



**MINUTES**

**EXECUTIVE COMMITTEE MEETING**

**CHICAGO, IL  
January 20 and 24, 2024**

**Note: These draft minutes have not been approved and are not the official record until approved by the Executive Committee.**

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 January 20 and 24, 2024

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**PRINCIPAL APPROVED MOTIONS**

Executive Committee Meeting

January 20 and 24, 2024

<b>No. – Pg.</b>	<b>Motion</b>
1 – 2	The minutes from the December 21, 2023 open session meeting be approved.
2 – 4	The ASHRAE-UNEP Liaison Committee recommends that the Memorandum of Understanding between ASHRAE and UNEP (ATTACHMENT A) be approved.
3 – 4	The SHRAE-UNEP Liaison Committee recommends approving the attached ASHRAE-UNEP Work Plan for 2024-2025 (ATTACHMENT B).
4 – 6	The CAMEE MOU and Work Plan (ATTACHMENTS D and E) be approved.
6 – 11	That ExCom recommend to the BOD that the MOU with CONFEA (ATTACHMENT F) be approved.
7 – 12	The Strategic Partnership Agreement (SPA) with CIBSE (ATTACHMENT G) be approved.

## ACTION ITEMS

Executive Committee Meeting  
January 20 and 24, 2024

No. – Pg.	Responsibility	Summary of Action	Status	Goal Date
1 – 2	Austin and Sekhar	Work with the Education Committee to develop a plan to update the Design Fundamentals course. (Assigned March 2023)		
2 – 2	Conlan and Staff	Publicize the opportunity for the local generation of content among Chapters and TCs once the training materials are complete. Craft a policy for connecting Chapters and Regions with the technical side of Society and set up the processes which will facilitate the development of content by Chapters and Regions. (Assigned February 4 and 8, 2023)		February 2024
3 – 2	Austin	Coordinate a meeting of the Global Training Center Oversight Committee and share the report with the Chair of Pub and Ed Council and ExCom. Provide recommendations to ExCom regarding additional resources needed. (Assigned February 4 and 8, 2023)		February 2024
4 – 2	DEI Subcommittee	Work to develop an MOU with multiple organizations that work with and advocate for minority groups.		
5 – 2	Littleton	Assist with making membership recommendations and creating the job description for the Strategic Advisory Panel. (Assigned October 20, 2023)		
6 – 2	Littleton	Develop an interaction plan for the Mexico City Chapter and IEC, with the goal of addressing the AHR Mexico Expo in the future. (Assigned October 20, 2023)	Ongoing	
7 – 2	Rakheja	Work on developing a work plan with U3ARC and provide updates to ExCom by the Chicago meeting. (Assigned October 20, 2023)		January 2024
8 – 2	McQuade	Ask the Finance Committee to discuss the compulsory use of ATC and provide recommendations to ExCom. Comments and feedback from this meeting should be shared with Finance. (Assigned November 14, 2023)		
9 – 2	McQuade	Flush out the potential new MOU with Waterloo Filtration Institute. (Assigned November 21, 2023)		
10 – 2	ExCom and Constantinide	All members of ExCom will send Mr. Constantinide any concerns with the draft CONFEA MOU and work plan. Mr. Constantinide will address the concerns with CONFEA and provide a revised MOU and work plan in Chicago. (Assigned December 21, 2023)		January 2024
11 – 2	McQuade and Littleton	Finalize the AIHA MOU and work plan for ExCom review and approval in Chicago. (Assigned December 21, 2023)		February 2024

12 – 5	McQuade	Work with UNEP and Jim Curlin to determine how to identify ASHRAE members who have appropriate technical expertise to participate in UNEP TACs. (Assigned January 20, 2024)		
13 – 8	Littleton, Knight, and McQuade	Develop a path forward for how roundtable information will flow throughout Society. (Assigned January 20, 2024)		
14 - 8	Austin	Work with Pub and Ed Council to review the CRC roundtable development process and provide recommendations for improvement. (Assigned January 20, 2024)		
15 - 9	Rakheja	Work with IFC to develop an MOU. (Assigned January 20, 2024)		
16 - 9	McQuade	Work with Jim Curlin to determine if ASHRAE leadership should attend the Buildings and Climate Global Forum in Paris. (Assigned January 20, 2024).		
17 - 10	Austin, Rakheja, and Sekhar	Develop a concept paper of the goals, possible revenue and other details for the proposed networking publication 'ASHRAE Yellow Pages' and present to ExCom for consideration. (Assigned January 20, 2024)		March 2024
18 - 11	Owen	Put IP Standards that are currently available online. (Assigned January 24, 2024)		
19 - 15	Austin	Work with Pub and Ed Council to investigate how Society can offer trainings on A2L refrigerants and the future of A3 refrigerants. (Assigned January 24, 2024)		



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

January 20 and 24, 2024

**MEMBERS PRESENT:**

Ginger Scoggins, President  
Dennis Knight, President-Elect  
Bill McQuade, Treasurer  
Billy Austin, Vice President  
Wade Conlan, Vice President  
Ashish Rakheja, Vice President  
Chandra Sekhar, Vice President  
Jeff Littleton, Secretary

**GUESTS PRESENT:**

Cheng Wee Leong  
Richie Mittal  
Sarah Maston  
Daniel Russell  
Colin Laisure-Pool  
David Roberts  
Doug Cochrane  
Buzz Wright  
Erica Powell  
Trent Hunt  
Jim Arnold  
Tim Wentz  
Curtis Harbour  
Zehui Hong  
Darryl Boyce  
Sheila Hayter

Maggie Moninski  
Heather Schopplein  
Bryan Holcomb  
John Constantinide  
Jati Widiputra  
Jonathan Smith  
Stephanie Kunkel  
Tom Phoenix  
Megan Cruz  
Michelle Shadpour  
Bryan Holcomb  
Mark Jirak  
Nathan Ducey  
Joe Sanders  
Brandon Sheiner  
Don Brandt

**STAFF PRESENT:**

Candace Denton, Sr. Manager - Board Services  
Chandrias Jolly, Manager - Board Services  
Vanita Gupta, Director – Marketing  
Lizzy Seymour – Director – Member Services  
Mark Owen, Director - Publications & Education  
Kirstin Pilot, Director - Development

Stephanie Reiniche, Director - Technology  
Alice Yates, Director - Government Affairs  
Craig Wright, Director of Finance  
Savanna Smith, Scholarship Coord./Exec. Asst.

**CALL TO ORDER**

The meeting was called to order at 8:30am on January 20, 2024.

**CODE OF ETHICS**

Ms. Scoggins read the code of ethics commitment and advised that the full code of ethics statements and core values were available online.

**ROLL CALL/INTRODUCTIONS**

Roll call was conducted; members, guests, and staff were in attendance as noted above.

**REVIEW OF MEETING AGENDA**

Ms. Scoggins reviewed the meeting agenda. 'Networking Publication' was added to *New Business*. An *Executive Session* was also added.

**APPROVAL OF MINUTES**

Mr. Rakheja moved and Mr. Sekhar seconded that

1. The minutes from the December 21, 2023 open session meeting be approved.

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

**REVIEW OF ACTION ITEMS**

Action item 1, 6, 10, 12 and 15 were reported as complete. All other action items were reported as ongoing.

**AI – 1-11****TREASURER'S REPORT**

Mr. McQuade reported; the full report was attached to the agenda.

He reported that revenue and expenses were trending higher than budgeted. He reviewed variances in revenue and projection for the full Society Year. Mr. McQuade reported that Society was currently tracking \$105,000 above the projection for publications as well as AHR projected revenue.

He reported that an area of concern is a significant reduction in educational revenue. There seems to be a preference for virtual events, so face to face events have declined.

Travel costs are over budget likely due to inflation.

Mr. McQuade reviewed the monthly accumulated net revenue and expenses chart. He reported that the future goal is to have positive income flow throughout the year. Every year, Society makes a profit on the Winter Meeting but not on the Annual Meeting; the goal is to turn that around, so the Annual Meeting pays for itself.

He reported that overall, Society is in good financial shape thus far this Society Year.

**OFFICER INTERSOCIETY VISITS**

Members of ExCom were asked to provide an update on their intersociety visits thus far this Society Year. A summary of those reports are below:

*Mr. Austin attended the PHCC Conference in Cleveland. PHCC is a North American based contractor association with a strong focus on technician training. Suggested working closely with PHCC if Society decides to increase technician training.*

*Will attend the ACC conference in the spring.*

*Mr. Littleton reported that he and Ms. Scoggins had a productive call with the President/CEO of USGBC. There are exciting collaboration possibilities on the horizon. Another meeting is planned with the USGBC staff who runs the LEED program; will be exploring collaborating on a guidance document tied to the LEED rating system. USGBC has also indicated a desire to be involved with the decarb conference in New York.*

*Mr. Rakheja reported that IGBC has the second largest footprint of green buildings and Society will be entering into a MOU with them soon. Suggested that there could be opportunities to have Society's standards referenced in IGBC codes and rating system.*

*Met with IFC leadership in India. IFC currently has two programs to assist building owners of affordable residential properties and entrepreneurs. Also have their own rating system – EDGE – and are keen on referencing ASHRAE Standards whenever possible.*

*Mr. Knight added that the EDGE program was built around Society's technology and standards.*

*He also reported that he did a session and was a keynote speaker at the AABC (Associate Air Balance Council) conference. Suggested that there could be future collaborations with AABC related to test and balance agents, work force development, and bringing people into the industry.*

*Mr. McQuade reported that he was liaison to AIA and that group would be meeting later that day.*

*The BOMA international conference conflicted with Society's conference last year but this year it will be in Philadelphia and he will attend.*

*Attended the Sanitary Engineers conference in Romania as a keynote speaker.*

*Ms. Scoggins reported that she met with representatives of ISHRAE and discussed expanding the relationship between the organizations further.*

*She also met with IGBC where they discussed the possibility of a joint specialty conference in the future.*

*At the CIBSE conference in London, Ms. Scoggins attended the awards luncheon and spoke about collaboration between the two organizations. She planned to meet with CIBSE at the Chicago meeting as well.*



*She reported that she attended portions of COP28 and ExCom would be discussing Society's involvement moving forward.*

Ms. Scoggins stated that overall, ExCom had good interactions with other organizations thus far this Society Year.

Mr. Littleton reported that there were over 50 VIPs attending the Chicago conference; including AASA members, there were 65. Leadership had 10 or 11 meetings planned with those organizations at the Chicago meeting.

Mr. Wright (Buzz) reported that NEBB was interested in a partnership with Society; specifically focused on workforce development and student activities. NEBB is very interested in learning about Society's successful student branches.

### **REPORTS OF BODIES REPORTING TO EXCOM**

#### **ASHRAE-UNEP LIAISON COMMITTEE**

Mr. Knight moved and Mr. McQuade that

2. The ASHRAE-UNEP Liaison Committee recommends that the Memorandum of Understanding between ASHRAE and UNEP (ATTACHMENT A) be approved.

Mr. Wentz reported that the proposed MOU is a renewal that can be approved by ExCom. The MOU format is from UNEP. He reported that the proposed MOU is very similar to previous MOUs with UNEP and there are no substantial changes. The bulk of the work is outlined in the work plan.

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

Mr. Knight moved and Mr. Conlan seconded that

3. The ASHRAE-UNEP Liaison Committee recommends approving the attached ASHRAE-UNEP Work Plan for 2024-2025 (ATTACHMENT B).

Mr. Wentz reported that the 2021-23 ASHRAE-UNEP Work Plan was just completed and was very successful. He expressed that the work plan had quite a bit of impact. The proposed new work plan follows a similar path.

The estimated staff impact is estimated to be 1,516 hours. He reported that much of the work plan focuses on the ASHRAE-UNEP Portal. He thanked Mr. Owens for all of his assistance.

Mr. Littleton stated that the proposed was an aggressive work plan in terms of staff time. Currently, UNEP is one of Society's most staff intensive MOUs to support. He expressed that Society is lucky to have the opportunity to work with UNEP.

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

Mr. Wentz reviewed information items from the report. The full report was attached to the agenda. He expressed that he was happy to be part of one of Society's most impactful relationships and he thanked the other members of the liaison committee.

Mr. Wentz yielded the floor to Mr. Curlin from UNEP.

Mr. Curlin thanked ExCom for the opportunity to present. His full presentation is included in ATTACHMENT C.

Mr. McQuade expressed his opinion that there is an opportunity for Society to become more involved with UNEPs TACs. He asked how Society and UNEP could work together to identify members who have expertise to participate in those groups. He suggested that it would be a real opportunity to utilize member's technical expertise.

Mr. Curlin advised that UNEP TAC's are a political process in which the governments decide who will participate on the different panels. He stated that he could provide guidance as needed.

He advised that it would be beneficial to have ASHRAE representatives at the meetings of the parties.

Mr. McQuade will work with Jim Curlin to determine how to identify ASHRAE members who have appropriate technical expertise to participate in UNEP TACs.

**AI - 12**

#### **ASHRAE-PAHO LIAISON COMMITTEE**

Mr. Wentz reported on behalf of the liaison committee and reviewed information items. The full report was attached to the agenda.

He reported that the ASHRAE-PAHO annex was dissolved and a MOU was approved. He suggested that the decarbonization conference in April would be an ideal venue for an MOU signing. Ms. Scoggins agreed and Mr. Wentz advised that he would work on organizing the signing at that event. He expressed his opinion that the MOU would be very beneficial in expanding Society's profile.

Mr. Wentz thanked Mr. Conlan, Mr. Rakheja, Ms. Yates, Ms. Reiniche, and Mr. Owens for their work.

#### **CIBSE-ASHRAE WORK GROUP**

Ms. Hayter reported that the work group was a small committee tasked with supporting both organizations and helping to move ideas forward into action. The work group meets every two months.

Since last summer, the focus of the group has been to develop and issue a survey to ASHRAE and CIBSE members in South Africa. Both organizations would like to increase their impact in South Africa. There was not a high response to the survey and the group is exploring what next steps are.

She reported engagement in South Africa presents unique challenges as air travel is required to visit other cities and areas. Member engagement in this area would require a strong virtual component. South Africa was selected because both organizations have fledgling memberships; if successful virtual engagement strategies are developed they could be applied across the organization as an additional level of member engagement.

Mr. Littleton reported that Hywel Davies, longstanding CIBSE Technical Director, is retiring. He encouraged members who worked with Mr. Davies to be sure to give him a good send off. He advised that Mr. Davies' successor would be in attendance at the conference as well.

**MOU UPDATES****CAMEE (COALITION OF AMERICAN MECHANICAL AND ELECTRICAL ENGINEERS)**

Mr. Austin reported that over the past year, an MOU and work plan was in the works. He thanked staff for their help.

He reviewed areas of focus in the work plan and stated that the partnership would be a great opportunity in terms of government advocacy.

Mr. Austin moved and Mr. Conlan seconded that

4. The CAMEE MOU And Work Plan (ATTACHMENTS D and E) be approved.

Mr. Littleton advised that the proposed MOU was a renewal that could be approved by ExCom.

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

Ms. Scoggins thanked Mr. Austin for his work.

It was reported that the MOU would be signed at this conference on Monday.

**U3ARC (UNION OF ASSOCIATIONS OF AFRICAN ACTORS IN REFRIGERATION AND AIR CONDITIONING)**

Mr. Littleton reported that leadership met with representatives from U3ARC previously. The focus of U3ARC was almost entirely on refrigeration technician training. He reported that he was unsure if the MOU should move forward. He suggested that the postponed motion recommending an MOU with U3ARC could be defeated until it can be determined if there is enough collaboration potential to move forward.

Mr. Rakheja expressed agreement with Mr. Littleton. He expressed his opinion that discussions will take longer as there didn't seem to be much overlap between the interests of the two organizations.

Postponed motion 3 from the October 20, 2023 ExCom meeting was brought back to the floor.

5. ExCom recommends to the BOD that Society enter into an MOU with U3ARC.

There was no additional discussion.

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

**ROUNDTABLE DISCUSSIONS FINDINGS AND REVIEW**

Mr. Littleton reported that a summary of the 15 or so roundtable discussions conducted between May 2022 and December 2023 was attached to the agenda. He reported that he became aware of a few more roundtables since the summary was compiled. The purpose of this exercise was to determine what should be done with the information moving forward.

He recommended that the roundtables be continued and that conducting a CRC roundtable should be a CRC best practice. He suggested that an existing subcommittee of Members Council would be a good body to monitor the roundtables on an ongoing basis and provide feedback or recommendations to ExCom and other bodies as appropriate.

He reported that there were some common themes from a majority of the roundtables:

*Need more contractors and technicians to be involved in Society.*

*Expand Society's target audience.*

*More practical guidance and tools. As more new people enter the industry, the need for entry level and practical guidance will increase.*

*Guidance on how to take best advantage of Society's offerings.*

*Labor shortages was the most common issue cited.*

He agreed that many people do not understand careers in HVAC&R. The feedback indicated a need for more flexibility and additional resources. He stated that it was also very apparent that there were regional differences in the feedback obtained.

The floor was opened for discussion. A summary of that discussion is below:

*It was suggested that the Planning Committee be engaged moving forward.*

*The roundtables cross every council and committee. He suggested that there needed to be a "clearinghouse."*

*Asking the same two or three questions at each roundtable and having them be different from year to year would be powerful.*

*Building owners and operators should also be engaged. He also suggested that discussions could be filtered down to the chapter level in preparation for the CRCs each year; in other words, the chapters could discuss the issues ahead of time and that feedback could be shared at the CRC.*

*Employer recognition could be combined with this discussion aspect. The result could be very powerful and reduce the burden on volunteer time.*

*Need to understand what the needs are for industry professionals who are not currently members. How might we serve them and bring them into the fold?*

*Important to get this report in a timely manner each year. Feel it should come directly to ExCom so it can be disseminated to the councils as well.*

*How do we turn broad recommendations into action? Members will be frustrated if there is no action.*

*Having been part of several of these roundtable discussions across the world, recommend that they should continue but with a clear focus. Each year should have a different theme.*

*Attended 13 of the 15 roundtables and people are excited to be invited. Often, when something is suggested, Society has already done it but people just aren't aware. Making the industry aware of everything that Society has to offer has been a primary lesson, opportunity, and benefit of the roundtables.*

*Who will be responsible for the structure and organization? Who will then take the information and disseminate it? Can be two different groups.*

*Need a way to bring feedback back to the grassroots.*

Ms. Scoggins suggested that for this year only, the discussion be deferred to the strategic planning session in March.

Mr. Littleton, Mr. Knight, and Mr. McQuade will develop a path forward for how roundtable information will flow throughout Society.

**AI - 13**

Mr. Austin will work with Pub and Ed Council to review the CRC roundtable development process and provide recommendations for improvement.

**AI - 14**

Mr. Littleton reported that some CRCs used the roundtables as an opportunity to sell sponsorships; particularly when the senior officers were in attendance.

### **COP28 ROI**

Mr. Littleton reported that Society applied for COP28 registration and was approved for two registrations. Society leadership split the two badges between three people – Mr. Littleton, Ms. Scoggins, and Mr. Knight. Society spent around \$30,000 to participate in COP28 and the entire process proved to be very time intensive.

COP28 is a giant event with lots of moving parts. As part of its participation, Society also ran a side event as well as a booth. Lots of passionate people from all over the world attend COP28.

He expressed his opinion that the juice isn't worth the squeeze for COP28.

Mr. Knight stated that this was his second year attending. He expressed his opinion that Society was a small voice at the event. He expressed his opinion that if Society wanted to have more of an impact, it would likely cost several hundred thousand dollars and require full time staff to start working on events two years in advance.

Mr. Littleton agreed with Mr. Knight and recommended that Society either pull back or increase the investment in COP participation.

Mr. McQuade expressed his opinion that Society tried to do everything rather than focus on a specific plan. He suggested that if Society decides to continue participating, leadership should decide what's of value and develop a focused plan.

He stated that the Montreal Protocol process is focused on refrigerants and energy efficiency of MEP equipment; and focusing more on that process may have a higher ROI.

Ms. Scoggins expressed agreement that Society needs to get all in or all out in regard to COP participation. She reported that other organizations have dedicated staff and going all in would have significant financial implications. She agreed with Mr. McQuade's suggestion to focus more on the Montreal Protocol process.

Ms. Hayter asked if there was a benefit to Society for leadership to hear the conversations at COP and bring back a better understanding of the issues on a global scale.

Ms. Scoggins responded that there are so many things going on at once at COP that she was not confident that leadership gains that perspective from attending.

She reported that she had the opportunity to meet with the Falcon Chapter during her trip to COP and that was beneficial.

Mr. Knight stated that historically, buildings were not a large focus at COP. More focus was placed on greening the grid and transferring technology; and it wasn't until the last few years that buildings gained more traction.

Mr. Mehboob stated that COP stands for Conference of the Parties, the parties being governments of the world. He expressed his opinion that Society was playing out of its league being there.

Ms. Scoggins thanked everyone for their comments and stated that this would be an item for ExCom to consider in the future.

### **INTERNATIONAL FINANCE CORP (IFC) NEXT STEPS**

Mr. Littleton reported that staff met with representatives at IFC and they shared that they would like Society to develop a technical tool to qualify projects they are considering for funding as meeting (or not meeting) a standard of sustainability. He stated that a point person is needed to take the lead to work with IFC and establish a course of action going forward.

Mr. Rakheja expressed that there were multiple benefits to this request. First, Society's technical expertise would be referenced. Second, IFC is focused on developing nations. He expressed his opinion that there could be a lot of visibility for Society in this partnership.

Mr. Knight stated that even large global banks are using the EDGE tool to qualify funding in the private sector. He suggested that Society's standards could be integrated into the tool and newer versions added on an ongoing basis.

Ms. Scoggins reported that from her notes, there were previous discussions of entering into an MOU with IFC. She reported that there was consensus from ExCom that Society move forward in a partnership with IFC.

Mr. Rakheja will work with IFC to develop an MOU.

**AI - 15**

### **BUILDINGS AND CLIMATE GLOBAL FORUM – PARIS**

Ms. Scoggins reported that there would be a building and climate forum in Paris this spring. She asked ExCom if it was worthwhile to send a representative? She suggested that Mr. McQuade discuss the forum with Mr. Curlin.

Mr. McQuade will work with Jim Curlin to determine if ASHRAE leadership should attend the Buildings and Climate Global Forum in Paris.

**AI - 16**

### **NEW BUSINESS**

#### **NETWORKING PUBLICATION**

Mr. Rakheja reported that Society has a huge presence across the world. The Chapters have tried to create directories on their own and it was suggested that Society create "ASHRAE Yellow Pages" as a go-to reference for all of Society.

He stated that the resource could be income generating; both for access and advertising. The guide could also promote Society's product offerings.

Mr. Sekhar expressed his opinion that it was a great idea. He stated that it could be an opportunity for companies from different parts of the world to connect.

Mr. Knight suggested that it could be another way to obtain data. Society currently has limited demographics on the industry globally and this would be an opportunity to build a global ASHRAE database of the global HVAC&R workforce.

Mr. Conlan reported that his chapter had successfully done this as a product directory for about ten years. Most years, the chapter profited around \$3,500. A society wide guide would eliminate this profitable guide for the chapter. He expressed concern that it would interrupt other chapters that are using this as an income generating project.

He stated that the guides can be done without infringing on the commercialism policy.

Ms. Scoggins stated that the idea needed more definition before a final decision could be made.

Mr. Austin, Mr. Rakheja, and Mr. Sekhar will develop a concept paper of the goals, possible revenue, and other details for the proposed networking publication "ASHRAE Yellow Pages" and present to ExCom for consideration.

**AI - 17**

### **EXECUTIVE SESSION**

Executive session was called at 11:17am.

Open session reconvened at 1:49pm.

Open session recessed at 1:50pm.

The open session meeting reconvened at 7:32am on January 24, 2024.

### **CODE OF ETHICS**

Ms. Scoggins read the code of ethics commitment and advised that the full code of ethics statements and core values were available online.

### **ROLL CALL/INTRODUCTIONS**

Members, guests, and staff introduced themselves and were in attendance as noted above.

### **REVIEW OF MEETING AGENDA**

Ms. Scoggins reviewed the meeting agenda. The following items were added to *New Business*:

- 2031 ASHRAE Winter Meeting – Littleton
- Appointments Roadmap – Austin
- Grants – Austin
- U3ARC Update – Rakheja
- Membership Model Ad Hoc Update – Fulk

**REPORTS OF BODIES REPORTING TO EXCOM****PEAC**

Mr. Knight reported that the committee had a great meeting, and he did a run through of his speech. Members of PEAC provided great feedback and he will continue work to narrow down and focus on the three highest impact initiatives being considered. He will continue to work with staff and the committee to finalize the message over the next few weeks.

**AASA**

Mr. Olesen reported that a draft collaboration document was circulated to members of AASA in December. Comments were received from the membership and from a subsequent AASA leadership meeting.

A motion to approve the collaboration document was not passed at the AASA meeting because several members wanted a few hours to review the document. He reported that he has spoken to those members since that time, and they agree with the recommendations from the Collaboration Ad Hoc.

There was a discussion on access to standards. It was reported that AASA members get the same privileges as ASHRAE Members. It was stated that members of AASA would like access to standards in SI as well.

Mr. Littleton suggested that the request be referred to Pub and Ed Council for consideration.

Mr. Owen will put IP Standards that are currently available online.

**AI - 18**

Mr. McQuade pointed out that some benefits are not reciprocal. Mr. Olesen reported that would be updated so that all benefits are reciprocal.

**MOU UPDATES****CONFEA (FEDERAL COUNCIL OF ENGINEERING AND AGRONOMY)**

Mr. Constantinide reported that CONFEA is the professional engineering licensure for Brazil. CONFEA would like to enter into an MOU with Society with the ultimate goal of developing a bridge for reciprocity between Brazilian engineers and licensed engineers in the US. Society can offer resources (professional development, ALI courses, and certifications) to Brazilian engineers seeking a PE in a jurisdiction in the US.

He reported that the last draft presented to ExCom was revised and addresses most of the issues raised by ExCom. He recommended that ExCom approve the MOU as presented and a work plan will be developed after.

Mr. Littleton reported that he reviewed the MOU as presented and it aligns with Society's template. He stated that it should be clear that the work plan is not part of the approval. ExCom can approve the work plan at a later date.

Mr. Rakheja moved and it was seconded that

6. That ExCom recommend to the BOD that the MOU with CONFEA (ATTACHMENT F) be approved.



Mr. Constantinide reported that the work plan will be ready for review by the end of March. He reported that CONFEA had not reviewed the proposed MOU.

It was confirmed that if CONFEA had anything other than editorial changes, ExCom would be able to review the document again before it is signed.

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

### **NEW BUSINESS**

#### **CIBSE/ASHRAE STRATEGIC PARTNERSHIP AGREEMENT**

Mr. Littleton reported that the SPA attached to the agenda was identical to the previous version, except for minor editorial changes and updates to the signatories.

Mr. Conlan moved and Mr. Rakheja seconded that

7. The Strategic Partnership Agreement (SPA) with CIBSE (ATTACHMENT G) be approved.

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

#### **CEBD PATH FORWARD**

Ms. Scoggins reported that the BOD voted to approve the CEBD to replace the TFBD and continue that work. How will that be set up? What body is working on the structure and membership for that group? The floor was opened for discussion.

Mr. McQuade suggested that this should be a strategic group and implementation will be left to the councils. The current TFBD should work with the council chairs to develop the path forward.

Mr. Littleton confirmed that CEBD appointments would be included in the upcoming appointments meetings led by Mr. Knight. The appointments will be eligible as of July 1. The current TFBD ExCom will be contacted for recommendations.

There was additional discussion. A summary of that discussion is below:

*Appointments will likely be an iterative process until things are more formalized.*

*Important to get buy in throughout Society.*

*Intent is to have representatives from each council.*

*Time commitment from each council is currently a bit intense.*

*The CEBD structure will be needed before the appointment meetings in March.*

*May need to create liaison positions.*

*Current guides will be mostly done before the transition happens.*

*Want to emphasize that the thing that has made the TFBD successful is that they had a budget, and they were turned loose. Don't want to lose that speed to market responsiveness. Whatever we do has to happen fast. Additional staff will be hired to support the new CEBD.*

**MEMBERSHIP MODEL AD HOC UPDATE**

Mr. Fulk reported that the ad hoc would make a report to the BOD that afternoon. He reported that the ad hoc had good discussions. The group is off to a good start and hopes to finish their work this Society year.

**2031 WINTER MEETING**

Mr. Littleton reported that the JEPC and IEC partners have been working to get the expo back into Vegas for quite some time. Vegas is hyper-competitive and there is a waiting list of conferences and expos that want to be there.

The AHR Expo can get back into the Vegas rotation, but the conference would end on or around March 1<sup>st</sup>. Initially, Society agreed because it was thought it would be a one off in 2029; but the proposal has come back that the expo would be in Vegas every other year, starting in 2031, and the conference would begin the first week of March.

The proposed new expo rotation would be Vegas, Chicago, Vegas, Orlando, Vegas, Chicago. Society would need to commit to ten years, beginning in 2031. The deadline to respond to the Las Vegas Convention and Visitors Bureau is February 2<sup>nd</sup>. AHRI and IEC are prepared to accept the proposal.

The Las Vegas CVB is moving another event for the expo to be held in early March. Major shows in major cities are in 10-to-15-year contracts and those slots are not very flexible.

A Winter Conference in March is challenging for a number of reasons. However, a Winter Conference in Vegas every other year would yield high attendance. Additionally, exhibitors like coming to Vegas.

Good news is there is ample time to address issues and plan for the later date. How does leadership develop a strategy for dealing with an AHR Expo and Winter Conference in March?

Mr. McQuade suggested that there could be other conferences at that same time that may impact members' ability to attend.

Ms. Scoggins stated that the opportunities are endless as far as what can be changed to accommodate these dates. Suggested that leadership view this as an opportunity.

Mr. Conlan suggested that the pain points and additional costs due to increased rates in March should be discussed with our expo partners.

Mr. Littleton recommended that JEPC be empowered to make the best negotiation possible for Society and then shift into planning mode. There was consensus from the committee.

**APPOINTMENTS ROADMAP**

Mr. Austin reported that the Pub and Ed Council discussed creating an internal nomination committee. In the past, only one name comes forward for the council at-large position; and a ranked list is ideal.

Suggested adjusting the Appointments Roadmap meeting so that a ranked list of past chairs is provided to help generate a ranked list.

It was recommended that committee chairs be engaged during the BOD Election Subcommittee process to assist in providing names for the ranked list of recommendations for at-large members.

## **GRANTS**

Mr. Austin asked how Society can quickly organize to obtain grants and other funds that may be available?

Mr. Littleton stated that historically, Society has not pursued government grants. The staff team dedicated a tremendous amount of time and effort into obtaining the DOE grant. Recent legislation has created numerous funding opportunities.

He reported that a dedicated grant manager has been hired; 75% of this new staff's time will be dedicated to the DOE grant which leaves 25% of their time available to consider and apply for other grants.

He reported that Society is also a subcontractor on a grant for the EPA embodied carbon grant. This \$10million grant is funding the development of an embodied carbon calculation tool.

Some organizations' entire revenue stream is grants. Ms. Pilot is exploring non-government grants that may not have as onerous maintenance requirements as government grants. Excited about where we are headed.

Applying for grants is a huge undertaking. Using contract support, even if just for grant applications, is helpful. Society is making good progress in this area. There are lots of opportunities available and resources are being created to take advantage of more of those opportunities.

## **U3ARC UPDATE**

Mr. Rakheja reported that he had a good meeting with representatives from U3ARC on Sunday. U3ARC has representation from 53 countries. Primarily, they are interested in support and partnership in the area of technician training.

Mr. McQuade suggested that a work plan be drafted before an MOU is signed. It was also suggested that AASA may be a good opportunity for partnership.

Mr. Rakheja reported that U3ARC is planning to become a member of AASA. However, they would also like an MOU. He suggested that entering into an MOU would be an opportunity to grow our membership in those countries; because UNEP focuses on developing economies this partnership could increase partnership opportunities with UNEP as well.

Mr. Littleton expressed that the partnership presents a huge opportunity for Society. The challenge is that Society does not offer technician training. However, technician training is routinely requested. Does Society want to develop that type of training?

Mr. McQuade stated that he would work with Mr. Rakheja to draft a work plan with U3ARC.

Mr. Austin reported that technician training has been an ongoing discussion at Pub and Ed Council. The general consensus from those conversations was that it would be best for Society to partner with other organizations that already offer that type of training.

Ms. Scoggins suggested that Pub and Ed Council continue to discuss how Society can offer technician training.

Mr. Austin will work with Pub and Ed Council to investigate how Society can offer trainings on A2L refrigerants and the future of A3 refrigerants.

**AI - 19****OLD BUSINESS****ACTION ITEM 4 UPDATE**

Mr. Austin provided an update on action item 4:

*Coordinate a meeting of the Global Training Center Oversight Committee and share the report with the Chair of Pub and Ed Council and ExCom. Provide recommendations to ExCom regarding additional resources needed (Assigned February 4 and 8, 2023)*

He reported that the oversight committee for the Global Training Center (GTC) has been meeting for three months. The name of the group is changing to the ASHRAE Global Training (AGT) as GTC has the connotation of a physical building. Will continue to focus on developing economies. The long-term focus will be global.

He reported that the oversight committee submitted a \$40,000 over three-year request to the Foundation. Feel that the AGT will not need outside funding after the fulfillment of this Foundation gift.

The full oversight committee report was attached to the agenda.

**UPCOMING MEETINGS**

Ms. Scoggins reviewed upcoming meetings in Sedona, AZ and at ASHRAE HQ. She also reviewed the current and upcoming Society Year CRC schedules. Mr. Knight confirmed that he would make officer assignments for the 2024-25 CRCs soon.

**ADJOURNMENT**

The meeting adjourned at 9:01am on January 24, 2024.



Jeff H. Littleton, Secretary

**ATTACHMENTS:**

- A. Proposed ASHRAE-UNEP MOU
- B. Proposed ASHRAE-UNEP Work Plan
- C. UNEP Presentation to ExCom
- D. Proposed CAMEE MOU
- E. Proposed CAMEE Work Plan
- F. Proposed CONFEA MOU
- G. Proposed CIBSE SPA

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE UNITED NATIONS ENVIRONMENT PROGRAMME  
AND  
ASHRAE**

This Memorandum of Understanding is entered into by ASHRAE, originally formed as the American Society of Heating, Refrigerating and Air-Conditioning Engineers," and the United Nations Environment Programme ("UNEP"), a subsidiary organ of the United Nations, established by UN General Assembly resolution 2997 (XXVII) of 15 December 1972, hereinafter jointly referred to as "the Parties".

**WHEREAS** UNEP is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system and serves as an authoritative advocate for the global environment;

**WHEREAS ASHRAE** , is a technical society and its mission is to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields;

**WHEREAS** the Parties share common goals and objectives with regard to the coherent implementation of the environmental dimensions of sustainable development, and wish to collaborate in areas of mutual and concern, with transparency and efficiency, in the development of initiatives and actions of joint interest within their respective mandates and governing regulations;

**NOW, THEREFORE**, the Parties, being aware of the benefits that this cooperation will bring, agree as follows:

**Article 1  
Purpose**

The purpose of this MOU is to provide a framework of cooperation and facilitate collaboration between the Parties, on a non-exclusive basis, in areas of common benefit, concern and interest. This MOU shall not represent any commitment on the part of either Party to give preferred treatment to the other in any matter contemplated under this MOU or otherwise.

The definition and implementation of any subsequent specific activities, projects and programmes pursuant to this MOU, including those involving the transfer of funds between the Parties, shall be subject to separate agreements that may be entered into between the Parties under this MOU.

**Article 2  
Areas of Cooperation**

The Parties hereby establish a strategic partnership and agree to cooperate in the following non-exhaustive areas of common concern and interest:

- The collaboration will focus on supporting the evolving needs of developing countries by providing specialized services that facilitate refrigerant management for climate protection and energy efficiency.
- The collaboration will prioritize upgrading, updating, and deploying ASHRAE-UNEP products, tools, and initiatives to ensure effective outreach. This effort aims to raise awareness and promote understanding
- among stakeholders about best practices in refrigerant management.
- Both parties will explore opportunities to advance standards, codes, norms, and guidelines concerning refrigerant management, including aspects related to flammability, operation, and maintenance. This joint effort will contribute to enhancing the safety and sustainability of refrigeration and air-conditioning systems.
- The partnership will actively promote activities that emphasize sustainability and state-of-the-art technologies,

while also aligning with the United Nations Sustainable Development Goals (SDGs). This includes encouraging the adoption of lower global warming potential (GWP) alternative refrigerants, efficient energy systems, and innovative building designs, all aimed at reducing emissions and environmental impact.

- The collaboration will entail the exchange and/or development of technology awareness resources. These resources will be accessible to specialists and policymakers, aiding them in understanding the importance and application of emerging technologies that promote environmental protection.
- Advancing work force development through gender mainstreaming including, but not limited to, cooperation under the International Network of Women in Cooling (INWIC).
- Both parties will explore opportunities for joint research in areas of mutual interest related to the subject areas identified above.
- Both parties will explore opportunities for joint participation in relevant international and regional technical events, specially tailored to cater to the specific needs of developing countries.

### **Article 3 Consultation and Exchange of Information**

The Parties shall, on a regular basis, keep each other informed of and consult on matters of common interest, which in their opinion are likely to lead to mutual collaboration, and shall, at such intervals as deemed appropriate, convene meetings to review the progress of activities being carried out under this MOU and to plan future activities.

The Parties may invite each other to send observers to meetings or conferences convened by them or under their auspices in which, in their opinion, the other may have an interest. Invitations shall be subject to the procedures applicable to such meetings or conferences.

Consultation and the exchange of information and documents under this MOU shall be without prejudice to arrangements that may be required to safeguard the confidential and restricted character of certain information and documents. Such arrangements will survive the termination of this MOU and of any agreements signed by the Parties within the scope of this collaboration.

### **Article 4 Nature of the Cooperation**

Neither Party shall be entitled to enter into commitments or make legally binding declarations on behalf of the other Party. Nothing in this MOU shall be deemed to constitute a joint venture, agency, interest grouping or any other kind of formal business grouping or entity between the Parties.

### **Article 5 Implementation**

The Parties will work out a plan envisaged under this MOU including specific activities, projects and programmes, whose definition and implementation shall be subject to detailed separate agreements, in accordance with Article 1.

Each Party shall be responsible for its acts and omissions in connection with this MOU and its implementation unless mutually agreed by the Parties upon a separate agreement.

### **Article 6 Acknowledgement of the Partnership**

The Parties agree to recognize and acknowledge their partnership, as appropriate. To that end, the Parties will consult with each other concerning the manner and form of such recognition and acknowledgement, including the use of their names and logos.

**Article 7**  
**United Nations Privileges and Immunities**

Nothing in or relating to this MOU shall be deemed a waiver, expressed or implied, of any of the privileges and immunities of the United Nations, including its subsidiary organs.

**Article 8**  
**Dispute Settlement**

The Parties shall use good faith efforts to settle amicably any dispute, controversy or claim arising out of this MOU.

**Article 9**  
**Miscellaneous**

Failure by either Party to request the implementation of a provision of this MOU to the other Party shall not constitute a waiver of that or any other provision of this MOU.

**Article 10**  
**Term, Termination, Amendment**

This MOU shall have an initial term of two years from the date on which it is duly signed by both Parties, unless terminated earlier by mutual consent or by either Party upon three months' notice in writing to the other Party.

This MOU may be amended only by mutual written agreement of the Parties. Such amendment will become an integral part of this MOU.

**IN WITNESS WHEREOF**, the duly authorized representatives of the Parties affix their signatures below.

**For United Nations  
Environment Programme**

**For ASHRAE**

.....

.....

**Name:** Patricia Kameri-Mbote

**Name:** Ginger Scoggins

**Title:** Director, Law Division

**Title:** President

Date:

Date:





**ASHRAE  
&  
United Nations Environment Programme**

**2024/2025 Biennial Work Plan of the  
ASHRAE-UNEP Global Cooperation Agreement**

1. ASHRAE and UNEP, through its OzonAction Programme, signed a cooperation agreement in 2007 aiming to achieve several global environmental and technical goals within the mandate of both organizations including, but not limited to, the goals of reducing refrigerants emissions; maximizing climate benefits in selecting alternative refrigerants, building the capacities of different HVAC&R stakeholders and facilitate the transfer and adoption of suitable technologies in developing countries.
2. The agreement calls for establishing a work plan to address the specific technical priorities and emerging issues. This is the sixth in a series of joint work plans developed under the ASHRAE-UNEP Cooperation Agreement and managed through a joint Liaison Working Group established by both sides to implement cooperative activities between both parties.
3. **The 2024 / 2025 Work Plan** is thematically designed under the theme of “**Refrigerant Management for Climate Protection and Energy Efficiency in Developing Economies.**” The plan’s emphasis will be on deploying all the developed tools and programs for sound management of refrigerants, how they impact energy efficiency, and making them available and accessible to different stakeholders in developing countries.
4. Two Main Tracks are the basis of the 2024 / 2025 Work Plan Refrigerant Management for Climate Protection and Energy Efficiency in Developing Countries:
  - Track-A:** Deploy ASHRAE-UNEP products and tools for effective outreach
  - Track-B:** Support evolving developing country needs through ASHRAE-UNEP services

5. Implementing these tracks assists the government and the refrigerating and air-conditioning industry by developing:
  - Up-to-date information about new alternative technologies entering the marketplace;
  - Channels such as learning tools, reference works, and events that enable technology transfer about new technology applications and safety issues;
  - Capacity building to achieve enhanced environmental performance;
  - Workforce enhancement by expanding awareness of career opportunities among a diverse group of employment candidates.
6. In agreeing to this Work Plan, ASHRAE and UNEP are working collaboratively to implement their respective mission statements: Respectively, to benefit humanity by advancing the arts and sciences of heating, ventilating, air conditioning, and refrigeration and to assist developing countries in complying with the Montreal Protocol. Both ASHRAE and UNEP recognize the value of sharing resources to implement environmentally beneficial technology choices and strengthen infrastructure capacity to support technology adoption and application.
7. This Work Plan will be implemented through multi-track programs that offer different types of activities and allow extended engagement amongst relevant stakeholders in developing countries.
8. Details of the 2024 / 2025 workplan including the specific planned activities and products for each track are as follows:

## **Track A: Deploy ASHRAE-UNEP Products and Tools for Effective Outreach**

### **1. Promotion**

#### **- ACTIVITIES:**

#### **a) Refrigerant Management for Future Engineers University Course**

- (1) Collect and analyze scheduling data and satisfaction (See Feedback and Evaluation Section).
- (2) Co-brand course and provide access through UNEP and ASHRAE networks.
- (3) Develop Promotional campaign for learning institutes exploring train-the-trainers support, utilizing eLearning content, etc.

#### **b) eCourses**

- (1) Evaluate Refrigerant Literacy demand, if warranted process for updating, and promotion. (See Feedback and Evaluation Section)
- (2) Complete Energy Efficiency Literacy update, promote, and translate.

- (3) Evaluate Sound Management of Refrigerants for continued use. (See Feedback and Evaluation Section)
- (4) Regularly review enrollment and completion reports and explore alternative uses of e-Courses, such as linked with University Course or Face-to-Face adaptation. (See Feedback and Evaluation Section)
- (5) Evaluate the e-course delivery methodology to determine if there is a better way or additional way to deliver the courses.

**c) ASHRAE-UNEP Lower GWP Innovation Award:**

- (1) Design and conduct a promotion campaign for the next cycles through ASHRAE chapters and National Ozone Units
- (2) Review the structure of the Award, criteria, and list of judges after completing the ongoing cycle.

**d) RAC Technology Factsheets:** Explore the development of Technology Factsheets to complement the Refrigerants Update. Candidates include the role of building codes in refrigerant transition, energy efficiency, how RAC systems work, and thermal comfort.

**e) RAC Assessment Guide**

- (1) Complete guide in Guidance Sheets and Poster formats.
- (2) Pilot guide with 2-3 countries in cooperation with local ASHRAE chapters and NOUs (National Ozone Units) in accordance with Stage II of the Scoping Document, incorporating recommendations.
- (3) Organize an international event to present the new guide once completed.

**f) Joint Research Projects:** Explore the potential for engaging in joint technology research, including identifying gaps in information needs in developing countries, gap analysis, and process for research.

## 2. Feedback and Evaluation

### ACTIVITIES:

- a) Client/User Satisfaction Surveys:** Conduct regular client satisfaction surveys collecting feedback about all products and tools being offered openly for individuals or institutions.
- b) Follow-up Campaigns:** Conduct a communication campaign with all registrants to the e-courses to ensure successful course completion and provide technical backstopping in case of problems faced in accessing and completing the courses.
- c) Feedback Events:** Organize special sessions for the ASHRAE Chapters, NOUs, and Energy Officers to solicit feedback about the usefulness and relevance of ASHRAE-UNEP tools, products, and services.

## 3. Update & Upgrade

### - ACTIVITIES:

- a) Update:** Institute formal review resulting in updates as needed for all tools and products at least once every three years to ensure reflection of the dynamics of global policies and industry and technology
- b) Upgrade:** All products should be reviewed for the opportunity to be used in new and/or blended formats. For example:
  - (1) Convert the e-courses into Face-2-Face versions and make them accessible to ASHRAE chapters and NOUs with a “how-to-use” guidance as well as a suggested list of lecturers.
  - (2) Incorporate e-courses into the existing University Course, making the completion of an e-course a pre-requisite of the

University Course, or using an e-course within the University Course instruction.

- (3) Explore online and offline formats for the RAC Assessment Guide, including the development of a point-based assessment tool based on the guide's checklists.
  - (4) Investigate how fact sheets can be developed for use in the ASHRAE UNEP Portal and online products for mobile devices that can be used by technicians and others.
- c) **ASHRAE-UNEP Portal:** Maintain and update the ASHRAE UNEP portal at [www.ashrae.org](http://www.ashrae.org) as the focal point for updated jointly developed products and tools and as a resource of current information about joint activities.

## Track B: Support evolving developing country needs through ASHRAE-UNEP Services

### 1. Local Partnership Points of Communication

- **ACTIVITIES:** Establish structure and process for UNEP National Ozone Units to access experienced RAC technology practitioners from industry (product engineers, system designers and assessors, operators, researchers, and technicians). The process would be organized at a regional level within UNEP and ASHRAE but executed at a national level with ASHRAE chapters and NOUs.

### 2. International Events

**ACTIVITIES: Explore the potential for strategic engagements in ...**

- a) **ASHRAE Specialty Conferences:** ASHRAE organizes themed conferences such as on decarbonization and developing economies. Opportunities for UNEP engagement that be explored include organization of UNEP-themed sessions, speaker slots, branding, and participation on organizing committees.
- b) **UN Conferences:** The United Nations organizes conferences for countries that have joined the United Nations Framework Convention on Climate Change (COP) and Meetings of the Parties to the Montreal Protocol (MOP). Opportunities for ASHRAE engagement that can be explored include the participation of ASHRAE experts on UNEP's Refrigeration, Air-Conditioning, and Heat Pumps Technical Options Committee (RTOC) and ASHRAE attendance at UNEP's Energy Efficiency Workshop and planning joint side events at COP and MOP meetings to promote our tools and educational offerings.
- c) **Regional Events:** Regional conferences and other events organized through ASHRAE's regional structure enable effective regional participation possibilities with UNEP. UNEP and ASHRAE can join each other's regional events to improve communication between NOUs and UNEP regional officers and ASHRAE volunteers regionally and nationally. This can also include special UNEP ASHRAE jointly organized events on a specific mutual regional need.
- d) **Global Alliances:** Discuss opportunities where each organization can participate in programs, plans, and initiatives organized by or participated in by the other party that are focused on aligning the RAC industry to address global issues related to refrigerant transition, climate protection, and energy efficiency.
- e) **Support Presence at International Events and Meetings.** Participation supports the deployment and successful outreach of products, tools, and services and provides opportunity for future planning.

### **3. Work Force Development Including Gender Mainstreaming**

#### **ACTIVITIES**

- a) Participate and support INWIC as founding members such as mentoring, participation of working groups,
- b) Offer opportunities to women in RAC to take part in ASHRAE-UNEP activities, functions, and groups.
- c) Review work force development and diversity/inclusion resources that each organization makes available to identify opportunities for further joint development and promotion.

### **4. World Refrigeration Day**

#### **ACTIVITIES**

- a) Work on a joint campaign annually with UNEP and other UNEP partners to raise awareness of how the RAC industry is moving to offer and apply alternative technologies for climate security.
- b) Support WRD activities, in general, to draw attention to the men and women who control indoor environments for human comfort and industry in ways that protect the environment while minimizing energy use.

### **5. Refrigerant Driving License**

#### **ACTIVITIES**

- a) Participate and support the RDL as a member of the RDL Advisory group.
- b) Encourage ASHRAE chapters to support the adoption of certification and other workforce qualification programs to advance the practice of RAC technologies.

9. The above suggested tools, products, and services shall be implemented within the existing programs and workplan of both partners, that is, ASHRAE and UNEP-OzonAction, without entailing unplanned fiscal impact to any partner unless mutually agreed and contracted through specific legal instrument.

10. The ASHRAE-UNEP Liaison Working Group will work on developing an operational implantation plan for each activity under this workplan that has been mutually agreed upon to move forward, including the following elements as needed for specific activities:

- a) Scope of work and ultimate outputs
- b) Target groups and stakeholders
- c) Final format and accessibility
- d) Specific deliverables
- e) Fiscal impact and source of funding
- f) Timeline of implementation and expected date of launch
- g) Role of ASHRAE (committees/staff) vs. UNEP (team/experts)
- h) Other partners and supporting entities

11. The official channels of communication between ASHRAE and UNEP shall be maintained through the instated ASHRAE-UNEP Liaison Working Group which shall coordinate and liaise relevant communications, collect feedback, and send updates to different ASHRAE or UNEP regional teams in relation to all types of activities within this workplan.
12. This workplan can be modified or amended by written agreement between both parties and as needed during the implementation period of January 2024 through December 2025 notwithstanding any internal clearance or review process of each partner.

**For UNEP OzonAction**

**For ASHRAE**

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**James S. Curlin**  
Head of UNEP OzonAction

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**Ginger Scoggins**  
ASHRAE President

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Date

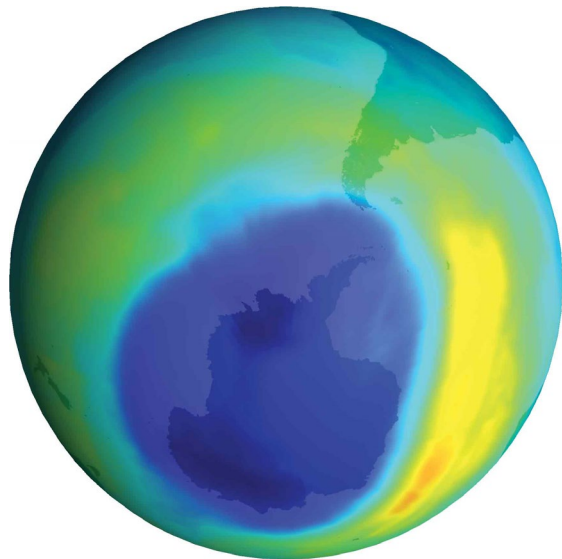
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Date

# OzonAction

Fulfilling UNEP's mandate as an  
Implementing Agency  
of the Montreal Protocol  
Multilateral Fund

Jim Curlin, Head of OzonAction  
UNEP Law Division, Paris



# Contents

1. UNEP strategic focus
2. COP-28 and cooling
3. Sector challenges



# OZONACTION STRATEGIC FOCUS



# Multilateral Fund

for the  
Implementation of  
the Montreal Protocol



- Montreal Protocol's financial mechanism, established 1991
- Protects human health & environment through **ozone layer recovery & mitigating climate change**
- Helps developing countries meet their compliance obligations
- Reduces controlled substances through:
  - Transferring alternative technology
  - Supporting National Ozone Units (NOUs)
  - Developing regulatory frameworks
  - Training & certifying technicians
  - Advancing energy-efficient technologies
  - Strengthening customs and enforcement
- Delivered via four Implementing Agencies -- UNEP, UNDP, UNIDO, World Bank -- & bilateral agencies
- End 2023, Parties replenished Fund for 2024-2026 period at record US\$ 965 million
- Montreal Protocol is only international treaty that deals with refrigerants

**\$ 4.7 billion**  
grant funding

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**9,400**  
approved projects

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**148**  
developing countries assisted

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# Substantial Support for Refrigerant Transition in Developing Countries



HCFC support  
2010-2023

**4,651**

enterprises assisted

**802**

training institutions/centers  
implementing training  
programmes

**265,969**

technicians and trainers trained

**133**

certification systems for  
technicians under development  
and/or implementation

**232**

recovery and recycling  
programmes

# Multilateral Fund Contribution to Climate Mitigation

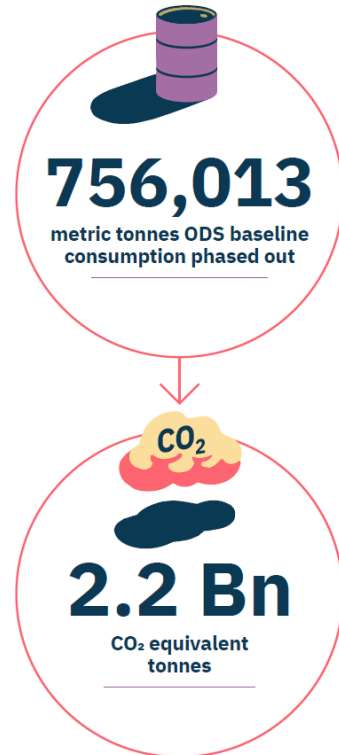
## OZONE DEPLETING SUBSTANCES (ODS)

### CHALLENGE

Phasing out ODS used in refrigeration, air-conditioning, aerosols, agriculture, and other sectors which contribute to the depletion of the ozone layer and global temperature rise.

### SUCCESS

The phase out of CFCs, CTC, halons, methyl bromide and methyl chloroform has already been achieved, while that of HCFCs in Article 5 countries is expected by 2030. *Phasing out ODS chemicals is one of the most important steps ever taken to curb climate change.*

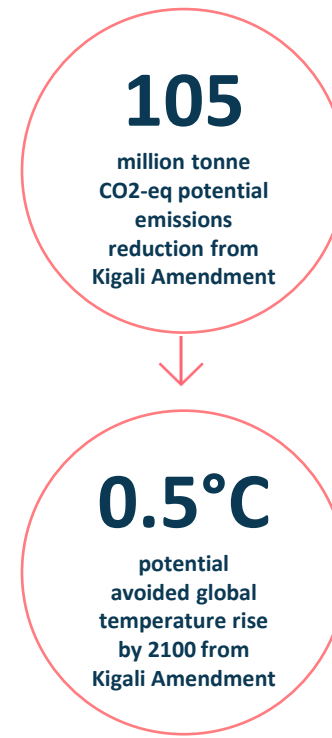


## HYDROFLUOROCARBONS (HFCs)

### A COOLER FUTURE

Kigali Amendment continues the legacy of the Montreal Protocol by decreasing the use of HFCs whose global warming potentials (GWPs) range from 53-14,800.

Under the Amendment, limiting use of HFCs will prevent the equivalent of approximately 105 million tonnes in carbon dioxide emissions, helping avert a global temperature rise of up to 0.5 degrees Celsius by 2100. *The Fund contributes to meeting this critical goal.*



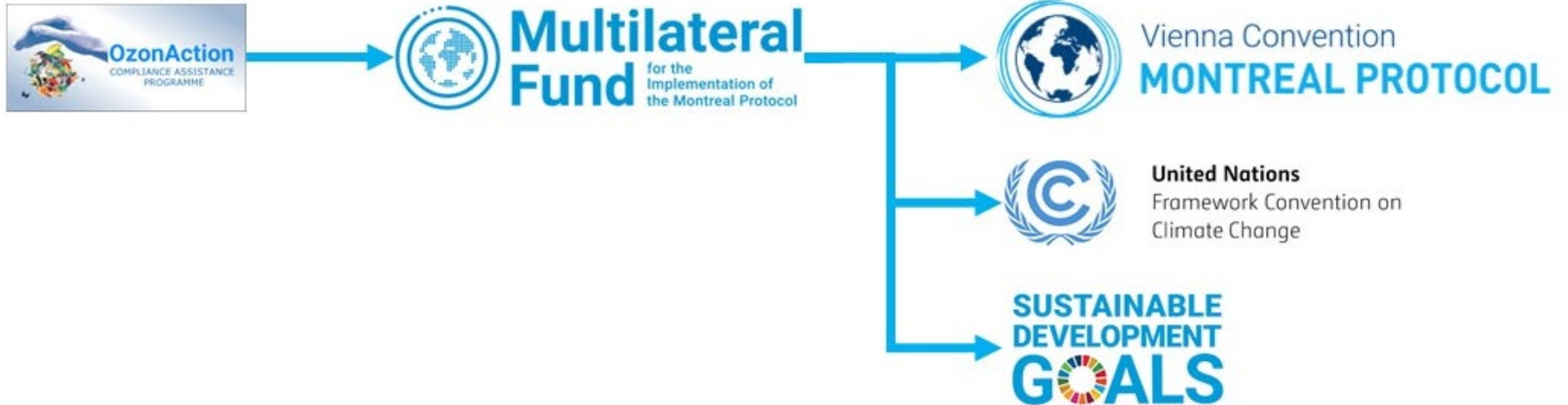
# OzonAction



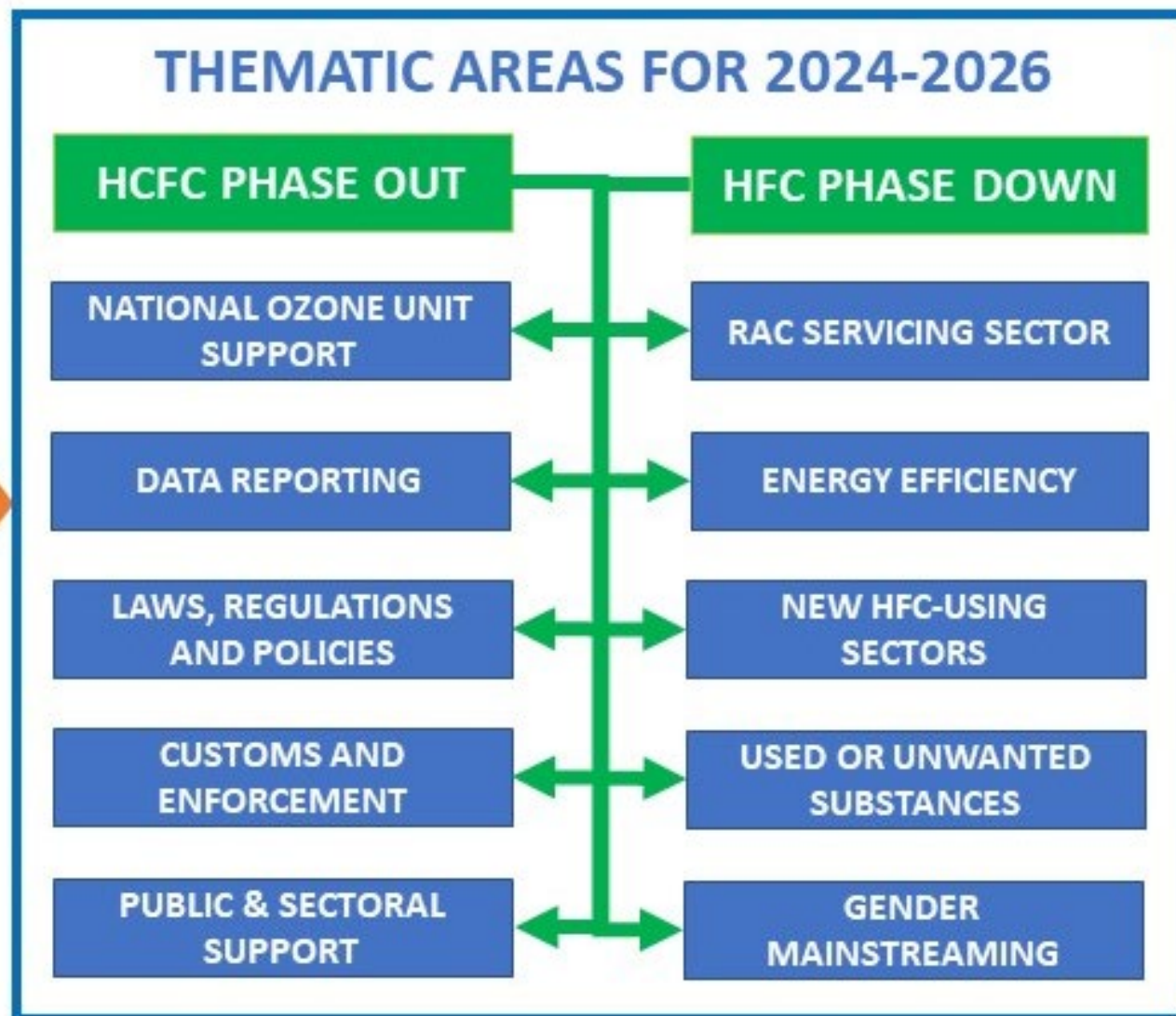
- Part of UN Environment Programme (UNEP)
- Responsible for fulfilling UNEP's mandate as an Implementing Agency of the Montreal Protocol's Multilateral Fund (since 1991)
- Assist 148 developing countries
- Strengthen the capacity of governments (National Ozone Units) & industry in those countries to elaborate & enforce policies & make informed decisions about alternative technologies needed to implement this treaty

***Our mission: Enable developing countries to meet and sustain their compliance obligations under the Montreal Protocol***

# Contribution to global objectives







# Broad objectives in RAC sector

Ensuring timely & smooth introduction of new low-GWP refrigerants & equipment based on national needs

Reducing emissions of refrigerants into the atmosphere

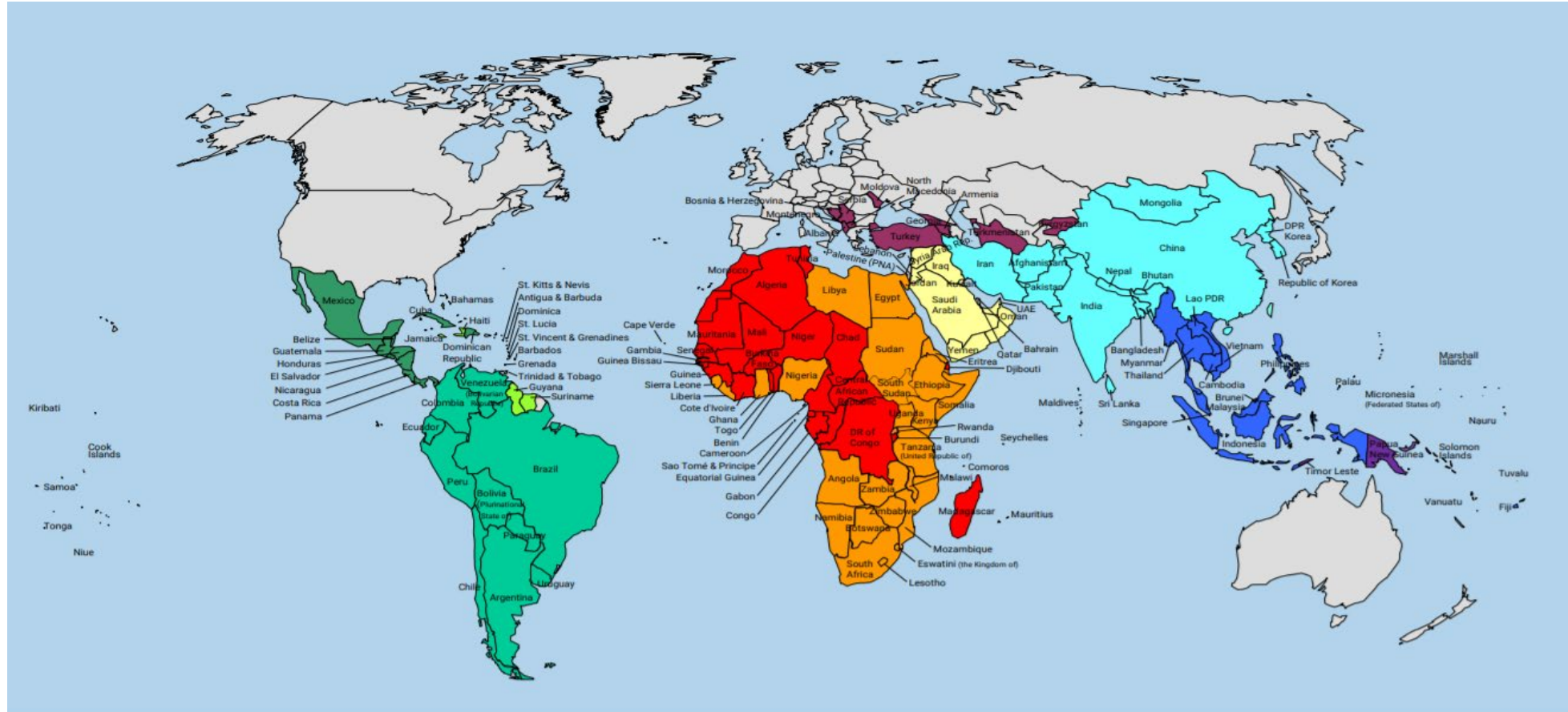
Ensuring safety in relation to flammability and/or toxicity of refrigerants being phased in

Reducing energy consumption based on technology choice & on well-maintained & serviced equipment

COMPLIANCE WITH INTERNATIONAL OBLIGATIONS UNDER MONTREAL PROTOCOL & PARIS AGREEMENT



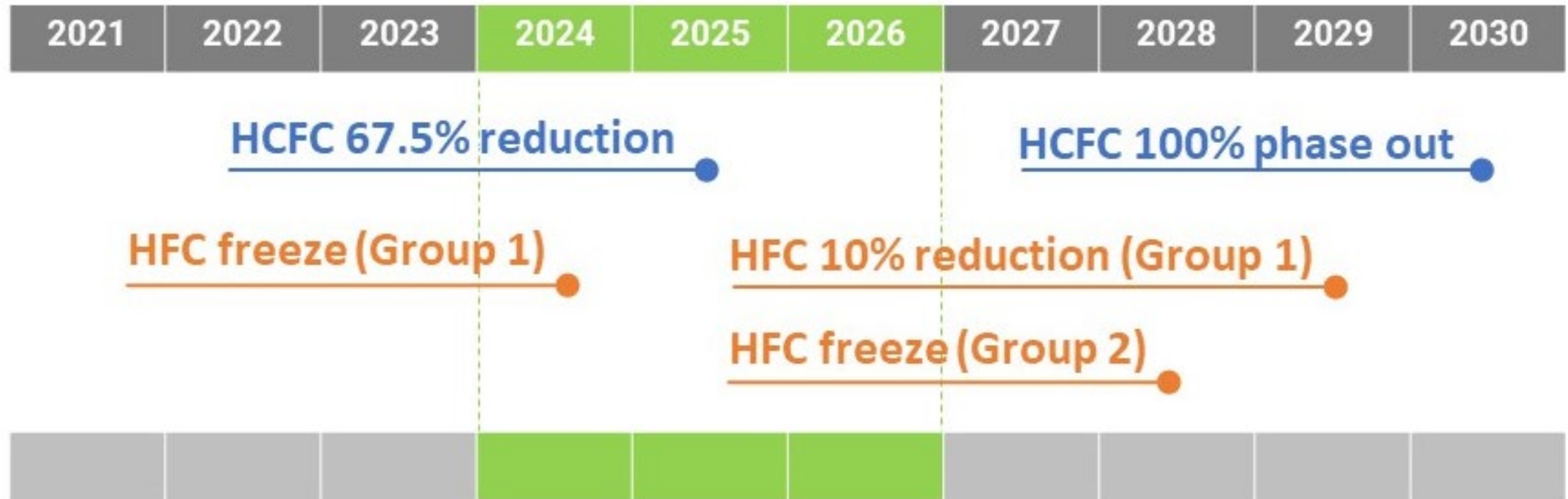
# Members of UNEP's Regional Networks



- South America
- Caribbean
- Anglophone Africa
- West Asia
- South East Asia
- Central America
- Europe & Central Asia
- Francophone Africa
- South Asia
- Pacific Island Countries

Note: This map is for illustrative purposes only and is not an official United Nations cartographic document. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

# Developing country Montreal Protocol targets



# RAC partnerships for achieving Montreal Protocol objectives



abrava



ACAIRE



AHRI



AREA



AREMA



ASHRAE



U3-ARC



ATF



BFS



CHEAA



EPEE



FAIAR



GFCCC



REHVA



IIR



IOR



ISHRAE



JRAIA



MAC Partners Europe



Refrigerants Australia



WRD Secretariat

# COP-28 AND COOLING

# COP-28 and cooling



## COP PRESIDENT'S THEME HIGHLIGHTED CRITICAL ROLE OF COOLING IN CLIMATE CHANGE DISCOURSE

- Cooling essential for human health & productivity, especially in context of rising global temperatures
- Perspective shifting from cooling as a luxury to a necessity
- Critical role in adaptation strategies for climate change
- High-level discussions including those led by UNEP Executive Director Inger Andersen, stressed the adoption of environmentally friendly cooling technologies and practices.
- Dedicated Cooling Day on December 5

## FIRST MONTREAL PROTOCOL PAVILION

- Convened by Ozone Secretariat, 14 international partners
- Need for advanced, energy-efficient cooling technologies & capacity building RACHP sector, gender mainstreaming highlighted

## PANELS ON COOLING ISSUES

- Diverse panels and participation, wide array of government & organization representatives,
- Addressed growing access gap in cooling solutions & ensuring that clean cooling technologies reach communities most affected by extreme heat

## GLOBAL COOLING PRIZE

- Emphasized development of AC with significantly lower climate impacts & potential of passive cooling solutions & high-efficiency ceiling fans

## FINANCING SUSTAINABLE COOLING

- Discussions focused on making sustainable cooling more accessible & affordable
- Variety of financial solutions & models explored to promote sustainable cooling : cooling-as-a-service (CaaS), MEPS, innovative financing initiatives e.g. ECOFRIDGES programme



# COP-28 and cooling

*“The world can deploy nature-based and passive cooling measures, adopt higher efficiency standards, [and] accelerate the phase-down of climate-warming hydrofluorocarbon refrigerants through the Kigali Amendment to the Montreal Protocol”*

-- UNEP Executive Director  
Inger Andersen



# COP-28 and cooling



## GLOBAL COOLING WATCH REPORT

- Coordinated by Cool Coalition
- Provides a comprehensive assessment of global efforts in the cooling sector
- Outlines a pathway to significantly reduce emissions from cooling and expand access to cooling solutions to billions of people
- Potential reduction of emissions to 60% by 2050, and up to 96% with a decarbonized grid, underlines the sector's impact on climate change mitigation



## GLOBAL COOLING PLEDGE

- Led by Cool Coalition
- Initiative launched at COP-28, but open-ended
- Represents a global commitment to address cooling-related emissions & enhance access to sustainable cooling solutions
- Supported by 66 countries, demonstrating a widespread recognition of importance of sustainable cooling (adaptation & mitigation)

# COP-28 High-level Cooling Event (8-Dec)

- Kigali Amendment links Montreal Protocol to climate. 156 parties so far - more expected to ratify
- Integrated approaches should be used to address HFC phase down, e.g. regulations, monitoring imports, training technicians, and engaging with private sector
- Building codes & design of new buildings with more passive cooling features will help to improve energy efficiency of cooling in buildings.
- Need market creation & subsidies for companies developing/applying natural refrigerants to increase awareness to promote the switch to new refrigerants
- Financial support needed to implement Kigali Amendment in full, i.e. HFC transition in tandem with adoption of cooling initiatives
- Mitigation plans, adaptation plans & National Cooling Action Plans are useful tools for countries to reduce emissions, improving energy efficiency & climate-friendly cooling
- Inter-ministerial cooperation necessary to promote low-carbon technologies in cities, buildings & new construction
- International cooperation on climate change, energy efficiency & sustainable cooling essential



# CHALLENGES FOR RACHP IN DEVELOPING COUNTRIES

# Challenges : Management & policy

- Undertaking parallel and integrated HCFC phase out & HFC phase down (integrated approaches to refrigerant management)
- Collecting and analysing data on HFC consumption sectors (understanding national market)
- Updating legislation, regulatory, and policy frameworks to address Kigali Amendment issues
- Understanding & promoting standards and codes related to alternative technologies
- Building/enhancing relationship with energy efficiency counterparts to achieve Kigali Amendment energy efficiency goals
- Linking Montreal Protocol policies, programmes, and projects with those of climate and energy efficiency
- Need for sound technical sector expertise to inform decision making (organized voice of RACHP sector/associations often lacking or under-resourced)

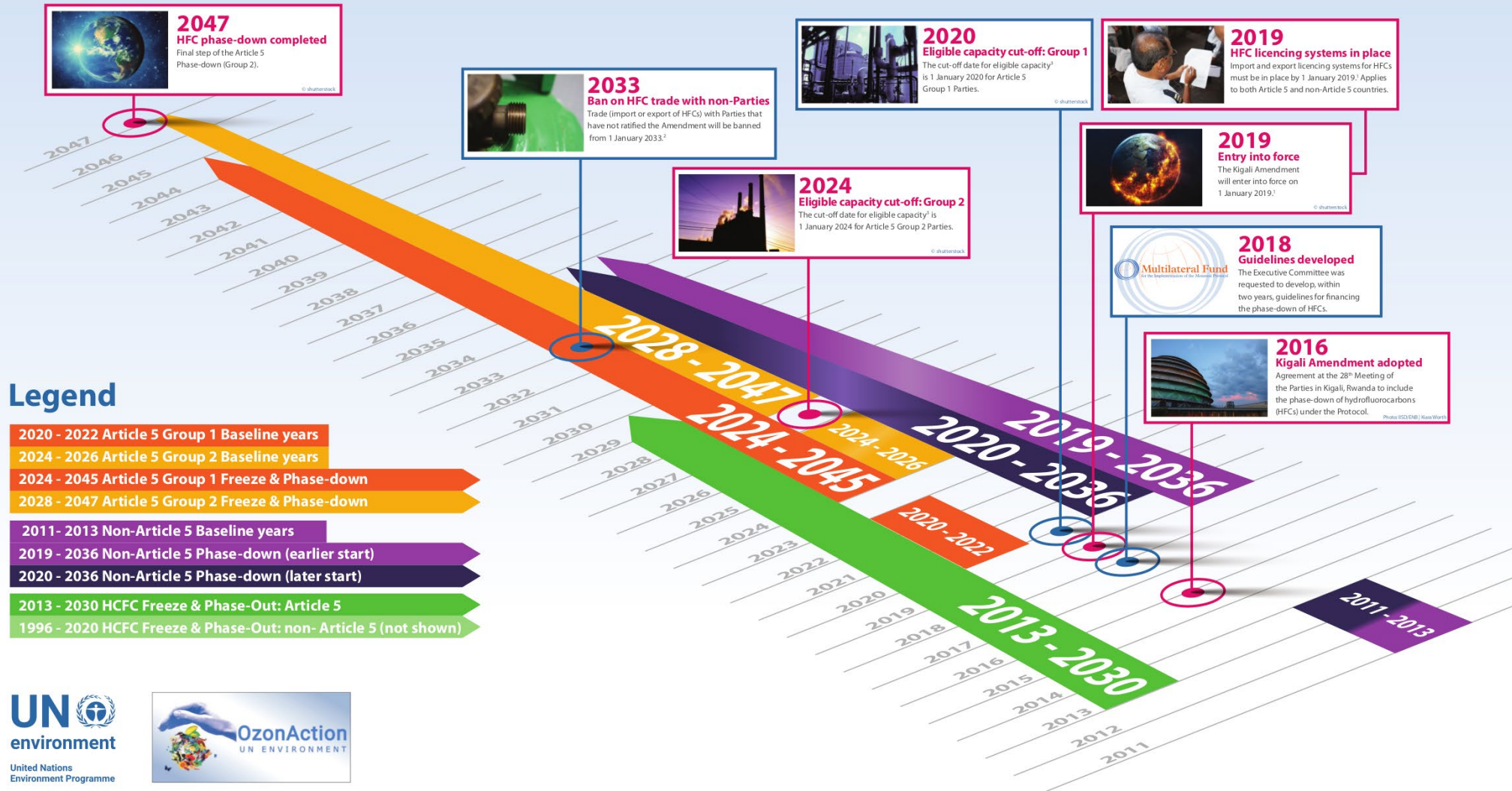
# Challenges : RAC servicing sector

- Access and affordability of new refrigerants and equipment/slow market penetration
- Flammable refrigerants becoming more popular but servicing sector not fully prepared
- Extending, systematizing and updating training of technicians (best practices, safety, use and emission reduction)
- Establishing and improving the quality of technician certification programmes
- Professionalizing the RAC workforce including gender mainstreaming
- Managing environmentally-responsible disposal and end of life for both refrigerants and equipment
- Enabling the informed selection of refrigerant technology based on latest information
- Promoting standards and codes of practices
- Dealing with blends, recovering and recycling and reclaiming refrigerants,
- Addressing new HFC-using sector: mobile air conditioning (MAC)
- Promoting adoption of energy efficient equipment & practices including installation

# Challenges : Energy efficiency

- Awareness-raising at all levels about need for energy efficiency & its benefits
- Updating of training materials to promote energy efficiency of existing RAC equipment through best installation and servicing practices & delivering that training
- Strengthening certification schemes to include energy efficiency
- Linking Montreal Protocol programs to Minimum Energy Performance Standards (MEPs) and labelling systems to achieve Kigali Amendment objectives
- Developing or adjusting standards, and policies and regulations aimed at maintaining and enhancing energy efficiency of existing and new RAC equipment
- Fostering collaboration between NOUs and energy efficiency authorities
- Support to design & implement activities to maintain energy efficiency in the refrigeration servicing sector, while introducing alternatives to HCFCs with low or zero GWP & for maintaining energy efficiency
- Pilot projects to maintain and/or enhance energy efficiency in the context of HFC phase-down

# The Path from Kigali: HFC Phase-Down Timeline



...is an Implementing Agency of the Montreal Protocol's Multilateral Fund. OzonAction is working with 147 developing countries providing interconnected and mutually-supporting Compliance Assistance Services and project support to assist them meeting their current commitments under the Protocol. OzonAction is now working with these countries to jointly attain the ambitious achievements in climate protection promised by the Kigali Amendment. To find out more about OzonAction and to access our materials, tools and publications, including those on the Kigali Amendment and related issues, please visit our website: [www.unep.org/ozonaction](http://www.unep.org/ozonaction) or contact us at: [ozonaction@unep.org](mailto:ozonaction@unep.org)

## Kigali Amendment

The Parties to the *Montreal Protocol on Substances that Deplete the Ozone Layer* reached agreement at their 28<sup>th</sup> Meeting of the Parties in October 2016 in Kigali, Rwanda to include the phase-down of hydrofluorocarbons under the Protocol.

## Hydrofluorocarbons (HFCs)

...are commonly-used alternatives to ozone depleting substances (ODS). While not ozone depleting, HFCs are greenhouse gases which can have high or very high global warming potentials.

## Country Groups

The Montreal Protocol Parties are split into four Kigali Amendment groups:

Article 5, Group 1:  
Article 5, Group 2:  
Non-Article 5, earlier start:  
Non-Article 5, later start:

The majority of Article 5 Parties.  
Bahrain, India, Iran, Iraq, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia, United Arab Emirates  
Most non-Article 5 countries  
Belarus, the Russian Federation, Kazakhstan, Tajikistan, and Uzbekistan

<sup>1</sup> The Kigali Amendment has reached the minimum number of ratifications required to enter into force on 1 January 2019.

<sup>2</sup> ...or when Article 4 of the Protocol has been ratified by 70 countries - whichever is later.

<sup>3</sup> The date after which any new manufacturing capacity producing or consuming HFCs is not eligible for funding under Multilateral Fund.

N.B. HFC baseline calculations also include a percentage of HCFC baseline production/consumption



**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)  
Memorandum of Understanding**



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.

The Coalition of American Mechanical and Electrical Engineers (CAMEE) is a coalition of mechanical/electrical engineering firms within American Council of Engineering Companies (ACEC) providing business practice products, assessing industry trends, and engaging in advocacy efforts to help its member firms improve management and profitability.

ASHRAE and CAMEE 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/CAMEE senior representatives to:

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

#### **CONFERENCES AND MEETINGS**

Each organization agrees to provide the other with a meeting invitation and one complimentary registration to the primary annual meeting.

ASHRAE and CAMEE 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/MEMBER COLLABORATION**

ASHRAE and CAMEE 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.





**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)  
Memorandum of Understanding**



## **ADVOCACY**

Where mutually beneficial and to the extent allowed by laws and corporate policies, ASHRAE and CAMEE 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 at the local, state and federal levels.
- Promoting mutually beneficial positions during the development and passage of state and federal legislation.
- Education of legislators on issues important to the members of each organization.

## **PUBLICATIONS**

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

- Provide at least one complimentary subscription to 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 CAMEE 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 complementary expertise between ASHRAE and CAMEE.
- Discuss ways that certification programs can be jointly developed or promoted.

## **TECHNICAL ACTIVITIES COORDINATION**

ASHRAE and CAMEE 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.



**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)**



**Memorandum of Understanding**

**RESEARCH**

Recognizing the importance research plays in accelerating the transformation to a more sustainable built environment, ASHRAE and CAMEE 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.

**WORK PLAN**

To focus on agreed upon collaborative initiatives, ASHRAE and CAMEE agree to develop, implement and periodically review a work plan with assigned responsibilities and timelines. The inaugural work plan is attached to this agreement as Addendum A.

**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 CAMEE 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 CAMEE. 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

\_\_\_\_\_

**FOR CAMEE**

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

\_\_\_\_\_





**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)**



**Memorandum of Understanding**

Signature

Signature

\_\_\_\_\_

Date

\_\_\_\_\_

Date

\_\_\_\_\_

Printed Name/Title

\_\_\_\_\_

Printed Name/Title

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Signature

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Signature

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Date

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Date



**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)  
2024-2027 WORKPLAN**



ASHRAE and the American Council of Engineering Companies Coalition of American Mechanical and Electrical Engineers (CAMEE) are entering into a Work Plan agreement to advance and promote the mutual interests of their respective members. This Work Plan outlines specific activities the organizations agree upon to implement the activities and tasks outlined. The organizations will review and update this Work Plan annually. A list of staff contacts for various elements of the Workplan is provided as an Attachment.

The Coalition of American Mechanical and Electrical Engineers (CAMEE) represents mechanical/electrical engineering firms and is focused on enhancing business practices through education, risk management, advocacy, and connecting creative business solutions to common problems.

Initial focus area will be to leverage ASHRAE's technical leadership and CAMEE's business practices leadership as it relates to implementing decarbonization and energy efficiency policies and strategies.

ACTIVITY/TASK	RESPONSIBLE PARTY	TIMING	STATUS and COMMENTS
<b>CONSISTENT LEADERSHIP COMMUNICATION FOR THE MOU</b>			
Main Liaison Meeting	ASHRAE/CAMEE Representatives	Annually –	Either at the ACEC Fall or Spring Conventions, or the ASHRAE Winter Meeting
Quarterly Check-In Meetings (communications and technical components of workplan)	ASHRAE: Billy Austin CAMEE: Brad Lentz	March, June, September, December	Agendas will be developed for each call, and appropriate members/staff invited to each call. Action items and responsibilities assigned at the end of each meeting.
Regularly scheduled working meetings to advance joint initiatives			Groups as needed to achieve the goals of this work plan



**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)  
2024-2027 WORKPLAN**



<b>1. CONFERENCES AND MEETINGS</b>			
Provide meeting invitation and a complimentary registration to a primary annual meeting	ASHRAE: Lizzy Seymour CAMEE: Michelle Kroeger	ASHRAE –Winter meeting; CAMEE/ACEC Fall or Spring Conventions- ACEC proposes Spring event	
CAMEE/ACEC and ASHRAE to promote collaborative efforts being conducted at respective conferences/meetings	ASHRAE: Vanita Gupta / Billy Austin CAMEE: Michelle Kroeger	ASHRAE Conferences are generally held in Jan. and June  ACEC/CAMEE conferences in May and October, winter coalition meeting in February	Activities may include: Panelist or presenters at each other's conferences Promote education offerings of the other organization in newsletters, website, social media and other member communications, when and where it is relevant, and space is available
<b>2. PUBLICATIONS, COMMUNICATIONS and EDUCATION</b>			
ASHRAE and CAMEE will engage key stakeholders to discuss working collectively on business practices related to the decarbonization and energy efficiency initiatives.	ASHRAE: Billy Austin CAMEE: Brad Lentz		Efforts will include addressing, standard contract language to mitigate risk to engineers who design and implement decarbonization and energy efficiency initiatives. Focus areas may include: Engineering contract language guidance to mitigate risk to engineers who design and implement decarbonization and energy efficiency initiatives. Guidance to building and facility operators on best practices to achieve intended results Educate engineering firm owners and senior management on decarbonization/energy efficiency best practices for broad industry adoption and leadership.



**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)  
2024-2027 WORKPLAN**



Investigate opportunities to collaborate on educational sessions and conference programming	ASHRAE: Billy Austin CAMEE: Michelle Kroeger	Discuss in Quarterly Meeting	
Develop list of potential publications, webinars, courses, and workshops related to mutual interest	ASHRAE: Billy Austin CAMEE: Brad Lentz	Discuss in Quarterly Meeting	
CAMEE to communicate and co-market ASHRAE's webinars and other courses related to shared interest	ASHRAE: Vanita Gupta CAMEE: Brad Lentz	Discuss in Quarterly Meeting	
Develop priority list of potential blogs, articles, social media, and newsletter content related to collaborative efforts and post to respective websites	ASHRAE: Vanita Gupta CAMEE: Brad Lentz	Discuss in Quarterly Meeting	
<b>3. POLICY AND ADVOCACY</b>			
Be subject matter experts for policy makers	ASHRAE: Alice Yates CAMEE: Brad Lentz	Discuss in quarterly meeting	Identify common issues for collaboration between ACEC and ASHRAE
Advocate / educate on public policy priorities	ASHRAE: Alice Yates CAMEE: Brad Lentz		Joint advocacy be encouraged where public policy priorities align
Collaborate to understand business risk engineering firms may incur when incorporating decarbonization and energy efficiency initiatives	ASHRAE: Insert name CAMEE: Brad Lentz	Discuss in quarterly meeting	
Collaborate to protect and promote credential, certification and licensing requirements for design professionals			



**ASHRAE  
and  
ACEC's Coalition of American Mechanical  
and Electrical Engineers (CAMEE)  
2024-2027 WORKPLAN**



<b>RESERVED ITEMS PENDING FURTHER DEVELOPMENT</b>			

**KEY STAFF CONTACTS FOR CAMEE-ASHRAE WORKPLAN**

<i><b>CAMEE Staff Leads:</b></i>					
MOU Executive Oversight				<u>Adam Rickey</u>	
MOU Project Manager				<u>Brad Lentz</u>	
Forum Communication Education Watchlists				<u>Michelle Kroeger</u>	
State and Local Government Codes and Policies Research				<u>Steve Hall</u>	
<i><b>ASHRAE Staff Leads:</b></i>					
Executive Oversight				Jeff Littleton	
Government Affairs and Advocacy				Alice Yate (Overall) Matt Young (Federal) Emily Porcari (State)	
Marketing and Promotion				Vanita Gupta	
Grassroots/Chapter Outreach/Member Services				Lizzy Seymour	
Education/Publications				Mark Owen	
Standards/Guidelines/Research				Stephanie Reiniche	

**MOU****Memorandum of Understanding****ASHRAE  
and the  
Conselho Federal de Engenharia e Agronomia (CONFEA)**

Note; Action plan (Attachment A) is a part of this MOU

Founded in 1894, ASHRAE's mission statement calls for the advancement of the arts and sciences of heating ventilating, air-conditioning, and refrigeration to serve humanity and promote a sustainable world. ASHRAE, in its desire to best serve humanity by creating a more sustainable, resilient world for all, endeavors to produce a more effective and fruitful exchange of technical information, knowledge, and ideas among engineers engaged in the arts and sciences of heating, ventilation, air-conditioning, and refrigeration.

The CONFEA mission is to protect society by ensuring the legal exercise and development of the activities of professionals and companies from engineering, agronomy, and geosciences, aiming health, safety, and the protection of life.

ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) agree to support the Memorandum of Understanding to advance and promote the mutual interests of their respective members. We are committed to working together collaboratively on the following activities and goals:

- a. Facilitate communication between the two organizations;
- b. Better organize the exchange of technical information;
- c. Study the activities and norms of each organization;
- d. Evaluate the possibility of forming joint working groups;
- e. Examine cooperative opportunities for capacity building on ASHRAE standards;
- f. Explore opportunities to collaborate in the organization of technical seminars and workshops in areas of mutual interest;
- g. Promote actions with a view to facilitating the certification of Confea/Crea System professionals with ASHRAE.
- h. Encourage membership and participation at ASHRAE chapter meetings

- i. Encourage and support CONFEA experts to participate in conferences and general meetings of ASHRAE for the same fees as members of ASHRAE.
- j. Form a task group/committee for ASHRAE/CONFEA collaboration in the first term; set up an inaugural meeting in 2024.

## **RIGHTS AND RESPONSIBILITIES OF EACH PARTY**

ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) acknowledge the following and will:

- strive to collaborate and cooperate to advance the arts and sciences of the HVAC&R industry to serve humanity.
- act with honesty, fairness, courtesy, competence, inclusiveness, and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism, and diversity.
- avoid any real or perceived conflict of interest in its dealings with the Associate Society.
- endeavor to avoid unfair competition with respect to membership recruitment or revenue streams

## **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/Conselho Federal de Engenharia e Agronomia (CONFEA) - senior representatives to:

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

ASHRAE/Conselho Federal de Engenharia e Agronomia (CONFEA) shall take responsibility for initiating the first annual liaison meeting. Meeting agenda/notes and action items with assigned responsibilities shall be recorded at each meeting. This first meeting will be scheduled in 2024.

## **CONFERENCES AND MEETINGS**

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

ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) 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.

ASHRAE may promote, endorse, sponsor and/or collaborate on joint conferences, seminars, forums, and other technical events if it is mutually determined that the collaboration benefits both organizations and the community as a whole.

- If it is mutually determined that ASHRAE should be involved in a joint endeavor, a business case on any particular collaboration project shall be agreed upon and balanced benefits measured. A clear statement of benefits to each organization shall be developed.
- If a local ASHRAE chapter is available, and so inclined, it shall similarly be involved in the joint endeavor and will be held to the same rights, responsibilities, and privileges as ASHRAE Society.
- If it is mutually determined that ASHRAE and/or a local ASHRAE chapter shall be involved in a joint endeavor, a detailed budget must be prepared showing all expected expenses and revenues for the endeavor. A detailed explanation of how the expenses, revenues and excess are to be divided between ASHRAE, its local chapter and the CONFEA organization shall be produced.
- If the joint activity is dependent on ASHRAE funding, the funding request shall be submitted to ASHRAE prior to the end of the preceding Society year, so that it may be included in the current year's budget.
- ASHRAE and its chapters shall comply with the requirements for product shows and equipment expositions, as outlined in the Manual of Chapter Operations (MCO) (<https://www.ashrae.org/communities/chapters/ashrae-chapters/manual-for-chapter-operations>).

## **ADVOCACY**



Where mutually beneficial and to the extent allowed by laws and corporate policies, ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) 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.
- Joint promotion of ASHRAE certifications.
- Promoting mutually beneficial positions during the development and passage of government policy and legislation.
- Education of lawmakers on issues important to the members of each organization.

## **PUBLICATIONS**

Recognizing that electronic and print publications are a primary means of disseminating new technologies, trends, and practices, ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) agree to:

- Provide at least one complimentary subscription to 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 ASHRAE publications into other languages.

## **EDUCATION**

As leading providers of conventional and online educational services and in recognition of the vital role professional development has for our respective audiences, ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) 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 complementary expertise between ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA).

- Discuss ways that certification programs can be jointly developed, translated, or administered.

### **TECHNICAL ACTIVITIES COORDINATION**

ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) 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 initiatives where mutually beneficial to do so.

### **RESEARCH**

Recognizing the importance research plays in accelerating the transformation to a more sustainable built environment, ASHRAE and Conselho Federal de Engenharia e Agronomia (CONFEA) agree to:

- Promote research in areas where research results will add to the built environment body of knowledge;
- Disseminate research results quickly, focusing on high-impact findings.
- Identify opportunities for research funding from other sources.

### **ADMINISTRATIVE CONTACTS**

The administrative contacts for actions tied to this MOU shall be:

**For ASHRAE:**

**For Conselho Federal de Engenharia e Agronomia (CONFEA) :**

Jeff Littleton  
Bolzan  
Executive Vice President

Flavio Henrique da Costa  
CONFEA Representative

### **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 Conselho Federal de Engenharia e Agronomia (CONFEA) 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 Conselho Federal de Engenharia e Agronomia (CONFEA). 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** **Engenharia**

Ginger Scoggins; President  
Printed Name/Title

### **FOR Conselho Federal de** **e Agronomia (CONFEA)**

Vinicius Marchese; President  
Printed Name/Title

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Signature

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Signature

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Date

---

Date



## **CIBSE ASHRAE Strategic Partnership Agreement As signed January 2024**

### **ASHRAE and CIBSE**

Founded in 1894, ASHRAE, Atlanta, Georgia advances the arts and sciences of heating ventilating, air-conditioning and refrigeration to serve humanity and promote a sustainable world.

Founded in 1897, CIBSE is the professional body that supports the Science, Art and Practice of building services engineering, for the public benefit, by providing members and the public with first class information and education services and promoting the spirit of fellowship which guides our work.

Being the only two organizations in our field that have global reach, there is significant potential benefit from working together. In our home markets ASHRAE and CIBSE can improve the quality of our services and output while reducing costs and overlap. In other countries the organizations can improve programs for indigenous markets by providing coordinated offerings. Joint initiatives will improve our preparation for, and the implementation of, activities to lead the progression to digital technologies, full digital publishing, and virtual design and construction.

This Strategic Partnership Agreement provides a framework for those benefits to be realized: it creates a roadmap to advance and promote the mutual interests of ASHRAE and CIBSE, with a practical commitment to working together on the following activities and goals that serve our membership and the public and to promote a more sustainable world.

### **CONSISTENT LEADERSHIP COMMUNICATION**

Recognizing the importance of communication in organizational collaboration, both organizations commit to hold an ASHRAE/CIBSE liaison meeting at least annually (preferably in person, or via electronic meetings) of designated ASHRAE/CIBSE senior representatives to:

- Ensure ongoing advancement of collaborative projects.
- Discuss new opportunities for collaboration.
- Monitor progress on collaborative projects underway
- Keep each respective organization informed of major initiatives.
- Develop strategies for positioning both organizations as leaders in addressing buildings industry challenges.

Action items with assigned responsibilities shall be recorded at each meeting.

ASHRAE/CIBSE shall consider annually holding a staff exchange, where one or more paid staff members from one organization will spend a minimum of one week up to several weeks working at the other organization's headquarters or other key location. The purpose of this exchange is to increase communication between the two organizations, share best practices, and identify possible areas of collaboration in order to develop a strategic vision of how the two organizations can work

more closely together. ASHRAE/CIBSE shall also explore the opportunity of a long-term staff exchange involving the exchange of a staff member for a period of 3 to 6 months. The ASHRAE/CIBSE senior officers will determine by mid-January each year whether or not to hold a staff exchange during the new fiscal year. If an exchange is to occur, then the chief staff member and senior officers of each respective organization will identify the staff members assigned to participate in these exchanges.

The two organizations will endeavor to assign one staff member from each organization a set apportionment to the other organization such that a percentage of his/her time (e.g., 10%) is assigned to liaising and participating in activities of the other organization

ASHRAE/CIBSE shall also hold an annual meeting to discuss strategic issues to ensure both organizations are working towards a strategic alignment to benefit both organizations. This meeting may be held in person or virtually (in-person meetings are preferred) and the typical duration of the meeting (or combined meetings) will be 8 – 12 hours. ASHRAE and CIBSE will alternate hosting in-person meetings.

To ensure identified opportunities and collaborative projects are efficiently pursued in each organization, a workgroup will be formed. The workgroup will meet on a quarterly basis and comprise of two ASHRAE members and two CIBSE members, who normally should be past, or present, board level members with international experience. Additionally, a staff member from one of the organizations will be assigned to the workgroup to facilitate the work of the workgroup.

The objectives of the workgroup are to provide active points of contact between ASHRAE and CIBSE, to enhance collaboration and to ensure that collaboration is 'front of mind' for both ASHRAE and CIBSE. The workgroup will achieve this through activities that are likely to include:

- Acting as catalyst in the implementation of specific joint activities including those identified by ASHRAE/CIBSE leadership
- Identifying gaps in activity where joint endeavors would provide benefit
- Specifically identifying "fast track" issues/opportunities
- Uncovering potential obstacles in communicating and sharing knowledge between the organizations
- Highlighting commonalities and overlaps in the themes of incoming presidents
- Providing timely guidance to ASHRAE/CIBSE leadership on relevant issues
- Recording and monitoring proposed joint activities
- Guiding agenda items for the CIBSE-ASHRAE liaison meeting

The workgroup will produce a biannual summary of workgroup activity for the CIBSE-ASHRAE liaison committee.

The workgroup will be dissolved after two years if a reasonable set of outcomes from the workgroup cannot be identified

In order to facilitate better communication, generate better familiarity and inspire a search for mutual opportunities, both CIBSE and ASHRAE will extend complimentary membership in their organization to the Executive Board of the other organization.

### **CONFERENCES AND MEETINGS**

Each organization agrees to provide the other with an invitation and two complimentary VIP registrations to the organization's primary annual meeting. Further, ASHRAE and CIBSE 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. The purpose in attending

and speaking at each other's conferences is to increase communication between the two organizations, create an environment of cross-pollination and provide an avenue to identify future collaboration opportunities. Of particular interest are collaboration opportunities in emerging topics such as digital technologies, resiliency, and environmentally transmitted pathogens.

Recognizing that specialty conferences are an excellent method of serving members in specific geographic areas, industry sectors or climate zones each organization will alert the other organization of specialty conferences under consideration or development. Where mutually beneficial, each organization shall help publicize the other organization's meetings and promote attendance, focusing on targeted audiences with potential interest in the particular conferences.

Both organizations will jointly explore the development of an annual meeting outside of the US and UK, potentially online, that may include an educational focus and an organization focus.

### **Grassroots COLLABORATION**

ASHRAE and CIBSE agree to coordinate promotion of joint grassroots meetings of respective members. It is the intent of this agreement to produce a long-term relationship that is mutually beneficial to the membership. In order to achieve this intent, the following activities are to be explored:

- Exchange of leader contact information to ensure that the Women in ASHRAE (WIA) and Women in Building Service Engineering (WIBSE) groups work together to produce cross-pollinate ideas and identify opportunities to work collaboratively.
- Exchange of leader contact information to ensure that the Young Engineers in ASHRAE (YEA) and the Young Engineers Network (YEN) of CIBSE work together to cross pollinate ideas and identify opportunities to work collaboratively.
- CIBSE and ASHRAE will explore ways in which ASHRAE can support the CIBSE/ASHRAE group in the future, including administrative, technical, and volunteer support.
- Other activities identified during the previously described leadership meetings and staff exchanges.

### **ADVOCACY**

Where mutually beneficial and to the extent allowed by laws and corporate policies, ASHRAE and CIBSE 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
- Promoting mutually beneficial positions during the development and passage of legislation worldwide.
- Education of regulators on issues important to the members of each organization.

### **PUBLICATIONS**

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

Provide at least one complimentary subscription of the primary membership periodical to be received at the headquarters location of the other organization.

Explore opportunities to jointly produce publications of mutual benefit. Of particular interest are publications on emerging topics such as digital technologies, resiliency, and environmentally transmitted pathogens.

Cross-market each organization's publications where appropriate and with industry standard distributor discounts.

Use periodicals, websites and social media to promote the other organization's events, publications and other activities.

Explore mutually beneficial ways to translate ASHRAE and CIBSE publications for distribution around the globe.

## **EDUCATION**

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

- Cross-market educational offerings at the national and international levels.
- Explore opportunities to co-develop new courses worldwide or other training programs that take advantage of overlapping and complementary expertise between ASHRAE and CIBSE.
- Investigate and implement ways that certifications programs can be jointly developed or administered.

## **TECHNICAL ACTIVITIES COORDINATION**

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

- Encouraging members in each organization to participate on technical committees and task forces.
- Providing 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.
- Investigate the development of ASHRAE-CIBSE jointly-sponsored worldwide standards
- Establishing liaison representatives to key technical committees where mutually beneficial to do so.

## **RESEARCH**

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

- Promote research in areas where research results will advance the arts and sciences of building engineering.
- Disseminate research results quickly, focusing on high-impact findings.
- Identify opportunities for research funding from other sources and mutual support to draw from these resources.



**ADMINISTRATIVE CONTACTS**

The administrative contacts for actions tied to this SPA shall be:

**For ASHRAE:**

Jeff Littleton  
Executive Vice President  
ASHRAE  
1791 Tullie Circle NE  
Atlanta, GA 30320  
Tel: 404-636-8400  
Email: [jlittleton@ashrae.org](mailto:jlittleton@ashrae.org)

**For CIBSE:**

Ruth Carter  
Chief Executive/Secretary  
CIBSE  
222 Balham High Road  
London SW12 9BA  
Tel: +44 (0)20 8675 5211  
Email: [smatthews@cibse.org](mailto:smatthews@cibse.org)

**TERMINATION**

Either party may terminate this agreement, 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 agreement 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 agreement reflects a commitment by ASHRAE and CIBSE to continue and enhance their working relationship and individual efforts toward achieving mutual objectives described above. It does not create a binding obligation or legal agreement between the two organizations, and neither organization has an obligation to negotiate toward or enter into a binding written agreement. In addition, this agreement does not create a partnership, joint venture, fiduciary relationship or similar relationship between ASHRAE and CIBSE. Furthermore, it is understood that this agreement 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**

**Ginger Scoggins**  
**ASHRAE President, 2023-2024**

**FOR CIBSE**

**Adrian Catchpole**  
**CIBSE President, 2023-2024**

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Signature

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Signature

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Date

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Date

**Jeff Littleton**  
**Executive Vice President**

**Ruth Carter**  
**Chief Executive/Secretary**

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Signature

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Signature

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Date

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Date