annual Conference and Technical Exhibition was held virtually on October 5-7, 2020. It was produced by INXPO, Appendix A. The Logo of this year's Conference was



Like most ASHE conferences, there was little or no adherence to a general theme by the presenters. Presentations are selected on their quality and timeliness to current events. The presentation schedule is in Appendix C.

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As in past years, ASHE conducted a product exposition of sorts during their virtual conference. A feature of this virtual conference is what they call a Solutions Theater where vendors can make commercial presentations.

Conference wide announcements popped up on every screen.

The registration fee for the conference was quite steep but they offered a sizable discount for members. See Appendix B.

There were a number of general sessions that were included in the conference registration.

The first general session made two Society level awards: The president's award and the highest ASHE award – The Crystal Eagle. Both were well produced with pre-recorded video segments.

The key note speaker was a former NFL long snapper who now does a magic show and motivational presentation: it was a bit underwhelming.

A second general session was Compliance with Accreditation\_ Leading the Way to Zero. This doesn't mean zero energy but zero patient harm which is avoiding adverse hospital caused events such as surgical site infections, falls, wrong patient surgery, and wrong organ surgery, etc. This session was late getting started. Some attendees remarked that other sessions were late starting on the first day. The chat feature was going during the delay and it lit up with questions about the late start. Eventually a message popped up saying they were having difficulties and would start the session about 15 minutes late. During the delay, attendees continued to chat among themselves. Once the second general session got started, the speaker didn't give any explanation for the delay and then had pretty bad audio which the chat room jumped on immediately. The problem appeared to be with the speaker's microphone but the organizers couldn't communicate with the speaker to switch to another option for audio.

Throughout the day, a Help page was live with a technical support person or two who answered questions about attendee's issues about gaining access, viewing sessions, and obtaining participation certificates for continuing education. Since ASHE operates a certification program with CE requirements many attendees expect to receive credit for their attendance. CEU certificates were only available if the attendee was present for the entire session and filled out the survey at the end. On the second day, the first general session was entitled "Where We're Headed – A Discussion on Pandemic Recovery"

ASHE staffer Jonathan Flannery stated that there will be some long-term modifications to facilities as a result of the Pandemic.

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Other panelists believe there will be changes to codes due to this pandemic but caution not to go too far. Jonathan was the moderator and did very well. There were prepared questions with sub-bullet points on slides and Jonathan assigned each question to a panelist as the question came up. Each panelist was obviously prepared to answer the question and used the sub-bullets to frame the response.

[add a section on the negotiations regarding the disclaimer statement negotiations with the ETF]

Michael Sheerin stated that economizer isn't necessary any more due to filtration. He suggested allowing the economizer controls to operate normally now. He claims there are no elevated risk factors today due to the virus. He did not mention ASHRAE at all. One facility manager panelist stated that ASHE is the "gold Standard" for information on the Pandemic.

The Joint Commission offered some common questions they have received re: COVID-19

The JC is allowing waivers to some inspection, testing and maintenance recording because of the Pandemic.

TJC said they will not do a survey on a facility unless the temporary exhaust fans in patient rooms are removed. TJC doesn't know why such exhaust would be necessary after the emergency is finished. During this session the attendees were very active talking to each other commenting on the presentation. There were many conversations going.

On the third day was a general session where the incoming president spoke.

The President-Elect made a clear report on the desire to improve the situation for their members which is the main mission of ASHE. Remember that ASHE is a trade association and is part of the American Hospital Association.

The new executive director Deanna Martin gave her report, the first since being elevated to the position in March. She reported on the guidance created by ASHE in response to the Pandemic including pressure relationships. She claimed 40,000 have accessed their guidance. They claim over 12,000 members and that is steady. The ASHE Strategic Plan contains what they refer to as Strategic Imperatives: Professional Reputation; Career Development; and Operational Excellence exemplifies the ASHE Purpose to advance the members abilities and professional growth. Even the Strategic Imperative of Operational Excellence is described as how their members can share success stories and practices to other members to improve the cost effectiveness of their "assets".

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The Strategic Goals of ASHE are:

## **ASHE Strategic Goals**

Guided by our mission and vision statements, ASHE leaders developed three strategic goals for the organization. These goals are keenly focused on the regulatory environment, the reputation of our members, and the capacity in which ASHE serves those members:

**Reputation**—Our members will have a reputation as highly valued professionals who bring value to their organizations by using their specialized body of knowledge, experience, and strategic, operational and leadership competencies, while encouraging a collaborative equitable culture where policies, practices and resources are aligned so all members can thrive.

**Capacity**—Our members will be supported by a nimble association with the requisite resources, relationships, decision systems and work processes.

**Regulation**—Our members will work in a regulatory environment characterized by good science, defensible economics, informed policymaking and clear decision authority.

They plan to begin working on a new SP beginning next year.

Their awards ceremony includes recognizing chapters for accomplishments. Remember that ASHE chapters are not a legal part of the Society but are independent affiliates. The individual awards were simple and merely announced their names and showed head shots.

They celebrated individual hospitals that saved energy with an award called Energy to Care.

The outgoing board members were recognized even though their term of service runs through the end of the year. New board members were recognized.

The entire award announcements took only about five minutes. Many well-wishers gave their remarks of congratulations on the chat room.

Following the end of the announcements there was a lot of dead air. There was no concluding remarks or announcement of the next event. It is possible that the entire awards ceremony was prerecorded. After about three minutes a web message popped up saying the event was over. The event was scheduled to be an hour but took less than twenty minutes even after a significant delayed start.

The final general session was a panel discussion about Codes and Standards hosted by Chad Beebe. NFPA was asked what they are doing to help with Pandemic.

They said to make sure the systems in all buildings are functioning properly such as fire protection. They also said they backed off on the enforcement of codes and standards to help building owners deal with the pandemic, especially with health care facilities. They struggled a bit with balancing strict enforcement with being sensitive to the problems of healthcare managers.

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They saw a lot of increase in the use of large quantities of alcohol-based hand sanitizers in all building types. HC facilities appear to be better at managing these. Some dispensers have gotten to as much as a gallon in size.

Michael Sheerin came on and said it is not necessary to have HEPA filter machines running all the time. He feels there are things that owners need to think about regarding their needs for future pandemics. He said it isn't necessary to have spaces with "once through air".

He emphasized 1) air changes, 2) filtration and 3) local exhaust. Everything else is beyond these fundamentals. When asked about BPI he said new technologies are always emerging but both ASHRAE and CDC are non-committal because there isn't enough information. He pointed out that there is no test for performance proof. He cautioned that BPI is changing the environment that people are in. He suggested that owners "buy one" and test it out with a comparison to other non-BPI spaces. Don't buy a whole bunch of a new technology that hasn't been proven.

I noticed that many of the presentations were pre-recorded and the host only came on live during the Q&A sessions. The audio for the Q& A was obviously different and of less quality than the pre-recorded sessions.

## Conclusions

The relationship between ASHRAE and these two organizations remains strong. It is clear that our work has meaning to these groups and they respect our expertise and credibility to work in this field.

This past year we have had several meetings with ASHE staff regarding the Pandemic including an agreement on a disclaimer statement for Pandemic guidance. The edits made by Bill Bahnfleth and Jonathan Flannery are shown.

This ASHRAE/ASHE guidance document is based on best available evidence and knowledge as of the date of this document. ~~Due to~~ In the context of this pandemic and the rapidly evolving nature of the state of knowledge regarding transmission of COVID-19 pandemic, design professionals may consider interventions that adopt a precautionary principle, taking reasonable actions that reduce risk while awaiting greater scientific certainty. Therefore, this guidance should be read in conjunction with the relevant government guidance and available research. This material is not a substitute for the advice of a qualified professional. By adopting these recommendations for use, each adopter agrees to accept full responsibility for any personal injury, death, loss, damage or delay arising out of or in connection with their use by or on behalf of such adopter irrespective of the cause or reason therefore and agrees to defend, indemnify and hold harmless ASHRAE and ASHE, the authors and others involved in their publication from any and all liability arising out of or in connection with such use as aforesaid and irrespective of any negligence on the part of those indemnified.

We executed a MOU which was approved by ExCom. Now comes the time for us to approve the draft Work Plan that I submitted for your review in October. It is attached.  
ASHRAE, Inc.

I have one motion for the ExCom

Approve the draft Work Plan.


I wish to thank you for allowing me to continue to represent ASHRAE at ASHE and FGI, I find the work enjoyable and educational.

Regards,  
Rick

CC: Jeff Littleton, Executive Vice President  
Stephanie Reiniche, Senior Manager of Standards  
Mark Owen, Director of Publications and Education  
Joyce Abrams, Director of Member Services  
Candace DeVaughn, ASHRAE  
ExCom



## Appendix A

[Solutions](#) [Products](#) [Services](#) [Why INXPO](#) [Resources](#) [About Us](#) [Contact Us](#)

# About Us

INXPO is the leading enterprise video streaming platform, for creating TV-style event experiences. Enabling marketers, corporate communicators, and event managers, to extend their reach, drive engagement and increase revenue.

Built upon a secure, reliable and scalable foundation that has powered thousands of events and touched millions of viewers. From fully branded webcasts or online events, to secure video portals, our versatile streaming products empower our clients to reach their audiences authentically. Many of the world's leading brands trust INXPO, to maximize ROI while meeting their business goals. Aon, Cisco, Hyatt, IBM, Microsoft and others.



### Our Philosophy

Creating end-to-end event experiences to inspire audiences

[Learn More](#)



### News & Events

Industry news, what we are doing, where we will be

[Learn More](#)



### Partners

A complete enterprise video ecosystem to support you

[Learn More](#)

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# Invoice

## APPENDIX B

INVOICE DATE: August 17, 2020

#: 889436

**Sold To:**

Richard Hermans  
University of Minnesota Hospital and Clinic  
7200 Stage Coach TRail  
Lino Lakes, MN 55014

Date	Description	Unit Price	Qty	Gross Amount
08/17/2020	VIRTUAL CONFERENCE ACCESS Member	\$400.00	1	\$400.00
08/17/2020	Discount MEMBER Virtual Conference Discount			(\$251.00)
			Total Sales	\$149.00
08/17/2020	Payment by AMEX Richard D Hermans *1009 12/01/2024			(\$149.00)
			Balance Due	\$0.00

## APPENDIX C

Monday, October 05

**Session Title**

9:00 AM - 10:00 AM

[Developing a Code Compliant Fire Alarm ITM Program](#)[The Race to 100: Achieving Operational Efficiency](#)[Water Management and Infection Prevention during Construction](#)

9:00 AM - 10:30 AM

[Exhibit Hall](#)

10:30 AM - 12:00 PM

[General Session: Opening Session & Keynote Presentation: Life is Magic](#)

12:00 PM - 1:30 PM

[Exhibit Hall](#)

1:45 PM - 3:00 PM

[General Session: Compliance With Accreditation - Leading the Way to Zero](#)

3:15 PM - 4:15 PM

[Facility Management and Infection Prevention: Understanding Critical Risks](#)[Managing Life Safety Deficiencies and Infection During Construction](#)[VAV Doesn't Save Energy...Unless You Let It](#)[What to Expect from the 2021 NFPA 99](#)

Tuesday, October 06

**Session Title**

8:00 AM - 9:00 AM

[Exhibit Hall](#)

9:00 AM - 10:45 AM

[General Session: Where We're Headed – A Discussion on Pandemic Recovery](#)

10:30 AM - 12:30 PM

[Exhibit Hall](#)

12:30 PM - 1:45 PM

[General Session: Joint Commission Update](#)

2:00 PM - 3:00 PM

[Changing Technology and Power System Resilience](#)[Exercising Active Shooter Preparedness in Ambulatory Care](#)[Zone Maintenance, Infection Control and the Patient Experience](#)

2:00 PM - 3:30 PM

[While Wildfires are Raging, Can We Still Operate?](#)

3:30 PM - 4:30 PM

[A Data-Driven approach to Operational Risk Management](#)[Leveraging Innovative Technology to Improve Patient Experience](#)

[Looks Matter: Package your Data to Drive Processes](#)[VA NFPA 101 and NFPA 99 2021 Update](#)

Wednesday, October 07

**Session Title**

8:30 AM - 9:30 AM

[General Session: ASHE Annual Business Meeting & Recognition Breakfast](#)

9:45 AM - 10:45 AM

[Closing the Gap for Critical Systems Power](#)[ENERGY STAR Score Changes for Hospitals and MOBs](#)[Insourcing is In \(Part II\): A How-to Guide](#)[Renovating a JCPenny Into an Ambulatory Surgery Center](#)

11:00 AM - 12:00 PM

[General Session: Just Ask ASHE Codes and Standards Forum](#)

12:00 PM - 2:00 PM

[Exhibit Hall](#)



## Memorandum of Understanding ASHRAE and IUVA

Founded in 1894, ASHRAE, Atlanta, Georgia serves humanity by advancing the arts and sciences of heating, ventilation, air-conditioning, refrigeration and their allied fields. The ASHRAE vision is a healthy and sustainable built environment for all.

Founded in 1999, the International Ultraviolet Association (IUVA) is focused on advancing the science, engineering and applications of ultraviolet (UV) technologies with the purpose of enhancing the quality of human life and protecting the environment.

ASHRAE and IUVA agree to support the Memorandum of Understanding to advance and promote the mutual interests of their respective members. We are committed to working together toward on the following activities and goals:

### CONSISTENT LEADERSHIP COMMUNICATION

Recognizing the importance of communication in organizational collaboration, both organizations commit to hold a liaison meeting annually (either in person or via conference call) of designated ASHRAE/IUVA senior representatives to:

- Ensure ongoing advancement of collaborative projects.
- Keep each respective organization informed of major initiatives.
- Discuss new opportunities for collaboration.

ASHRAE/IUVA shall take responsibility for initiating the first annual liaison meeting. Action items with assigned responsibilities shall be recorded at each meeting. The parties responsible for ensuring this MOU is actively pursued through the term of the agreement are:

For ASHRAE:	For IUVA:
Jeff Littleton Executive Vice President	Gary Cohen Executive Director
ASHRAE	IUVA
180 Technology Parkway Peachtree Corners, GA 30092	6935 Wisconsin Ave, Ste 207 Bethesda, MD 20815
Phone: 404-636-8400	Phone: 240-437-4615
Email: <a href="mailto:jlittleton@ashrae.org">jlittleton@ashrae.org</a>	Email: <a href="mailto:gary@iuva.org">gary@iuva.org</a>

## CONFERENCES AND MEETINGS

Each organization agrees to provide the other with a meeting invitation and two complimentary VIP registrations to the primary annual meeting.

ASHRAE and IUVA agree to explore opportunities to provide speakers at the other organization's meetings to help provide updates and perspectives on technologies and trends of mutual interest.

Where mutually beneficial, each organization shall help publicize the other organization's meetings and promote attendance.

## CHAPTER COLLABORATION

ASHRAE and IUVA agree to coordinate promotion of joint grassroots meetings of respective members. Exchange of Chapter/Section leader contact information will be considered as one way to accomplish this objective.

## ADVOCACY

Where mutually beneficial and to the extent allowed by laws and corporate policies, ASHRAE and IUVA agree to work together on common public affairs goals and ideologies. During annual liaison meetings, public affairs strategies will be discussed and common goals identified. Collaborative opportunities to be considered include:

- Joint promotion of codes and standards [for appropriate jurisdictions](#),
- Promoting mutually beneficial positions during the development and passage of [government legislation](#).
- Education of legislators on issues important to the members of each organization.

Deleted: at the local, state and federal levels

Deleted: state and federal

## PUBLICATIONS

Recognizing that electronic and print publications are a primary means of disseminating new technologies, trends and practices, ASHRAE and IUVA agree to:

- Provide at least one complimentary subscription the primary membership periodical to be received at the headquarters location of the other organization.
- Explore opportunities to jointly produce publications of mutual benefit.
- Cross-market each organization's publications where appropriate and with industry standard distributor discounts.
- Use periodicals to promote the other organization's events, publications and other activities.
- Explore mutually beneficial ways to translate publications for member benefit.

## EDUCATION

As leading providers of conventional and online educational services and in recognition of the vital role professional development has for our respective members, ASHRAE and IUVA agree to:

- Cross-market educational offerings and the regional, national and international levels.
- Explore opportunities to co-develop new courses or other training programs that take advantage of overlapping and complimentary expertise between ASHRAE and IUVA.

- Discuss ways that certifications programs can be jointly developed or promoted.

#### TECHNICAL ACTIVITIES COORDINATION

ASHRAE and IUVA agree to foster technical cooperation in areas of common interest by:

- Encourage members in each organization to participate on technical committees and task forces.
- Provide opportunities to participate in and comment on proposed standards, guidelines, policies, and position statements developed on technical subjects as they relate to buildings and community developments.
- Establish liaison representatives to key technical committees where mutually beneficial to do so.

Additionally, ASHRAE and IUVA will use this MOU as a master framework governing their mutual engagement in specific projects intended to produce deliverables of international importance (e.g., development of industry consensus standards or research into performance metrics for UV technologies) that would benefit from being managed as a jointly approved Project, in accordance with a well-defined Project Agreement. For activities mutually chosen to be designated as a Project, ASHRAE and IUVA agree to jointly develop and approve a Project Agreement that establishes the detailed scope of the work to be completed, deliverables to be produced, milestones defining the development path, their respective responsibilities, and the Project governance, to include items such as assignment of the Project Manager, ownership and delegation of intellectual property rights, distribution of royalties, etc. Once developed and mutually approved, the executed Project Agreement will be appended to this MOU, in recognition of their joint contributions and synergistic collaborative efforts in producing these potentially precedence setting deliverables.

Deleted: national

#### RESEARCH

Recognizing the importance research plays in accelerating the transformation to a more sustainable built environment, ASHRAE and IUVA agree to:

- Promote research in areas where research results will add to the body of knowledge and support respective Society initiatives.
- Disseminate research results quickly, focusing on high-impact findings.
- Identify opportunities for research funding from other sources.

#### TERMINATION

Either party may terminate this MOU, with or without stated cause, upon providing the other party with thirty (30) days written notice of intent to terminate.

#### TERM

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.

**LEGAL STANDING**

This MOU reflects a commitment by ASHRAE and IUVA to continue and enhance their working relationship and individual efforts toward achieving mutual objectives described above. It does not create a binding obligation or agreement between the two organizations, and neither organization has an obligation to negotiate toward or enter into a binding written agreement. In addition, this MOU does not create a partnership, joint venture, fiduciary relationship or similar relationship between ASHRAE and IUVA. Furthermore, it is understood that this Memorandum of Understanding is conceived as a dynamic document, meant to change as circumstances and priorities warrant. It may be modified or amended by written agreement between both organizations.

**FOR ASHRAE**

\_\_\_\_\_  
Printed Name/Title

\_\_\_\_\_  
Signature

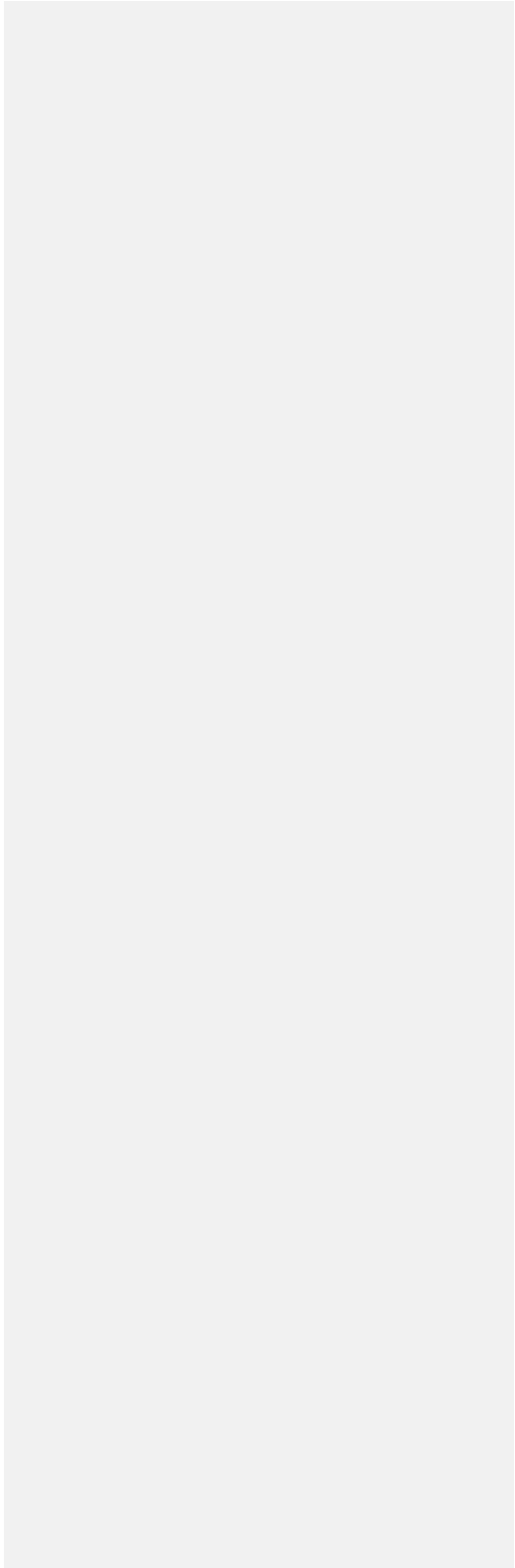
\_\_\_\_\_  
Date

**FOR IUVA**

\_\_\_\_\_  
Printed Name/Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date







Shaping Tomorrow's  
Built Environment Today

## BUILDING DECARBONIZATION

### THE ISSUE

Worldwide concern for changes in the global climate has escalated as scientific evidence has become more definitive, linking increased concentrations of atmospheric greenhouse gases (GHGs) with global warming. The standard metric used to quantify different types of GHGs having different global warming potentials is the “carbon dioxide equivalent,” the term for the common metric using both to evaluate performance and to document global agreements. As jurisdictions across the planet confront climate change, a useful way to describe methods that reduce GHGs is to refer to them as “decarbonization” practices or policies.

With buildings responsible for about 40% of global energy-related CO<sub>2</sub> emissions, policies are being developed that focus on the decarbonization of buildings. Many jurisdictions are requiring new buildings to be low carbon or net-zero energy in the near-term and other policies are requiring retrofits of existing building stock in the medium to long term to decarbonize. Some policies also advance building electrification when coupled with a renewable electricity source or other low-carbon technologies, which are possible tools to help decarbonize buildings. These decarbonization efforts will require large public sector and private sector investments while at the same time creating jobs and business opportunities in the HVAC&R, construction materials, and design sectors.

ASHRAE has been involved with the promotion and measurement of energy efficiency in buildings for decades. Recognizing that operational carbon emissions are a function of energy conversion and consumption, and that energy conservation alone cannot adequately address the emissions reductions necessary to slow climate change, ASHRAE is advancing strategies toward direct reduction of carbon emissions in the built environment. The targeted carbon emissions include not only those directly resulting from the operation of buildings, but also those embodied in the materials incorporated into buildings and those generated by the building construction process itself.

Building decarbonization addresses the following involving design, construction and operation of buildings:

- Reducing the carbon balance of the building in its operations;
- Reducing energy demand while maintaining indoor environmental quality and functionality;
- Integrating building energy demands with the power grid as well as output of on-site and grid renewable energy assets;
- Reducing carbon emissions during the construction of a building; and
- Reducing the embodied and end-of-life carbon of the structural, envelope and system materials incorporated into the buildings.

ASHRAE Government Affairs Office 1255 23<sup>rd</sup> Street NW, Suite 825, Washington, DC 20037  
Tel: 202.833.1830 | E: [GovAffairs@ashrae.org](mailto:GovAffairs@ashrae.org)

*Expires One Year After Approval*



Shaping Tomorrow's  
Built Environment Today

### **ASHRAE's ROLE**

ASHRAE is the leading source of information -- including standards (many of which are the basis of building codes around the world), guidelines, training/education, and research -- for HVAC&R systems and building performance, that serve as resources for building decarbonization, including:

- Energy standards for new buildings: Standard 90.1-2019 *Energy Standard for Buildings Except Low-Rise Residential Buildings*, and Standard 90.2-2018 *Energy-Efficient Design of Low-Rise Residential Buildings*
- Building performance standards to reduce energy consumption for existing buildings: ASHRAE Standard 100-2018 *Energy Efficiency in Existing Buildings*
- High-performance buildings standard providing comprehensive sustainable green building strategies: 2018 International Green Construction Code Powered by ASHRAE Standard 189.1-2017
- Providing a consistent method of measuring, expressing and comparing the energy performance of buildings: Standard 105-2014 *Standard Methods of Determining, Expressing and Comparing Building Energy Performance and Greenhouse Gas Emissions*
- Advanced Energy Design Guides (including Zero Energy Building Guides for K-12 Schools and Offices), which are available for free download and provide educational guidance to reduce energy consumption and drive carbon reductions while maintaining healthy and comfortable indoor conditions.
- Requirements for evaluating whether a building or group of buildings meets a definition of "zero energy": BSR/ASHRAE Standard 228P *Proposed Standard Method of Evaluating Zero Net Energy and Zero Net Carbon Building Performance*
- Refrigerant classification and safety standards which address low-global warming potential refrigerants, an important component for building decarbonization: Standard 15-2019 *Safety Standard for Refrigeration Systems* and Standard 34-2019 *Designation and Safety Classification of Refrigerants*.

### **ASHRAE's VIEW**

Building decarbonization is essential to combat climate change, one of the most formidable environmental challenges ever faced by society. ASHRAE has a leadership role in improving the built environment. We are evolving our focus to better address building decarbonization, both to improve building performance and to inform public policy. In pursuit of these goals, ASHRAE will continue to develop tools and resources to advance innovation in the decarbonization of buildings through research, technology transfer, standards writing, publishing, certification, and continuing education.

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*Expires One Year After Approval*