



## MINUTES

### EXECUTIVE COMMITTEE MEETING

Fairmont Banff Springs  
Banff, Alberta CANADA  
May 2, 3 & 4, 2016

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

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 May 2, 3 & 4, 2016

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**PRINCIPAL MOTIONS**  
Executive Committee Meeting  
May 2, 3 & 4, 2016

<b><u>Number</u></b>	<b><u>Motion</u></b>
1 – 5	that ASHRAE will serve as the secretariat for IAQ-GA and provide an additional \$5,000.00 seed money until a joint funding program is established.
2A – 6	that the motion to approve the LBNL/ASHRAE MOU be postponed until the Annual Meeting in St. Louis.
4 – 8	that ExCom recommends the Board of Directors approve the Kuwait Foundation for the Advancement of Science (KFAS)/ASHRAE Memorandum of Understanding.
5 – 8	that a Presidential Ad hoc be appointed for Globalization of Standards for Society year 2016-2017.
7 – 10	that a waiver of the Rule of the Board for Society year 2016-2017 be presented to the Board of Directors to allow two additional members be named to the President-Elect Advisory Committee (PEAC).
8 – 11	that ASHRAE request observer status at the Montreal Protocol.
9 – 12	that ExCom recommends to the Board of Directors to revise the Indoor Air Quality Position Document title, purpose and scope (TPS) as shown in Attachment A.



## ACTION ITEMS

Executive Committee Meeting  
May 2, 3 & 4, 2016

Item	Responsible	Summary of Action	Status
1 – 2	Olesen	(Carryover) Share information from the DKV Conference with the Refrigeration Committee. <b>(5/2016: Ongoing)</b>	_____
2 – 2	Littleton	(Carryover) Notify the Student Activities RVCs and provide a list of scholarships to Student Activities Chairs to distribute.	_____
3 – 2	Littleton	(Carryover) Contact the International District Energy Association regarding the approval of the ASHRAE/IDEA Memorandum of Understanding. <b>(5/2016: Ongoing – coming to closure. some additional input is being finalized.)</b>	_____
4 – 2	Littleton	(Carryover) Contact the Association of Higher Education Facilities Officers (APPA) regarding the approval of the ASHRAE/APPA Memorandum of Understanding. <b>(5/2016: Ongoing – closing soon.)</b>	_____
5 – 2	Littleton	(Carryover) Work with CAMEE to renew the CAMEE/ASHRAE Memorandum of Understanding which is expiring in the coming month and add item to Spring ExCom agenda. <b>(5/2016: Ongoing – contacting CAMEE.)</b>	_____
6 – 2	Wentz	(Carryover) Work with CIBSE to develop a joint position document on resiliency impact and environmental changes. <b>(5/2016: Ongoing – meeting June 2016.)</b>	_____
7 – 2	Olesen/Tsui	Contact CCHVAC and CAR regarding co-organizing for the conference in 2016 through CEC.	_____
8 – 2	Littleton	Include ExCom action item list in materials distributed for ExAIL calls.	_____
9 – 2	Littleton	Add to St. Louis ExCom agenda the discussion of ExAIL call schedule for 2016-2017 (once monthly).	_____
10 – 2	Littleton	Report on future PAHRA activities to ExCom.	_____
11 – 2	Scoggins	Convey to the BPA Ad hoc information about the PAHRA organization.	_____
12 – 3	Littleton	Research MCAA's interest in selling MCAA products at ASHARE conferences and ASHRAE doing the same at MCAA conferences.	_____
13 – 3	Wentz/Littleton	Organize an ASHRAE/MCAA meeting after the June Annual Conference.	_____
14 – 4	Scoggins	Refer the final report from the Effect of Centralized Training on CRCs to Members Council.	_____

Item	Responsible	Summary of Action	Status
15 – 5	Olesen	Notify IEQ-GA that ASHRAE will serve as the organization's secretariat and provide additional seed money until a joint funding program is established.	_____
16 – 6	Littleton	Research the MOUs that potentially conflict with an LBNL/ASHRAE MOU especially those with Department of Energy.	_____
17 – 6	Littleton	Add to the St. Louis ExCom agenda the postponed motion for approval of the LBNL/ASHRAE MOU.	_____
18 – 6	Littleton	Contact the ASHRAE chapters near universities participating in the Solar Decathlon in 2017.	_____
19 – 7	Littleton	Report to ExCom in St. Louis the standard user guide publishing timeline and staffing needs.	_____
20 – 8	Littleton	Add to the Board agenda for approval the Kuwait Foundation for the Advancement of Science (KFAS)/ASHRAE MOU.	_____
21 – 8	Wentz	Appoint a 2016-2017 Presidential Ad Hoc for the Globalization of Standards.	_____
22 – 8	Underwood/Olesen/ Vallort/Gulledge/ Scoggins/Graef/ Chakroun/Tsui	Develop a clear charge for the proposed presidential ad hoc on the Globalization of Standards.	_____
23 – 9	Littleton	Add to St. Louis ExCom agenda, "Business Cards for Presidential Members."	_____
24 – 9	Littleton	Develop proposed Rule of the Board change to the Travel Reimbursement Policy to cover the reimbursement of international mobile phone roaming charges for the President's spouse.	_____
25 – 10	Vallort	Identify the group/committee that would contact the Chemical Safety Board regarding ASHRAE's participation.	_____
26 – 10	Wentz	Provide a comprehensive list of religious holidays for board consideration in scheduling meetings, etc.	_____
27 – 10	Graef	Provide ExCom with an updated status of the 90.2 committee progress.	_____
28 – 10	Chakroun	Look for a path forward for ASHRAE Standard 90.2 in Lebanon, Qatar and UAE and potential members of the current 90.2 committee willing to work on the standard for those countries.	_____
29 – 11	Olesen	Add waiver of the Rules of the Board for membership to PEAC for Society Year 2016-2017 for two additional members.	_____
30 – 11	Vallort	Update ExCom on any Net Zero developments.	_____

<b>Item</b>	<b>Responsible</b>	<b>Summary of Action</b>	<b>Status</b>
31 – 11	Littleton	Proceed with the development of an ExCom Basecamp site.	_____
32 – 11	Littleton	Proceed with the ASHRAE request for observer status at the Montreal Protocol.	_____
33 – 12	Littleton	Notify DiscoverE that ASHARE will not be a participating sponsor.	_____
34 – 12	Littleton	Add to the St. Louis board agenda the recommendation for approval of the revised Indoor Air Quality Position Document TPS.	_____
35 – 12	Littleton	Notify AHRI that ASHRAE would like to avoid conferences that overlap the Chinese New Year but are not willing to move dates significantly.	_____
36 – 12	Underwood/ Wentz	Develop an Insights article regarding the Board of Directors meeting in Bangkok, Thailand in October in conjunction with the Region XIII and Region-at-Large CRC.	_____



## EXECUTIVE COMMITTEE MEETING

Fairmont Banff Springs  
Banff, Alberta CANADA  
May 2, 3 & 4, 2016

MEMBERS PRESENT: T. David Underwood, President  
Timothy G. Wentz, President-Elect  
Bjarne W. Olesen, Treasurer and President-Elect Nominee  
Walid Chakroun, Vice President  
Patricia T. Graef, Vice President  
Charles E. Gullledge III, Vice President  
James K. Vallort, Vice President  
M. Ginger Scoggins, Vice President Nominee  
Edward K. C. Tsui, Vice President Nominee

STAFF PRESENT: Jeff H. Littleton, Executive Vice President  
Mary D. Townsend, Executive Assistant

### Call to Order

President Underwood called the Executive Committee meeting to order on Monday, May 2, 2016 at 8:00 a.m. ExCom members and nominees attended as listed above.

### Welcome to Officer Nominees

### Review of Agenda

The following items were added to the agenda under Unfinished Business:

- AEDG Update – Graef

The following items were added to the agenda under New Business:

- DiscoverE Sponsorship – Littleton
- TPS Approval – Indoor Air Quality Position Document – Olesen

### Approval of Minutes

Mr. Wentz moved

that the minutes of the January 23, 27 & 28, 2016 meeting be approved.

**MOTION PASSED** (Unanimous voice vote, CNV)

Mr. Gullledge moved

that the minutes of the April 22, 2016 meeting be approved.

**MOTION PASSED** (Unanimous voice vote, CNV)

Review of Action Items – January 23, 27 and 28, 2016

Action items 1 – 6 are ongoing from previous ExCom meetings and listed in the action item list at the beginning of the minutes, updates are included where possible. Items 7 – 9 were assigned during the action item review.

AI 1-9

Report of the President Attachment A

President Underwood reported that the attachment covers all travel from July 1, 2016 to date.

Reports of Officers' Intersociety Visits

Mr. Wentz reported that his visits will be covered under listed agenda items and will be discussed during the meeting.

Mr. Vallort attended the ACEC and NEBB conferences. He would like to discuss the NEBB MOU when the agenda item MOU Tracking and Organization is discussed.

Mr. Littleton attended the HVAC Alliance meeting. PAHRA was discussed at this meeting. It is the Partnership for Air-Conditioning, Heating, and Refrigeration Accreditation an independent, third party organization that is a partnership between heating, ventilation, air-conditioning and refrigeration educators and the HVACR industry. PAHRA certifies HVAC&R technician training programs that have met and/or exceeded industry-validated standards. It is supported by 6 or 7 organizations and ASHRAE is one of them. ASHRAE officially endorses PAHRA but we have not been in contact with them or kept up with the organization. The HVAC Alliance will request that the PAHRA board clarify their business model.

Mr. Littleton will report on the future PAHRA activities to ExCom.

AI-10

Ms. Scoggins will convey to the BPA Ad Hoc information about the PAHRA organization.

AI-11

Mr. Chakroun reported that his visits will be covered under existing agenda items and will be discussed during the meeting.

Mr. Olesen reported that he did not have any official visits but he has made many chapter visits in the U.S. and other parts of the world. He has an upcoming trip to Tehran but this is not affiliated with ASHRAE.

Mr. Gullledge attended the following meetings:

- Alliance to Save Energy - There was strong ASHRAE participation and questions by ASE about where 90.1 is going relative to net zero energy buildings. There was excitement about the potential for standard 189.1 to become the technical content of the IgCC. The ASHRAE Washington office has been exceptionally helpful.
- MCAA Conference – Mr. Gullledge indicated he was impressed by how many sponsorships they have for their social events. During the meeting with MCAA, they

expressed the desire to sell MCAA products at ASHRAE conferences and to have ASHRAE sell products at MCAA events. . They have an extraordinary student competition. There were 50 student chapters with full poster paper displays for the competition, which also provides good job opportunity contacts. They have a world class student internship program as well and are willing to share internship programming ideas with ASHRAE. At the conference, the Building Engineering Services Association (BESA) from England approached him about the potential for working together.

Mr. Littleton will research MCAA's interest in selling MCAA products at ASHRAE conferences and ASHRAE doing the same at MCAA conferences.

AI-12

Mr. Wentz and Mr. Littleton will organize an ASHRAE/MCAA meeting after the June Annual Conference.

AI-13

Mrs. Graef attended IIAR which is an association with about 2,400 members, most of them being companies. There are some individual memberships but IIAR is mostly comprised of corporations. Mrs. Graef met with David Rule and discussed the current trends in refrigeration, their association's concerns and what the future holds.

#### Report of the Treasurer Attachment B

Mr. Olesen reported that ASHRAE is doing well. The forecasted surplus is \$537K versus the original forecasted deficit of \$449K. The 2016-2017 budget will be presented to the Board and it will include the strategic initiatives for Tim Wentz' presidential year.

Mr. Olesen also reported that the capital campaign and the globalization initiative would each be funded by a \$200,000 withdrawal from the general reserve fund.

Discussion included improving forecast accuracy and funding the globalization initiative directly in the general fund without withdrawing money from reserves.

#### Ad Hoc Committee Reports

##### Building Performance Alliance – Darryl Boyce, Chair

Ms. Scoggins reported that BPA met in Orlando at the Winter Meeting. There was good input from the groups attending but consensus was not reached at that meeting on the Alliance's major focus. The final report will be given at the Annual Meeting in St. Louis, Missouri.

##### Chapter Volunteerism and Engagement – Sheila Hayter, Chair

Ms. Hayter reported that the committee will present three initiatives to the Board.

- A dedicated day when all ASHRAE chapters participate in an activity that supports the mission and goals of the Society.
- Mentoring program targeting young professionals.
- Low cost/high impact activities to share with chapters that would include recognition and developing a distribution structure.

The ad hoc committee report will have additional suggestions. There is hope that a committee member will be in St. Louis to give the report to the Board, which would represent the strong chapter roots on this particular committee.

The Effect of Centralized Training on CRCs – Ginger Scoggins, Chair Attachment C

Ms. Scoggins reported that the final report was given in Orlando and that it should now be referred to Members Council. There was some difficulty getting good data regarding attendance at CRCs. In addition, an effort is underway to share input from those that are having successful CRCs with other Regions that are struggling.

Ms. Scoggins will refer the final report from the Effect of Centralized Training on CRCs to Members Council.

AI-14

Technical Committee Structure Review – Donald Colliver, Chair

Mr. Underwood reported that the final report will be given in St. Louis and that the ad hoc should not continue in 2016-2017. The final report will be referred to Technology Council.

Women in ASHRAE – Jennifer Leach, Chair

Ms. Hayter reported that the committee is meeting at ASHRAE headquarters in May and plans to have a final report for the meeting in St. Louis. A recommendation is that this become a subcommittee under another committee in Members Council. For continuity it was suggested that the chair of the ad hoc continue as a consultant on any group that continues this effort.

Indoor Environmental Quality Global Alliance – Bjarne Olesen, Chair

Mr. Olesen reported that after the St. Louis meeting, this group should be able to move forward on its own and there will be no need to continue the ad hoc committee.

Broadcasting ASHRAE's Impact & Key Constituency Leadership – Charles Culp, Chair

Mr. Culp has adopted a better direction on the ad hoc initiatives and has suggested this ad hoc's work be transferred to an.

Unfinished BusinessBoard Director Strategic Assignments Interim ReportsMOU Tracking and Organization – Cochrane and Tsui Attachment D

Mr. Underwood reported that the group has made progress and they have grouped the MOUs into nine different activities. This is a strategic assignment that Mr. Wentz agrees should continue in 2016-2017.

Effective Use of Volunteer Time – Klock and Zbin Attachment E

Mr. Underwood reported that there is an update for this meeting. The update includes priorities and recommendations similar to those presented by the original ad hoc.

IAQA Liaison – Fisher and Miller Attachment F

Mr. Wentz reported that this will continue as a strategic initiative next year. The final report for this year's IAQA Liaison will be presented at the Annual Meeting in St. Louis.

Chapter Educational Offerings – Leblanc and Yelton

The final report will be presented at the Annual Meeting in St. Louis.

Connecting Chapter, Region and Society – Isenbeck, Mehboob and Walter

The final report will be presented at the Annual Meeting in St. Louis.

Capital Campaign Financing and Objectives Attachment G

Mr. Chakroun reported that a Board webinar has been scheduled for June 7, 2016 so that the Development Committee can present the scope of the objectives. An RFP was issued for a consulting group. Plans are that one would be chosen before the call on June 7<sup>th</sup> and that the Board conference call would be facilitated by someone from that group. A feasibility study will be conducted to test donor support for the campaign objectives.

IEQ-GA Bylaws Attachment H

Mr. Olesen reported that the group's focus will be on a more global approach to indoor environmental quality than currently done through the existing ASHRAE groups. There are discussions about incorporation, whether ASHRAE would serve as secretariat and the financial and workload implications on ASHRAE staff.

Mr. Olesen moved

- 1) that ExCom confirms that ASHRAE will serve as the IEQ-GA secretariat and provide \$5,000.00 additional seed money until a joint funding program is established.

**MOTION 1 PASSED** (Unanimous, CNV)

Mr. Olesen will notify IEQ-GA that ASHRAE will serve as the organization's secretariat and provide additional seed money until a joint funding program is established.

AI-15

LBNL Proposed Memorandum of Understanding Attachment I

Mr. Olesen reported that this is the second version of the memorandum of understanding to establish a private/public agreement to work on issues such as "the internet of things" and building control systems. At the present time there is no fiscal impact but research dollars may be requested in the future.

Mr. Olesen moved

- (2) that Excom recommends to the Board of Directors the approval of the Lawrence Berkeley National Laboratory (LBNL)/ASHRAE Memorandum of Understanding.

Discussion included:

- Is the LBNL/ASHRAE alliance the only groups involved or are there other groups to be contacted to join?
- Are the agreements research provisions aligned with ASHRAE's routine research approval process?



- Any current financial commitment by ASHRAE?
- Other MOUs may be in conflict with this MOU.

Mr. Littleton will research the MOUs that potentially conflict with an LBNL/ASHRAE MOU especially those with the Department of Energy.

AI-16

(2A) that the motion to approve the LBNL/ASHRAE MOU be postponed until the meeting in St. Louis.

**MOTION 2A PASSED** (Unanimous, CNV)

Mr. Littleton will add to the St. Louis ExCom agenda the postponed motion for approval of the LBNL/ASHRAE MOU.

AI-17

Solar Decathlon Engagement Strategies Attachment J

Mr. Olesen reported that ASHRAE should determine the next step with regard to Solar Decathlon engagement. We currently contribute \$20,000. ASHRAE recently decided not to act as administrator for the entire program.

Discussion included:

- The potential for an ASHRAE student competition whose focus may be more broad than just solar energy.
- Using bEQ in the projects.
- Engaging college students as has been done in ASHRAE's large student competition in China.
- Opportunity to have chapters participate.

Mr. Vallort moved:

(3) that ASHRAE contribute a \$20,000 sponsorship for each of the four solar decathlons being held in China, Middle East, Latin America and Europe through 2018.

**MOTION 3 FAILED** (1-5-0, CNV)

Mr. Littleton will contact the ASHRAE chapters near universities participating in the Solar Decathlon in 2017.

AI-18

Society Resiliency Strategy Attachment K

Mr. Underwood reported that we have signed an agreement with AIA. Mick Schwedler and Sheila Hayter will participate in a White House conference on resilience to continue the discussion.

Development and Delivery of User's Guides for Standards

Mr. Vallort reported that the Standards Committee feels it is very difficult to update the user guides with the current staffing. Another option would be to hire a firm to assist in the updates.

Mr. Littleton will report to ExCom in St. Louis the standard user guide publishing timeline and staffing needs.

AI-19

401K Committee Update Attachment L

Mr. Littleton reported that the 401K Committee should meet annually and has not been on that schedule. It is required by the Rule of the Board. Mr. Ben Leppard is willing to serve on the 401K committee and meet annually.

Global Refrigerant Management Initiative (GRMI) Attachment M

ASHRAE is one of the participants in the GRMI. Tim is working to identify ASHRAE's volunteer representative for the GRMI steering committee.

A. UNEP Refrigeration Driver's Licence

Mr. Chakroun reported that the UNEP Refrigeration Driver's License program is similar to the International Computer Driving License (LCDL) which is recognized globally as a qualification that you meet minimum requirements for this program. Many organizations are participating in this initiative and Mr. Chakroun suggests that ASHRAE be involved. The concern is that many people are working in this area with very little knowledge or information.

CCAC Actor Status Approval Attachment N

Mr. Littleton reported that ASHRAE had applied for CCAC Partner Status, but was only approved as an Actor. . ASHRAE plans to re-apply for Partner status in 6 months.

AEDG Update

Ms. Graef reported that the last time AEDG met, they discussed a guide for Net Zero K-12 schools. There is a trend to go towards "near zero." Ms. Graef will suggest to AEDG that the focus should still be net zero.

New Business

Kuwait Foundation for the Advancement of Science MOU (KFAS) Attachment O

Mr. Chakroun reported that KFAS is an organization dedicated to research. Their focus is on energy conservation.

Mr. Wentz moved:

- (4) that ExCom recommends the Board of Directors approval of the Kuwait Foundation for the Advancement of Science (KFAS)/ASHRAE Memorandum of Understanding.

**MOTION 4 PASSED** (Unanimous, CNV)

Mr. Littleton will add to the Board agenda approval of the Kuwait Foundation for the Advancement of Science (KFAS)/ASHRAE MOU.

AI 20

ISO Standards Strategies Attachment P

Mr. Littleton reported that ISO standard strategies are complicated and there is concern about the return on investment. NFPA and ISO are trying to scale back their participation in ISO for

similar reasons. One strategy is finding individuals that would be involved in these standards that are from ASHRAE groups.

Mr. Wentz expressed willingness to have a group look into this topic in depth but that it would need a strong charge, leader and team.

Mr. Vallort moved

- (5) that a Presidential Ad Hoc be appointed for Globalization of Standards for Society year 2016-2017.

**MOTION 5 PASSED** (Unanimous, CNV)

Mr. Wentz will appoint a 2016-2017 Presidential Ad Hoc for the Globalization of Standards.

AI 21

Mr. Underwood, Olesen, Vallort, Gullledge, Chakroun, Tsui and Ms. Scoggins and Graef will develop a clear charge for the proposed presidential ad hoc on the Globalization of Standards.

AI 22

Future of AASA Attachment Q

Mr. Olesen reported that AASA is interested in having a more focused purpose and in having a international impact. There is an ad hoc starting within the alliance to explore the formation of a Global HVACR Society and that Tom Watson has agreed to chair.

Flammable Refrigerants Research and Position Document Attachment R

Mr. Vallort suggested that there needs to be a good strategy that presents the information resulting from ASHRAE's research. The Marketing team may be the best group to accomplish this goal.

Mr. Chakroun expressed a desire that the information released is global and not just in the U.S.

Mr. Littleton reported that there was an agreement to coordinate the release of information with the other partners.

ASHRAE Membership for ExCom Spouses

Mr. Littleton reported that the auditors have confirmed that we cannot avoid issuing 1099s to ExCom members for spouse expenses by making spouses members.

Business Cards for Presidential Spouses and Presidential Members

Mr. Vallort reported that there has been interest expressed in providing business cards to Presidential Members and Presidential spouses. The card for Presidential Members is to help with the transition from President to Presidential Member and to provide recognition and clearer communication.

Mr. Littleton will add to the St. Louis ExCom agenda, "Business Cards for Presidential Members."

AI 23

International Mobile Phone Roaming Change Reimbursement Policy

Ms. Graef moved

- (6) that Mr. Underwood be retroactively reimbursed for spousal international data roaming charges.

Ms. Graef withdrew the motion.

Ms. Graef suggested that the Rule of the Board travel reimbursement policy be changed to include reimbursement for international mobile phone roaming charges for the President's spouse.

Mr. Littleton will develop a proposed Rule of the Board change to the Travel Reimbursement Policy to cover the reimbursement of international mobile phone roaming charges for the President's spouse.

AI 24

DOE Grant Funding of National Energy Efficiency Registry Attachment S

Mr. Littleton reported that this registry is being developed and that the Residential Buildings Standing Committee should be engaged in the National Energy Efficiency Registry.

Building Envelope Design Principles Attachment T

Mr. Underwood reported that at the beginning of each Winter and Annual Board Meetings there is an opportunity for individuals to address the board. At the present time, there is not a formal process to respond to those individuals that speak to the board. There was some discussion on whether a formal response should be given, who should give it or if the process should be left as it is.

Standards Development Speed (Chemical Safety Board Letter) Attachment U

Mr. Underwood reported that this group contacted ASHRAE some time ago and there hasn't been any movement up to the present time.

Mr. Vallort will identify the group/committee that would contact the Chemical Safety Board regarding ASHRAE's participation.

AI 25

Meetings Schedule and Religious Holidays

Mr. Wentz reported that the Bangkok Board of Directors meeting overlaps Rosh Hashanah and there is discussion about the most appropriate way to recognize these events including the Chinese New Year that coincides with the Las Vegas Meeting

Mr. Wentz will provide a comprehensive list of religious holidays for the Board consideration in scheduling meetings, etc.

AI 26

ASHRAE Standard 90.2 for Lebanon, Qatar and UAE Attachment V

Mr. Wentz reported that after his visit to the Middle East with Mr. Chakroun, Lebanon, Qatar and the UAE expressed interest support from ASHRAE related to energy efficiency standards and codes

Ms. Graef will provide ExCom with an updated status of the 90.2 committee progress.

AI 27

Mr. Chakroun will look for a path forward for ASHRAE Standard 90.2 in Lebanon, Qatar and the UAE and potential members of the current 90.2 committee willing to work on the standard for those countries.

AI 28

2016-2017 PEAC Membership Attachment W

Mr. Olesen reported that his current TRAC group will become the membership of PEAC for his President-Elect year. He would like to retain all of the current members and as a result will need a waiver for one year to increase the membership.

Mr. Olesen moved:

- (7) that a waiver of the Rule of the Board for Society year 2016-2017 be presented to the Board of Directors to allow two additional members to be named to the President-Elect Advisory Committee (PEAC).

**MOTION 7 PASSED** (Unanimous, CNV)

Mr. Littleton will add a waiver of the Rules of the Board that PEAC membership for Society Year 2016-2017 to be increased by two additional members to the June St. Louis Board agenda.

AI 29

#### Net Zero Standard Initiative

Mr. Gullege reported that a net-zero standards initiative should be accomplished under the umbrella of Standards Committee 189.1 rather than forming a new committee to develop a new net-zero energy commercial building standard.

Mr. Vallort will update ExCom on any Net Zero developments.

AI 30

#### Machine Readable Data Website Attachment X

Mr. Vallort reported that ASHRAE currently does not have a process beyond the standards process where issues of copyright, production, distribution and data collection are maintained. He suggested a cross council initiative.

Mr. Gullege reported that PubEd Council has now taken ownership of this and is evaluating opportunities, as well as materials that are available.

Mr. Littleton reported a machine readable data website has been established and the first group who will use it is Standard 201. It is up and running and the feedback has been good.

Mr. Underwood agreed that this is a cross-council issue and belongs within the Executive Committee.

#### Basecamp for the Executive Committee of the Board

Mr. Littleton reported that we are able to have an ExCom Basecamp site up and running for the new Society year. This would be a site dedicated only to ExCom.

Mr. Littleton will proceed with the development of an ExCom Basecamp site.

AI 31

#### Montreal Protocol Observer Status Attachment Y

Mr. Underwood reported that this is where 197 ministers meet together and that ASHRAE's presence is important to keep informed of the decisions and discussions.

Mr. Chakroun moved:

- (8) that ExCom recommends that ASHRAE request observer status at the Montreal Protocol.

#### **MOTION 8 PASSED** (Unanimous, CNV)

Mr. Littleton will proceed with the ASHRAE request for observer status at the Montreal Protocol.

AI 32

#### DiscoverE Sponsorship

All DiscoverE primary association sponsors are now required to make an investment of \$100,000. ASHRAE is interested in being a sponsor in the future, but it was agreed that ASHRAE will not be a sponsor in 2018.

Mr. Littleton will notify DiscoverE that ASHRAE will not be a participating sponsor in 2018.

AI 33

TPS Approval – Indoor Air Quality Position Document Attachment Z

Ms. Graef reported that the letter ballot has been returned with approval of the revised TPS for the Indoor Air Quality Position Document. This will now go through ExCom and to the Board of Directors for final approval.

Ms. Graef moved:

- (9) that ExCom recommends to the Board of Directors the revised Indoor Air Quality Position Document title, purpose and scope (TPS) as shown in Attachment A.

**MOTION 9 PASSED** (Unanimous, CNV)

Mr. Littleton will add to the St. Louis Board agenda the recommendation for approval of the revised Indoor Air Quality Position Document TPS.

AI 34

Joint Expo Policy Report Attachment 1

Mr. Littleton will notify AHRI that ASHRAE would like to avoid conferences that overlap with the Chinese New Year but are not willing to move dates significantly.

AI 35

Standing Agenda Items

Marketing/PR Update Attachment 2

ExCom Reference Manual Attachment 3

Future Meetings

Board of Directors Spring Finance Webinar Meeting – May 17, 2016 9:00 AM ET

2016 Spring CRC Schedule Attachment 4

2016-2017 CRC Schedule Attachment 5

Mr. Wentz reported that Ms. Hayter will cover the Region XI CRC in Puget Sound, Seattle Washington in late May.

Executive Committee Meetings – Annual Meeting, St. Louis, Missouri

Saturday, June 25, 2016	8:30 AM – 1:00 PM
Wednesday, June 29, 2016	7:30 AM – 9:00 AM
Thursday, June 30, 2016	7:30 AM – 11:00 AM

Mr. Underwood and Mr. Wentz will develop an *Insights* article regarding the Board of Directors meeting in Bangkok, Thailand in October in conjunction with the Region XIII and Region-at-Large CRC.

AI-36

Information Items

ASHE/FGI Meeting Reports Attachment 6

NATE Report Attachment 7Executive Session

Executive session was held during the Tuesday, May 3, 2016 meeting and a few agenda items were completed at the start of the Wednesday, May 4<sup>th</sup> meeting.

Adjournment

Mr. Underwood thanked everyone for attending. The meeting was adjourned at 11:15 AM on Wednesday, May 4, 2016.



Jeff H. Littleton, Secretary

mdt/2015/06/13

Distribution: Board of Directors  
Staff Directors

Attachments: Attachment A – Report of the President  
Attachment B – Report of the Treasurer  
Attachment C – The Effect of Centralized Training on CRCs  
Attachment D – MOU Tracking and Organization – Cochrane/Tsui  
Attachment E – Effective Use of Volunteer Time – Klock/Zbin  
Attachment F – IAQA Liaison  
Attachment G – Capital Campaign Financing and Objectives  
Attachment H – Indoor Environmental Quality Global Alliance  
Attachment I – Lawrence Berkeley National Laboratory/ASHRAE MOU  
Attachment J – Solar Decathlon Engagement  
Attachment K – Society Resiliency Strategy  
Attachment L – 401K Committee Update  
Attachment M – Global Refrigerant Management Initiative  
Attachment N – CCAC Actor Status Approval  
Attachment O – Kuwait Foundation for the Advancement of Science MOU  
Attachment P – ISO Standards Strategies  
Attachment Q – Future of AASA  
Attachment R – Position Statement Speed and Relevance  
Attachment S – DOE Grant Funding of National Energy Efficiency Registry  
Attachment T – Building Envelope Design Principles  
Attachment U – Chemical Safety Board Letter – Standards Development  
Attachment V – ASHRAE Standard 90.2 for Lebanon, Qatar and UAE  
Attachment W – 2016-2017 PEAC Membership  
Attachment X – Machine Readable Data Website  
Attachment Y – Montreal Protocol Observer Status



- Attachment Z – TPS Approval: Indoor Air Quality Position Document
- Attachment 1 – Joint Expo Policy Report
- Attachment 2 – May 2016 Interim Marketing Report
- Attachment 3 – ExCom Reference Manual
- Attachment 4 – 2016 Spring CRC Schedule
- Attachment 5 – 2016-2017 CRC Schedule
- Attachment 6 – ASHE/FGI Meeting Reports
- Attachment 7 – NATE Report

**Report of President David Underwood  
ASHRAE Travel for July 1, 2015  
Through January 31, 2016**

<b>Date</b>	<b>Meeting</b>	<b>Location</b>	<b>Comments</b>
July 9-11	Senior Leaders	Niagara-on-the-Lake ON	
July 22-26	Region IX CRC	Rapid City, SD	
August 5-9	Region IV CRC	Raleigh, NC	
August 12-16	Region X CRC	Los Gatos, CA	
August 25-30	Region XIII	Manila, Philippines	148 students participated
August 25-30	XIV EXPOACAIRE, Colombia Chapter	Medellin, Colombia	
September 18-23	CONBRAVA, Brasil Chapter	Sao Paulo, Brasil	Negotiated with Brasil code body regarding translation of our standards
September 24-26	Chile Chapter	Santiago, Chile	Inaugural meeting with more than 100 participants including architects, contractors and government officials
September 29 - October 5	RAL CRC	Istanbul, Turkey	MOU signed between ISHRAE and Pakistan HVAC&R association
October 6-13	CIBSE/BSRIA/IMechE	London, England	
October 13-16	Washington Leadership Meeting	Washington, DC	
October 19-21	AHR Mexico	Guadalajara, Mexico	
October 22-25	AABC Conference	Los Cabos, Mexico	
November 5-8	ASHRAE Board Meeting	Atlanta, GA	
November 9-13	Space Coast Chapter, Central Florida Chapter, Southwest Florida Chapter, Florida West Coast Chapter	Various Florida locations	
November 17-20	13 <sup>th</sup> Asia Pacific Conference on the Built Environment	Hong Kong	
November 30 – December 5	46 <sup>th</sup> International Congress & Exhibition on HVAC&R and Danube Chapter	Belgrade, Serbia	
December 6-9	2 <sup>nd</sup> Energy Management & Exhibition and Bahrain Chapter	Manama, Bahrain	
December 15-17	SoCal Chapter, Orange Empire Chapter, Tri County Chapter, San Joaquin Chapter	Los Angeles, CA and Sacramento, CA	
January 5-7	Arkansas Chapter, NW Arkansas Section	Little Rock, AR and Fayetteville, AR	
January 12-15	NIBS Conference	Washington, DC	Meetings with DOE, White House staff and the Canadian staff
January 20-28	ASHRAE Winter Conference & AHR	Orlando, FL	

	Exhibition		
February 1-3	Kansas City Chapter, Ozarks Chapter, Wichita Chapter	Kansas City, MO, Springfield, MO, Wichita, KS	
February 8	Manitoba Chapter	Winnipeg, MB	
February 9	Regina Chapter		
February 10	British Columbia Chapter	Vancouver, BC	
February 11	Northern Alberta Chapter	Edmonton, AB	
February 21	India Chapter	Delhi, India	
February 22	Deccan Chapter	Hyderabad, India	
February 23	Bangalore Chapter	Bangalore, India	
February 24	Mumbai Chapter	Mumbai, India	
February 24-26	ACREX	Mumbai, India	
February 26	ISHRAE BoD	Mumbai, India	
February 29-March 2	Bangladesh Chapter	Dhaka, Bangladesh	
March 3-5	Pakistan Chapter	Karachi, Pakistan	
March 12-18	Mostra Covegno & AICARR	Milan, Italy	
March 26	Japan Chapter	Tokyo, Japan	
April 3-5	South Korea Chapter	Seoul, S. Korea	
April 6-9	CR Expo	Beijing, China	
April 11	Toronto Chapter	Toronto, ON	
April 12-17	UNEP	Paris, France	
April 18-21	Alamo, Houston, Austin Chapter	San Antonio, TX Austin, TX Houston, TX	
April 24-27	ASHRAE Leadership Meetings	Washington, DC	
April 28-29	Rocky Mountain Chapter	Denver, CO	
April 30-May 4	ASHRAE Spring ExCom Meeting	Banff, AB CANADA	

**GENERAL (Fund 2)**  
**Major Variations**  
**For the Nine Months Ending March 31, 2016**

MONTH OF MAR		Fiscal YTD Through Month of MAR					TWELVE MONTHS ENDING JUNE 30						Variance	Comments	
Actual	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Actual	Budget	Actual	Forecast	Budget	Forecast vs.		
FY 14-15	FY 15-16	FY 15-16	FY 14-15	FY 14-15	FY 15-16	FY 15-16	roll up	FY 12-13	FY 13-14	FY 14-15	FY 14-15	FY 15-16	FY 15-16	Budget 15-16	
<b>REVENUES</b>															
\$609.0	\$630.8	\$633.0	\$5,424.3	\$5,409.4	\$5,589.1	\$5,649.8	31	\$7,077.4	\$7,178.7	\$7,388.0	\$7,281.8	\$7,595.7	\$7,595.7	\$0.0	
264.1	302.9	324.4	2,563.2	2,922.4	2,695.1	2,845.9	32	3,323.4	3,803.6	3,896.5	3,483.9	3,816.4	3,585.5	\$230.9	
249.6	286.3	253.5	2,943.3	3,099.9	3,088.1	3,001.1	34	3,856.1	3,773.1	3,897.0	3,710.8	3,832.1	3,761.0	\$71.1	
1.4	1.6	1.1	21.6	12.7	15.1	16.9	34	19.3	26.5	16.9	32.0	25.0	25.0	\$0.0	
51.7	53.8	53.5	444.0	465.0	539.8	478.7	34	525.4	470.4	620.0	595.6	690.0	640.0	\$50.0	
(0.8)	10.9	20.2	1,092.9	1,079.1	1,020.0	1,058.0	35.1	1,535.2	1,965.7	1,666.3	1,578.5	1,737.5	1,737.5	\$0.0	
13.0	17.4	15.6	146.0	120.0	140.0	175.2	35.2	138.7	148.5	160.0	183.3	180.0	220.0	(\$40.0)	
127.0	125.7	138.4	1,036.8	1,087.8	1,166.2	1,094.4	35.3	1,011.3	1,301.6	1,450.4	1,504.5	1,630.0	1,585.0	\$45.0	
64.9			86.6	230.0	3.2		37	60.9	50.0	240.0	316.6			\$0.0	
0.6	4.3	0.4	29.1	29.6	83.5	7.4	38	31.3	47.2	39.5	72.7	20.4	30.4	(\$10.0)	
524.2	647.7	484.6	5,146.6	4,857.9	5,168.0	4,757.6	41.1	3,949.9	3,973.0	4,857.9	5,146.6	5,168.0	4,757.6	\$410.4	
		(4.8)	(1,709.5)	(1,699.5)	(1,946.4)	(1,834.5)	41.2	(1,940.9)	(1,859.2)	(1,699.5)	(1,699.5)	(1,839.4)	(1,839.0)	(\$0.4)	
			145.9	60.0	34.0	60.0	41.3	116.3		60.0	145.9	34.0	60.0	(\$26.0)	
26.2	33.2	36.2	235.9	235.9	298.8	326.0	44	510.9	489.2	314.5	314.5	398.4	398.4	\$0.0	
72.3	49.3	63.0	420.2	313.8	271.8	245.9	46	286.4	341.9	410.9	534.4	320.9	295.9	\$25.0	
2,003.2	2,163.9	2,019.1	18,026.9	18,224.0	18,166.3	17,882.4	<b>TOTAL REVENUES</b>	<b>20,501.6</b>	<b>21,710.2</b>	<b>23,318.4</b>	<b>23,201.6</b>	<b>23,609.0</b>	<b>22,853.0</b>		
<b>EXPENSES:</b>															
549.8	618.4	670.2	5,218.1	5,373.8	5,903.9	6,056.4	51	6,814.3	6,988.0	7,353.7	7,357.2	7,807.1	7,832.3	(\$25.2)	
220.2	201.7	208.5	1,707.9	1,605.4	1,755.8	1,729.3	52	2,070.3	2,105.2	2,136.6	2,344.1	2,365.4	2,241.5	\$123.9	
														\$244.3	
378.4	263.8	291.5	2,445.9	2,762.3	2,675.8	2,257.0	61	3,596.3	3,524.7	3,683.1	3,757.5	3,918.2	3,673.9		
122.5	173.2	159.2	1,476.9	1,474.3	1,426.9	1,763.2	64	1,778.3	2,286.6	2,189.6	2,178.5	2,342.2	2,262.2	\$80.0	
252.4	206.4	275.2	1,333.4	1,692.3	1,203.8	1,769.4	66	1,634.3	2,138.0	2,263.8	1,954.6	1,953.6	2,190.1	(\$236.5)	
9.4	15.0	13.6	54.1	84.0	61.5	76.2	68	99.4	86.9	112.0	98.9	116.5	116.5	\$0.0	
			95.2	122.6	114.4	121.6	71	106.3	106.5	122.6	100.9	127.5	127.5	\$0.0	
3.0		9.2	9.1	160.0	50.0	82.5	73	7.8	50.0	160.0	72.5	110.0	110.0	\$0.0	
1.1	6.0	1.7	39.6	44.7	65.3	52.6	76	70.3	129.1	59.7	51.0	62.0	62.0	\$0.0	
44.7	34.4	49.8	408.5	412.3	435.2	458.4	78	501.5	563.4	549.8	559.2	579.0	575.9	\$3.1	
135.3	144.6	136.0	1,161.3	1,405.4	1,274.6	1,217.2	82	1,668.6	1,704.0	1,873.9	1,788.1	1,897.2	1,835.4	\$61.8	
169.0	134.6	143.0	1,084.3	1,360.8	1,056.2	1,378.2	84	1,430.1	1,528.0	1,814.3	1,654.6	2,004.0	1,980.0	\$24.0	
(6.0)	21.2	7.8	348.5	341.6	491.8	339.2	88	493.0	496.8	468.4	487.8	509.7	491.4	\$18.3	
(29.6)	(75.9)		(34.4)	(48.7)	(47.8)		88.1		(18.3)	(64.9)	33.8	(510.0)		(\$510.0)	
35.5		8.3	35.5	100.0		75.0	89		35.0	100.0	35.5	100.0	100.0	\$0.0	
51.5	49.8	49.6	458.7	460.7	442.0	441.4	90	695.6	660.9	614.2	631.9	543.5	543.5	\$0.0	
(81.4)	(69.2)	(103.6)	(582.8)	(594.0)	(544.4)	(685.3)	91	(649.4)	(730.0)	(792.0)	(808.5)	(854.1)	(840.0)	(\$14.1)	
1,855.8	1,724.0	1,920.0	15,259.8	16,757.5	15,940.0	17,132.3	<b>TOTAL EXPENSES</b>	<b>20,316.7</b>	<b>21,654.8</b>	<b>22,644.8</b>	<b>22,297.6</b>	<b>23,071.8</b>	<b>23,302.2</b>		
147.4	439.9	99.1	2,767.1	1,466.5	2,226.3	750.1	<b>SURPLUS (DEFICIT) before reserve income</b>	<b>184.9</b>	<b>55.4</b>	<b>673.6</b>	<b>904.0</b>	<b>537.2</b>	<b>(449.2)</b>		
98.6	6.7	100.5	368.6	225.0	423.9	370.2	91.5		0.3						
							92	1,244.8	488.9	300.0	670.7	590.0	590.0		
(85.0)	576.5	59.6	135.5	539.2	(339.3)	495.6	<b>Reserve Investment Income:</b>								
(26.2)	(33.2)	(36.2)	(235.9)	(388.6)	(298.8)	(326.0)	95	1,277.1	1,778.1	719.0	146.5	339.6	603.0		
							96	(510.9)	(489.2)	(518.1)	(314.5)	(398.4)	(398.4)		
(111.2)	543.3	23.4	(100.4)	150.6	(638.1)	169.6	Remaining Reserve Investment Income	766.2	1,288.9	200.9	(168.0)	(58.8)	204.6		
(62.4)	976.5	22.0	2,298.1	1,392.1	1,164.3	549.5	<b>OVERALL SURPLUS (DEFICIT) after reserve income</b>	<b>(293.7)</b>	<b>855.7</b>	<b>574.5</b>	<b>65.3</b>	<b>(111.6)</b>	<b>(834.6)</b>		

**FINAL**  
**REPORT TO THE BOARD OF DIRECTORS**  
From the CT/CRC Ad Hoc Committee  
Orlando, 2016

**RECOMMENDATIONS FOR VOTE:**

None at this time.

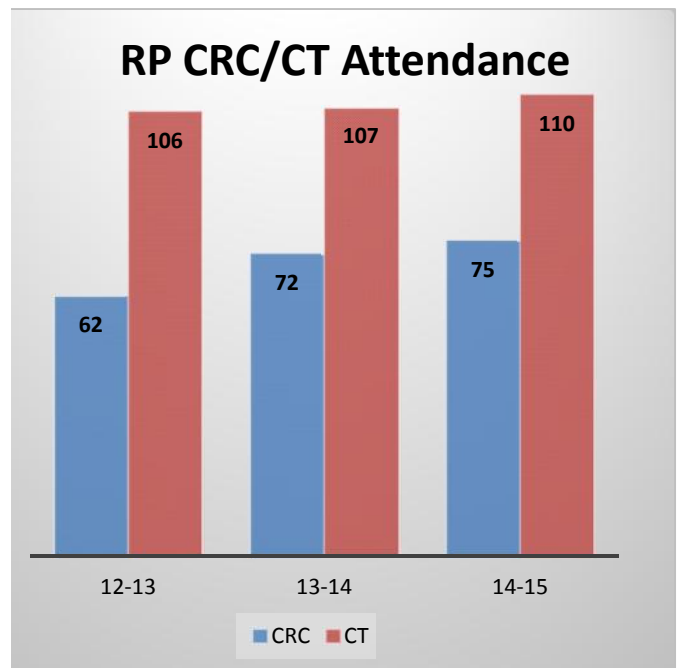
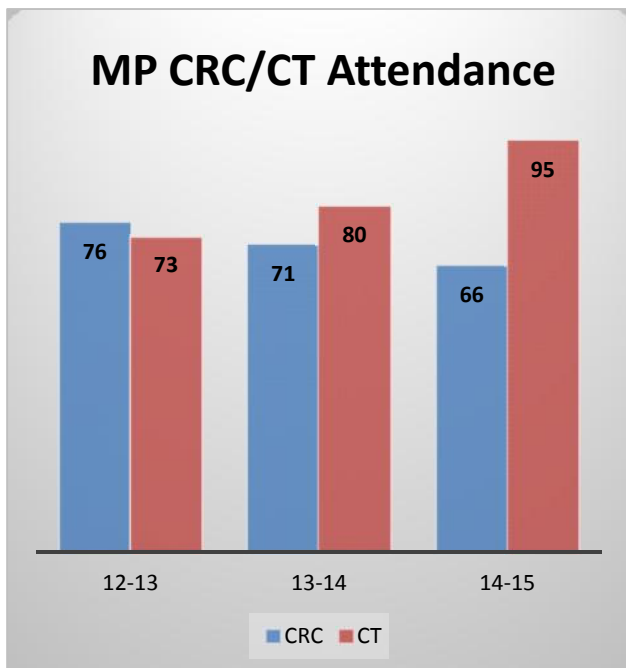
The committee has completed its work, pending approval of this report by the ASHRAE BOD. The committee is offering several recommendations based on our research that should be referred to appropriate groups within ASHRAE for further investigation and action.

**INFORMATION ITEMS:**

The information below represents data gathered during the committee efforts over the past 1-1/2 years to attempt to quantify the effects of Centralized Training on CRC's.

**I. Historical Data**

Our efforts began with attempting to gather the actual attendance data for the RP committees and the MP Committees from CRC's and centralized training for the years in which centralized training has been in effect (2006 for RP and 2012 for MP). Unfortunately, we were unable to find reliable recorded data for CRC attendance for these committees prior to 2012, so data for years prior to 2012 was discarded. Refer to the graphs below for recorded data from the years 2012-2015:



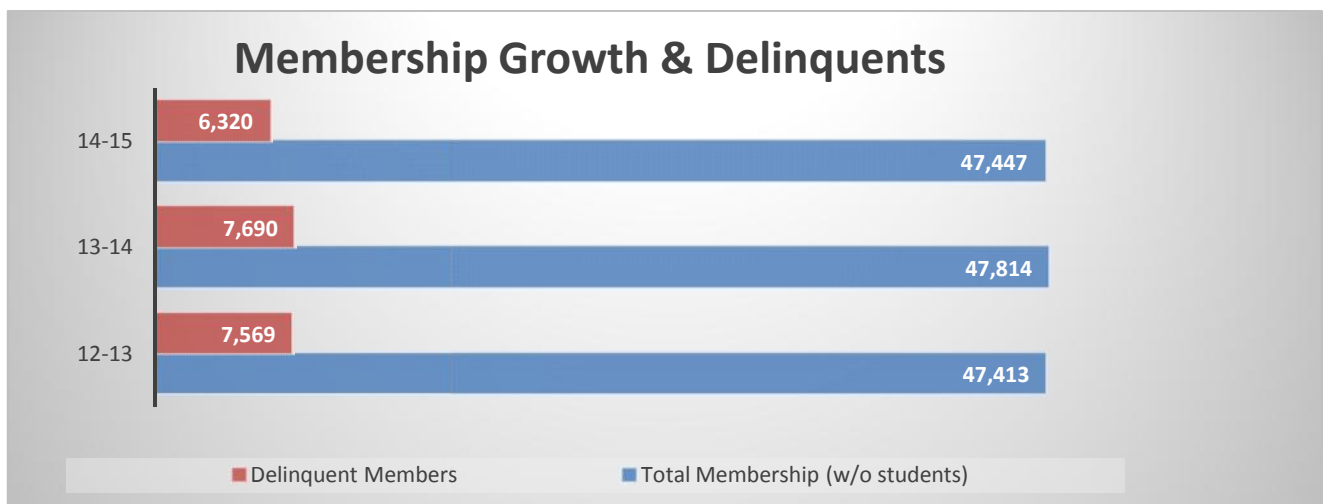
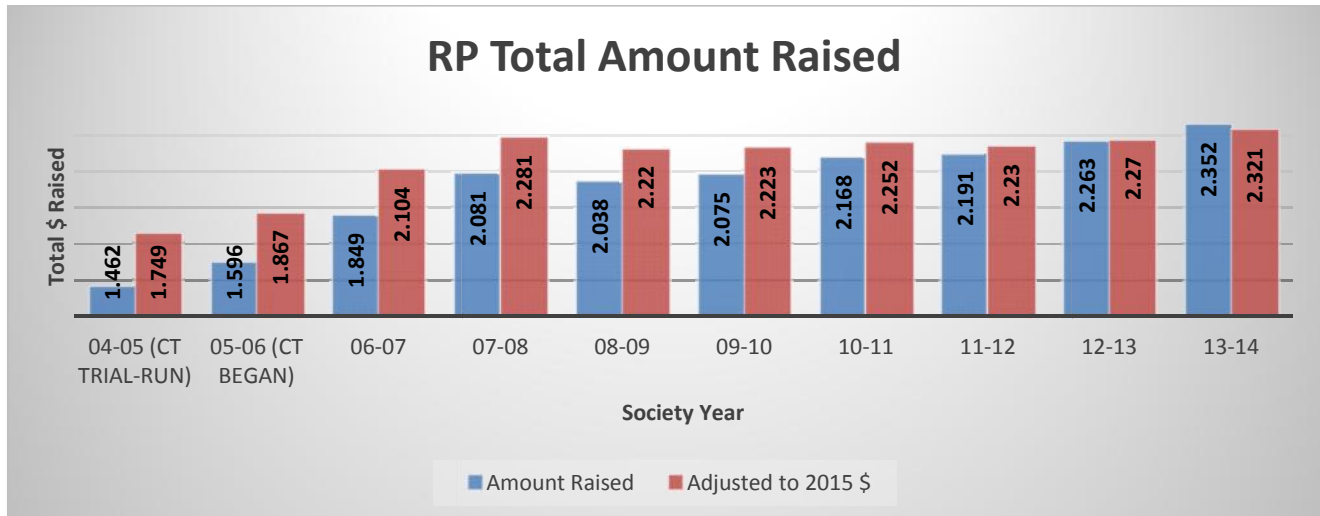
Historical Data for 2012 – 2015 CT's & CRC's

NOTE: Data was estimated for Regions I, VI, IX, XI based on the previous year attendance at CRC for committee chairs where data was missing in spreadsheet.

As evidenced by the above graphs, it is clear that while attendance at centralized training for both

MP and RP have been increasing, there are mixed results in regards to attendance at CRC's between these committees. RP committee chair attendance at CRC's has also increased, while MP attendance at CRC's has decreased.

While the focus of our ad-hoc committee was not to directly identify the effects of the MP and RP campaigns in regards to the results of implementing centralized training, we felt that we would be remiss if we didn't review these statistics in this report. The charts below indicate the growth of both campaigns during the years in which centralized training has been an option for the committee chairs:



Based on the data indicated in the charts above, it can be assumed that the RP campaign has benefited from centralized training since there has been an increase in donations every year since the implementation, with an all-time high in 14-15. However, as discussed amongst our ad-hoc, there could be numerous other factors that should also be considered when reviewing this data, including economic factors. Regardless, we all agreed that CT should get a major portion of the credit for the increase in contributions since its inception 04-05.

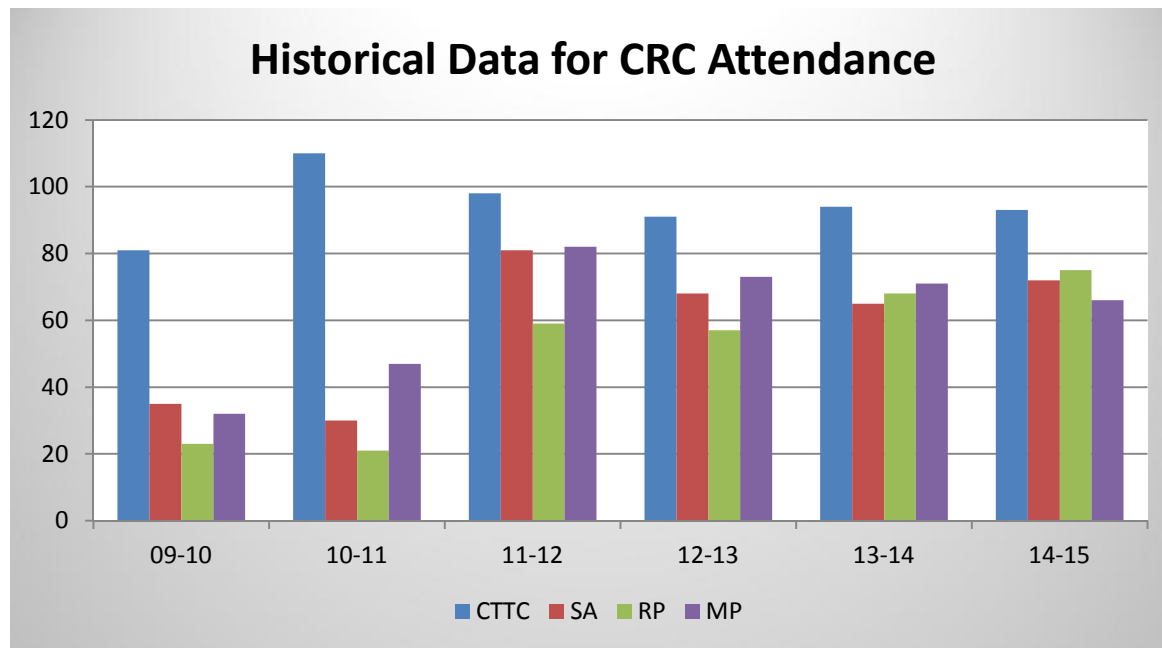
Centralized training for the MP committee has not been in existence for very long, starting with the 12-13 ASHRAE year. Again, as evidenced in the chart above, even though CT is occurring every year, membership has not grown significantly, even falling from 13-14 to 14-15. However, delinquent members were reduced substantially during the same timeframe. Whether this change in delinquents can be attributed to CT or not is debatable at this point until more data can be gathered.

We are aware that the Student Activities committee also started centralized training for the 2014-2015 year. However, the data for attendance at this event versus the attendance at CRC's was not analyzed since most SA committee chairs were not aware of the CT event before their CRC occurred.

Our last efforts at gathering historical data included obtaining data for CRC attendance at committee workshops for the past Society years. This data was difficult to obtain due to lack of record keeping of committee attendees, as well as information on the attendees ASHRAE roles, since sometimes persons other than committee chairs, such as chapter officers, attend workshops for their chairs that can't attend. We did our best to compile the data that we were able to obtain, and made some assumptions on attendance for some regions where the data might be absent for one year, but the proceeding and following years were consistent.

We also began to look at Student Activities (SA) committee and CTTC committee chair attendance at CRCs. Our reasoning was that if there was possibly a correlation to the CRC attendance of committee chairs from RP and MP committees which offered centralized training, then possibly there was an ability to see if there had been a decline/increase in attendance of committee chairs to CRC from committees that did not offer centralized training.

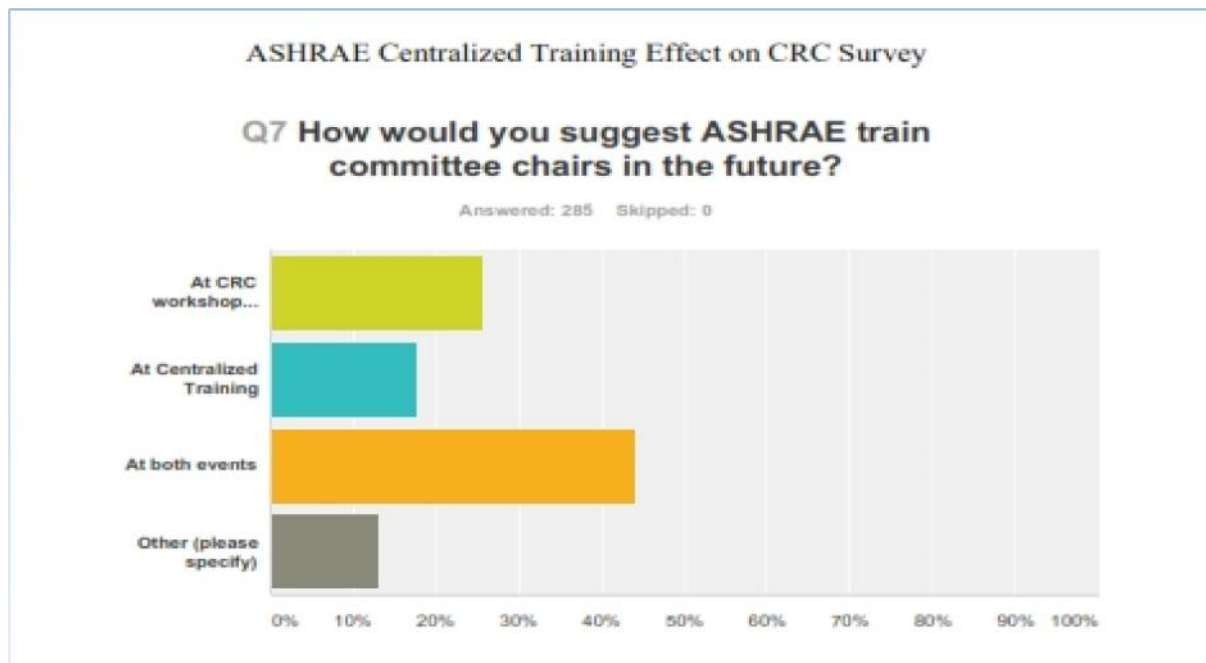
Below is a chart indicating the available CRC attendance data for past CRC's for the four grassroots committees. The information shown for years 09-10 and 10-11 is somewhat unsubstantiated as records were difficult to obtain and we are not clear that the attendee's were actual committee chairs.



## II. Survey Data

Our committee felt that the next step in the process was to gather data from attendees to both or either a CRC or a CT in order to assist us in the barriers and/or incentives for committee chairs to attend one or both of the events, and why they chose the one that they attended. We conducted a survey of past and current chapter committee chairs, and asked several questions regarding the reasoning of each person as to what prompted them to attend one, both or neither of the training events.

The survey went out over 1,000 past and current chairs, with a response from 285 of those polled. The full survey and responses are attached to an appendix in this report, but the final question from the survey has been included below since it reflects the overall intent of the survey and provides insight into the general consensus of the respondents:



The comments regarding the experiences at CRC's and CT's in terms of training have been invaluable in our efforts to capture the pros and cons of each event. We have used this information, along with the historical data presented above, to formulate our final consensus and recommendations regarding the future of committee chair training for ASHRAE.

### **III. Conclusions and Recommendations**

Since the focus of our ad-hoc was to determine the effects of centralized training on CRCs, the data we have gathered indicates that the effect of CT on CRC's is somewhat inconclusive at this point since there are conflicting results. While the attendance of RP committee chairs to centralized training has increased, the attendance of RP committee chairs to CRC's has also increased per the 1<sup>st</sup> chart in this report. Contrarily, the data indicates that the attendance of MP committee chairs to CT has increased, while the attendance of MP committee chairs to CRC's has decreased. However, since the MP centralized training is fairly new, this trend may reverse itself in the coming years. Other supporting data include the fact that both SA and CTTC have shown reductions in attendance at CRC's, and they currently are not offering CT to their committee chairs, which points to other reasons that attendance at CRC's is declining.

In addition, based the results of our survey, we are also concluding that there are benefits to both training venues, CT and CRC, and that our grassroots chapter committee chairs are receiving different benefits when attending each of these events. At centralized training, attendees are receiving generally better quality training than is being delivered at CRC's. While the current results are mixed between MP and RP, the general consensus is that committee chairs that attend CT events are better prepared and engaged than those that do not attend CT events. However, it is also clear that chapter committee chairs enjoy the regional camaraderie that occurs at CRCs. Those that attend CRC's speak highly of the social interaction that occurs with others from their region, and information that is shared at the training sessions at CRCs, when they are allowed to become interactive, helps the committee chairs know what works for their area.

Our final comments revolve around the structure of CRC's in general. Thru-out this ad-hoc committee lifespan, many ASHRAE members outside of our committee have discussed a general concern that CRC training efforts are failing our chapter volunteers, and that the structure of CRC training needs to be reviewed and addressed such that chapter volunteers do not have to attend two separate events in order to be trained to manage their positions. The costs for attending two events, along with the time commitment which requires time away from their families and jobs, are repeatedly brought forth as reasons why there is a decrease in chapter level volunteerism and attendance by chapter committee chairs to CT's and CRCs. It is the



strong belief of our ad-hoc committee that centralized training and CRC training should be combined in a format that works for our members to reduce the time commitment but yet provide high-quality training.

While not the focus of our committee, we have discussed options to resolve this situation at length, and in order to document these discussions we have developed a spreadsheet of options for combining CRC training and centralized training into venues that will accomplish both goals of providing high quality training along with regional camaraderie, along with pros and cons of each option. This spreadsheet is attached to this report for use by the ASHRAE board of directors in identifying the appropriate body of volunteers to tackle this issue.

Our recommendation would be that this report be referred to Member's council for study such that appropriate action can be taken to combine the qualities of CRC's and CT into one event that can effectively train our chapter committee volunteers to provide the best service to ASHRAE with the most effective use of their time. We also recommend that members council review and recommend appropriate procedures that could improve the ability of ASHRAE to obtain and track attendance data at CRC's and CTs.

Sincerely,

**The CT/CRC Ad-hoc Committee:**

Ginger Scoggins, Region IV DRC, Chair  
Kevin Marple, Region XI DRC  
Richard Zbin, Region V DRC  
Karine LeBlanc, Region X DRC  
Kirk Mescher, DAL (in memory of)  
Rhamy Morrison, Consultant, RP  
Ryan MacGillivray, Region XI RVC, RP  
Michelle Swanson, Region IX RVC, MP  
Bryan Holcomb, Chair, MP

**Involved Ad-hoc Non members:**

Billy Austin	Mark Miller
Drayton Stott	Pam Duffey
Dan Rogers	Paul Petrilli
Dunstan Macauley	Trent Hunt
Kathi Newton	
Walter Law	

**Involved ASHRAE Staff:**

Rhiannon Masterson, Staff Liaison to the Ad-hoc  
Patricia Adelman, RP Staff  
Daniel Gurley, MP Staff

1-17-16  
\_\_\_\_\_  
Date

M. Ginger Scoggins, PE  
\_\_\_\_\_  
Chair

## CT / CRC Solutions Options

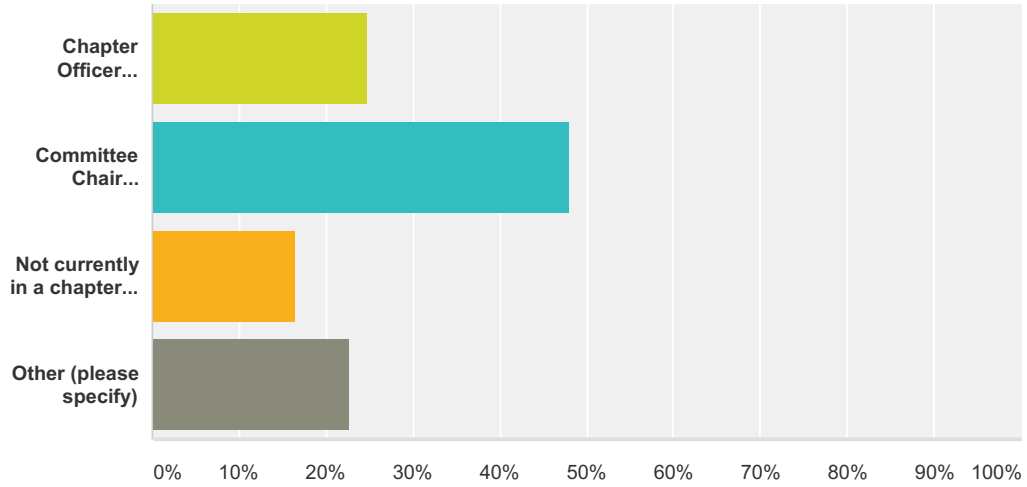
No.	Option	Suggested Format	Pros	Cons	NOTES
<b>1</b>	Mega/Regional CRC's combined with CT	3-4 Regions worth of CRC committee chairs, Chapter Officers, and Regional Officers would be asked to attend a single combined CRC/CT event, with only (4) events needed for each year.	<ol style="list-style-type: none"> <li>1. Could pick venues that are attractive for attendees</li> <li>2. Better training as it can be done by professional trainers, other than RVCS</li> <li>3. Could have break-out sessions during work-shops for Regional discussions hosted by RVC's.</li> <li>4. Executive Officers only need to attend (3) events instead of 14 events</li> <li>5. Time commitment and costs for chapter members would be less than attending both CRC and CT.</li> <li>6. Overall Travel expenses could be less, although overall costs might be higher</li> </ol>	<ol style="list-style-type: none"> <li>1. Need larger meeting venues to support multiple regions</li> <li>2. Does this become a mini-ASHRAE winter/annual meeting?</li> <li>3. Some chapters really enjoy putting on CRC's, and this might cut out the ability of the smaller chapters to host one, which could re-vitalize a smaller chapter.</li> <li>4. Spring CRC's would not work with this plan, and would have to change to follow the fall CRC format.</li> </ol>	In the results of the survey, it was clear that time commitment is an issue for committee chairs, as well as costs and location. In addition, it was clear that RVC training in general at CRC's is lacking, and needs to be improved. This option addresses all of those concerns.
<b>2</b>	Committee Chair Training Webinars followed by attendance at CRC's	Committee chairs would receive training via webinars in lieu of attending centralized training. These webinars would be completed prior to CRC's, and then attendee's would be able to attend CRC's ready with questions and knowledge.	<ol style="list-style-type: none"> <li>1. Eliminates debate over which one to attend in the event a committee chair has to choose based on time and/or expense issue.</li> <li>2. Saves expense of centralized training attendance</li> <li>3. Allows for professional training on process and implementation, with Regional dialogue on "what works" for specific area.</li> <li>4. Alleviates training issues from RVC's, who are not effectively taught how to train and are unsure of what to do their first year in office. They can go back over the webinar material in their CRC workshop as needed so that they can explain the information slower, if needed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Doesn't allow all committee chairs in all chapters to share knowledge across regions, which is a benefit of centralized training.</li> <li>2. Can't guarantee attention is being paid to the webinars as they are being conducted.</li> <li>3. Persons might feel that they have already been trained and therefore won't need to attend CRC (this is a current issue with CT/CRC)</li> <li>4. Doesn't address venue issue, since venue seems to be a big draw to CRC's, and chapters that don't have exciting venues can't get attendance.</li> </ol>	These training sessions could seqway into what is needed for committee chairs to bring to CRCs, and could provide "fun" incentives for CRC attendees so that they are more likely to attend CRC.
<b>3</b>	Keep both training venues - CT and CRC - with defined purpose for each.	This option allows for both venues to remain, but to be augmented with improved formatting and support from ASHRAE for new committee chairs.	<ol style="list-style-type: none"> <li>1. Allows separation of focus -- CT on format/process and CRC on Regional Items</li> <li>2. Allows chapter officers to attend CRC training sessions to help out when needed.</li> <li>3. Increases attendance at CRC</li> </ol>	<ol style="list-style-type: none"> <li>1. More expensive for committee chairs as it requires two events to travel.</li> <li>2. More time away from families, which is a concern in the summer when kids are starting school.</li> <li>3. Doesn't address venue issue, since venue seems to be a big draw to CRC's, and chapters that don't have exciting venues can't get attendance.</li> </ol>	<p>As a result of this ad-hoc, it is clear that the format of CRC is not working in general, regardless of whether CT is offered, regardless of which committee. Therefore, it is the recommendation of this ad-hoc that CRC formatting in general be reviewed and improved upon in order to increase attendance at CRC's, thereby increasing the strength of ASHRAE at the grass roots level.</p> <p>For CT, the general feel is that centralized training provides very good information for attendees. Recommend a portion of training be dedicated to understanding ASHRAE society roles and focus since this is the 1st time most committee folks have at understanding ASHRAE as a whole.</p>

APPENDIX

# **SURVEY DATA**

### Q1 What is your current role in your ASHRAE Chapter?

Answered: 285 Skipped: 0

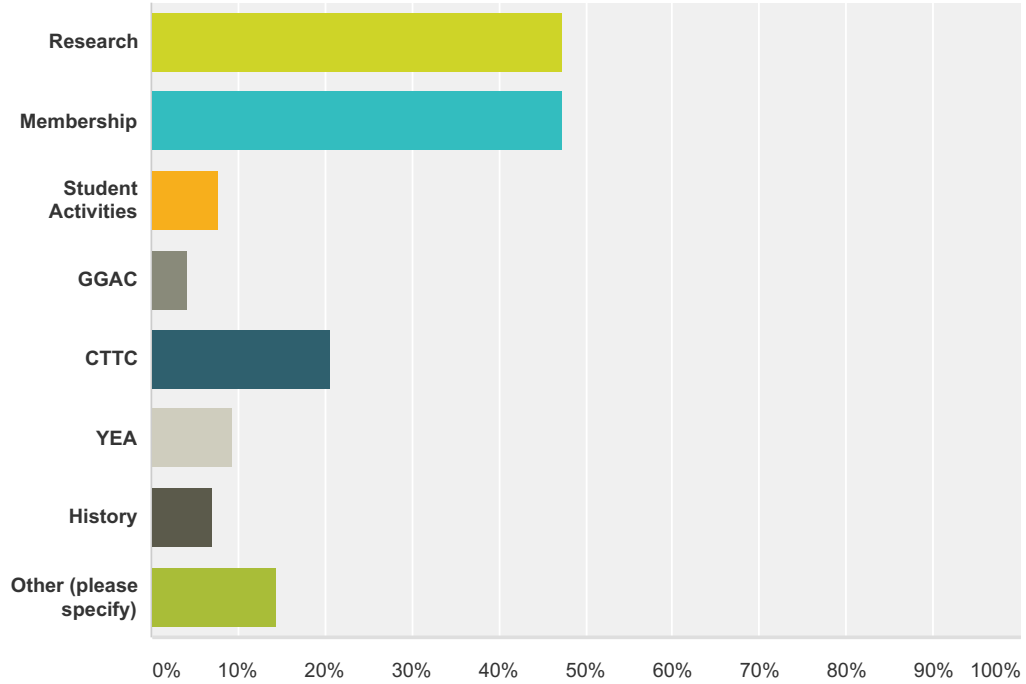


Answer Choices	Responses	
Chapter Officer (President, Vice-President, Treasurer, Secretary)	24.91%	71
Committee Chair (Research, Membership, Student Activities, GGAC, CTTC, YEA, History)	48.07%	137
Not currently in a chapter position	16.49%	47
Other (please specify)	22.81%	65
<b>Total Respondents: 285</b>		

Other Responses:	
BOG	26
Webmaster	5
Past President	5
RVC MP	4
CRC General Chair	3
Member-at-Large	3
RVC RP	3
Research Co Chair	2
President Elect	2
Refrigeration Chair	2
RP Committee	1
MP Co Chair	1
Sustainability	1
RVC	1
Social Chair	1
RMCR	1
Ecomm Chair	1
Administrator	1
H&A	1

**Q2 If you were a chapter committee chair within the last five years, please specify which committee(s):**

Answered: 285 Skipped: 0

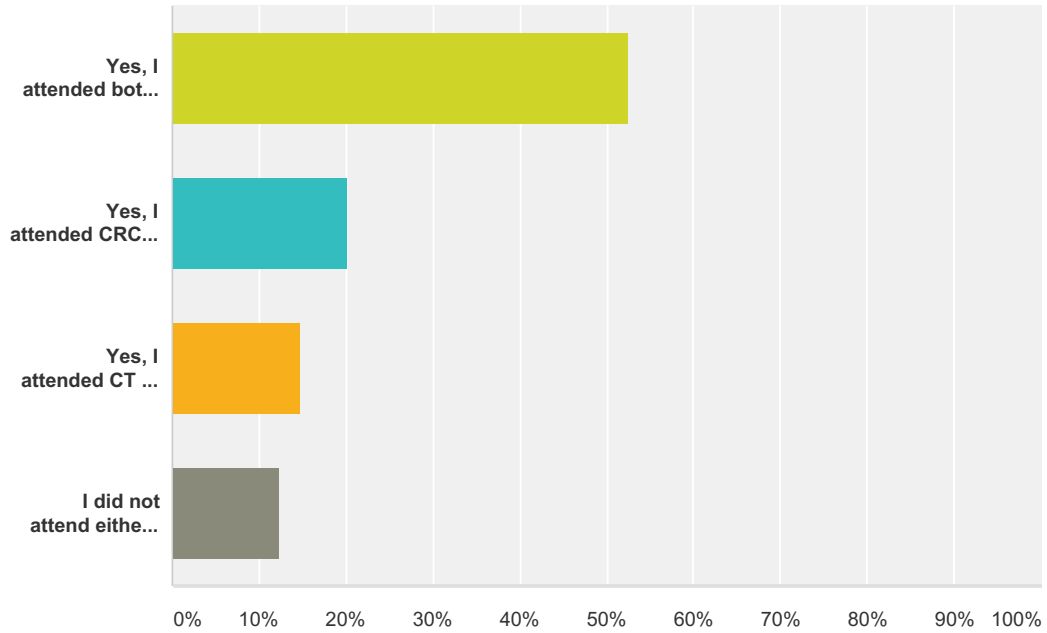


Answer Choices	Responses	
Research	47.37%	135
Membership	47.37%	135
Student Activities	7.72%	22
GGAC	4.21%	12
CTTC	20.70%	59
YEA	9.47%	27
History	7.02%	20
Other (please specify)	14.39%	41
<b>Total Respondents: 285</b>		

Other Responses	
None	7
Newsletter	6
President	4
BOG	4
Webmaster	3
Registration	3
VP	3
RVC RP	3
Programs	2
RVC MP	2
Ecomm	2
Hospitality	1
Secretary	1
Exhibition	1
Past President	1

### Q3 Did you attend your Chapters Regional Conference (CRC) workshop training and Centralized Training (CT) for your committee when you were a committee chair?

Answered: 285 Skipped: 0



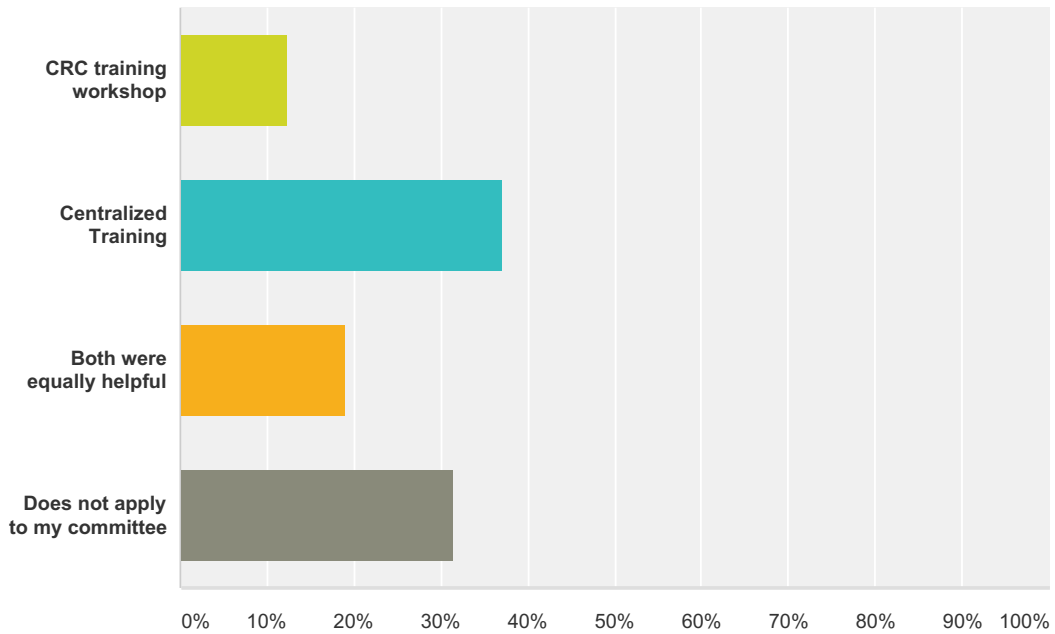
Answer Choices	Responses
Yes, I attended both training sessions (CRC and CT) for my committee	52.63% 150
Yes, I attended CRC training, but I DID NOT attend CT (check this box if CT was not available for your committee when you were a committee chair)	20.35% 58
Yes, I attended CT but I DID NOT attend the CRC training	14.74% 42
I did not attend either training when I was a committee chair	12.28% 35
<b>Total</b>	<b>285</b>

If you attended one training but not the other, please explain why you selected the training you attended and why you did not attend the other training	
Couldn't attend one due to other obligations	14
CT is too much of a time commitment	4
CRC offers more overall value	4
CRC was closer / easier to get to	3
Too expensive to attend both	3
Didn't know of CT / Didn't know enough about CT	2
CT offered more detailed training	2
Time restraints	2
didn't want to go to 2 events for the same thing	2
Preferred CT schedule / more efficient	2
Co-Chair couldn't attend CT	1
Attendance expected at CRC as chapter officer	1
PAOE points for CT	1
CT viewed as mandatory	1
No reason to attend CRC beyond chair workshop	1
Convenience of CT location	1
CT at Society conference	1
CT to meet chairs outside of Region	1



**Q4 If you attended both trainings, which one was more helpful for your role as committee chair?**

Answered: 285 Skipped: 0

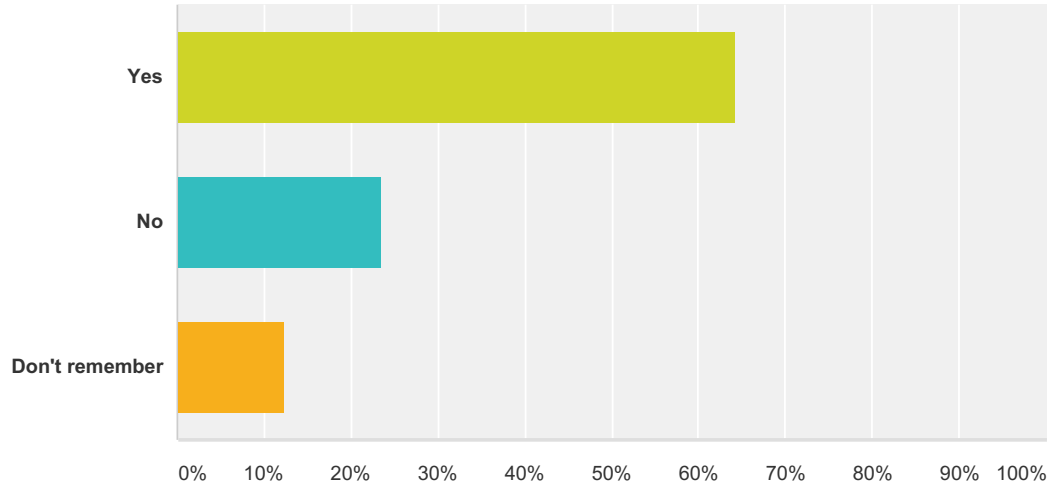


Answer Choices	Responses
CRC training workshop	12.28% 35
Centralized Training	37.19% 106
Both were equally helpful	18.95% 54
Does not apply to my committee	31.58% 90
<b>Total</b>	<b>285</b>

Why was one training more helpful than the other?	
CT is more focused and detailed	28
CT for breakout groups	1
CT for focus on PAOE	1
CT because it brings together multiple Regions / more MP chairs	8
CRC for Regional networking	7
CRC for more localized content	3
CRC for exposure to different committees	1
CRC because in depth training isn't necessary	1
CRC because it takes place sooner than CT	1

**Q5 Did your chapter or Region offer financial assistance for CRC workshop training attendance for committee chairs?**

Answered: 285 Skipped: 0

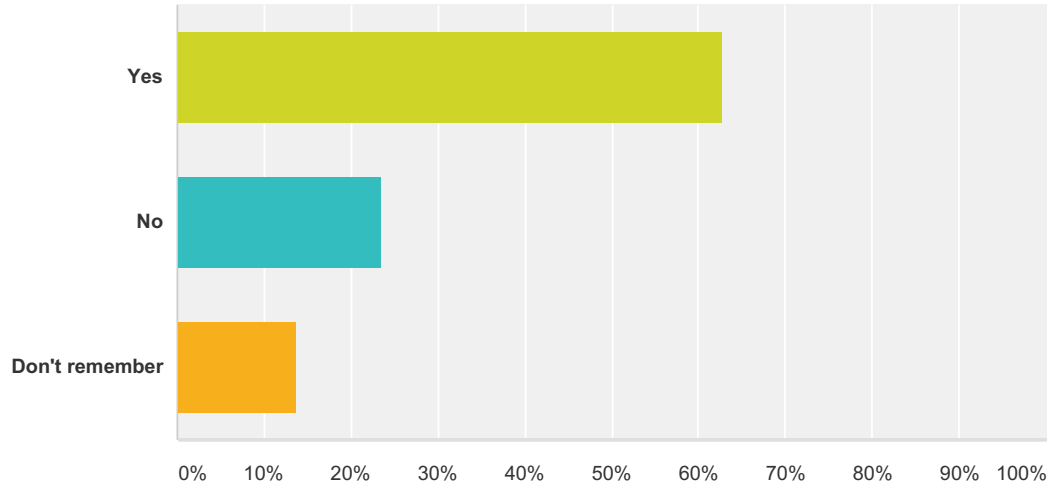


Answer Choices	Responses	Count
Yes	64.21%	183
No	23.51%	67
Don't remember	12.28%	35
<b>Total</b>		<b>285</b>

If yes, what was covered?	
Transportation	40
Hotel	38
Registration	18
All expenses (anything not covered by Society)	9
Meals	5
Stipend from Chapter/Region	5
Partial Hotel	3
Visa charges	1

**Q6 Did your chapter or Region offer financial assistance for attendance at Centralized Training for committee chairs?**

Answered: 285 Skipped: 0



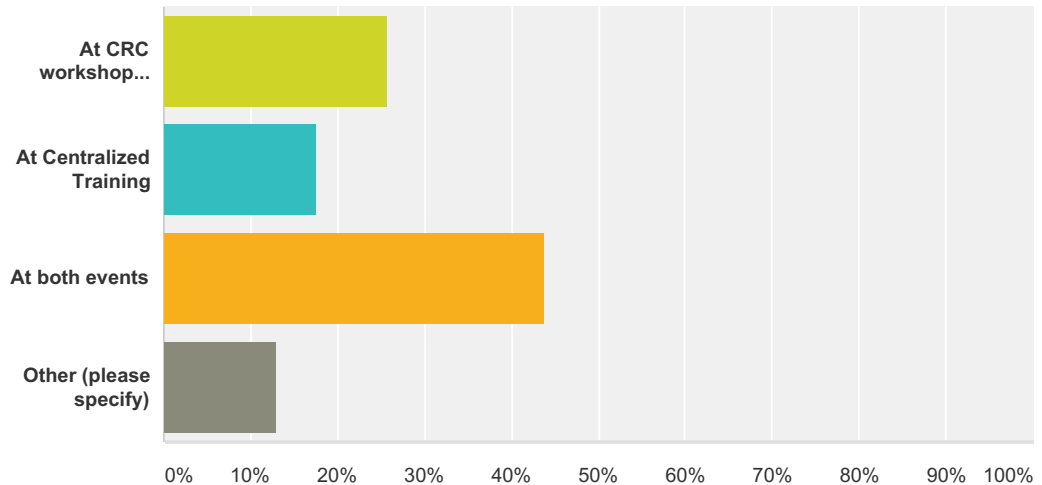
Answer Choices	Responses	Count
Yes	62.81%	179
No	23.51%	67
Don't remember	13.68%	39
<b>Total</b>		<b>285</b>

If yes, what was covered?	
Hotel	47
Transportation	26
All expenses (anything not covered by Society)	7
Meals	7
Stipend from Chapter/Region	1
Partial Hotel	1
Airport parking	1

# ASHRAE Centralized Training Effect on CRC Survey

## Q7 How would you suggest ASHRAE train committee chairs in the future?

Answered: 285 Skipped: 0



**Q8 Do you have any suggestions on how to improve training at the CRC?**

Answered: 150 Skipped: 135

Expand length of workshop/offer CT at CRC	33
Better train RVC/workshop presenter	15
Define workshop agenda; don't just go over Soci	7
Provide more financial assistance	7
Web-based training/webinar	5
Focus more on Regional issues	5
More involvement from ASHRAE staff	4
More efficient use of time	4
Bring in previous chairs	3
Tailor to meet needs of Region/local chapters	2
Mega CRCs	2
Break into 2 sessions	1
Financial assistance	1
Provide more training materials	1
Make it consise and impactful	1
Bring in multiple RVCs to lead workshop	1
Include soft skills training	1
minimize overlap with other CRC activities	1
Send training materials in advance	1
Conduct on weekday instead of weekend	1

**Q9 Do you have any suggestions on how to improve training at Centralized Training?**

Answered: 143 Skipped: 142

Combine with CRC	12
Webinar	8
Make more interactive/group sessions/exercises	6
More convenient locations	4
More financial assistance	4
Held at ASHRAE conferences	3
Change locations	3
Make more valuable for returning chairs	3
Needs more local applicability	3
More specialized training	2
Provide materials in advance	2
Hold earlier in the year	2
Hold in vacation destination	2
Improve training	2
Can be tedious	1
Provide meals	1
More affordable hotels	1
Improve training for returning chairs	1
Too formal	1
Provide non-training/social event	1
Include soft skills training	1

**MOU Tracking and Organization  
Review on Dec 2015**

**CONTENT OF THE REPORT:**

1. MOU Review
2. Discussion and Suggestion
3. Conclusion

**1.0 MOU REVIEW**

ASHRAE has a total of 36 signed Memoranda of Understanding (MOU). Each MOU varies in strategic importance to ASHRAE. In order to have a better overview, we try to review the MOUs in details according to the following aspect,

1. Geographical distribution of the MOU
2. Categories distribution
3. Common interest distribution
4. Term period of the MOU
5. Committed annual meeting in the MOU
6. Global collaboration

**1.1 MOU Review: Geographic distribution**

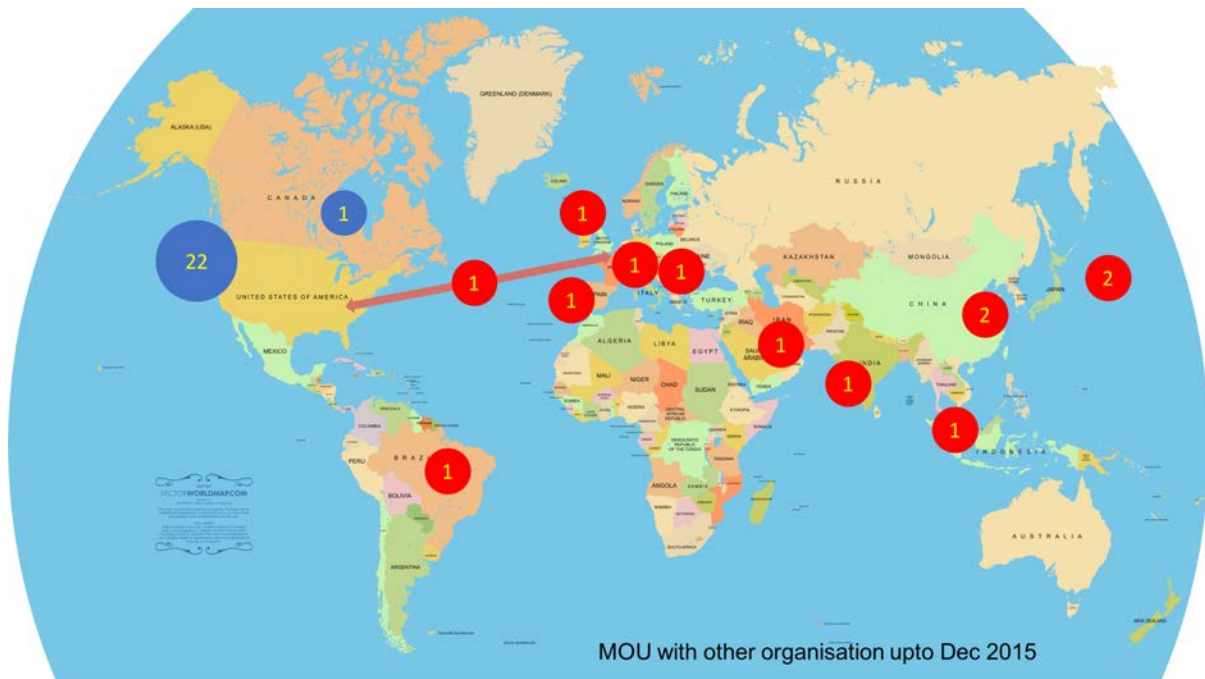
Upto Dec 2015, ASHRAE signed 36 MOUs with various organizations.

- (13) MOUs were signed with organizations located in countries outside North America. And one of the MOU was signed with REHVA, which represents 30 member countries;
- (1) MOU was signed with organization located in Canada;
- (22) MOUs were signed with US organization/government agency.

If we look at those MOU vs ASHRAE regions, we have,

- (1) MOU is related to Region XII;
- (5) MOUs are related to 3 countries in Region XIII;
- (7) MOUs are related to countries in RAL.

Below is the geographic distribution.



## 1.2 MOU Review: Categories distribution

Most of the MOUs/organization involve built environment, and here we would like categorizing them into the following.

- (4) MOU/organization are **Green building** related;
- (2) MOU/organization are **IEQ/IAQ** related;
- (2) MOU/organization are **Refrigeration** related;
- (4) MOU/organization are **Building Operation** related;

And we have the list of organization as followings,

### 1.2.1 Green building related:

- Canada Green Building Council (CaGBC)
- Green Building Council Brasil
- Green Building Initiative (GBI)
- Indian Green Building Council (IGBC)

### 1.2.2 IEQ/IAQ related:

- Indoor Environment Quality Global Alliance (IEQ-GA)
- National Air Filtration Association (NAFA)





### 1.2.3 Refrigeration related:

- Global Cold Chain Alliance (GCCA)
- International Institute of Ammonia Refrigeration (IIAR)

### 1.2.4 Building operation related:

- Association of Higher Education Facilities Officers (APPA)
- Building Owners and Managers Association (BOMA)
- Facility Guidelines Institute (FGI)
- International Facility Management Association (IFMA)

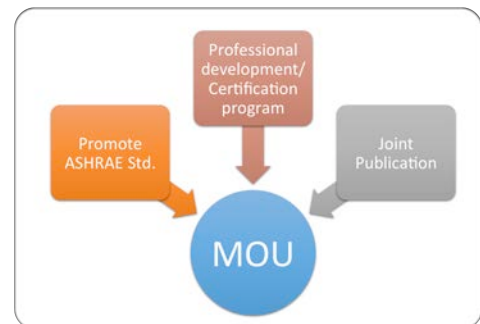
## 1.3 MOU Review: Common interest distribution

In the 36 signed MOUs, we definitely have some common interest with those organisation. And there are some major common interest which may affect our implementation plan and we may be benefit from it. They are,

- Agree to collaborate in Professional development/Certification program;
- Promote ASHRAE Standard/Code;
- Explore joint publication.

### 1.3.1 Professional development/Certification program related:

(15) MOUs/organisation agreed to jointly promote Professional development and/or certification program.



### 1.3.2 ASHRAE Standard/Code related:

(12) MOUs/organization agreed to promote or promote adoption ASHRAE standard /code.

### 1.3.3 Joint Publication related:

(8) MOU/organization are interested to explore the opportunity in developing joint publication.

## 1.4 MOU review: Term period of the MOU

Majority of the MOUs either do not have an expiry date, or automatically renew and only (11) MOUs showed an expiry date. And,

- (7) of them are either expired or to be expired with 2015-16 Society year, and
- (2) MOUs will be expired in 2016-17 Society year.
- (2) MOUs will be expired in 2017-18 Society year.

### 1.4.1 List of the MOUs either expired or to be expired with 2015-16 Society year,

- American Institute of Architects (AIA)
- Council of American Mechanical and Electrical Engineers, (CAMEE)

- Greater Philadelphia Innovation Cluster (GPIC)
- Indian Green Building Council (IGBC)
- Indoor Environment Quality Global Alliance (IEQ-GA)
- International Association of Plumbing and Mechanical Officials, Inc. (IAPMO)
- National Association of State Energy Officials, (NASEO)

1.4.2 List of the MOUs will be expired with 2016-17 Society year,

- International Institute of Ammonia Refrigeration (IIAR)
- National Air Filtration Association (NAFA)

1.4.3 List of the MOUs will be expired with 2017-18 Society year,

- Chartered Institute of Building Services Engineers (CIBSE)
- United States Department of Energy (DOE)

### **1.5 MOU Review: Committed meeting in the MOU**

Collaboration needs continuous communication and better understanding.

- (9) MOUs agree offering complimentary VIP registration to each organization's primary annual meeting
- (1) MOU/organization agree to provide the other with a meeting invitation to the primary annual meeting
- (13) MOUs commit to hold a liaison meeting annually.

### **1.6 MOU Review: Global collaboration**

Apart from the (13) MOU signed with countries outside North America, there are (5) MOUs/organisation who provide potential international collaboration.

- Building Owners and Managers Association (BOMA)
- Clinton Climate Initiative of the William J. Clinton Foundation (CCI) (WJCF)
- International Facility Management Association (IFMA)
- International Institute of Ammonia Refrigeration (IIAR)
- National Air Filtration Association (NAFA)

## **2.0 DISCUSSION AND SUGGESTION:**

After reviewed the 36 MOUs, there is an immediate action we have to take, which is to extend the (7) MOUs which either was expired or is going to expired in this Society year, if needed. Also, the MOU signed with REHVA (Federation of European Heating and Air-Conditioning Association) was found without a date, which need clarification.

.....Would suggest EVP, Jeff, to help taking the action.

Apart from the term period of the MOU, there are 2 MOU we might want to clarify as well.

- Practice, Education, Research for Sustainable Infrastructure (PERSI) MOU shows only ASHRAE and American Society of Civil Engineers signed the agreement.
- MOU with Greater Philadelphia Innovation Cluster (GPIC), we need to clarify whether we get the agreed appointment.

.....Would suggest EVP, Jeff, to help taking the action.

All (36) MOUs are important to ASHRAE in various extents. In order to manage them effectively, priority those MOU is important and necessary. Our list priorities obviously has to connect to the latest Strategic Plan and the long term goal. This is also the process to identify our partner organisation so that ASHRAE can work with them during implementing our strategic plan.

First of all, when we categorize those MOU/organisation, we can group those organization with same category together (eg Green Building and Building Operation) so that Board can appoint the same officer to manage them. On the other hand, we find that only (1) MOU/organisation is related to Residential issue, which is American Institute of Architects (AIA). The Board might want to identify some other organisation in residential to work with in the future.

“Green Building” associates with Std 90.1 & 189.1 and “IAQ/IEQ” associates with Std 62.1, 62.2 & 55. “Building Operation” will obviously correlate to not only above Std but also Std 180 etc. Those organisation will definitely a good/potential good partner to us, either in potential membership or “product” development and revenue improvement.

.....Suggest to appoint 3 VPs to follow those MOU/organisation.

Secondly, we sort those MOU according to common interest as ASHRAE. There are (15) MOU/organisation showing interest to collaborate in either Professional development or Certification program. This is a significant reference for us to further develop and implement our ASHRAE certification program.

Besides, there are (12) MOU/organisation show potential in either cooperation or adoption of ASHRAE standard/code. This is an unique reference for us to identify partner organisation in promoting ASHRAE standard, which may help us increasing revenue by selling our publication.

.....Would suggest President Elect, Tim, to develop a matrix in working with those organisation regarding ASHRAE Std, Professional development and ASHRAE Certification.

Lastly, we have to look at MOU in the global aspect. There are (13) MOU were signed with organisations located in countries outside North America. (22) MOU were signed with organisation from US and (1) from Canada. In long term, the Board might have to consider handling those MOU/organisation outside North America separately due to their needs are different from those located in US/Canada. A similar format of MOU and implementation plan will assist us to work with partner organisation outside North America.

However, we also realize that chapter/section/group exist in some of the MOU/organisation “countries”. Do we connect those MOU/organisation well with the related Region/chapter?

.....Would suggest current Treasurer, Bjarne, and to follow up the Globalization strategy.

*MOU/organisation (outside North America) vs ASHRAE Region/chapter:*

	ASHRAE Region	no of MOU	ASHRAE chapter in the country (chapter no)
Japan	Region XIII	2	Yes (194)
China	Region XIII	2	No. But 2 ASHRAE Group. ASHRAE-CAR Beijing group ASHRAE-CAR Shanghai group
Singapore	Region XIII	1	Yes (142)
Brasil	Region XII	1	Yes (172)
Spain	RAL	1	Yes (182)
Kuwait	RAL	1	Yes (164)
Serbian	RAL	1	No.
UK	RAL	1	No. But 1 Section & the CIBSE-ASHRAE group.
India	RAL	1	Yes (158)
Europe (REHVA)	RAL	1	
Indoor Environment Quality Global Alliance (IEQ-GA) (US/Europe – Alliance)		1	

On top of this, there are (5) MOU/organization might be the potential partner organization for us to work with in the global development, due to their international involvement. They are,

- Building Owners and Managers Association (BOMA)
- Clinton Climate Initiative of the William J. Clinton Foundation (CCI) (WJCF)
- International Facility Management Association (IFMA)
- International Institute of Ammonia Refrigeration (IIAR)
- National Air Filtration Association (NAFA)

.....Would suggest current VP, Walid, to help Bjarne investigate the benefit in working with them in our Globaliazation map.

## **CONCLUSION:**

Those (36) are important asset to ASHRAE. However, the importance is how can we connect them well and dip out the treasure. Target is to reach a win-win situation.

Instead of follow up with the MOU/organization separately, it's suggest to group them together and have individual officer follow up with the same group, implementing under same strategy.

Lastly, there are (9) MOU committed to have complimentary VIP registrations to each organization's primary annual meeting. And (13) MOU committed to hold a liaison meeting annually (either in person or via Conference Call. This will help further mutual understanding and enhance in co-operation. [Would suggest our President, David, to look into it and according to the above strategy come up from Tim \(PE\) and Bjarne \(Treasurer\) regarding ASHRAE STd/Professional developemnt/Certification matrix and Globalization matrix.](#)

Encl.

Appendix 1: List of MOU with MOU highlight.

Appendix 2: MOU analysis in various categories/groups

## Appendix 1: List of MOU with highlights

Organization	Organization location	MOU signed date	MOU expiry date	MOU highlight	Any committed meeting?
1 American Institute of Architects (AIA)	US	January 28, 2004	Terminate in 3 years (terminate @ 2007/1/28) unless extend	To work jointly on energy use and energy efficiency issues related to the built-environment. To collaborate in Professional development and public outreach	
2 American National Standards Institute (ANSI)	US	October 14, 1998	3 yrs. term and automatically renew for every 2 yrs.	Responsibility of Secretariat functions in ISO/TC and/or SCs.	
3 American Society of Health Care Engineering (ASHE)	US	January 23, 2004	Not mentioned	Share products. To promote continuing Professional development and professional certification programs.	
4 Association of Higher Education Facilities Officers (APFA)	US	October 7, 2007	Not mentioned	To advance and promote mutual interests of engineering and facility professionals. Share products, promote continuous professional development.	
5 ATECYR-ASHRAE Memorandum of Understanding	Spain	October 24, 2008	Not mentioned	International collaboration	One (1) complimentary VIP registrations to each organization's primary annual meeting
6 Building & Construction Authority of Singapore (BCA)	Singapore	April 8, 2009	Not mentioned	International collaboration	Commit to hold a liaison meeting annually (either in person or via CC).
7 Building Owners and Managers Association (BOMA)	US	January 20, 2008	Should be reviews on a periodic basis	To optimize efforts of mutual interest. ASHRAE Std. 62.1, 90.1, 180, 189.1. To promote continuing professional development. Jointly promote educational programs to mbrs (such as member discounts to the other's mbr)	
8 Canada Green Building Council (CaGBC)	Canada	November 16, 2006	Not mentioned	Develop and maintenance of technical std and guideline.	Executive liaison committee (2p from each org) will meet face-to-face once a year.
9 Chartered Institute of Building Services Engineers (CIBSE) (updated 2013)	UK	January 30, 2013	periodic review at intervals not exceeding 5 yrs.	International collaboration. And Professional Review.	
10 China-United States HVACR Industry	China/US	January 29, 2007	Not mentioned	Protection of Intellectual Property at Trade Exhibition. Open communication and collaboration	
11 Chinese Association of Refrigeration (CAR)	China	April 11, 2006	Not mentioned	International collaboration	
12 Clinton Climate Initiative of the William J. Clinton Foundation (CCI) (WJCF)	US/International	August 1, 2006	Not mentioned. intend to set forth long term working relationship.	work jointly to promote and publicize their association so as to further their mutual climate protection and emissions reduction objectives, worldwide.	
13 Council of American Mechanical and Electrical Engineers, (CAMEE) (updated 2013)	US	January 28, 2013	3 years (terminate @ 2016/1/28), unless extended by written agreement.	Chapter collaboration. Explore opportunities to jointly produce publication.	Commit to hold a liaison meeting annually (either in person or via CC).
14 Facility Guidelines Institute (FGI)	US	May 20, 2009	Not mentioned. Should be reviewed on a periodic basis.	To advance and promote the mutual interests of architecture, engineering and healthcare facility professionals. ASHRAE Std 170 reprint license. Share products. Encourage collaborative and cooperative activities to promote continuing professional development and professional certification program.	
15 Federation of European Heating and Air-Conditioning Association (REHVA)	Europe	Not mentioned	Not mentioned	International collaboration	
16 Global Cold Chain Alliance (GCCA)	US	July 21, 2008	Not mentioned	To advance and promote the mutual interests of refrigeration and facility professionals. Agree to discuss a collaborative foundation that allows certification programs from each org to be complimentary. Seek ways to promote respective certification programs.	Commit to hold a liaison meeting annually (either in person or via CC).
17 Greater Philadelphia Innovation Cluster (GPIC)	US	October 24, 2011	January 31, 2016	to cooperate in connection with the GPIC project. A 22 mbr consortium that has been designated as an Energy innovation hub of the US DoE. Research: ASHRAE will assign a PSU-appointed non-voting liaison to RAC, and ASHRAE representative will serve on the GPIC Advisory Board. PSU will explore the potential if existing ASHRAE certifications to support its objectives.	
18 Green Building Council Brazil	Brasil	January 20, 2008	Not mentioned	International collaboration	A liaison committee comprising 2 representatives of ASHRAE and 2 representatives of GBCB shall hold a meeting once a year.
19 Green Building Initiative (GBI)	US	February 5, 2009	Not mentioned	Promote energy efficient buildings. Provide access to the Green Globes tool. Support and promote green building std, certification program and rating system	
20 Indian Green Building Council (IGBC)	India	October 9, 2009	3 years (terminate @ 2012/9/10). Agreement may be renewed by written consent.	Share products	
21 Indoor Environment Quality Global Alliance (IEQ-GA)	US/Europe	June 29, 2014	2 years (terminate @ 2016/6/29). To be extended by written agreement.	The Alliance was formed to Promote IEQ. Mbrs including ASHRAE, IAQA, AIHA, AWMA, AIVC(Europe) and REHVA(Europe).	
22 International Association of Plumbing and Mechanical Officials, Inc. (IAPMO)	US	January 25, 2012	3 years (terminate @ 2015/1/25), unless extended by written agreement.	Chapter collaboration. Joint publication. Agree to discuss ways that certification programs can be jointly developed or administered.	Two (2) complimentary VIP registrations to each organization's primary annual meeting. And commit to hold a liaison meeting annually (either in person or via CC).
23 International Code Council (ICC)	US	July 5, 2006	Not mentioned	Explore ways to optimize codes and standards development.	
24 International Facility Management Association (IFMA)	US/International	October 16, 2008	Not mentioned.	Share product. Explore Joint publications. Seek ways to promote respective certification programs. Collaboration. Discuss ways to promote adoption of code and standards.	Two (2) complimentary VIP registrations to each organization's primary annual meeting. And to hold a liaison meeting annually (either in person or via CC).
25 International Institute of Ammonia Refrigeration (IAR)	US/International	March 25, 2014	3 years (terminate @ 2017/3/25) unless extended by written agreement.	Chapter collaboration. Explore Joint publication. Agree to discuss ways that certification programs can be jointly developed or administered.	Two (2) complimentary VIP registrations to each organization's primary annual meeting. And to hold a liaison meeting annually (either in person or via CC).
26 Japan Society of Refrigerating and Air Conditioning Engineers (JSRAE)	Japan	May 21, 2010	Not mentioned	International collaboration, Explore Joint publications. Agree to discuss ways to promote adoption and widespread use of codes and standards of mutual interest.	One (1) complimentary VIP registrations to each organization's primary annual meeting. And to hold a liaison meeting annually (either in person or via CC).
27 Kuwait University, College of Engineering and Petroleum	Kuwait	October 4, 2009	Not mentioned	International collaboration	One (1) complimentary VIP registrations to each organization's primary annual meeting. And to hold a liaison meeting annually (either in person or via CC).
28 National Air Filtration Association (NAFA)	US	January 20, 2014	3 years (terminate @ 2017/1/20), unless extended by written agreement.	Explore opportunities to collaborate at the national, regional and local levels. Explore Joint publication. Joint promotion of codes and standards. Discuss ways that certifications programs can be jointly developed or administered.	Two (2) complimentary VIP registrations to each organization's primary annual meeting. And to hold a liaison meeting annually (either in person or via CC).
29 National Association of State Energy Officials, (NASEO) (updated 2013)	US	January 29, 2013	3 years (terminate @ 2016/1/29), unless extended by written agreement.	General collaboration. Joint promotion of state energy codes and standards; explore Joint publication	Agree to provide the other with a meeting invitation to the primary annual meeting.
30 National Environmental Balancing Bureau (NEBB)	US	November 12, 2008	Not mentioned.	General collaboration. Explore Joint publication; seek ways to promote respective certification programs. Agree to discuss ways to promote adoption and widespread use of codes and standards.	Two (2) complimentary VIP registrations to each organization's primary annual meeting. And to hold a liaison meeting annually (either in person or via CC).
31 National Society of Professional Engineers (NSPE)	US	July 31, 2000	Not mentioned.	General collaboration. To promote an enhanced image and understanding of the engineer and the engineering profession. Jointly promote educational programs to mbrs.	
32 Practice, Education, Research for Sustainable Infrastructure (PERSI)	US	July 11, 2006	Not mentioned	Alliance formed with other organization. Purpose is to provide a means by which the infrastructure community can work cooperatively and collaboratively to promote and translate the philosophy of sustainability into action. (But only signed by ASHRAE & American Society of Civil Engineers)	
33 Society of Heating, Air Conditioning and Sanitary Engineers of Japan (SHASE)	Japan	January 29, 2013	3 yrs. Automatically renew for successive 3 yr. periods on a continuous basis.	International collaboration. Explore opportunities to jointly produce publications. Mbrs of each Society may purchase publications of the other Society at mbr rates.	Two (2) complimentary VIP registrations to each organization's primary annual meeting. And to hold a liaison meeting annually (either in person or via CC).
34 The Serbian Society for Heating, Refrigeration and Air-Conditioning (KGH), FTN, and UNS- ASHRAE-SB	Serbian	November 30, 2009	Not mentioned	International collaboration	
35 The Infrastructure Security Partnership (TISP)	US	March 11, 2002	Not mentioned	Offer technical support and sources for expert comment on public policy related to the security of the nation's built environment.	
36 United States Department of Energy (DOE)	US	April 22, 2015	3 years (terminate @ 2018/4/22), unless extended by written agreement.	encourage the continued development of standards related to energy efficiency. ASHRAE Std 90.1 and AEDG.	

## Appendix 2: MOU analysis in various categories/groups

Organization	Organization location	MOU signed date	MOUs analysis					Global collaboration		
			Green building	IEQ/IAQ	Refrigeration	Building operation	Professional development/Certification		ASHRAE Std/code	Joint Publication
1	American Institute of Architects (AIA)	US					1			
2	American National Standards Institute (ANSI)	US						1		
3	American Society of Health Care Engineering (ASHE)	US					1			
4	Association of Higher Education Facilities Officers (APPA)	US				1	1			
5	ATECYR-ASHRAE Memorandum of Understanding	Spain								1
6	Building & Construction Authority of Singapore (BCA)	Singapore								1
7	Building Owners and Managers Association (BOMA)	US				1	1	1		1
8	Canada Green Building Council (CaGBC)	Canada						1		
9	Chartered Institute of Building Services Engineers (CIBSE) (updated 2013)	UK								1
10	China-United States HVACR Industry	China/US								1
11	Chinese Association of Refrigeration (CAR)	China								1
12	Clinton Climate Initiative of the William J. Clinton Foundation (CCI) (WICF)	US/International								1
13	Council of American Mechanical and Electrical Engineers, (CAMEE) (updated 2013)	US					1		1	
14	Facility Guidelines Institute (FGI)	US				1	1	1		
15	Federation of European Heating and Air-Conditioning Association (REHVA)	Europe								1
16	Global Cold Chain Alliance (GCCA)	US			1		1			
17	Greater Philadelphia Innovation Cluster (GPIC)	US					1			
18	Green Building Council Brazil	Brasil	1							1
19	Green Building Initiative (GBI)	US	1				1	1		
20	Indian Green Building Council (IGBC)	India	1							1
21	Indoor Environment Quality Global Alliance (IEQ-GA)	US/Europe		1						1
22	International Association of Plumbing and Mechanical Officials, Inc. (IAPMO)	US					1		1	
23	International Code Council (ICC)	US						1		
24	International Facility Management Association (IFMA)	US/International				1	1	1	1	1
25	International Institute of Ammonia Refrigeration (IiAR)	US/International			1		1		1	1
26	Japan Society of Refrigerating and Air Conditioning Engineers (JSRAE)	Japan						1	1	1
27	Kuwait University, College of Engineering and Petroleum	Kuwait								1
28	National Air Filtration Association (NAFA)	US		1			1	1		1
29	National Association of State Energy Officials, (NASEO) (updated 2013)	US						1	1	
30	National Environmental Balancing Bureau (NEBB)	US					1	1	1	
31	National Society of Professional Engineers (NSPE)	US					1			
32	Practice, Education, Research for Sustainable Infrastructure (PERSI)	US								
33	Society of Heating, Air Conditioning and Sanitary Engineers of Japan (SHASE)	Japan							1	1
34	The Serbian Society for Heating, Refrigeration and Air-Conditioning (KGH), FTN, and UNS- ASHRAE-SB	Serbian								1
35	The Infrastructure Security Partnership (TISP)	US								
36	United States Department of Energy (DOE)	US						1		
			4	2	2	4	15	12	8	18



Shaping Tomorrow's  
Built Environment Today

# Initiative 2A – Volunteer Time Management Report

## Executive Summary

President Tom Phoenix established the *Effective Use of Volunteer Time* ad hoc committee to develop a strategy for improving the ASHRAE volunteers' experiences and increasing the number of active ASHRAE volunteers. The work of this ad hoc committee supports the ASHRAE Strategic Plan Initiative 2A – Volunteer Time Management. Through both face-to-face and teleconference meetings, the ad hoc committee developed recommendations to achieve these objectives. The top three priority recommendations are listed below and details for all recommendations are described in **Appendix A**.

Priority #1: Review a Handbook chapter/standard/guideline and develop a topic/RTAR for a research project at a regional meeting, such as CRC

Priority #2: Improve the volunteer experience by making it enjoyable, technically satisfying, efficient, and effective, perhaps by reducing bureaucracy and unnecessary administrative process and operations

Priority #3: Suggest TCs meet annually, at either the Winter Conference or Summer Conference, then conference calls on a quarterly basis (or as required)

## Background

ASHRAE stands out among other technical societies for the volunteerism of its members. It is the envy of other technical societies because of the amount of time its members give to the organization from society events, to developing technology, to administrating the society itself (e.g. BOD, Finance Committee, Councils etc.). Along with ASHRAE's committed and loyal staff, the hours of resources dedicated to advancing the arts and sciences of HVAC&R has allowed ASHRAE to become a major driving force in the buildings industry.

However, there is still room for improvement. Of ASHRAE's 54,000 members, only about 5,000 are actively involved in volunteering for ASHRAE through participation in chapter, technical and administration activities. Getting 2% more of the membership to volunteer would result in a significant increase in the Society's net volunteer effort.

To this end, the ASHRAE Board of Directors (BOD) included Strategic Initiative 2A – Volunteer Time Management in the current Society Strategic Plan: *ASHRAE must become more agile so that it can deliver products and services in a timely manner while respecting the value of volunteer time. ASHRAE will review all aspects of the organization to identify and remove encumbrances to agility and the respectful use of volunteer time.*

The critical importance of cherishing and nurturing our volunteer culture is called out in President Tom Phoenix's theme of *People, Passion, Performance*. President Phoenix brought his passion and focus to



this important endeavor by selecting a team of volunteers to consider how the Society experience can be improved to promote volunteerism.

## Presidential Ad Hoc

As recommended in the strategic implementation Tool Kit, President Phoenix created the *Effective Use of Volunteer Time* ad hoc committee and charged its members with developing a strategy to implement Initiative 2A. The members of this ad hoc committee are:

Sheila Hayter – Chair

Gordon Holness<sup>1</sup> – Co-Chair

Hugh Crowther

Pam Immekus

Ben Leppard

Nicholas Long

Sarah Maston

Ross Montgomery

Mick Schwedler

Joyce Abrams - Staff

The ad hoc committee members met in Atlanta in November 2014 to kick off the project and then during the 2015 Winter Conference in Chicago. Bi-monthly teleconferences were held with all or part of the ad hoc; the ad hoc leadership has held additional calls to manage the progress. In short, this ad hoc has walked the talk.

## Ad Hoc Approach

The ad hoc met November 24, 2014 to brainstorm the challenge and create a viable approach to creating a plan. The first challenge is that volunteerism is a big and complicated issue and is actually very hard to know where to start. Through good dialog the following was achieved:

The focus of the Committee would be on increasing the volunteer hours dedicated to running the organization at chapter level, developing and disseminating technology and administering Society functions.

- Increasing member participation in using the products and services that ASHRAE provides, while a noble cause, is not the purpose of this ad hoc.
- Getting volunteers to create and administer more products and services is the goal of this ad hoc.

## Measuring Success

As with all complex topics, measuring the result can be as hard as identifying what to do. The following two metrics were identified:

1. How does this activity improve the volunteer experience? (How does it make you feel good about the time you invest in ASHRAE?) This metric speaks to the need to make sure that those who already volunteer continue to do so. It is about protecting our base.
2. How does this activity increase the number of volunteers? This metric speaks to growing our ranks of volunteers.

The two metrics are used to rank possible activities and measure our success.

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<sup>1</sup> Gordon was instrumental in the early meetings in setting the ad hoc direction. Gordon stepped down in January 2015 to allow him time to address another mission-critical ASHRAE assignment.

# The Four Themes

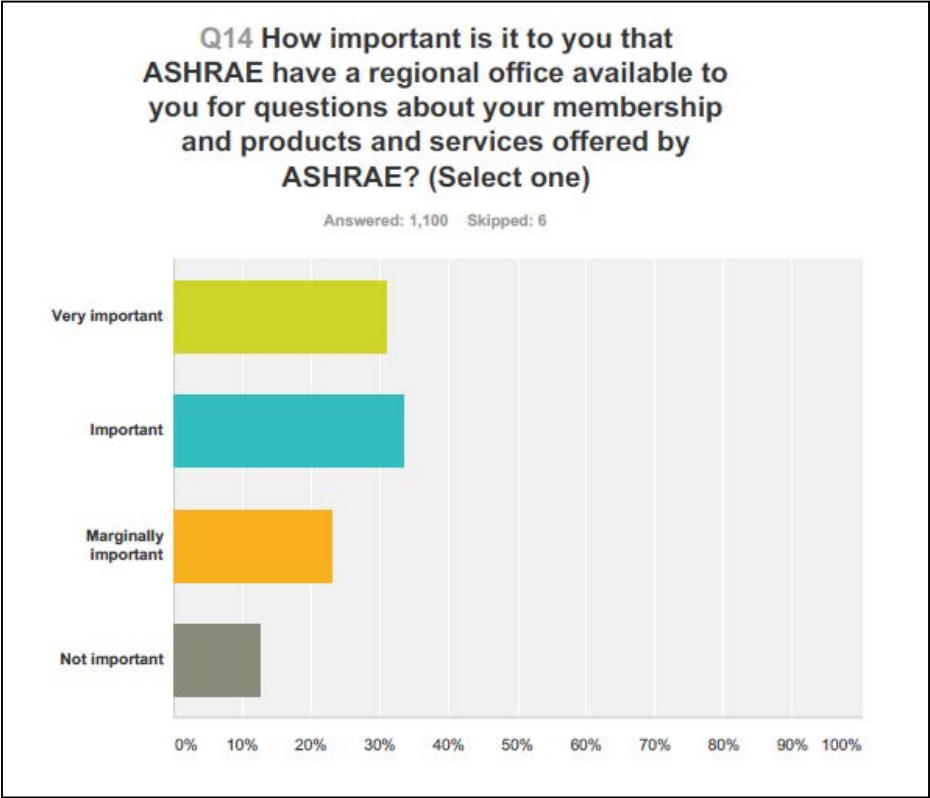
Four themes have been developed as most important to focus on to increase volunteerism.

## Volunteer Locally

The current ASHRAE model requires that those who want to volunteer in high-level technical and administrative functions need to come to ASHRAE (attend the Winter and Annual Conferences) rather than the Society’s making a reasonable attempt to meet the volunteers halfway. The further the distance a member must travel to a Winter or Annual Conference, the more prohibitive the issues are in both cost and time. The members who find distance to be a barrier may be just as passionate and skilled as any other member. This issue becomes most critical for our global members because we limit our Society meetings to U.S. and Canadian cities.

Figure 1 shows results of question from a recent survey conducted by the Planning Committee. The question specifically asks about the importance of local ASHRAE representation for products and services. From these results, we can infer that a means for volunteering locally is also very important.

Figure 1 - PLC Global Survey Question



The Volunteer Locally theme focuses on how to allow a potential volunteer to participate in society activities with the least impact on personal time and cost of travelling. The success metric is that more members volunteer (Metric 2). Moreover, local volunteers can be experts in specific fields of interest such as hot and humid climates or healthcare design for emerging economies. ASHRAE technology has been losing out on their valuable input. Local volunteers have the knowledge and experience to develop and produce the best technology for their local needs while taking advantage of ASHRAE’s resources to package and deploy the technology.

Our research program has not fully integrated global resources and talent into its ranks. We should learn

more about why this gap occurs and develop a process to get more involvement to include all of our donor groups around the world into our research teams.

Through our grassroots organization, ASHRAE already has an outstanding infrastructure for local volunteerism. By leveraging our chapter and regional structure and in particular the Chapters Regional Conferences (CRCs), there is an easy path to reach out to members locally.

Creating local means to participate does not need to be limited to just the CRCs, but the CRCs offer a good place to start to work out the initial coordination and potential issues. In the future, other venues and platform locations can be used following the same process. Both Members Council and separate parallel groups are also investigating best practices and means to strengthen the value of CRCs. This concept aligns well with their efforts. ASHRAE already has started some initial work to support virtual meetings, which is another method to volunteer locally.

Leveraging the CRC infrastructure will take the full support of the Director and Regional Chairs (DRCs), CRC host committees, chapter Boards of Governors and all three of ASHRAE Councils. Holding additional meetings where volunteers can participate in developing technology will strengthen the CRC meetings and will be a win-win for all.

The challenge for this “local volunteerism” effort is to ensure the work product that is created through local volunteerism finds its way into the Society meeting committee functions, final Society publications and other products. Our current structure is not set up for this approach. It will happen only with the full support of the Councils and committees that participate in the process.

Several initial areas have been identified and are listed in the proposed actions section. These actions will improve the affordability, desirability, and usability of our levels of service to all of our members, including the “other 50,000” who cannot attend Society meetings, by resonating “excitement” and bolstering attendance and participation at all levels of ASHRAE. The actions will increase our technology transfer and depth/breadth of our technical standards, handbooks and publications by dramatically increasing the input and participation from materially affected parties and individuals, providing “the most productive and rewarding experience that a local member has never had before.”

## Focus Participation

The Focus Participation theme speaks directly to respecting the value of each volunteer’s time. ASHRAE must be vigilant in identifying anything that gets in the way of a volunteer’s feeling good about the time he or she volunteers to the Society. The success metric is that we improve the volunteer experience (Metric 1). We expect that those who enjoy their volunteer experience will pass this on to other potential volunteers and so a secondary metric will be an increase in volunteerism and membership (Metric 2).

The Focus Participation theme identifies items that detract from the volunteer experience. ASHRAE has a long history as an organization and, thus, has built up a considerable amount of processes and procedures. Sometimes strict interpretation of the rules without compassion using “common sense” can be discouraging to volunteerism for the majority. If one is not careful, these processes and procedures can impede the volunteer experience. As an example, the Rules of the Board are over 300 pages long. Structure is important in a large organization and it maintains our consensus-based approach, but care must be taken to make sure it does not dominate or stifle the volunteer experience.

Leadership is another critical element. Agreeing to be on a committee, only to find that the Chair mismanages the meetings, can be a particular problem. In this situation, the committee’s result will

likely suffer and the volunteers will be frustrated possibly to the point of avoiding future assignments.

A third area of consideration is providing the tools to make volunteering efficient. In particular, easy access to pertinent information (procedures, past minutes, agendas activities by other groups that are relevant etc.) to perform the volunteer work is crucial. The timely posting of committee activities and minutes/notes to our ASHRAE member portals is crucial for the flow of information and progress at the speed of business. For this information sharing to be difficult in the current information age is a serious detriment to volunteerism by our younger members. Helpful tools can be expanded to leverage online and other social media to allow volunteerism to take place in a different manner than has been done for the past 100 years.

A list of issues that would cause a volunteer to stop participating was developed and counter measures are listed in **Appendix A**.

### Conference Participation

Each of Society's Winter and Annual Conferences is comprised of two events. One event is the technical program. Seminars, courses, symposia and forums are available for learning and professional development. Many opportunities to earn PDH credits are available. The other event is the administration or "business" of Society. Technical committees, social committees, project committees, Councils and the Board of Directors all meet during the Conferences. The committees and Councils, as well as the Board, are comprised of industry professionals who volunteer their time and expertise. These two events are intertwined, with the technical committees, guidelines and standards all providing expertise for the technical program.

As Society has grown, the number of meetings held during the Winter and Annual Conferences has greatly expanded to the point that a fully dedicated volunteer can have meetings from one Thursday night to the following Thursday morning (eight days). A more typical commitment is likely three to four days. The cost and time can be encumbrances and may limit the available pool of volunteers.

The meeting flow (subcommittees – committees – councils – BOD) was developed in an era before the internet, a time when face-to-face meetings were the only method available to perform business.

The ad hoc committee's discussion about Society meetings identified the following:

- Through teleconferencing, webinars etc., much more ASHRAE business is performed between Society Conferences than at the Conferences
- The best run groups perform the structured part of their business remotely, thereby allowing the face-to-face time to be more strategic and creative
- Over the past few years, two of the three Councils have worked their way to only one meeting during the Winter and Annual Conferences
- Over the past few years, the Board has added a pre-meeting conference call to address procedural activities and a post-meeting conference call to review action and information items coming out of the Society meetings
- Members like face-to-face meetings, especially for interactive discussions; "hallway discussion" is as important as formal meeting discussion; a structure that moves procedural and administrative activities to remote meetings and frees up time for dialog is efficient
- Administrative meetings often conflict with the technical program, so many volunteers do not have access to learning and professional development opportunities
- ASHRAE is one of only a few organizations that hold two full meetings per year
- ASHRAE is committed to the AHR Expo and drawing attendance to the expo is critical

- Although some groups meet several times during a conference, other groups struggle to achieve quorum at two meetings per year; the latter groups could create efficiencies by looking at other options for their meetings
- At the Conferences, some committees, especially those reporting to Technology Council, meet early in the week and then again at the end of the week, requiring a four to five day commitment for only one full day's total work

With the changes in how business is done today, taking a step back to look at how to structure the Society meetings to improve the volunteer experience makes sense. The success metric is that we improve the volunteer experience by focusing the meetings so that more can continue to volunteer at the Society level. (Metric 1). By improving access to the Conferences and minimizing the time and expense of attending them, more people will volunteer. (Metric 2).

Ideas about revamping Society Conferences and the meetings within them are included in **Appendix A**.

## Promotion

Through the ad hoc discussions it became clear that it is not easy for someone to know how to volunteer even if he or she wants to. At the chapter level, direct mentoring creates a way for someone who attends meetings to volunteer in chapter activities. The effort for setting up mentoring programs and other similar initiatives falls to chapter leadership.

Volunteering at regional and especially Society levels can be intimidating for some members. A member in a home chapter may be available to mentor someone on how to volunteer regionally but this type of resource may not exist in every chapter. We have a captive audience of potential volunteers attending chapter meetings who could be an excellent target market for increasing our volunteer ranks.

To reach out to this potential pool of new volunteers, Society can provide tools to educate volunteers on how to volunteer in other parts of our organization. Through education on how to volunteer and the available options and their time requirements, individuals who share a passion to help can find and personalize a path to volunteer. (Metric 2).

## Proposed Actions to Enhance Volunteerism

As has been referenced throughout this report, actions that the Ad Hoc Committee proposes as ways to enhance volunteerism are provided in **Appendix A**.

## Recommendations for the Volunteerism Ad Hoc Committee

The members of the Effective Use of Volunteer Time ad hoc committee prioritized the committee's recommendations for improving the volunteer experience and increasing the number of volunteers as listed below. The committee strongly recommends that the BOD consider implementing the first three recommendations in the near term as well as initiating action to evaluate options for implementing the remaining five recommendations.

Priority #1: Review a Handbook chapter/standard/guideline and develop a topic/RTAR for a research project at a regional meeting, such as CRC

Priority #2: Improve the volunteer experience by making it enjoyable, technically satisfying, efficient, and effective, perhaps by reducing bureaucracy and unnecessary administrative process and operations

Priority #3: Suggest TCs meet annually, at either the Winter or Summer Conference, and meet by conference call on a quarterly basis (or as required)

Priority #4: Shorten the business meeting at Annual and Winter Conferences by at least one day

Priority #5: Provide formal Chair training

Priority #6: Provide viable options for remote attendance

Priority #7: Streamline Handbook and Standards processes

Priority #8: Develop a short program on volunteering at the Society level

Furthermore, the Committee recommends that, if the Board accepts the recommendations contained in this report, then to move implementation forward, either the committee be continued or reconstituted.

Respectfully submitted,

Sheila Hayter, Chair

Appendix A. Proposed Actions

Action	How this action improves the volunteer experience	How this action increases the number of volunteers	Required steps to implement this action	Proposed Schedule	Financial Impact to implement this action	Proposed ASHRAE group to own this action	Notes
1. Review a Handbook chapter/ standard/ guideline and develop a topic RTAR for a research project at a regional meeting such as CRC	Provides opportunity for members who do not normally participate in Society-level activities to add their expertise and regional perspective to Society-level technical documents and processes.	Encourages those volunteers who would not normally attend Society meetings to volunteer more time regionally. Increases the number of members (and potential member guests) to participate in Society-level technical activities. Target 40 new volunteers per region will participate in this opportunity.	Work with DRC, Members/Tech/ Pub/ECC and CRC host committee to assign champions/chairs, and arrange an approximately half day of meetings in conjunction with the CRC. Ask for attendance of the appropriate persons from staff, Handbook Committee, Standards committee, RAC, TAC, and assigned TC(S) to monitor the session, and report back to the Society-level committees.	Begin immediately. 6 months duration to make the detailed plan; pilot program during 2016 Spring CRC	Travel for Society-level meeting member to attend regional meeting. Additional meeting room fees: \$31K per region, suggest 2 regions to be involved in the pilot for Spring 2016=\$52K	Region 2 BOD members (preferably Pub/ECC and Tech/C) to monitor and report on these activities	See Note #1 at bottom of spreadsheet.
2. Improve the volunteer experience by making it enjoyable, technically satisfying, efficient, and effective; perhaps by reducing bureaucracy and unnecessary administrative process and operations	Maintains consistency across all facets of ASHRAE - councils, committees, etc. Easier access to the Society activities and committee documents enhances the volunteer experience. Having a common place for storing documents will help with document version control, which will save time for those volunteers involved with developing the documents.	Establishes common standards that are utilized throughout Society activities to demonstrate quality and consistency. Shows members that ASHRAE is organized and increase the desire for members to volunteer to participate in develop ASHRAE products.	Common templates for meeting agendas, meeting minutes, MBOS, etc. Gather requirements from members. Evaluate existing platforms (current ones include basecamp, Google sites); pilot the software/framework; Communicate to members the available options; Scale the rollout.	12 months duration to investigate and implement opportunities; proposed December 2015 to December 2016	Software licensing may be involved (\$100 - \$1000's per year). Printing cost for literature/forms, if needed.	PEC, ECC	The advantage of a software subscription would be the ease of switching platforms in the future.
3. Encourage TCs to hold one face-to-face meeting per year at either the Winter or Annual Conference, then conference calls on a quarterly basis (or as required)	Volunteers may have more time to participate in other aspects of Conference, with fewer TC meetings, conflicts between TC meeting times and Conference Technical Program would be reduced.	Volunteers can still be active in Society meetings while also earning PhD credits. Also with fewer meetings, the conference could be shortened, lessening the time away requirement, more members may volunteer	Review suggestion with TCs, get their feedback. Other ideas to "move forward". Also review schedule with Judy Marshall. Provide guidance and input. Scenarios should be evaluated with analysis of impact on conducting ASHRAE business and anticipated volunteer acceptance to proposed changes. Risk analysis recommended. Staff can help evaluate the impact on conference finances for shortening the conference (e.g., cost savings for BOD members to spend fewer days at the conference, lower conference registration fees, etc.).	6 months to develop a plan for BOD consideration. Implement at the earliest meeting possible per contract terms with hotels that are already in place. 4-6 weeks to review options with TCs	Potential cost to accommodate electronic TC meetings. Potential savings from having fewer TC meetings scheduled during Winter Conferences and Annual Meetings.	TAC, ECC	See Note #2 at bottom of spreadsheet.
4. Shorten the business meetings at Winter Conference and Annual Meetings by at least one day	Volunteers participating in the business portion of the Winter & Annual Conferences will spend less time in technical program or after hours. Requires conference participants to spend less time away from home/office. Participants do not need to choose between learning and going to business meetings. BOD/ Council volunteers would be required to dedicate fewer days to attend the conferences leading to personal savings for the volunteers.	New volunteers will be more likely participate if there is an overall belief their time is being used efficiently. More volunteers will consider serving on the Board if less time (less \$) away from work/family.	Review meeting requirements with current Board. BOD and hoc committee formed to coordinate council involvement. Staff to provide guidance and input. Scenarios should be evaluated with analysis of impact on conducting ASHRAE business and anticipated volunteer acceptance to proposed changes. Risk analysis recommended. Staff can help evaluate the impact on conference finances for shortening the conference (e.g., cost savings for BOD members to spend fewer days at the conference, lower conference registration fees, etc.).	6 months to develop a plan for BOD consideration. Implement at the earliest meeting possible per contract terms with hotels that are already in place. 4-6 weeks to review options with TCs	Two face-to-face meetings for ad hoc committee members assuming 6 to 8 members) at \$5K to \$10K per meeting. Shorten the business meetings will improve finances for holding the conferences.	BOD ad hoc committee to facilitate/ coordinate discussions between council. Cross-functional team with representatives from Tech/C, MCC and PEC, ECCom, and the BOD	
5. Provide formal training for all committee chairs (TCs, standing, council, regional, and chapter)	Better committee chairs will result in the committee members accomplishing more and having a better experience for the time they donate. These volunteers will continue to donate time.	Some growth due to the opportunity to learn professional skill (committee leadership). Word of mouth that volunteering with ASHRAE is a good experience and promotes professional growth. Retention of those who volunteer and increased participation due to additional volunteers.	Create leadership training course. Consider an on-line course. Initiate training.	6 to 12 months duration to develop training materials. Roll out during the 2016 Annual Meeting	Travel for staff and travel for volunteers developing course. Travel for instructor to course: \$3.5K	Work with ASHRAE staff to develop metrics to measure the impact of this action (e.g., retention rates or measuring less churn rates)	
6. Provide opportunities for remote attendance to ASHRAE events	Remote attendance options give more members the opportunity to attend ASHRAE events with no travel costs and significantly reduced amount of time volunteers must dedicate to participating in ASHRAE events.	Members who do not or cannot attend the Winter Conferences and Annual Meetings would be able to volunteer and provide input.	Identify, evaluate, test, and implement best methods for providing remote attendance opportunities.	6 to 12 months duration to be ready to implement. Roll out to 10 committees for January 2016 Winter Conference. Available to all committees by June 2016. Availability to all TCs by January 2017.	Fees for providing internet connection during all meetings. Reimburse (if necessary) people for using their phones as the hot spot for the meeting. Possible reduction of people attending and paying registration at Winter and Annual Conferences.	All three Councils should be involved. ECC should play a leading role	
7. Streamline Handbook and Standards processes	Reduce the amount of volunteer time required to accomplish the work. Having standards written in a machine readable format would ease the development of documents by easy merging, history of all revisions, line-by-line comments, etc.	It does not increase the number, but keeps people from withdrawing because of the additional burden of this work	Develop small group to identify methods to streamline standards and handbook process. Communicate openly with those primarily affected (MOS, Handbook chair, Standards Chair)	1 - 3 years duration	Meetings should be done electronically except if at Winter Conferences and Annual Meetings. Staff and volunteer time required to identify and implement recommendations.	Ad hoc working with the following groups: PEC- Handbook Committee, Tech Council, Standards Committee	
8. Develop a short program on volunteering at the Society level and making available clear links to the Society level recognize new opportunities for volunteering and help provide a growth path for volunteers to grow as a Society volunteer.	Outlining how to navigate ASHRAE starting at the Society level and making available clear links to volunteering will help those who are volunteering at the Society level recognize new opportunities for volunteering and help provide a growth path for volunteers to grow as a Society volunteer.	Increase the number of volunteers desiring to be in Society leadership roles, have a multi-year succession plan for all Society leadership roles	Work with staff and Membership Promotion to create a short video, ppt, or other outreach mechanism to educate members on volunteering and how to volunteer. Identify the best venues for this outreach.	9 months duration. Roll out at spring or fall CRCs	Work will be led by volunteers and produced by staff so no financial impact for creating the outreach content. May be costs for producing the outreach, such as video production.	Membership Promotion Committee	See Note #3 at bottom of spreadsheet.
Note #1: Cost Breakdowns: 1. Staff time and travel? One extra staff member will be assigned to monitor and document the pilot prototype. \$1K. 2. Advertising and Marketing assist Regional CRC costs are covered by Region and Chapter(s). 3. Regional meetings at the CRC for the selected HB chapter, SPC/SSPC, RAC project, and seminar: mainly expense of staff and volunteer representative from the Society SDC, HB, RAC (volunteer member) to attend at least one day meeting of the groups, including registration fees: \$5K. 5. Approximately \$3K for							
Note #2: TAC to work with the TCs to improve how face-to-face time is used (including re-evaluating the standard TC meeting agenda) and develop/implement means for ensuring prod							
Note #3: This action addresses recruiting more volunteers for Standing Committees, Technical Committees, etc. Most members have no idea what it takes to join a committee and how							





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Richard A. Zbin  
Director and Regional Chair - V

Reply to: 5644 Allendale Drive  
North Olmsted, Ohio 44070  
Tel: 440.477.2045  
Rick.zbin@kp.org

The following is a brief description of Initiative 2A – Volunteer Time Management Report. The complete report is attached at the end of this letter.

### **Recommendations for the Volunteerism Ad Hoc Committee**

The members of the Effective Use of Volunteer Time ad hoc committee prioritized the committee's recommendations for improving the volunteer experience and increasing the number of volunteers as listed below. The committee strongly recommends that the BOD consider implementing the first three recommendations in the near term as well as initiating action to evaluate options for implementing the remaining five recommendations.

#### **Priority #1: Review a Handbook chapter/standard/guideline and develop a topic/RTAR for a research project at a regional meeting, such as CRC.**

This was discussed during the DRC meeting in Orlando and there was some interest from the DRCs that were having Spring CRCs to see if this could be accomplished. Waiting to hear how this worked out at those CRCs that volunteered.

#### **Priority #2: Improve the volunteer experience by making it enjoyable, technically satisfying, efficient, and effective, perhaps by reducing bureaucracy and unnecessary administrative process and operations.**

We recommend that David assign this to these to both PEC and EEC to develop a common software so every meeting looks and feels the same.

#### **Priority #3: Suggest TCs meet annually, at either the Winter or Summer Conference, and meet by conference call on a quarterly basis (or as required).**

We recommend that TAC should issue a memo supported by David to limit a face to face meeting of the TCs to one meeting a year and encourage use of go to meeting or another meeting software to save money and time for the volunteers. As noted in the report, ASHRAE is one of the few societies that still holds two meetings a year. A few years ago, Member's Council formed a committee to explore the reduction of meetings being held at the two Society meetings because of the required meeting rooms was limiting where meetings could be held. Some committees had as few as four people meeting and were still requiring meeting room space. This is a waste of both Society and volunteer time and expense.



**Priority #4: Shorten the business meeting at Annual and Winter Conferences by at least one day.**

We recommend that this item is to be assigned to a BOD ad hoc assigned by David. This has already occurred for some committee meetings with little or no effect to the operation of the committee. We feel that the Society meetings have been shortened but additional committee and standards meetings before and after these meetings lengthens the two meetings.

**Priority #5: Provide formal training for all committee chairs (TCs, standing, council, regional, and chapter).**

We recommend that this item be discussed with Staff to see if they can handle this training and when would the best time to have this training. Staff should also decide if it would be better to have professional trainers handle this item.

**Priority #6: Provide viable options for remote attendance to ASHRAE events.**

This item should be discussed with ECC to see if it is possible to provide the committee meetings by some electronic form to allow more volunteers to participate. Meetings such as Members council, BOD and key committee meetings would encourage more participation by the members.

**Priority #7: Streamline Handbook and Standards processes.**

This may be an ANSI issue and should be discussed with the Standards Committee when it comes to the Standards. I have attended a few committee meetings and noticed the lack of attendance by some members that caused additional discussion at the next meeting. If people volunteer to be on a committee, they should make their best efforts to attend all meetings as to not hold up the process.

**Priority #8: Develop a short program on volunteering at the Society level.**

This assignment should be given to the Membership Promotion Committee in conjunction with the Standards Committee to put together either a short video or power point on how you volunteer for a committee. Standards committees should also be required to let people know in a timely fashion if their application for a committee is being reviewed. I personally have volunteered for a committee over 6 months ago and have heard nothing further.

As you can see from the attached report in the executive summary, the committee recommends that Priorities 1, 2 and 3 be made the most important items for the Society to implement. We have discussed these issues with the DRCs at the Winter meeting in Orlando which helped to develop our recommendations.

We would like to thank Sheila Hayter and her committee for their work on this effort and the fine report they presented.

Report from Bill Klock and Richard Zbin

## **Report of Action – Effective Use of Volunteer Time**

B. Klock and R. Zbin

Rick and I have been reviewing the information across all Priorities. This report will focus on the first three priorities identified. A previous document prepared by Rick addressed all of the priorities in the report.

*Priority #1: Review a Handbook chapter/standard/guideline and develop a topic/RTAR for a research project at a regional meeting, such as CRC.*

Region VIII CRC is April 28 through April 30. We have scheduled a 2-1/2 hour session that will be led by two Directors-at-Large (Mark Fly and Dan Int-Hout). This session will be announced several times over the course of the meeting. Mark and/or Dan will provide Pat and/or Tim a briefing prior to them leaving the CRC. There are no “empty” time slots during the CRC, so there are competing events running concurrently.

*Priority #2: Improve the volunteer experience by making it enjoyable, technically satisfying, efficient, and effective, perhaps by reducing bureaucracy and unnecessary administrative process and operations.*

An informal poll of 6 people that have been involved in ASHRAE Society Meetings from as little as 2 years to as many as 30 years was taken. In general, the responses included the following:

- “things are much better than they used to be”
- “why can’t they act faster”
- “things still operate at the speed of ASHRAE”

The responses appeared to be directed at “other” Committees, Councils and the Board. Based upon this, we would suggest that all Committee, Council and Board volunteers be reminded that others are waiting for a response and that a timely response would be appropriate where possible and if not possible timely updates with the expected delivery date be provided. A couple of the examples that were given were items that moved from committee to council to another council to another committee and then back again.

*Priority #3: Suggest TCs meet annually, at either the Winter Conference or Summer Conference, then conference calls on a quarterly basis (or as required).*

An informal poll of eight people that participate in TCs was taken. The idea was met with 100% negative reactions. The general comments included:

- “it might work for other TCs”
- “isn’t this in direct conflict with the President’s theme”

Based upon these responses and the information provided to the Board that some TCs were having trouble filling out the roster and meeting quorum requirements. Our suggestion would be to move these TCs to a Winter Conference (or Annual Conference is more appropriate) only schedule. The thoughts were that Winter Conferences were better attended and it would be easier to get the volunteer support necessary.

**IAQA LIAISON – Mark Miller/Larry Fisher**

**From:** Mark Miller [<mailto:mfmiller55@gmail.com>]  
**Sent:** Wednesday, April 6, 2016 10:44 PM  
**To:** David Underwood  
**Cc:** Tim Wentz; Larry Fisher  
**Subject:** IAQA Ad Hoc Support for Joint Conference Registration

David and Tim,

The Ad Hoc for collaboration with IAQA has developed some good dialog as to how we can work together to aid in better conference inter-activity, however it has also uncovered some situations for which has brought up some frustrations of interested ASHRAE members to join IAQA in a common registration. So, we are trying to identify them, understand them and gain staff support to look into them and address them as effectively (time and cost) as possible. To move forward with some joint work on these tasks, we have a request to gain your support on an effort for the 2017 Las Vegas meeting and conference.

The IAQA/ASHRAE Business Collaboration Ad Hoc committee met and started our action items to develop an interactive business relationship between IAQA and ASHRAE. The most timely issue is to work on opening the opportunity for the 2017 Las Vegas meeting members from either organization to attend the other conference. The intent agreed upon by this committee, is that there would be a nominal fee of \$50-75 to attend the other meeting. The only sessions included in the shared attendance, would be those included in the base conference fee. Additional activities, such as social, tours or companion activities, would need to be paid in addition to the base fee.

This effort will take work by the staff of ASHRAE and IAQA, however we are not sure to the extent. To drive their support, your backing of this effort would be helpful. Can we have your support of moving forward to achieving a dual registration to the ASHRAE and IAQA conference in Las Vegas, with the plan to have a nominal additional fee as suggested?

Thank you for your support in this effort between ASHRAE and IAQA.

*Mark F. Miller*

**M - ASHRAE**

**Director and Regional Chair (DRC) - Region VI**

[\(608\) 658-1132](tel:6086581132)

[mark.miller@mail.ashrae.org](mailto:mark.miller@mail.ashrae.org)

[www.ASHRAE6.org](http://www.ASHRAE6.org) [www.ashraexchange.org](http://www.ashraexchange.org) [www.advancedrtu.org](http://www.advancedrtu.org)

*"Energy Conservation is an Ethic"* Bill Coad, Presidential Member 2001-02



**Spring ExCom Meeting**  
May 2016  
**Development Committee Report**  
Coordinating Officer: Walid Chakroun

The Development Committee requested additional members be assigned to the committee in the form of Members-at-Large.

- This is necessary to have sufficient members for both succession planning and for accomplishing the work of the committee.
- This will come before the Board in June for a vote.

The major focus of the Development Committee right now is preparing for the proposed capital campaign.

Below is the update on the current status, followed by the items that will require specific attention from the Board.

Update:

- The selection process for a **campaign consultant** for the planning phase of the campaign is underway.
- We hope to have the finalist selected and ready to present to the Board at the Annual Meeting for approval to award the contract.
- This consultant will work closely with Kim and her staff, with the Development Committee and with other key leadership to
  - determine ASHRAE's readiness for a major fundraising campaign,
  - to assist in putting together the case for support, and
  - to determine the feasibility of such an undertaking.
- This will not be an all or nothing situation. The consultant will assist us in determining a realistic campaign dollar goal based on both what we hope to accomplish and our prospective base for support of the campaign.
- A **campaign budget** has been drafted for the planning phase of the campaign, which will basically take us through next fiscal year.
- The campaign ad hoc committee, after gaining input from other members and staff, have drafted the proposed **campaign objectives** that you have received.
  - The intent was to provide a lot of ideas to then be considered and refined by the Board.

Next Steps that require Board involvement:

- We need to finalize the **campaign objectives**.
  - That means that we need to determine what we will be raising the money for!
  - Tim has something to propose regarding this.
- We will need to consider and approve a **campaign budget** for next year and talk about how we will finance the campaign budget.
  - The proposed budget, including the consulting fees, is approximately \$276,000.
  - The Foundation is being asked to support some of the cost of the consultant.

*Because engineers solve the world's toughest problems...*

## **Global Center for Building Innovation**

educate . innovate . accelerate

**Vision:** To significantly accelerate the development and scalable deployment of advanced building design and operation practices, systems and technologies that support visionary sustainable communities.

### **Educate**

Create the preeminent educational, training and networking resource for the full spectrum of building professionals.

- GCBI Training Center – High-capacity, state-of-the-art learning and training facility at ASHRAE World Headquarters.
  - Distance/eLearning projection systems to deliver educational content globally
  - Live and interactive learning systems
  - Studios for recording and delivering eContent
  - Interactive and collaborative lab spaces specifically designed to inspire innovation in building design
- Low-carbon Building System Design (Envelope, HVAC, lighting, DHW, etc.) and Innovation and Integrated Design curriculum development and training.
- Global High-Performance K-16 Schools Initiative – Young minds and buildings intersect at K-12 Schools. Future leaders and buildings intersect at colleges and universities. That convergence creates unique opportunities to use buildings as learning tools.
  - High-Performing and Net-Zero Energy School Design Guides
  - Net-Zero Energy Schools Case Study Database and Online Resources Portal created in collaboration with ASHRAE's Associate Society Alliance
  - Student engagement active-learning labs (health, energy, life-cycle costs, green technology)
- Development of off-the-shelf, globally focused building-centric university curriculum to prepare engineering graduates for careers in building design.
- GCBI Academy.
  - Designer training programs
  - Building operations training programs
  - K-12 teacher building module training and resources

- Scholarship support for teach-the-teachers

## **Innovate**

Research, create and document interdisciplinary tools and systems for industry that support the creation, maintenance and operation of high-performance and net-zero energy buildings.

- Next-generation eToolkits for building design professionals – online, free. Building the BEST (Building Engineer Software Toolkits<sup>®</sup>).
  - Standard 90.1 compliance tools
  - Cost estimators
  - Energy modeling tools and techniques
  - Autodesk Collaboration – Building Design Suite templates
- Accelerate the pace of building technology research by reducing the development time (i.e., Optimizing energy efficiency of systems using low GWP refrigerants).
- Launch the Global Building Research Portal.
- Launch the Built Environment Research ThinkTank conference where the best and brightest convene to imagineer tomorrow's sustainable buildings.
- Refrigeration Without Borders -- Research into next generation, low-cost, mass-producible, accessible and sustainable technology that can reduce food and medicine wastes (transportation and storage) in developing economies.

## **Accelerate to Market**

Accelerate the deployment to market of successor tools, systems, globally harmonized standards, and performance based codes, creating a roadmap to a regenerative built environment at a lower cost, faster launch cycle and greater global market penetration.

- Reimagine, redefine and define how ASHRAE initiates, collaborates with, and supports research and how ASHRAE's knowledge and guidance is ported to products and solutions and disseminated to industry.
- Develop and implement automated project tracking, status reporting, reviews and approvals to optimize volunteer effort, reduce costs, remove bottlenecks and reduce time to market.
- Create an industry collaboration program through the Global Center for Building Innovation to foster the acceleration of ASHRAE product/knowledge time to market.

Preliminary Campaign Budget  
Rough Draft

Line	Expenses	FY16 - 17			Comments/Notes
		Jul-Dec	Jan-Jun	Totals	
3	<b>Human Resources - A</b>				
4	Sr. Development Officer (Major Gifts +)		\$ 21,250		9 mo in FY16-17 (begin April)
5	Support		\$ 12,500		Administrative support - 3 mo in FY16-17 (begin April)
6	Fringe Benefits		\$ 9,450		
7	Grant Writer/Researcher - Contract		\$ 15,000		This may be one or two contract positions, depending on skillsets.
8	<b>Sub-total A</b>	\$ -	\$ 58,200	\$ 58,200	
9	<b>Consultants - B</b>				
10	Campaign Counsel & Feasibility Study				We will have a better idea about the consulting fees when we start receiving proposals from consulting firms (deadline 4/25). The expenses will depend on the amount of travel required for meetings and to conduct feasibility study interviews. The Foundation Board will be solicited for \$80K to pay for half of the expense of the consultant during the planning phase.
11	fees	\$ 60,000	\$ 60,000	\$ 120,000	
12	plus expenses	\$ 15,000	\$ 25,000	\$ 40,000	
13	Computer Consultant				
14	fees				
15	plus expenses				
16	<b>Sub-total B</b>	\$ 75,000	\$ 85,000	\$ 160,000	
17	<b>Office Expenses &amp; Operations - C</b>				Jeff has indicated that these expenses related to new staff would be absorbed into the general operating budget separate from the campaign planning phase line item.
18	Office space or relocation				
19	Equipment (non-computer)				
20	Furniture				
21	Telephone				
22	Supplies				
23	Printing				
24	<b>Sub-total C</b>				
25	<b>Campaign Systems - D</b>				Wealth screening capabilities for next year will be covered out of the FY15-16 Dev Cmte budget. There may be additional infrastructure exp rel to database needs. This may be able to be handled in-house utilizing existing resources.
26	database / information systems				
27	electronic wealth screening				
28	computer equipment				
29	computer software				
30	<b>Sub-total D</b>				
31	<b>Communication/Marketing - E</b>				Marketing expenses should be relatively small during FY16-17. Additional support can come from the existing resources (Marketing Dept).
32	logo design				
33	letterhead and envelopes				
34	business cards				
35	pledge cards				
36	case statement (brochure)				
37	campaign brochures				
38	campaign wrap-up pcs				
39	audio visual				
40	prospect & vol newsletter				
41	volunteer handbook				
42	postage				
43	website				
44	<b>Sub-total E</b>		\$ 10,000	\$ 10,000	
45	<b>Travel - F</b>				These travel expenses are on top of already budgeted expenses. This is a very general estimate. We won't actually know these numbers until the Campaign Plan is written based on the findings of the consultant.
46	Development Staff		\$ 5,000	\$ 5,000	
47	Senior Administrators		\$ 2,500	\$ 2,500	
48	Volunteers		\$ 2,500	\$ 2,500	
49	<b>Sub-total F</b>	\$ -	\$ 10,000	\$ 10,000	
50	<b>Campaign Events &amp; Meetings - G</b>				Public Phase kick off (after FY 16-17)
51	Kick-off event				
52	volunteer committee mtgs	\$ 7,500	\$ 7,500	\$ 15,000	
53	campaign celebration (Year 4)				
54	<b>Sub-total G</b>	\$ 7,500	\$ 7,500	\$ 15,000	
55	<b>Targeted Fundraising Activities</b>				This includes activities related to the latter part of the fundraising cycle: cultivation, solicitation, and stewardship. These activities will be determined after a more complete process of identification and qualification of prospects occurs and will be written into the Campaign Plan.
56	small luncheons				
57	regional events				
58	stewardship activities				
59	<b>Sub-total H</b>		\$ 10,000	\$ 10,000	
60					
61	<b>Sub-total A - H</b>	\$ 82,500	\$ 180,700	\$ 263,200	
62	contingency of 5%	\$ -	\$ -	\$ -	
63	<b>ESTIMATED TOTAL EXPENSES</b>	\$ 82,500	\$ 180,700	\$ 263,200	

\$ 25,000,000	
8%	10%
\$ 2,000,000	\$ 2,500,000

FY2015-16 expenses being absorbed by Dev Cmte budget

Revised 4/19/16



**BYLAWS-ORGANIZATIONAL PROCEDURES**  
**Indoor Environmental Quality - Global Alliance**  
**(IEQ- GA)**

**Article I ORGANIZATION**

**Section 1.1 Name.** The name of this entity is Indoor Environmental Quality – Global Alliance, and its abbreviated title is IEQ-GA.

**Section 1.2 Office.** IEQ-GA may have offices located as the Board of Directors may establish and changes as needed to support the purposes of the entity.

**Section 1.3 Objectives.** IEQ-GA is organized and operated for the exclusive purpose of bringing together professionals from various disciplines that deal with the indoor environment. IEQ-GA is dedicated to promoting the exchange of indoor environmental information, education and research for the safety and well-being of the general public. The Member organizations will work together to create a common understanding and messaging of research gaps, research results that can be transferred to practice in the form of standards and codes that support health and performance based definitions of IEQ, and policy agendas and advocacy positions.

**Section 1.4 Dissolution.** In the event of dissolution of the entity (IEQ-GA), whether voluntary, involuntary, or by operation of law, any disposition of the assets of the entity shall be made only to such Member organizations as shall at that time have exempt status under Section 501 (c) of the U.S. Internal Revenue Code of 1986, as amended, or under such successive provision of the Code as may be in effect at the time of dissolution.

**Article II MEMBERSHIP**

**Section 2.1 Founding Members**

The founding Member organizations of the IEQ–GA are as follows:

- AIHA - American Industrial Hygiene Association
- AIVC - Air Infiltration and Ventilation Centre
- ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers
- AWMA - Air and Waste Management Association
- IAQA - Indoor Air Quality Association
- REHVA - Federation of European Heating, Ventilation and Air Conditioning Associations

**Full Members.** A Full Member organization is an organization (including governmental agencies and professional associations), including Founding Members, that is a voting member of the IEQ-GA. A Full member is bound by the provisions listed in the IEQ-GA Memorandum of Understanding (MOU and these Operational Procedures and Bylaws. Full member organizations shall

appoint one voting member and one alternate member to the IEQ-GA Board of Directors.

**Affiliate Members.** An Affiliate Member is a non-voting organization (including governmental agencies and trade associations) that is provided with information about the activities of IEQ-GA, and that participates in certain activities such as conference calls and meetings when possible. The Affiliate Member organization is not bound by any provisions listed in the IEQ-GA MOU or these Operational Procedures. An affiliate member organization shall appoint one member and one alternate member to attend and participate in the deliberations at the IEQ-GA Board of Directors' meetings. However, the affiliate member representatives will not be voting members of the IEQ-GA Board of Directors.

**Section 2.2 Application for Membership.** Application for membership shall be made on such forms as may be approved by the Board of Directors of IEQ-GA.

**Section 2.3 Rights and Privileges.** All rights and privileges of a Full Member organization of IEQ-GA shall be entitled to the Member organization only, and shall not be delegated or transferred, except that each Member organization is entitled to vote in person or by written proxy given to another Member organization entitled to vote. The delegation of a vote shall be dated within three months of date of execution, which proxy shall be subject to the provisions as may be set forth by IEQ-GA.

**a.** All rights, title, and interest of a Member organization in IEQ-GA, or its property, shall cease on the termination of membership by resignation or otherwise, and shall vest in IEQ-GA.

**b.** Each Member organization, upon election to membership, shall be bound thereupon by the provisions of the Operational Procedures and Bylaws, and all amendments thereto.

**Section 2.4 Emblem of Membership.** The corporate identity, logo types, signage, emblems and trademarks are the sole property of IEQ-GA and its Member organizations in good standing. Unauthorized use of the above-mentioned resources may constitute fraud, and IEQ-GA may employ legal means to cause that the unauthorized use cease and desist. Such usage that may result in deformation or discredit of IEQ-GA may necessitate legal processes to rectify such discredit and deformation to the IEQ-GA and its Member organizations in good standing. IEQ-GA's Board of Directors is responsible for establishment of logo usage policies.

**Section 2.5 Resignation.** Any Member organization may resign at any time by such Member's written request received by the Secretary/Treasurer.

**Section 2.6 Reinstatement.** A Member organization that has resigned,

or who has been dropped from membership for cause may be reinstated as of the original date of membership if the remaining Member organizations of IEQ-GA vote in favor of reinstatement of the Member organization.

### **Article III MEETINGS OF MEMBERS**

**Section 3.1 Meetings.** As per the MOU for the IEQ-GA, there will be two (2) annual meetings of the Member organizations, either in person or my electronic means. A quorum is the minimal number of member organization appointees or alternatives who must be present for the valid transaction of business. A quorum will exist when there are a minimum of 50% plus one of the Member organizations present in person or by electronic means.

**Section 3.2 Voting.** At any meeting, each Member organization shall be entitled to one vote which may be cast in person or by proxy. A proxy shall not be valid longer than three (3) months from its date of execution.

### **Article IV OFFICERS**

**Section 4.1 Officers.** The officers of IEQ-GA shall be the President, the Vice President, and the Secretary/Treasurer. The President, the Vice President, and the Secretary/Treasurer shall be representatives of Member organizations of the IEQ-GA, and each officer shall be elected annually by a vote of all Full Member organizations' representatives. Their term of office shall continue until their successors have been elected and installed. Elected officers shall receive no salary, emolument or compensation for services rendered to IEQ-GA as an officer. The President, the Vice President, and the Secretary/Treasurer shall be eligible for re-election to the same office for two (2) additional consecutive years. (Maximum of three (3) years without the intervention of at least one (1) year).

**Section 4.2 Duties.** All officers of IEQ-GA shall perform the duties customarily attached to their respective offices and such other duties and services incident to their respective offices as are delegated to them by these Organizational Procedures/Bylaws or as may from time to time be assigned to them by the Members.

**Section 4.3 President.** The President shall be the chief executive officer of IEQ-GA, and shall have general direction of the affairs of IEQ-GA, subject, however, to the control of the Member organizations. The President shall at each meeting of the IEQ-GA Board of Directors and from time to time report to the Member organizations all matters within the President's knowledge which the interest of IEQ-GA may require to be brought to their notice; shall preside at all meetings of the member organizations and at all meetings of the Board of Directors; shall sign and execute all agreements as delegated by the Board except in cases where the signing and execution thereof shall be expressly delegated or permitted by the Board or by these Bylaws to some other officer or agent of IEQ-GA; and in general shall perform all duties incident

to the office of the President and such other duties as from time to time may be assigned by the Board of Directors or as are prescribed by these Operational Procedures/Bylaws.

**Section 4.4 Vice President.** If the President dies, resigns, or is removed from office, the Vice President shall immediately become President and shall serve for the remainder of the term of his/her immediate predecessor. If the remainder of the original term is less than six (6) months, the Vice President shall serve as the President for the next year. If the Vice President dies, resigns, is removed from office or becomes President in accordance with the foregoing provisions, the office of Vice President shall remain vacant until the next meeting of the IEQ-GA Board of Directors.

If there is a vacancy in the offices of both President and Vice President, the Secretary/Treasurer shall act as President until the next meeting of IEQ-GA Board of Directors. The Vice President shall perform all duties as from time to time may be assigned by the Member organizations or as prescribed by these Operational Procedures/Bylaws.

**Section 4.5 Secretary/Treasurer.** The Secretary/Treasurer shall act as secretary of IEQ-GA. The Secretary/Treasurer shall have responsibility for the funds of IEQ-GA and IEQ-GA's books of account, which shall be open to the inspection of any Member organization. The Secretary/Treasurer may take part in the deliberations of all meetings. The Secretary/Treasurer shall have charge of keeping the books of IEQ-GA, including all minutes for Member meetings. The Secretary/Treasurer or their designee shall present, at each meeting of the IEQ-GA Board of Directors, a summary of membership enrollment and other pertinent records, and shall perform such other duties as may be assigned by the Member organizations or the President.

## **Article V COMMITTEES**

**Section 5.1 Committees of IEQ-GA.** From time to time, the Member organizations may decide to form Committees to perform specific duties as assigned by the IEQ-GA Board of Directors. The committees of IEQ-GA shall consist of Standing or Special committees. Standing Committees are of a continuing nature, while Special Committees are for a specific purpose.

**Section 5.2** Unless otherwise provided, the committee members and the respective chairs thereof shall be selected by the President from time to time during the President's term with the approval of the Member organizations. The General Committees may hold their meetings at any time after the members are thus confirmed.

**Section 5.3** IEQ-GA Member organizations shall prescribe the qualifications of members of committees and the number of committees. The Member organizations may in addition, unless otherwise provided, adopt rules specifying the size of committees, the length of term members may serve, when members

may be reappointed, selection procedure, and approval of appointments, except as otherwise provided in these Organizations Procedures/Bylaws.

**Section 5.4** The IEQ-GA Board of Directors may from time to time create other committees of one or more members, and define their powers and duties, and it may abolish any such committees.

**Section 5.5** The Chair and Vice Chair of each committee shall be a Member organization representative to the IEQ-GA Board of Directors.

**Section 5.6** The President may appoint any person or persons to serve in a consulting capacity to any committee.

**Section 5.7** All Committees shall render to the IEQ-GA Board of Directors, prior to each meeting of the IEQ-GA Board of Directors, reports of their activities and shall submit progress reports at other times on request of the President.

**Section 5.8** The IEQ-GA Member organizations may, by two-thirds (2/3) vote of members present remove a member of any committee. The President may directly recommend, or recommend upon request of the Chair of a Committee, or of 2/3's of the members of the Committee, removal of any member, including the Chair, of any Committee to the IEQ-GA Member organizations for approval.

## **Article VI AMENDMENTS**

**Section 6.1** Written notice of a proposed amendment to these Operational Procedures/Bylaws, subscribed to by two-thirds (2/3) of the Member organizations, may be given at any duly convened meeting of the IEQ-GA Board of Directors. Notice of such proposed amendment shall be set forth in the notice of the next succeeding meeting of the IEQ-GA Board of Directors. The Operational Procedures/Bylaws shall be amended by two-thirds (2/3) of the votes cast at such meeting.

## Memorandum of Understanding

between

**The Regents of the University of California, as Management and Operating Contractor for  
Lawrence Berkeley National Laboratory**

and

**ASHRAE**

### **On collaboration in the field of Energy Technologies, Energy Efficiency, Urban Systems and Monetization of Efficiency and Resiliency**

This Memorandum of Understanding (MOU) is between The Regents of the University of California, manager and operator of the Lawrence Berkeley National Laboratory (LBNL) and ASHRAE, collectively referred to as “Participants” or separately as “Participant.” LBNL is a U.S. Department of Energy National Laboratory managed and operated by The Regents of the University of California pursuant to Contract No. DE-AC02-05CH11231 (Contract 31). ASHRAE advances the arts and sciences of heating, ventilating, air-conditioning and refrigeration to serve humanity and promote a sustainable world.

#### **1. Purpose**

The purpose of this MOU is to explore potential future collaboration between the Participants in the fields of energy efficiency; energy technologies and policy; monetization and financing of sustainable buildings, energy analytics necessary for asset valuation and new growth capital on worldwide basis; and other topics determined to be of mutual interest. To accelerate the attainment of US and international future energy use goals, LBNL is engaged in creating the **Global Partnership Alliance (GPA)** – a **public private partnership**, which would be the vehicle for this collaboration.

The Participants understand that this MOU is not intended to, and does not, create legally binding obligations but serves only as a record of their intention to identify areas of potential future joint interest and possible future collaborations. Any activities by LBNL under this MOU, or any subsequent agreements, should comply with the terms and conditions of Contract 31.

#### **2. Proposed Areas of Cooperation**

The Participants express their intention to collaborate in one or more of the following areas:

- a) Development of co-marketing plans in regards to ASHRAE sponsored conferences, meetings, working groups and other online channels as they relate to fields of mutual interest and furthering **development of GPA**.
- b) Research, development and dissemination relating to the **GPA strategic initiatives** of

Guaranteed Performance, Integrated Systems, and **Internet Buildings Operating System**, including the development of best practices and tools and the furtherance of their adoption by means of standards and best practice guidelines, education and training and other such activities of mutual interest to the Participants. The Participants would jointly develop scopes of work (SOW) for these activities in the context of ASHRAE Multidisciplinary Task Groups, comprised of ASHRAE members, GPA representatives and other acceptable interested persons. The resulting projects would be co-funded by the Participants and by other organizations acceptable to the Participants. An **open Request for Proposals** would be issued and managed by ASHRAE. **Sole source proposals from GPA that meet jointly agreed criteria would be considered. ASHRAE would co-fund selected projects from its normal research budget.**

- c) Exploration of organizational opportunities within ASHRAE for the purpose of maximizing the success of strategic initiatives, including fast market adoption of relevant outcomes of GPA strategic initiatives.

The scope of above activities and cooperation may be changed or extended to other areas by separate, mutual written agreement of the Participants.

**3. Designated Representatives**

- A. To administer the implementation of this MOU, each Participant should designate one principal coordinator in charge of the collaboration, through whom all requests and plans of that Participant should be made.
- B. The principal coordinators may hold meetings when necessary to discuss matters related to cooperation under this MOU.
- C. The principal coordinators, and other senior representatives of each Participant should meet annually in order to:
  - Ensure ongoing advancement of collaborative projects.
  - Keep each respective organization informed of major initiatives.
  - Discuss new opportunities for collaboration.
- D. For purposes of this MOU, the designated representative for LBNL is intended to be the Energy Technologies Area (ETA) Associate Laboratory Director, or LBNL designated principal coordinator. The designated representative for ASHRAE is intended to be a member of the Executive Committee or other ASHRAE designee.

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

For: LBNL

For: ASHRAE

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

**4. Commencement, Modification and Discontinuation**

- A. Cooperative activities under this MOU may commence upon signature of all Participants and continue for a three (3) year period, unless discontinued in accordance with Paragraph B of this Section 4.
- B. The Participants may discontinue this MOU at any time in writing. A Participant that wishes to discontinue its participation in this MOU should endeavor to provide at least thirty (30) days written notice to the other Participant.
- C. This MOU may be modified in writing by mutual consent of the Participants, and may be extended for additional periods.

**5. General Terms**

- A. Each Participant should conduct the activities contemplated by this MOU in accordance with all applicable laws, regulations and other requirements to which it is subject, including, without limitation, export control laws and environment, health and safety laws and regulations.
- B. This MOU does not create any legally binding obligations.
- C. The conduct of cooperative activities contemplated by this MOU is subject to the availability of funding, personnel, and other resources.
- D. Each Participant is responsible for the costs it incurs in participating in cooperative activities under this MOU.

Signed in duplicate.

THE REGENTS OF THE UNIVERSITY  
OF CALIFORNIA, LAWRENCE  
BERKELEY NATIONAL LABORATORY

ASHRAE

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: Dr. A. Paul Alivisatos

Name: \_\_\_\_\_

Title: Laboratory Director

Title: President

Date \_\_\_\_\_

Date \_\_\_\_\_



## SOLAR DECATHLON ENGAGEMENT STRATEGIES

From: Joyce Abrams  
To: Bjarne Olesen  
Date: 3/18/2016

Friendly reminder that Katie Thomson, Assistant Manager of Student Activities currently serves as staff liaison for SD, since Bjarne mentioned assigning a staff liaison.... ☺

Joyce Abrams | Director of Member Services  
Extension:1104

**From:** Littleton, Jeff  
**Sent:** Friday, March 18, 2016 11:25 AM  
**To:** Ramspeck, Claire <[CRamspeck@ashrae.org](mailto:CRamspeck@ashrae.org)>; Wright, Craig <[CWright@ashrae.org](mailto:CWright@ashrae.org)>; Abrams, Joyce <[JAbrams@ashrae.org](mailto:JAbrams@ashrae.org)>; Mitchell, Kim <[KMitchell@ashrae.org](mailto:KMitchell@ashrae.org)>; Sears, Stephanie <[ssears@iaqa.org](mailto:ssears@iaqa.org)>; Comstock, Steve <[comstock@ashrae.org](mailto:comstock@ashrae.org)>; Gupta, Vanita <[VGupta@ashrae.org](mailto:VGupta@ashrae.org)>  
**Subject:** 2017 Solar Decathlon Administrator Announced

FYI. Board discussion regarding the SD below. Perhaps we can discuss this at the Director's meeting next week.  
Jeff

**From:** Thomas Lawrence [<mailto:lawrence@engr.uga.edu>]  
**Sent:** Friday, March 18, 2016 7:35 AM  
**To:** Ashrae-Bod  
**Subject:** Re: [ashrae-bod] 2017 Solar Decathlon Administrator Announced

Good ideas Bjarne.

- Regarding complementary ASHRAE student membership, might as well be totally free. It is only \$20/year anyway, maybe not worth the extra hassle for \$10.
- Also, maybe we can use ASHRAE's influence to encourage more emphasis on good IAQ along with the energy efficiency? Right now the rules mention good IAQ, but not so strongly.

Tom Lawrence  
**From:** Bjarne Olesen <[bwo@byg.dtu.dk](mailto:bwo@byg.dtu.dk)>  
**Reply-To:** "[ashrae-bod@ashrae.org](mailto:ashrae-bod@ashrae.org)" <[ashrae-bod@ashrae.org](mailto:ashrae-bod@ashrae.org)>  
**Date:** Friday, March 18, 2016 at 6:43 AM  
**To:** "[ashrae-bod@ashrae.org](mailto:ashrae-bod@ashrae.org)" <[ashrae-bod@ashrae.org](mailto:ashrae-bod@ashrae.org)>  
**Cc:** "[ashrae-bod@ashrae.org](mailto:ashrae-bod@ashrae.org)" <[ashrae-bod@ashrae.org](mailto:ashrae-bod@ashrae.org)>  
**Subject:** RE:[ashrae-bod] 2017 Solar Decathlon Administrator Announced

So let us start being pro-active:

- Inform the chapters where there are a participating University. No matter what our involvement will be at Society level with Energetics and SD2017, the chapters can try to support the students. At the 2015 competition several Universities listed one of our chapters as sponsors.
- When talking with Energetics we should try to upgrade/increase our involvement from providing some judges and a dinner. Here I would like to introduce bEQ so all houses will get a bEQ rating.
- Then we need within ASHRAE (after talking with Energetics) to establish or decide which committee and which staff will be the contact to SD2017
- What about offering all SD2017 participating students a free or half priced 1 year ASHRAE student membership?

I think we can get a lot of benefit by increasing our involvement not only in the US; but worldwide

Regards

Bjarne

**From:** Littleton, Jeff [<mailto:JLittleton@ashrae.org>]

**Sent:** 17. marts 2016 19:11

**To:** [ashrae-bod@ashrae.org](mailto:ashrae-bod@ashrae.org)

**Subject:** [ashrae-bod] 2017 Solar Decathlon Administrator Announced

**Importance:** Low

You may recall that the Board previously considered whether ASHRAE should apply for the primary administrator for DOE's Solar Decathlon. Claire provides an update below on who actually applied for and won the DOE contract for the 2017 decathlon. We will contact Energetics (<http://www.energetics.com/#about>) to explore how ASHRAE might be involved. It might also be appropriate to encourage chapters near the competing universities to support the teams.

The location will be in Sheila Hayter's and Jim Vallort's hometown near the Denver airport (so the Denver Chapter might also be involved). The 16 competing universities include 8 new and 8 returning teams:

- École Polytechnique Fédérale de Lausanne (Lausanne, Switzerland)
- Embry-Riddle Aeronautical University and Daytona State College (Daytona Beach, Florida)
- Georgia Institute of Technology (Atlanta, Georgia) – Is this an opportunity for ASHRAE?
- HU University of Applied Science Utrecht (Utrecht, Netherlands)
- Missouri University of Science and Technology (Rolla, Missouri)
- Northwestern University (Evanston, Illinois)
- Rice University (Houston, Texas)
- Syracuse University (Syracuse, New York)
- University of Alabama at Birmingham (Birmingham, Alabama)
- University of California at Berkeley (Berkeley, California)
- University of California, Davis (Davis, California)
- University of Maryland (College Park, Maryland)
- University of Nevada, Las Vegas (Las Vegas, Nevada)
- Washington State University (Pullman, Washington)
- Washington University (St. Louis, Missouri)
- West Virginia University (Morgantown, West Virginia).

All questions and comments encouraged. Many thanks,  
Jeff

Jeff Littleton | Executive Vice President  
Extension:1100

**From:** Ramspeck, Claire  
**Sent:** Thursday, March 17, 2016 9:39 AM  
**To:** Littleton, Jeff  
**Subject:** Solar Decathlon 2017

Hi, Jeff-

In case you didn't see it yet, here is the announcement about the 2017 Solar Decathlon. <http://energy.gov/articles/energy-department-announces-denver-next-location-solar-decathlon-competition-2017>. It will be held in Denver and administered by Energetics Incorporated of Columbia, MD. We have 11 people in netForum who indicate Energetics is their company.

This article (<http://www.businesswire.com/news/home/20160314006307/en/VSE-Corporation-Subsidiary-Energetics-Wins-Bid-Administer>) says the other partners are the City of Denver, Building Media, Inc. (BMI), Center for Science Teaching and Learnings (CSTL), Confluence Communications, D+R International, GreenBuilder Media, MC-2 and Norton Energy Research and Development (NERD). I love that acronym.

Thanks,  
Claire

Claire Ramspeck | Director of Technology  
Extension:1194

## Building Industry Statement on Resilience

### Executive Summary

In spring of 2014, the Building Industry Statement on Resilience shined a bright light on the need to address hazards, public safety, and other adverse events impacting the built environment. This Statement has influenced organizational structures, been an impetus for new initiatives, and has catalyzed action across the industry. Signatories have made broad advancements in research, education, advocacy, response efforts, and comprehensive planning for more resilient communities; recognizing that the continued safety of our nation's built environment hinges on the industry's commitment to resilience principals, and this report includes the actions taken by many of the signatories upon their signing of the Industry Statement.

### Background on Statement Development

The building industry is responsible for the safe development of the built environment and the industry recognizes that the most appropriate time to think about critical health and safety needs is before a disaster strikes. With hazard mitigation, public safety, and thriving communities in mind, building industry CEOs identified resilience as a key topic requiring collective actions during one of their regular convenings.

To turn this recognition into an actionable framework, the American Institute of Architects and the National Institute of Building Sciences led a coalition of twenty building industry organizations in defining the goals and objectives of a resilient built environment. This exercise ultimately led to the Industry Statement on Resilience; a guiding document that recognizes the critical importance of resilient built environments and provides key action items to turn words into results.

At its public unveiling in May of 2014, twenty organizations had signed the Building Industry Statement on Resilience. Since that time, the list of committed organizations has swelled to thirty-three signatories. Signatories span the spectrum of the built environment industry, from planners, architects, engineers, and interior designers to contractors, building owners, and suppliers. This inclusive approach encourages enhanced resilience from the very beginning of the design process throughout the service life of the building; resulting in a more resilient community.

### Statement: Impacts

The Building Industry Statement on Resilience has catalyzed the integration of resilience goals into existing organizational structures. The majority of signatories report that they have "become more aware of their unique role in achieving resilience" since committing to the statement. Furthermore, more than half of the signatories have used the Statement to "advance their organizational mission

statement/values” as well as “provide support and/or validation for moving forward on organization initiatives”.<sup>1</sup> This shift in organizational priorities has led to concrete action.

### **Statement: Areas of Focus**

As leaders of the built environment industry, signatories committed to significantly improving the resilience of the nation’s buildings, infrastructure, public spaces, and communities. Five focus areas identified:

- **Researching** materials, design techniques, construction procedures, and other methods to improve the standard of practice.
- **Educating** the profession through continuous learning. Through coordinated and continuous learning, design, construction, and operations professionals can provide their clients with proven best practices and utilize the latest systems and materials to create more resilient communities.
- **Advocating** at all levels of government for effective land use policies, modern building codes, and smarter investment in the construction and maintenance of our nation’s buildings and infrastructure.
- **Responding** alongside professional emergency managers when disasters do occur. Industry experts routinely work in partnership with government officials to survey damage, coordinate recovery efforts, and help communities rebuild better and stronger than before.
- **Planning** for the future, proactively envisioning and pursuing a more sustainable built environment.

### **Statement: Results and Outcomes**

The coalition developed a Vision and set of guiding principles for their work. Signatories have taken significant action on each of the five commitment areas:

#### **Research**

- **American Society of Landscape Architects:** ASLA co-wrote/produced "Banking on Green: A Look at How Green Infrastructure Can Save Municipalities Money and Provide Economic Benefits Community-Wide." The report has been helpful in green infrastructure advocacy with public agencies/owners. ASLA is currently in the planning stages for the conduct of additional research.
- **EcoDistricts:** EcoDistricts researched the application of resilience thinking at a district and neighborhood scale; which will cumulate in a tool for application on urban regeneration projects.
- **Illuminating Engineering Society:** IES implemented a new 5-year research plan that will examine resilience outcomes related to lighting for outdoor public spaces and lighting of transportation infrastructure
- **Insurance Institute for Business & Home Safety:** IBHS continues testing to support resilient construction at the IBHS Research Center; produced the “Rating the States” Building Code

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<sup>1</sup> Statistics courtesy of the 2016 Signatory Survey

Report. IBHS research intends to produce "actionable" results for use by insurers, policyholders, public policymakers.

- **International Code Council:** ICC examined their codes to find overlap between resilience and the building and life safety codes.
- **National Ready Mixed Concrete Association:** NRMCA conducted research with the MIT Concrete Sustainability Hub on community resilience using environmental life cycle assessment and life cycle cost analysis to demonstrate the benefits for building resilient structures and communities.
- **National Institute of Building Sciences:** NIBS produced multiple reports on the value of mitigation and resilience, including a business management process for critical infrastructure that supports resilience planning, and identification of incentivization pathways to realize resilience.

## Education

- **American Society of Civil Engineers:** ASCE develops publications, conferences and webinars focused on resilience in their respective disciplines. They also, launched the Infrastructure Resilience Division in January 2015 with the purpose of addressing the need of community resilience.
- **American Society of Landscape Architects:** ASLA produced educational materials and training for landscape architects and other design/planning professionals on resilience-related topics including: green stormwater infrastructure, stormwater BMPs, ecological restoration, coastal flooding adaptation and environmental planning.
- **Building Owners and Managers Association:** BOMA is incorporating resiliency into their Emergency Preparedness Guide for building owners and facility managers which assists building owners in preparing buildings and occupants for natural disasters and providing practical steps to ensure buildings and business recover quickly after disaster.
- **EcoDistricts:** EcoDistricts is advancing a course on district and neighborhood-scale resilience.
- **Green Building Initiative:** GBI has updated its Principles and Market Approach document to include resilience.
- **International Facility Management Association:** IFMA is offering online and live course sessions.
- **Insurance Institute for Building and Home Safety:** IBHS has produced videos (live and animations) and infographics.
- **Illuminating Engineering Society:** The IES Resilience Committee has recently formed and will be developing educational material and initiating communications with members and other industry entities.
- **International Code Council:** ICC provides training on many codes including the International Green Construction Code, International Existing Building Code, and the International Energy Conservation Code, all resilience-related codes.
- **National Institute of Building Sciences:** The NIBS Annual Conference has focused on the concept of resilience for several years. The conference brings together thought leaders and industry participants to discuss emerging issues in resilience and advance implementation of resilience

strategies across the industry. Additionally, the Whole Building Design Guide (WBDG) promotes resilience through content on safety/security. WBDG receives over 600,000 unique visitors a month. Lastly, the Multihazard Mitigation Council has hosted regular webinars on topics related to resilience, attracting 50-100 participants.

- **National Ready Mixed Concrete Association:** The NRMCA Building Green with Concrete course has a section on resilience which has educated about 80 engineers and architects.

## Advocacy

- **American Institute of Architects:** The AIA participates in the BuildStrong Coalition and supports the Safe Building Code Incentive Act and the PREPARE Act.
- **American Society of Civil Engineers:** ASCE produces advocacy related documents including the Infrastructure Report Card; Failure to Act Economic Studies; and conducts legislative visits; and Innovative Technology Game Changers.
- **American Society of Interior Designers:** ASID participates in the International Federation of Interior Architects/Designers (IFI) Blue Sky Task Force, a targeted "envisioning" or strategy subgroup tasked with retooling the operational and practical planning of the IFI and identified Resiliency as a key IFI Advocacy Platform.
- **American Society of Landscape Architects:** ASLA works on supporting green infrastructure for stormwater management, applying SITES to federal buildings, and Complete Streets advocacy.
- **Building Owners and Managers Association:** BOMA is developing policy that will act as a guide for BOMA staff to advocate at the federal level and assist in BOMAS codes and standards program.
- **Insurance Institute for Business & Home Safety:** Provides technical support to various public policy efforts and participate in a wide range of forums
- **International Code Council:** Many states and localities have updated ICC-based codes based on post-Sandy disaster resilience.
- **National Institute of Building Sciences:** NIBS supports the BuildStrong Coalition and advocates for several strategies including the adoption and enforcement of building codes, the update of design criteria to address changes in climate and evolving hazard threats. NIBS also participated in the "Resilient Cities Summit" to build capacity at the local level for implementation of resilient programs. In support of that effort, the Institute developed "Six for the City: Recommendations to Advance High-Performance Communities."
- **National Ready Mixed Concrete Association:** With strong support from NRMCA, earlier this year, Rep. Tom Reed (R-NY) introduced bipartisan legislation, H.R. 3397 – The Disaster Savings and Resilient Construction Act of 2015 – a business-related tax credit for a portion of the cost of commercial and residential buildings that comply with resilient construction requirements in a federally-declared major disaster area.

## Response

- **American Institute of Architects:** VTrained members of the AIA provide post-disaster building safety assessments as volunteers for municipalities . Lessons learned are captured to improve

design guidance for building performance and have led to innovative policy initiatives and resilient design guidelines.

- **American Society of Civil Engineers:** ASCE regularly deploys Post Disaster Assessment Teams domestically and internationally. Data collected is used to update existing standards, and lessons learned knowledge is disseminated in technical publications, and presented in conference sessions.
- **Building Owners and Managers Association:** BOMA has organized fundraising and communications support following Hurricanes Katrina and Sandy as well as post 9-11 recovery in New York and D.C.
- **International Code Council:** ICC provided training and technical support for localities affected by Hurricane Sandy and other natural disasters.

## Planning

- **American Institute of Architects, American Society of Civil Engineers and National Institute of Building Sciences:** Participated in the development of the NIST Community Planning Guide and continue to do so with the Expert Panel on Community Resilience.
- **American Institute of Architects:** Members and components of the AIA have spearheaded and contributed to the development of resilience design credits and rating systems including the USGBC LEED resilience pilot credits, US Resiliency Council and RELi Resiliency Action List and Credit Catalog
- **American Society of Landscape Architects:** ASLA co-led/developed the Sustainable Sites Initiative for Sustainable Land Design and Development, including the SITES v2 Rating System. SITES addresses resilience and hazard mitigation and emphasizes the critical need for site planning in land design and development.
- **National Institute of Building Sciences:** NIBS develops tools that help communities and facility professionals incorporate resilience: The Integrated Rapid Visual Screening program is designed to determine initial or relative risk and resilience for facilities based on visual inspection only. It is currently available in versions for Buildings, Mass Transit Stations and Tunnels. NIBS is also working with the SAFETY Act office to develop a program whereby facilities can implement best practices for facility operations and receive recognition for such actions.
- **United States Green Building Council:** USGBC launched a 3-credit pilot suite on Resilience, including Assessment and Planning for Resilience; Design for Enhanced Resilience; Passive Survivability & Functionality During Emergencies

## Future Endeavors

Signatories will continue to advance the resilience of the built environment by engaging and supporting individual and collective efforts. Signatories have voiced interest in code development, high performing buildings, climate data-informed design standards, existing building retrofits and regulations, financial incentives for resilience, and business continuity in the built environment. We recognize that the challenges that lie ahead are complex and require “all hands on deck” to generate integrated solutions that will allow communities to thrive and prosper for generations to come.



## Conclusion

The Building Industry Statement on Resilience has been a guiding light, providing an actionable framework for committed organizations to engage, integrate and take leadership on resilience goals across the industry. Signatories have advanced resilience research, education, advocacy and planning while maintaining their commitment to post-disaster response and recovery. Each signatory's work, though perhaps minor in isolation, compounds to bring monumental change to the industry, and as a result, to communities across the nation.

DRAFT

**SOCIETY RESILIENCY STRATEGY**

Date: 4/13/2016  
From: Claire Ramspeck  
To: Ryan Colker  
CC: Mick Schwedler, Sheila Hayter, Jeff Littleton, Mark Ames, Jim Scarborough

Thanks, Ryan. The edit you sent is fine. We would like to clarify one additional item about our scope. Please change item (1) to include "in buildings and building systems." The final would read:

**ASHRAE** commits to (1) utilizing member research funding to support research related to resilience **in buildings and building systems**, (2) developing, maintaining or revising standards to reduce building loads and their subsequent impact on utilities, (3) working with our numerous global partners to encourage adoption of these changes as soon as possible into codes, (4) providing instructional and application tools to implement these substantial improvements, and (5) educating the affected stakeholders.

Best regards,  
Claire

Claire Ramspeck | Director of Technology  
Extension:1194

**From:** Ryan Colker [<mailto:rcolker@nibs.org>]  
**Sent:** Tuesday, April 12, 2016 3:49 PM  
**To:** Ramspeck, Claire <[CRamspeck@ashrae.org](mailto:CRamspeck@ashrae.org)>  
**Cc:** Schwedler, Mick <[MSCHWEDLER@TRANE.COM](mailto:MSCHWEDLER@TRANE.COM)>; Hayter, Sheila <[Sheila.Hayter@nrel.gov](mailto:Sheila.Hayter@nrel.gov)>; Littleton, Jeff <[JLittleton@ashrae.org](mailto:JLittleton@ashrae.org)>; Ames, Mark <[MAmes@ashrae.org](mailto:MAmes@ashrae.org)>; Scarborough, Jim <[JScarborough@ashrae.org](mailto:JScarborough@ashrae.org)>  
**Subject:** Re: ASHRAE Statement on Resilience

Claire et.al.,

The White House has asked for even more pared down statements just focused on the commitment themselves. How is the following?

Thanks.

Ryan

**ASHRAE** commits to (1) utilizing member research funding to support research related to resilience, (2) developing, maintaining or revising standards to reduce building loads and their subsequent impact on utilities, (3) working with our numerous global partners to encourage adoption of these changes as soon

as possible into codes, (4) providing instructional and application tools to implement these substantial improvements, and (5) educating the affected stakeholders.

Sent from my iPad

On Apr 12, 2016, at 5:13 PM, Ramspeck, Claire <[CRamspeck@ashrae.org](mailto:CRamspeck@ashrae.org)> wrote:

Hi, Ryan-

Thank you for following up. I'm sorry you needed to edit the statement. We tried to stick very closely to the model that was given.

While it is appreciated to have a nod to our specific standards, we decided that there were several that could be mentioned, so perhaps it's best to leave that out altogether. Also, I made one change to delete "Combining ASHRAE's proficiency..." The version below reflects these changes. We did not make any changes about specific number of meetings, etc. because we will commit to whatever is needed to get the work done.

**ASHRAE** is a global society advancing human well-being through sustainable technology for the built environment. The Society and its members focus on indoor environmental quality, building systems and performance, energy and water use efficiency, refrigeration and sustainability within the industry. Recognizing that resilience means the ability to be affected less by and recover quickly from difficulties, ASHRAE believes keys to resilience include (1) delivering design guidance that lessens the impact of events, and (2) providing options to reduce demands for energy and water so that recovery from events occurs more quickly and simply, and maintains high indoor environmental quality. Therefore, ASHRAE commits to (1) utilizing member research funding to support additional such research, (2) developing, maintaining or revising standards to reduce building loads and their subsequent impact on utilities, (3) working with our numerous global partners to encourage adoption of these changes as soon as possible into codes, (4) providing instructional and application tools to implement these substantial improvements, and (5) educating the affected stakeholders.

Best regards,  
Claire

<[image4be872.JPG](#)>

**Claire Ramspeck**  
**Director of Technology**  
ASHRAE  
1791 Tullie Circle NE  
Atlanta, GA 30329  
Tel: 678-539-1194  
[CRamspeck@ashrae.org](mailto:CRamspeck@ashrae.org)  
[www.ASHRAE.org](http://www.ASHRAE.org)

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Register now at [www.ashrae.org/webcast](http://www.ashrae.org/webcast) for ASHRAE's free webcast, "Making Net Zero Net Positive: Solving the Efficiency & Cost Paradox."

**From:** Ryan Colker [<mailto:rcolker@nibs.org>]

**Sent:** Sunday, April 10, 2016 5:29 PM

**To:** Ramspeck, Claire <[CRamspeck@ashrae.org](mailto:CRamspeck@ashrae.org)>

**Cc:** Schwedler, Mick <[MSCHWEDLER@TRANE.COM](mailto:MSCHWEDLER@TRANE.COM)>; Littleton, Jeff <[JLittleton@ashrae.org](mailto:JLittleton@ashrae.org)>; Ames, Mark <[MAmes@ashrae.org](mailto:MAmes@ashrae.org)>; Scarborough, Jim <[JScarborough@ashrae.org](mailto:JScarborough@ashrae.org)>

**Subject:** Re: ASHRAE Statement on Resilience

Claire,

I've gone ahead and condensed the statement you provided into a more compact paragraph as provided below. Please take a look and make sure I've captured everything correctly. Also, anywhere you can be more specific about the commitment, please do so (number of meetings/courses/brochures/etc., report/guidance/course generated, standards impacted, etc.). If you can get something back by COB Monday that would be ideal.

Thanks.

Ryan

**ASHRAE** is a global society advancing human well-being through sustainable technology for the built environment. The Society and its members focus on indoor environmental quality, building systems and performance, energy and water use efficiency, refrigeration and sustainability within the industry. Combining ASHRAE's proficiency and recognizing that resilience means the ability to be affected less by and recover quickly from difficulties, ASHRAE believes keys to resilience include (1) delivering design guidance that lessens the impact of events, and (2) providing options to reduce demands for energy and water so that recovery from events occurs more quickly and simply, and maintains high indoor environmental quality. Therefore, ASHRAE commits to (1) utilizing member research funding to support additional such research, (2) developing, maintaining or revising standards (***including Standard 90.1 and 189.1***) to reduce building loads and their subsequent impact on utilities, (3) working with our numerous global partners to encourage adoption of these changes as soon as possible into codes, (4) providing instructional and application tools to implement these substantial improvements, and (5) educating the affected stakeholders.

Sent from my iPad

On Apr 8, 2016, at 10:07 PM, Ramspeck, Claire <[CRamspeck@ashrae.org](mailto:CRamspeck@ashrae.org)> wrote:

Hi, Ryan-

Attached please find ASHRAE's statement on resilience. We look forward to further planning for the upcoming event.

Please let me know if you need anything else.

Thank you,  
Claire

[<image52f702.JPG>](#)

**Claire Ramspeck**  
**Director of Technology**

ASHRAE

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MINUTES

**401K COMMITTEE**

Atlanta, GA  
March 23, 2016

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**COMMITTEE MEMBERS PRESENT**

Jeff Littleton, *Executive Vice President*  
Craig Wright, *Comptroller*  
Ben Leppard, *Member*

**STAFF PRESENT**

Sharon Priebe, *HR Manager*

**PRINCIPAL MOTIONS**  
401K Committee Meeting  
March 23, 2016

<u>No.</u>	<u>Page</u>	<u>Motion</u>
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None		
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**ACTION ITEMS**  
401K Committee Meeting  
March 23, 2016

<b><u>No – Page</u></b>	<b><u>Responsibility</u></b>	<b><u>Summary of Action</u></b>	<b><u>Status</u></b>
1 – 4	Craig Wright	HR Manager to remind 3 newest Directors of possible refund of 401K contributions due to testing results.	_____
2 – 5	Craig Wright	Schedule next 401K Committee Meeting in February 2017.	_____



MINUTES  
401K COMMITTEE

Atlanta, GA  
March 23, 2016

**CALL TO ORDER:**

Chairman Wright called the meeting to order on March 23, 2016 at 8:35 a.m. EST

**REVIEW OF AGENDA:**

There were no additions to the agenda.

**APPROVAL OF THE JANUARY 8, 2014 MINUTES:**

It was moved and seconded:

- 1) That the minutes of the January 8, 2014 401K Committee meeting be approved.

**MOTION 1 PASSED 3-0-0**

**NEW BUSINESS:**

Audited Financial Statements

- The Committee members reviewed and discussed the financial statements in detail based on the 2013-2014 audit of the 401K plan by ASHRAE's CPA firm, Jones & Kolb (J&K).
- Due to the number of participants, J&K recommended an audit (even though not required by law).
- The plan trustee (Vanguard) engages a third party firm SAVITZ to perform an audit (compliance, highly compensated calculations, etc.) as well.
- HR Manager to remind 3 new Directors of possible refund of 401K contributions due to testing results. (ACTION ITEM #1)

Statistics

Participation (as of December 31, 2015?)

- 120 employees participating in the plan
  - 112 actively participating employees (i.e. making contributions)
- \$123,323 is the average participant balance
- Once you are no longer employed with ASHRAE, you can't contribute to the plan.

Plan Details

- There was a question from Mr. Leppard regarding any issues, changes, etc. in the plan since the last meeting in January 2014.
- There were no changes in the 401K plan since the last meeting in January 2014 and,
- There have been no issues, complaints, etc. from staff.

- Fees paid to Vanguard in 2015 totaled \$11,000. This was more than normal due to plan restatement requirement from Vanguard. This typically occurs only once every 5 years.

#### Loans

- There was a discussion regarding loans. At 12/31/15, there were 25 employees/participants with loans and a total loan balance of \$218,406 (average balance of \$8,736).

#### Current Plan Funds

- Committee members reviewed the current plan offerings and determined that the current plan funds are adequate and no new funds need to be added at this time.

#### Other

- There were no other items raised for discussion.

### **NEXT MEETING**

There was discussion regarding the frequency of the 401K Committee meeting and it was decided to have one (1) meeting per year unless there were substantial changes to the plan. Therefore, the next meeting will be in late March/early April of 2017 at ASHRAE HQ in Atlanta, GA.

Craig Wright will schedule next meeting in February 2017. (ACTION ITEM #2)

### **ADJOURNMENT:**

Meeting adjourned at 9:30 a.m. EST



---

Craig Wright, Chairman  
March 24, 2016



**Report of Meeting**

**GLOBAL REFRIGERANT MANAGEMENT INITIATIVE (GRMI)**

9:00 – 11:00 a.m.

October 23, 2015

Peng Le Room, 3rd Floor

Shangri La Hotel

Chengdu, China

**Attendees**

<b>ABRAVA</b> Samoel V. Souza	<b>EUROVENT</b> Felix Van Eyken Alex Rasmussen Morten Schmelzer
<b>AHRI</b> Michael LaGiglia Stephen Yurek Jim Walters	<b>HRAI</b> Warren Heeley
<b>The ALLIANCE</b> Kevin Fay	<b>JRAIA</b> Tetsuji Okada Akira Yamoto
<b>AREMA</b> Greg Picker	<b>KRAIA</b> Christine Kim Hyuk Joong Kwon Jaeho Lee
<b>CRAA</b> Teresa Li Sharon Liu Zhang Zhaohui	<b>Guests</b>  <b>UNEP</b> Shaofeng Hu
<b>EPEE</b> Juergen Goeller Andrea Voigt	<b>Press (Part time)</b>

**1. Welcome**

Conveners Mr. Souza (ABRAVA), Mr. Fay (The Alliance), and Mr. Yurek (AHRI) welcomed the attendees.

**2. Participant Introduction**

Participants introduced themselves.

**3. Antitrust Guidelines**

Participants reviewed Antitrust (Anti-competition) guidelines applying to the meeting.

**4. Approval of the Report of the Previous Meeting**

ACTION: Participants approved the previously distributed report of the July 23, 2015 GRMI meeting.

**5. Approval of the Agenda**

ACTION: Participants approved the agenda as distributed.

**6. Business**

**A. Bylaws Review**

Participants reviewed the GRMI bylaws (Attachment 2 of the agenda), which had been distributed prior to the July 23 meeting and discussed at that meeting.

Following a question by Mr. Akira (JRAIA), participants agreed that

- Some level of cooperation and coordination between GRMI and the UNEP Refrigerant Driving License (RDL) will be required;
- Existing contractors with already established procedures may resist an attempt to force the use of new procedures;
- Existing related organizations e.g. AREA, should be included in the GRMI effort;
- There should be a continuing focus on the fact that Greenhouse Gas Emissions (GHG) in the industry result primarily from leaks due to the servicing and maintenance of equipment.

## **B. Budget and Fee Structure Proposal Review**

Participants discussed the proposed dues and agreed that the Steering Committee would decide the fees. Participants agreed that global companies, represented in more than one member association will pay only one fee:

- 2,500 USD for Associations
- 5,000 USD for Associations' members

Mr. Fay (The Alliance) also stated that GRMI will solicit NGO participation once the Steering Committee defines that category of membership.

## **C. Steering Committee Member Solicitation and Formation**

Participants agreed that the Steering Committee membership would be solicited during the period from October 23 until the end of the first week of December. During the meeting the following organizations volunteered to be part of the GRMI steering committee: The Alliance, AHRI, ABRAVA, AREMA, EPEE and HRAI.

The Steering Committee will drive the goals, strategy, and activities of the GRMI. The following items were mentioned as potential next steps for the steering committee:

- Outline potential GRMI activities.
- Develop a work plan and timeline for GRMI – identify short and long term goals. Long-term may be defined as by 2030.
- Analyze the effect of the COP/MOP meetings in late 2015 on the approach of the GRMI.
- Discuss the GRMI relationship with initiatives such as the RDL and the CCACs.

These next steps can be discussed in the first meeting of the steering committee during the January AHR Expo in Orlando, Florida (January 25).

## **D. 2016 Meeting Schedule**

Participants agreed to hold four (4) GRMI meetings per year – two F2F, and two by tel/webcast.

The below meetings are potential venues for face-to-face GRMI meetings. Conference call meetings could be scheduled in between the face-to-face meetings where appropriate.

- AHR Expo January 2016 (now set for January 25.)
- ICARHMA Annual meeting mid-May, Australia (date TBD)
- MOP late 2016 (date TBD)
- In conjunction with Regional Ozone Officers meetings if they do not prove to be too regional in nature. GRMI members may wish to attend such meeting, however, to stay abreast with issue pertaining to the RDL and other matters.

Some participants suggested the possibility of inviting select guest attendees to GRMI meetings in 2016, if and when appropriate.

## **7. Activities Review and Outlook**

### **A. AHRI Research**

AHRI provided the following update to participants:

- Low-GWP AREP (Low-Global Warming Potential (GWP) Alternative Refrigerants Evaluation Program (AREP))
  - Phase I was completed at the end of 2013.
  - Phase II testing started in 2014, and is ongoing
    - The high ambient testing report is complete.
    - AHRI will hold a public event, the Low-GWP AREP II Conference, on January 21, 2016 in Orlando, FL.
- AHRI has formed a Flammable Refrigerants Subcommittee (FRS) to facilitate key research and to support code and standard activities related to the use of flammable refrigerants (risk assessment)
  - AHRI has committed up to \$1 Million research fund to support the effort and seeks participation by the U.S. DOE and global partners

### **B. Servicing Survey**

AHRI updated participants about its June 2015 home owners survey in the United States to determine how they use heating, air conditioning, and water heating equipment; when and why they choose to have their units serviced; and the determining factors for repairing or replacing equipment. The findings of the survey show that in general, HVAC and water heating equipment is very reliable, and homeowners more often repair equipment rather than replace it.

### **C. Memorandum of Understanding Re: Reclaimed HFC Credit Bank**

An MOU among ACCA, HARDI, AHRI, the Alliance for Responsible Atmospheric Policy, and EOS Climate for a Reclaimed HFC Credit Bank was announced during the October 15 White House event on HFCs. If the program outlined in the MOU is implemented, the credit bank would be the first of its kind. Verified emission reductions (VERs) emanating from the production and use of reclaimed HFC refrigerant would be validated by the American Carbon Registry.

Mr.Fay (Alliance) will send a description to participants.

Mr. Goeller (UTC) expressed that synergies likely exist for European initiatives and Ms. Voigt (EPEE) agreed adding that a similar initiative would in fact be necessary in order to comply with the EU F-gas directive.

**D. Other Policies**

EPEE noted that the F-gas regulation has a reclaim provision, which when better defined may produce some synergy with the U.S. effort.

**E. COP21 Participation**

Mr. Fay reported that GRMI will be among four (4) HFC-related events that the CCAC is planning for December 4, 5, 7, and 8. The 4 event topics include:

1. Montreal Protocol amendment
2. Public procurement policy
3. GRMI
4. Global Food Cold Chain

Additionally, on December 5<sup>th</sup> a 90 minute CCAC HFC briefing will be held in the morning.

**8. Other Business**

Mr. Fay (Alliance) made a call to participants to identify service industry organizations relevant to GRMI activities.

Mr. Hu, UNEP, said that UNEP will circulate GRMI information to service industry representatives and possibly that should be a first action of the Steering Committee.

**9. Next Meeting**

The next meeting will be held January 25, 2016 in Orlando, Florida in conjunction with of the AHR Expo. AHRI will confirm the date and time.

**10. Closing**

The conveners adjourned the meeting at 10:40 a.m.

Respectfully submitted

Jim Walters



## AHRI-UNEP Initiative Refrigerant Driving License (RDL)

### GRMI Meeting

25<sup>th</sup> Jan, 2016 (Orlando, FL)

### What is Refrigerants Driving License (RDL)

The Refrigerants Driving License (RDL) is a global initiative to introduce a globally recognized program of minimum requirements for the safe and sound management of refrigerants. The program will develop globally acceptable and recognized minimum qualification requirements for the HVAC&R supply-chain network for adoption by industry and governments.

The program will address but is not limited to, the requirements for the safe and sound management of current and future refrigerants, including best practices of: identifying, handling, charging, recovering/recycling refrigerants and leak testing, storing and keeping records of this procedures.

The RDL is not intended to replace or contradict any existing national or regional certification scheme(s), elements of the RDL should be consistent with existing refrigerant management/handling qualification/certification schemes wherever exist and appropriately cover the sound management of refrigerants.

RDL will offer an industry-based qualification program for the sound management of refrigerants specially in countries/regions where no similar schemes available. **Ultimately, RDL will form the basis of the minimum requirements agreed by the Supply Chain for the sound management of refrigerants.**



## Stages of the RDL project

### Stage-I: Development

Includes developing of the technical scope, classification of qualification, technical modules, evaluating modules and the operating admission/qualification scheme

### Stage-II: Review and Pilot

Includes review of the technical/evaluating modules and the operating admission/qualification scheme as well as start pilot program at limited level (sector and geographical wise) followed by final revision of the draft modules and scheme.

### Stage-III: Launch and outreach

Includes the launch of the RDL in full capacity at global level, offering support to national/regional associations to adopt and conduct outreach campaign to ensure wider participation.

**Expected timeframe for the project to be operational: 24-36 months**

## Stage-I: The development

### Activity 1:

#### [Developing of the detailed technical scope:](#)

Assessment of existing industry qualification programs, compiling training/qualification gaps in skills and competencies for the sound handling of refrigerants and drafting, including suggested outline of the technical skills that need to be addressed in the program.

### Activity 2:

[Develop the classifications and/or categories of the RDL](#) and design the technical modules for each category as well as testing/evaluating units for each module.

### Activity 3:

#### [Develop the operating scheme of the RDL:](#)

This includes the drafting, consulting and finalizing the operating mechanism of the RDL Scheme including criteria for admission/registration, training, evaluating and certifying individuals and companies.

Role of Partners	
Stage	Suggested Role
Stage-I: Development	<ol style="list-style-type: none"> <li>1. Assistance in assessing the existing programs and identify the gaps</li> <li>2. Suggest resource persons for the assessment and/or review work</li> <li>3. Participate in the partners meeting, comment on the draft proposal, join special taskforce(s) that may be formed and review/approve the final draft</li> </ol>
Stage-II: Review and Pilot	<ol style="list-style-type: none"> <li>1. Suggest countries/venues for testing the program</li> <li>2. Assist in conducting the pilot and/or mobilize resources for the pilot</li> <li>3. Review and approve the pilot findings and the revised (if any) version of the program</li> </ol>
Stage-III: Launch and outreach	<ol style="list-style-type: none"> <li>1. Assist in founding the suitable institutional setup for operating the RDL</li> <li>2. Contribute to the global campaign to promote it</li> <li>3. Enforce the RDL via the associations members</li> </ol>

## Refrigerants Driving License (RDL)

### Resources

- AHRI and UNEP mobilized reasonable resources to undertake Stage-I but may need additional financial support
- Stage-II and III will require mobilizing further resources to complete the work
- Complete assessment of required resources would be presented shortly after completing the first activity of the development stage (**July-2016**)
- Partners will be requested either/or contribute financially or as in kind technical support.
- RDL Will be developed to be self-sustained once inaugurated

## Similar Example – ICDL

### International Computer Driving License

ECDL /ICDL certification is a globally recognized information and communication technology (ICT) and digital literacy qualification.

The ECDL Foundation announced that over 13 million people in over 100 countries had registered to use the system.

In 1995, the ECDL certification programme was developed through a task force of the Council of European Professional Informatics Societies (CEPIS) and was recommended by the European Commission High Level Group, ESDIS, to be a Europe-wide certification scheme

The screenshot shows the ECDL Foundation website. At the top, there is a language selection menu with options: English, Español, Français, 中文, العربية, and русский. To the right is a site search bar with the text "Enter search term" and a "Go" button. Below the language menu is the ECDL Foundation logo, a "Subscribe to our Newsletter" link, and a dropdown menu for "ECDL / IC DL in your country:" with a "Go" button. A main navigation bar includes links for Home, About ECDL Foundation, Programmes, News, Sitemap, and Contact us. Below this is a secondary navigation bar with "ECDL IC DL" and three sub-sections: "For Individuals", "For Employers", and "For Teachers & Students". The current page is "For Individuals", as indicated by the breadcrumb "Home > For Individuals >". The main content area is titled "ECDL / IC DL For Individuals" and contains a paragraph: "The ability to use a computer effectively is an essential life skill. Computer skills enable people of all ages to understand and use technology to improve their personal and professional lives. Certified computer skills can help the holder's professional life by making them more attractive to employers, while increasing their ability to communicate and access information and services in their personal life." At the bottom, there are two buttons: "ECDL / IC DL for Life" and "ECDL / IC DL for Work".



**Thank you**



**Ayman Eltalouny**  
Programme Officer  
United Nations Environment Programme (UNEP)  
OzonAction Programme  
Email: [ayman.eltalouny@unep.org](mailto:ayman.eltalouny@unep.org)



**James K. Walters**  
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**CCAC ACTOR STATUS APPROVAL**

Date:4/13/2016

To: Jeff Littleton, Lois Benedict

From: Tatiana.Kondruchina.Affiliate@unep.org; on behalf of; ccac\_secretariat@unep.org

CC: Denise.Sioson.Affiliate@unep.org

Dear Jeff and Lois,

We are happy to inform you that ASHRAE's application has been approved, and we would like to welcome you to the Climate and Clean Air Coalition (CCAC) as the newest Actor under the HFCs Initiative (Promoting HFC Alternative Technology and Standards). We sincerely apologise for delay in getting back to you with results of your application, and we are excited to finally have you on board as an Actor.

Unfortunately, at this stage the CCAC Steering Committee did not approve to accept ASHRAE as a new non-State Partner. Due to very fast growth of the Coalition (from 6 Partners to 111 in only 3 years), the Steering Committee is very concerned of accepting new Partners and has decided to approve all new NGO organisations as Actors first. This would allow you to be a part of the Coalition and have access to communication and resources, and after a lapse of being an Actor for 6 months or so, you can re-apply to become a Partner, if you still wish to do so.

**Documents**

Please find attached Welcome letter from the Head of the Secretariat, Helena Molin Valdes, along with two other important CCAC documents for your reference: the CCAC brochure which will provide you with an overview of the activities and achievements of the Coalition to date, and the Guidelines and Rules of Engagement which will help you understand your role of an Actor in the Coalition.

**Upcoming events and access to the CCAC Intranet**

We kindly invite you to inform us of any upcoming events which can be shared to the CCAC Partners and in various communication channels of the CCAC such as the website and social media. The Secretariat will also grant you access to the CCAC Intranet (you will receive login details shortly), and we would encourage you to share events, news, reports and other relevant information to the partners under the Initiatives that you are involved in.

**Communication with the Secretariat**

Denise Sioson, the Coordinator of HFCs Initiative (copied in this email) will get in touch with you to discuss in more detail ways of your engagement in the Initiatives work. If you have questions, or would like to learn more about the work of the Coalition, we would be happy to set up a call between yourselves and the Secretariat in the coming weeks. Please let us know.

Once again, welcome to the Coalition, and we very much look forward to working with you!

Kind regards,  
The Secretariat





**CLIMATE &  
CLEAN AIR  
COALITION**  
TO REDUCE SHORT-LIVED  
CLIMATE POLLUTANTS

**CCAC Secretariat**

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----- Forwarded by Tatiana Kondruchina/DTIE/UNEP/NBO/UNO on 13/01/2016 16:09 -----

From: "Littleton, Jeff" <[JLittleton@ashrae.org](mailto:JLittleton@ashrae.org)>  
To: "[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)" <[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)>, "Benedict, Lois" <[benedict@ashrae.org](mailto:benedict@ashrae.org)>,  
Cc: "[Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org)" <[Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org)>, "[Nancy.Mungai@unep.org](mailto:Nancy.Mungai@unep.org)" <[Nancy.Mungai@unep.org](mailto:Nancy.Mungai@unep.org)>  
Date: 12/01/2016 21:50  
Subject: ASHRAE and CCAC

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Dear Ms. Kondruchina,

My earlier email response became truncated for some reason. The message has been resent here, along with both attachments.

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Thank you for your note below. ASHRAE has not sought accreditation with the organizations you have listed. That said, ASHRAE continues to work closely with UNEP. Attached is the current year ASHRAE UNEP Work Plan. You will note that much of that work is tied to reducing SLCPs. More recently, we have initiated a fisheries cold-chain conference that will be held jointly with UNEP, UNIDO and the Government of Thailand. While that is not tied to clean air issues, it is certainly tied to climate issues and underscores the reach of ASHRAE's 179 Chapters around the globe and members in 130 different countries. Additionally, ASHRAE's Associate Society Alliance (AASA) programs provides a gateway to some 60 organizations around the globe tied to refrigerants, energy efficiency and indoor climates (<http://www.ashraeasa.org/members.html>).

ASHRAE has worked with the WBCSD to provide technical experts for workshops in NYC

and on the Commercial Building Initiative. UNFCCC metrics are often cited by ASHRAE. The attached ASHRAE Position Document on Climate Change is one example. We will use your question regarding accreditation with these organization as a catalyst for exploring those opportunities.

Please be sure to let us know if you have additional questions. Thanks to the CCAC team for considering ASHRAE's application.

Happy 2016,  
Jeff

**From:** [Tatiana.Kondruchina.Affiliate@unep.org](mailto:Tatiana.Kondruchina.Affiliate@unep.org)  
[\[mailto:Tatiana.Kondruchina.Affiliate@unep.org\]](mailto:Tatiana.Kondruchina.Affiliate@unep.org) **On Behalf Of** [ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)  
**Sent:** Tuesday, January 12, 2016 9:30 AM  
**To:** Benedict, Lois  
**Cc:** [Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org); Littleton, Jeff; [Nancy.Mungai@unep.org](mailto:Nancy.Mungai@unep.org)  
**Subject:** Re: CCAC Non-State Partners Application\_ Revised Letter

Dear Benedict,

Thank you for your email, and please accept our apologies for delay in getting back to you. It has been an enormously busy period for the Secretariat due to preparations for the COP21, and then an extended delay due to a festive season.

We thank you for sending us an updated version of your letter of request to join, the Secretariat has now prepared an updated assessment of your request, and it will be submitted to the CCAC Steering Committee members at their next meeting for review. We took a note that your Board of Directors meeting takes place this month, and thus will try to let you know the fortunes of your application as soon as possible.

As a last request, could you please inform us whether ASHRAE is accredited to any of these organizations: UNFCCC, UN Regional Commission, ECOSOC; or is a member of the World Business Council for Sustainable Development or a participant of the UN Global Compact?

Thank you, and once again our apologies for the delay,

The Secretariat

<5.21F4.jpg>

**CCAC Secretariat**

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[<5.425C.jpg>](#) [<5.46A8.jpg>](#) [<5.4B62.jpg>](#)

From: "Benedict, Lois" <[lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)>  
To: "[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)" <[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)>, "[helena.molinaldes@unep.org](mailto:helena.molinaldes@unep.org)" <[helena.molinaldes@unep.org](mailto:helena.molinaldes@unep.org)>,  
Cc: "Littleton, Jeff" <[JLittleton@ashrae.org](mailto:JLittleton@ashrae.org)>, "[Nancy.Mungai@unep.org](mailto:Nancy.Mungai@unep.org)" <[Nancy.Mungai@unep.org](mailto:Nancy.Mungai@unep.org)>,  
"[Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org)" <[Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org)>  
Date: 06/01/2016 17:04  
Subject: CCAC Non-State Partners Application\_Revised Letter

---

Dear CCAC Secretariat:

ASHRAE is interested in the status of its application to join CCAC. Our Board of Directors will be meeting this month at the Society's Winter Conference and any information you can provide will be appreciated.

Thank you and Happy New Year!

Lois Benedict  
Executive Secretary  
ASHRAE

**Lois Benedict**  
**Executive Assistant / Scholarship Administrator**  
ASHRAE  
1791 Tullie Circle NE  
Atlanta, GA 30329  
Tel: 678-539-1120  
[lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)  
[www.ASHRAE.org](http://www.ASHRAE.org)

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**From:** [ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org) [[mailto:ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)]  
**Sent:** Friday, November 06, 2015 10:41 AM



**To:** Benedict, Lois <[lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)>

**Cc:** Littleton, Jeff <[JLittleton@ashrae.org](mailto:JLittleton@ashrae.org)>; [Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org);  
[Helena.MolinValdes@unep.org](mailto:Helena.MolinValdes@unep.org); [Nancy.Mungai@unep.org](mailto:Nancy.Mungai@unep.org)

**Subject:** Fw: CCAC Non-State Partners Application

Dear Lois Benedict,

It is with great pleasure that we acknowledge ASHRAE's application to join the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC).

After reviewing attached application, the Secretariat would like to draw your attention to several missing points that you might want to change in order to make your letter eligible for the CCAC approval process. In order to 'complete' your letter, please kindly change/add the following details:

- 1) According to the CCAC rules, all requests to join should be signed by the highest authority of the applying organization. As stated on your website (<https://www.ashrae.org/society-groups/meet-the-board/officers-directors-councils-committees-staff>), the highest authority for your organisation is President T. David Underwood;
- 2) It should be stated in the letter that ASHRAE endorses the Coalition Framework and meaningful action to address short-lived climate pollutants (SLCPs) consistent with the Framework;
- 3) Please kindly identify contact (focal) point within ASHRAE (not solely UNEP contact points).

Once we receive your updated letter of request, we will circulate it to the CCAC Steering Committee (SC) for approval and initial recommendations. If SC approves your application, it will be circulated (together with any comments from SC) to the CCAC Partners. If no Partner objects the application within 14 days, the Secretariat will notify you that application has been approved, and will welcome you to the Coalition. Following this, you will also receive official welcome letter from UNEP's Executive Office. Approval period for applications from non-state applicants normally takes up to two months from the date of receipt of the application letter. Please find attached Guidelines and Rules of Engagement document that will provide you with more details on the approval process and roles of the Partners & Actors in the Coalition.

We are looking forward to receiving your updated letter of request, and once again, thank you for your interest in joining the Coalition!

Kind regards,

The Secretariat

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**CCAC Secretariat**

Hosted by the United Nations Environment Programme

15 Rue de Milan | 75441 | Paris | Cedex 09

ccac\_secretariat@unep.org

www.ccacoalition.org

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From: "Benedict, Lois" <[lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)>

To: "[Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org)" <[Geoffrey.Oloo@unep.org](mailto:Geoffrey.Oloo@unep.org)> ,

Cc: "Littleton, Jeff" <[JLittleton@ashrae.org](mailto:JLittleton@ashrae.org)> ,

"[helena.molINVALDES@unep.org](mailto:helena.molINVALDES@unep.org)" <[helena.molINVALDES@unep.org](mailto:helena.molINVALDES@unep.org)>

Date: 11/06/2015 02:40 PM

Subject: CCAC Non-State Partners Application

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Thank you, Mr. Oloo. I did mail the original letter as instructed on the UNEP website; however, it was sent via United State Postal Service (snail mail) because FedEx and other couriers do not deliver to PO boxes, especially, if there is no telephone or email contact provided for someone at the delivery site. Hopefully, the letter will arrive, just not as quickly as wanted.

We look forward to Mr. Steiner's official response.

Regards,

Lois Benedict  
Executive Secretary  
ASHRAE

**From:** Geoffrey Oloo [<mailto:Geoffrey.Oloo@unep.org>] **On Behalf Of** Executive Office

**Sent:** Friday, November 06, 2015 2:57 AM  
**To:** Benedict, Lois <[lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)>  
**Cc:** Claudia tenHave <[Claudia.tenHave@unep.org](mailto:Claudia.tenHave@unep.org)>; Dinah Korir <[Dinah.Korir@unep.org](mailto:Dinah.Korir@unep.org)>; Yuna Obiero <[Yuna.Obiero@unep.org](mailto:Yuna.Obiero@unep.org)>; Nancy Mungai <[Nancy.Mungai@unep.org](mailto:Nancy.Mungai@unep.org)>; Helena Molin Valdes <[Helena.MolinValdes@unep.org](mailto:Helena.MolinValdes@unep.org)>  
**Subject:** Re: CCAC Non-State Partners Application  
**Importance:** High

**Our reference: UNEP/EO/2074/2015**

Dear Lois Benedict,

On behalf of Mr. Achim Steiner, I wish to acknowledge, with thanks, receipt of your email below attaching an application from ASHRAE Inc to join CCAC as a non-state partner.

I am pleased to conform that both your email and the letter attached are being brought to Mr. Steiner's attention and we will revert with an official response at the earliest opportunity available.

Kind regards and thank you for reaching out to Mr. Steiner.

Geoffrey, for

Executive Office

UNEP

Tel: +254 020 7623421

Cell: +254 709 023421

"Benedict, Lois" <[lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)>

05-11-2015 09:22 PM

To " [executiveoffice@unep.org](mailto:executiveoffice@unep.org)" <[executiveoffice@unep.org](mailto:executiveoffice@unep.org)>,

cc <7.4404.png>

Subject CCAC Non-State Partners Application

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Dear Mr. Steiner,

I'm writing to confirm that you received the attached application and my email below? Also, is there a mailing address other than the PO box where I can send the letter? We are in the USA and FedEx does not deliver mail to PO boxes.

Thank you. I look forward to your reply.

Lois Benedict  
Executive Secretary  
ASHRAE

**Lois Benedict**  
**Executive Assistant / Scholarship Administrator**  
ASHRAE  
1791 Tullie Circle NE  
Atlanta, GA 30329  
Tel: 678-539-1120  
[lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)  
[www.ASHRAE.org](http://www.ASHRAE.org)

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**From:** Benedict, Lois  
**Sent:** Wednesday, November 04, 2015 10:50 AM  
**To:** '[helena.molinvalides@unep.org](mailto:helena.molinvalides@unep.org)' <[helena.molinvalides@unep.org](mailto:helena.molinvalides@unep.org)>; '[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)' <[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)>  
**Subject:** CCAC Non-State Partners Application  
**Importance:** High

Dear Ms. Valdes,

Can you please inform me if there's an alternate mailing address where I can send the attached letter? We are located in the United States and must use Federal Express to ensure delivery;

however, FedEx does not normally deliver to a Post Office or PO. Also, FedEx requires a phone number of someone as a contact at UNEP. Any assistance you can provide would be most appreciated, since the instructions on the application state that we need to mail the attached letter.

Thank you. I look forward to your reply.

Lois Benedict  
Executive Secretary  
ASHRAE  
1791 Tullie Circle, NE  
Atlanta, GA 30329  
Phone: 678-539-11230 (direct)  
Fax: 678-539-2120 (direct)  
Email: [lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)

**From:** Benedict, Lois  
**Sent:** Wednesday, November 04, 2015 9:46 AM  
**To:** '[helena.molinvalides@unep.org](mailto:helena.molinvalides@unep.org)' <[helena.molinvalides@unep.org](mailto:helena.molinvalides@unep.org)>  
**Cc:** '[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)' <[ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)>  
**Subject:** CCAC Non-State Partners Application  
**Importance:** High

Dear Ms. Valdes:

Please find attached a letter addressed to Mr. Achim Steiner requesting membership as a non-state partner in the Climate and Clean Air Coalition. The original has been mailed per the instructions on the UNEP website. Please let me know if you require any additional information. ASHRAE looks forward to your response and decision, which may be sent to Jeff Littleton at [jlittleton@ashrae.org](mailto:jlittleton@ashrae.org).

Thank you for your consideration.

Lois Benedict  
Executive Secretary  
ASHRAE

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**Lois Benedict**  
**Executive Assistant / Scholarship Administrator**  
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[www.ASHRAE.org](http://www.ASHRAE.org)

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*(See attached file: CCAC letter\_151103.pdf)* [attachment "CCAC Guidelines  
& Rules of Engagement (5Nov2014).pdf" deleted by Tatiana  
Kondruchina/DTIE/UNEP/NBO/UNO] [attachment "CCAC Ltr\_151111.pdf"  
deleted by Tatiana Kondruchina/DTIE/UNEP/NB

## **CLIMATE AND CLEAN AIR COALITION TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS**

### **Guidelines and Rules of Engagement for Coalition Partners, Actors and Implementers – Compilation of Decisions**

#### **BACKGROUND**

The Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) is a voluntary international framework for concrete and substantial action to accelerate efforts to reduce Short-Lived Climate Pollutants (SLCPs), with an initial focus on methane, black carbon, and many hydrofluorocarbons (HFCs), in ways that protect the environment and public health, promote food and energy security, and address near-term climate change.

All national governments, regional economic integration organisation (REIO), intergovernmental organisations (IGOs), non-governmental organisations (NGOs) and private sector entities committed to tackling SLCPs as an integrated, global and collective challenge are encouraged to participate in the Coalition. There are different levels of engagement: Partner or Actor. On the initiative level, Partners can engage as Lead Partner, Partner and/or Implementer.

#### **PURPOSE**

This document compiles Coalition decisions on guidance and rules of engagements for Partners, Actors and Implementers in the Coalition. The Secretariat should keep this document up-to-date based on Partners decisions, and it should be read against the Coalition Framework (HLA/SEP2014/4A), and other relevant documents.

#### **GUIDELINES AND RULES OF ENGAGEMENT**

##### **1. Definitions of “Partner” and “Actor”**

- (a) “Partner” means, as per paragraphs (i) or (ii) below, an entity that is officially engaged in the Coalition’s purpose, functions, and activities described in the Coalition Framework (HLA/DEC2012/4A)
  - (i) A member state of the United Nations or regional economic integration organisation (REIO) approved under section 4 of this document (HLA/DEC2012/4A, s.III)
  - (ii) A non-governmental organisation, a private sector entity, an intergovernmental entity or initiative, or a regional or international organisation (or subsidiary thereof) approved under section 8.
- (b) “Actor” means any national and sub-national governments, intergovernmental organisation, non-governmental organisation or private sector entity who is not a Partner in the Coalition but is actively engaged in specific Coalition initiatives or activities; and has been approved as such following the process outlined in section 16 below. (WG/NOV2012/5A)

## 2. Definitions at the initiative level

- (a) “Lead Partner” means any Partner as defined in section 12 below that has signed up to take an active role in an initiative, and has been approved as per the CCAC Initiative Model, Governance and Process (WG/JUL2014/13A)
- (b) “Initiative partner” means any Partner who is engaged in a specific Coalition initiative as under section 13 below
- (c) “Implementer” means any Partner or Actor in a specific initiative that is receiving Coalition funds to implement initiatives agreed on by the Coalition (WG/MAY2013/, s.9)
  - (i) Implementers must also be either a Partner or Actor in the Coalition.

## STATE AND REIO PARTNERS

### 3. State Partner status and how to join

- (a) Any member State of the United Nations or regional economic integration organization (REIO) may join the Coalition as a Partner (“State and REIO Partners”), subject to the conditions outlined in section 3(b) and the consensus approval of the Coalition State and REIO Partners outlined in section 4(b)
- (b) To join the Coalition as a Partner, interested States or REIOs must address a request letter to the Executive Director of the United Nations Environment Programme with copy to the Head of the CCAC Secretariat, where they: (WG/NOV2012/3)
  - (i) endorse the Coalition Framework (HLA/DEC2012/4A, s.III.C.a)
  - (ii) endorse meaningful action to address SLCPs consistent with the Coalition Framework; and (HLA/DEC2012/4A, s.III.C.b)
  - (iii) identify particular areas of interest related to SLCPs and any specific actions taken or planned to address near term climate change (HLA/DEC2012/4A, s.III.C.c)
- (c) Participation can be discontinued at any time providing ninety days prior written notice to the Secretariat of the Coalition. (HLA/DEC2012/4A, s.VIII.B)

### 4. Approval of new State Partners

- (a) On receipt of a letter of request to join under section 3(b), the Secretariat shall review the letter against the criteria in section 3(b) (WG/NOV2012/3; HLA/DEC2012/4A, s.III.C)
  - (i) If the letter is incomplete, the Secretariat shall respond with a request to amend the letter to address the omissions
  - (ii) If the letter is complete, the Secretariat shall acknowledge receipt and circulate the letter to all Partners by e-mail.
- (b) Approval of new Partners shall be by consensus of the Coalition State and REIO Partners: (HLA/DEC2012/4A, s.III.A)
  - (i) If no State or REIO Partners object to the application within 14 days after circulation in subsection (a)(ii), the Secretariat through UNEP’s Executive Office shall notify the applicant by letter that their application has been approved and welcome them to the Coalition
  - (ii) The State applicant shall become a Coalition Partner as of the date of the notification letter in paragraph 3(b)(i) (WG/NOV2012/3)



- (c) Any issues arising under this section that cannot be resolved otherwise will be deferred to the next appropriate Working Group meeting. (WG/NOV2012/3)

#### 5. State and REIO Partner decision making roles and responsibilities

- (a) All State and REIO Partners are expected to actively contribute to the Coalition's objectives including through high-level and active participation in all Coalition meetings as well as provision of inputs to strategic documents, and advise on acceptance of new Partners and engagement of new Actors. All State and REIO Partners are expected to fully participate in the decisions of the Coalition (WG/MAR2013/5A, s.3)
- (b) All State and REIO Partners are also encouraged to actively engage in the initiatives, as described in section 11(b)
- (c) All decisions of the Coalition, including those regarding the entry of new Partners, elections, budgets, sub-groups, meetings, and activities of the Coalition, are to be made by consensus of the State and REIO Partners (HLA/DEC2012/4A, s.IV.G.1)
- (d) All decisions of committees or other sub-groups of the Coalition are to be made by consensus of the State and REIO Partners that serve on the relevant committee or other sub-group (HLA/DEC2012/4A, s.IV.G.2)
- (e) Two Co-Chairs of the Working Group are to be State and REIO Partners elected by decision of the Coalition for staggered terms of two years (HLA/DEC2012/4A, s.IV.B.a)
- (f) State Partners shall be represented on the Steering Committee by both of the following: (HLA/DEC2012/4A, s.IV.C)
  - (i) the two Co-Chairs of the Working Group, who are to serve as the Co-Chairs of the Steering Committee; and (HLA/DEC2012/4A, s.IV.C.a)
  - (ii) four state and REIO Partners elected by decision of the Coalition to staggered two-year terms (HLA/DEC2012/4A, s.IV.C/b)
- (g) Any State or REIO Partner that could directly materially benefit from a funding allocation shall recuse themselves from the associated decision.

#### 6. Participation in Coalition meetings

- (a) All state and REIO Partners shall be given a seat at the table of all official Working Group and High Level Assembly meetings
- (b) One representative per non-OECD State Partner is entitled to travel support to attend official Working Group and High Level Assembly meetings, subject to UN policies, rules and regulations
- (c) Entitlement to support under section (a) is subject to change in accordance with the policies of the United Nations Environment Programme and as per the section 4 of the Terms of Reference for the Administration of the Coalition Trust Fund
- (d) State or REIO who are considering joining the Coalition can be invited to observe one of the Coalition's meeting to support its application process
- (e) There is no observer status under the Coalition.

## NON-STATE PARTNERS

### 7. Non-State Partner status and how to join

- (a) A non-governmental organization, a private sector entity, an intergovernmental entity or initiative, or a regional or international organization (or subsidiary thereof) may join the Coalition as a Partner, subject to the conditions in subsection (b) hereafter and the consensus approval of the State and REIO Partners
- (b) To join the Coalition as a “Partner” interested Non-State organisations must address a letter to the Executive Director of the United Nations Environment Programme with copy to the Head of the CCAC Secretariat that (WG/NOV2012/5A, s.I.B.1)
  - (i) Endorses the Coalition Framework (HLA/DEC2012/4A, s.III.C.a)
  - (ii) Endorses meaningful action to address SLCPs consistent with the Coalition Framework (HLA/DEC2012/4A, s.III.C.b)
  - (iii) Identifies particular areas of interest related to SLCPs and any specific actions taken or planned to address near term climate change; and (HLA/DEC2012/4A, s.III.C.c)
  - (iv) Addresses additional matters under subsection (c).
- (c) To join the Coalition as a “Partner” under subsection 6(a), interested Non-State organisations should also address additional matters in their letter, including (WG/NOV2012/5A, s.I.C.1)
  - (i) The entity’s mission and/or capabilities relate to reducing SLCPs
  - (ii) The entity’s willingness and capacity to contribute to the work of the Coalition and support its objectives and initiatives
  - (iii) Whether the entity has an international character and not work in one country exclusively
  - (iv) Whether the entity is accredited to a UN organisation or body (e.g. ECOSOC, UNFCCC, UN Regional Commission or UNEP), or to be a member of the World Business Council for Sustainable Development, or a participant in the UN Global Compact; and
  - (v) Identification of a primary point of contact for communications with the Coalition.
- (d) Participation can be discontinued at any time providing ninety days prior written notice to the Secretariat of the Coalition.

### 8. Approving new Non-State Partners

- (a) On receipt of a letter of request to join the Coalition pursuant to section 7(b), the Secretariat shall review the letter for consistency with the criteria in sections 7(b) and 7(c). (WG/NOV2012/5A, s.I.B.2)
  - (i) If the letter is incomplete, the Secretariat shall respond with a request to amend the letter to address the omissions (WG/NOV2012/5A, s.I.B.2.a)
  - (ii) If the letter is complete, the Secretariat will acknowledge receipt and circulate the letter to the Steering Committee by e-mail (WG/NOV2012/5A, s.I.B.2.b)
- (b) Approval of new Partners shall be by consensus of the Coalition State and REIO Partners
  - (i) The Steering Committee shall make an initial recommendation on each request made under section 7(a)
  - (ii) If the Steering Committee recommends approval of a particular application, the Secretariat circulates the application and any comments from the Steering Committee to all State and REIO Partners (WG/NOV2012/5A, s.I.B.3)

- (iii) If no State or REIO Partners object to the application within 14 days, the Secretariat through UNEP's Executive Office shall notify the applicant by letter that their application has been approved and welcome them to the Coalition (HLA/DEC2012/4A, s.IV(C)(4))
- (iv) The applicant shall become a Coalition Partner as of the date of the notification letter in section 7(b)(iii) (WG/NOV2012/5A, s.I.B.3.a)
- (c) Any issues arising from under this section that cannot be resolved otherwise will be deferred to the next appropriate Working Group meeting. (WG/NOV2012/5A, s.I.B.3.b)

#### 9. Non-State Partner roles and responsibilities and participation in Coalition meetings

- (a) All Non-State Partners are expected to actively contribute to the Coalition's objectives including through high-level and active participation in all Coalition meetings as well as provision of inputs to strategic documents, and advise on acceptance of new Partners and engagement of new Actors (WG/MAR2013/5A, s.3)
- (b) All Non-State Partners are also encouraged to actively engage in the initiatives, as described in section 11(b)
- (c) Non-State Partners are encouraged to attend meetings of the Coalition High-Level Assembly and Working Group to the greatest extent practicable subject to the following:
  - (i) Each intergovernmental organisation is entitled to have one seat at the table in Coalition meetings (WG/JUL2012/Summary, Annex 5)
  - (ii) Civil Society Organisations shall have at least two seats at the table (WG/JUL2012/Summary)
  - (iii) Private Sector stakeholders shall have at least two seats at the table (WG/JUL2012/Summary)
  - (iv) Additional Non-State Partners will be seated at the table, as space allows (WG/NOV2012/5A, s.I.D.3)
- (d) Non-State Partner shall be represented on the Steering Committee by one intergovernmental organization and one non-governmental organization (HLA/DEC2012/4A, s.IV.C.1.b)
- (e) Any Non-State Partner that could directly materially benefit from a funding allocation shall recuse themselves from the associated decision.

## BEING A PARTNER

#### 10. Partner commitment and engagement

- (a) Participation in the Coalition is voluntary, and each Partner individually determines the nature of its participation
- (b) Partners in the Coalition are encouraged to actively take on the following roles and responsibilities:
  - (i) Undertake meaningful action to address SLCPs (WG/MAR2013/4A)
  - (ii) Actively participate in Coalition activities, including in the initiatives as per section 11 of this document as well as other Coalition task forces (WG/MAR2013/4A)
  - (iii) Actively participate in the Coalition meetings and decisions; and (WG/MAR2013/4A)
  - (iv) Engage key stakeholders in tackling SLCPs. (WG/MAR2013/4A)
- (c) Each Partner is expected to undertake activities as part of its participation in the Coalition in accordance with the laws, regulations, and policies under which it operates and applicable international instruments (HLA/DEC2012/4A, s.II)

- (d) Each Partner may, at its discretion, contribute funds, personnel, and other resources to the Coalition subject to the laws, regulations, and policies of the Partner
- (e) Any costs directly incurred by a Partner arising from the activities contemplated in this Framework are to be borne by the Partner that incurs them, unless other arrangements are decided by the Coalition
- (f) Share information on domestic and organizational progress through different means, including by using the Partners in Action template.

#### 11. Partner involvement in Coalition initiatives

- (a) All initiatives of the Coalition are led by Partners
- (b) All State and REIO and Non-State Partners shall take an active role to the extent possible in multiple initiatives of the Coalition, including by (WG/MAR2013/5A, s.2)
  - (i) supporting initiatives' continuous development and implementation, and (WG/MAR2013/5A, s.2)
  - (ii) reviewing initiatives and associated activities proposals (WG/MAR2013/5A, s.2)
- (c) All and REIO Partners are encouraged to co-finance activities of the Coalition.

#### 12. "Lead Partner" status and how to become one

- (a) A Lead Partner has committed to have primary responsibilities in one or more specific initiative(s) to coordinate and oversee the development, implementation, and report on progress on behalf of the CCAC on all aspects of their initiative. This includes being responsible for:
  - (i) ensuring that initiatives are developed through a collaborative and inclusive process including continually looking to involve new Partners and stakeholders
  - (ii) submitting activity and funding proposals under, as well as revisions to, the initiative of their responsibility for consideration by the Coalition
  - (iii) together with the Secretariat for reporting to the Working Group and High-Level Assembly on initiatives, including (WG/MAY2013/1, s.24)
    - (1) associated funding requests and other externally funded activities (WG/MAY2013/1, s.24.b)
    - (2) work plans and time schedules, problems encountered or foreseen, and financial status, as appropriate (WG/MAY2013/1, s.24.b)
  - (iv) Having dedicated human resources with time to work on the initiatives (WG/MAY2013/1, s.6)
- (b) Any Partner interested in becoming a Lead Partner in an approved initiative should submit a request in accordance with the CCAC Initiative Model, Governance and Process (WG/JUL2014/13A).

#### 13. "Initiative Partner" status and how to become one

- (a) An Initiative Partner is engaged in a specific initiative, designated on a voluntary basis, and supports Lead Partners by contributing their expertise and experience to the development and implementation of the initiative. This includes: (WG/MAR013/5A, s.2); (WG/MAY2013/1, s.7)
  - (i) Helping to define strategic directions
  - (ii) Collaborating with and coordinating other existing efforts
  - (iii) Participating in initiative meetings, helping to draft and review initiative documents;
  - (iv) Looking for opportunities to capture and link other relevant activities in which they are involved to deliver the initiative

- (b) Initiative Partners are designated on a voluntary basis. Interested Partners should contact the Secretariat or Lead Partners to start getting involved. (WG/MAR013/5A, s.2)

#### 14. “Implementer” status

- (a) A Lead Partner or Partner in any particular initiative can also act as an “Implementer,” meaning that they are receiving funds to implement activities agreed on by the Coalition in accordance with the funding process and rules of the Coalition (WG/MAY2013/1, s.9)
- (b) Implementers may not participate in decision making processes where a conflict of interest arises including in the cases described in section 5(g) for State and REIO Partners and section 9(e) for Non-State Partners.

## ACTORS

#### 15. Actor status and how to become one

- (a) National and sub-national governments, IGOs, NGOs and private sector entities actively engaged in actions targeting particular SLCPs and/or sectors are encouraged to support specific Coalition initiatives or activities as Actors. Actors in the Coalition constitute a network of active stakeholders with experience and expertise relevant to specific initiatives or activities of the Coalition (WG/MAR2013/5A)
- (b) State Actors are strongly encouraged to formally join the Coalition as Partners (WG/MAR2013/4A, s.A.4)
- (c) To become an “Actor” in a specific Coalition initiative, interested entities should contact the Secretariat or Lead Partners of specific initiatives or activities of the Coalition, and provide in written format:
  - (i) Their motivation of why they want to become an Actor
  - (ii) Details of their field they of expertise
  - (iii) Which specific initiative or activity stream they would like to get involved; and
  - (iv) A primary contact person.

#### 16. Approving new Actors in specific Coalition initiatives

- (a) Lead partners are responsible for accepting new actors in the framework of their initiative and should notify the Secretariat of any new Actors (WG/MAR2013/4A, s.A.1)
- (b) Any concerns or objections raised by a Partner or the Secretariat regarding participation or acceptance of an Actor in the Coalition that cannot be resolved otherwise will be referred to the next appropriate Working Group meeting (WG/MAR2013/4A, s.A.3)
- (c) Lead Partners can invite expert organizations to become Actors, and encourage them to provide the requested information
- (d) The Secretariat shall regularly inform all Partners of new Coalition Actors and will publish the list of all Actors on the Coalition website. (WG/MAR2013/4A, s.A.2)

## 17. Actor engagement in the Coalition

- (a) Actors in the Coalition are encouraged to take on the following roles and responsibilities:  
(WG/MAR2013/5A)
- (i) Actively participate in initiatives: Under Lead Partner coordination, Actors are expected to engage in a specific Coalition initiative or activities by contributing expertise and experience to their development and implementation, helping define strategic directions for these, and supporting collaboration and coordination with other existing efforts, including through participation in relevant initiative meetings and the drafting and review of relevant documents
  - (ii) Actors can also become Implementers of specific activities under an initiative (i.e. receive funds from the Coalition's Trust Fund for implementation of approved activities)
  - (iii) Provide expert advice: Actors can be asked to provide advice on specific issues related to their particular expertise, and to attend specific Coalition meetings (WG/MAR2013/4A, s.B.2)
  - (iv) Engage key stakeholders in tackling SLCPs: Actors are to be kept informed of the Coalition's activities, including through Lead Partners and the Coalition's newsletter. Actors are encouraged to raise awareness of SLCP issues and mitigation strategies related to their particular expertise and promote the Coalition activities at relevant events, meetings and through the media
- (b) Actors are not entitled to participate in Coalition High-Level Assembly and Working Group meetings, notwithstanding that the Secretariat, in consultation with the Working Group co-chairs or the Steering Committee, can issue invitations to a select number of Actors to attend any Coalition meetings. (WG/NOV2012/5A, s.I.D.6)

*This document was agreed by the Coalition Working Group on 17 July 2014 (WG/JUL2014/17)*

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<sup>i</sup> WG/NOV2012/3 – Revised Process for Approving new state Partners  
WG/NOV2012/5A – Non-State Partners in the Coalition  
WG/APR2014/12 – Revised Terms of Reference for the Scientific Advisory Panel  
HLA/DEC2012/4A – Framework for the CCAC  
WG/MAR2013/4A – States and sub-national entities as Actors in the Coalition  
WG/MAR2013/5A – Guidelines for Partners and Actors engagement in the CCAC





TIME TO

ACT





# JOIN THE COALITION

The Coalition is open to countries, private sector networks and companies, development banks, financial institutions, cities, NGOs and international organisations who are committed to take meaningful action that reduces SLCP emissions. More information on how to engage in this global effort can be obtained from the Secretariat.

JULY 2015



CCAC SECRETARIAT hosted by  
the United Nations Environment Programme  
Paris – France

-  [www.ccacoalition.org](http://www.ccacoalition.org)
-  [ccac\\_secretariat@unep.org](mailto:ccac_secretariat@unep.org)
-  [@CCACoalition](https://twitter.com/CCACoalition)
-  [facebook.com/ccacoalition](https://facebook.com/ccacoalition)





# WHY DO WE NEED TO ACT NOW?

Emissions of black carbon (soot), methane, tropospheric ozone and some hydrofluorocarbons (HFCs), captured under the term Short-Lived Climate Pollutants, or SLCPs - can have harmful impacts on human health, agriculture and ecosystems. They are also responsible for a substantial fraction of current global warming in the near-time, with regional and local climate

Due to their relatively short lifetime in the atmosphere, quick action to reduce pollutant concentrations can deliver results in a matter of weeks to years after emissions are cut, harnessing immediate health, ecosystem and near-term climate benefits.

If we act fast to reduce these pollutants, especially black carbon and methane, we can slow down the global warming by as much as 0.6°C by 2050 and preventing more than three million premature deaths each year, as well as avoid over 50 million tonnes of crop losses annually.



**52**  
MILLION TONNES  
OF CROP LOSSES  
AVOIDED ANNUALLY



**Many cost-effective technologies and practices to reduce SLCPs in key sectors exist and have already been implemented around the world.**

There are many cost-effective options available for addressing short-lived climate pollutants. Identified through a scientific process, and selected for their capacity to harness near-term climate, clean air and other benefits, they span across many key development and economic sectors. Options include upgrading techniques for trapping black carbon emissions from diesel engines, harnessing methane from landfills as a source of energy and using new cooling technologies to avoid use of HFCs.





# WHO WE ARE

Founded in February 2012, the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants is the first global effort to treat these pollutants as a collective challenge.

The Coalition is growing rapidly. As of 2015, the CCAC has more than 100 partners.



“ The CCAC plays a vital role in mobilizing voluntary action to reduce global warming in the near term. Curbing carbon dioxide emissions is crucial for reducing long-term climate risk, but addressing short-lived climate pollutants – the focus of this Coalition – is an important complement to those efforts. The two go hand in hand. ”

**ACHIM STEINER,**  
UNEP Executive Director

UP TO  
**0.6°C**  
AVOIDED WARMING



# OUR PARTNERS

## 49 COUNTRIES

Australia, Bangladesh, Benin, Cambodia, Canada, Central African Republic, Chad, Chile, Colombia, Cote d'Ivoire, Denmark, Dominican Republic, Ethiopia, European Commission, Finland, France, Germany, Ghana, Guinea (Republic of), Iraq, Ireland, Israel, Italy, Japan, Jordan, Kenya, Korea (Republic of), Laos, Liberia, Maldives (republic of the), Mali, Mexico, Mongolia, Morocco (Kingdom of), Netherlands, New Zealand, Nigeria, Norway, Paraguay, Peru, Philippines, Poland, Russian Federation, Sweden, Switzerland, Togo, United Kingdom, United States and Uruguay.

## 16 INTERGOVERNMENTAL ORGANIZATIONS

European Investment Bank, Food and Agricultural Organisation of the United Nations, Inter-American Development Bank, Inter-America Institute for Cooperation on Agriculture, International Centre for Integrated Mountain Development, Nordic Environment Finance Corporation, Organisation for Economic Co-operation and Development, Regional Environmental Centre, UN Development Programme, UN Economic Commission for Europe, UN Environment Programme, UN-Habitat, UN Industrial Development Organization, World Bank, World Health Organization, World Meteorological Organization.

## 43 NON-GOVERNMENTAL ORGANIZATIONS

Asian Institute of Technology, Bellona Foundation, BSR, C40 Cities Climate Leadership Group, Caucasus Environmental NGO Network, CDP, CEID Colombia, Center for Human Rights and Environment, Centre for Clean Air Policy, Centre for Science and Environment, Centro Mario Molina Chile, Clean Air Asia, Clean Air Institute, Clean Air Task Force, Climate Markets & Investment Association, ClimateWorks Foundation, Earthjustice, Environmental Defense Fund, Environmental Investigation Agency, EvK2CNR Committee, FIA Foundation, Global Alliance for Clean Cookstoves, GLOBE Foundation, Guraghe Development Association (Ethiopia), Institute for Advanced Sustainability Studies, Institute for Energy and Environment, Institute for Global Environmental Strategies, Institute for Governance and Sustainable

Development, International Climate Change Partnership, International Council on Clean Transportation, International Cryosphere Climate Initiative, International Institute for Sustainable Development, International Network for Environmental Compliance and Enforcement, International Solid Waste Association, International Union of Air Pollution, Prevention and Environmental Protection Associations, Local Governments for Sustainability, Molina Center for Strategic Studies in Energy and the Environment, Natural Resources Defense Council, Network for Environment and Sustainable Development in Africa, Smart Freight Centre, Stockholm Environment Institute, Swiss Foundation for Technical Cooperation (Swisscontact), and TERRE Policy Centre.

All Coalition partners recognise that the Coalition's work is complementary to global efforts to reduce carbon dioxide, in particular under the United Nations Framework Convention on Climate Change (UNFCCC).

To ensure global temperature rise is limited to 2°C by the end of 21st century, an integrated approach must be implemented, with deep and rapid cuts in carbon dioxide emissions and significant immediate SLCP emission reductions.



# OUR GOALS

The purpose of the Coalition is to achieve SLCP emission reductions at scale, by catalysing new, transformative actions and highlighting and bolstering existing efforts. We do this to protect the environment and public health, promote food and energy security, and address near-term climate change and air pollution.

To support the adoption and implementation of policies, regulations and practices, the Coalition focuses on four principle strategies:

- **Catalyse ambitions action**

– develop, enhance and implement new national and regional actions by executing the CCAC's initiatives, enhancing capacity and building partnerships with public and private stakeholders;

- **Mobilise robust support**

– engage directly with decision-makers and raise public awareness to enable policymakers to act on short-lived climate pollutants;

- **Leverage finance at scale**

– generate enabling conditions for financing SLCP actions, strengthen and streamline financial flows through engagement of development banks and agencies, and catalysing private sector investment;

- **Enhance science and knowledge**

– improve scientific understanding of short-lived climate pollutants to enable prioritisation of mitigation actions and develop metrics to quantify mitigation benefits.

The Coalition's 5-Year Strategic Plan (2015 –2020) will guide the prioritisation of the Coalition's resources over the next five years. It supports the development and implementation of policies and practices that will deliver substantial SLCP reductions in the near-to medium-term – by 2030. The Coalition will continuously measure and report the impact of its actions..



# ACT





# WHAT WE DO

THE COALITION AT A GLANCE

The Coalition sponsors eleven initiatives designed to catalyse change in practice and showcase how collective and individual partner action can practically and effectively reduce SLCPs.

- Reducing Black Carbon Emissions from Heavy-Duty Diesel Vehicles and Engines
- Mitigating SLCPs and Other Pollutants from Brick Production
- Mitigating SLCPs from Municipal Solid Waste
- Promoting HFC Alternative Technology and Standards
- Accelerating Methane and Black Carbon Reductions from Oil and Natural Gas Production
- Reducing SLCPs from Household Cooking and Domestic Heating
- Addressing Short-Lived climate Pollutants from Agriculture
- Supporting National Planning for Action on SLCPs (SNAP)
- Financing Mitigation of SLCPs
- Regional Assessments of SLCPs
- Health

**2.4**  
MILLION  
LIVES SAVED  
EVERY YEAR

“ Women should not be dying from cooking. Nigeria is working hard to save our mothers, sisters, daughters and wives from preventable illnesses and embrace clean energy for cooking, lighting and heating - and the CCAC is helping us move this work forward. Our national cookstove scheme was born out of the CCAC. ”

**Bahijjahtu Abubakar,**  
National Coordinator of Renewable Energy Programme in Nigeria and former CCAC Co-Chair





Attention:  
David Underwood  
President  
ASHRAE, CPMP  
100 Lakeshore Rd. E., Apt. 607  
Oakville, Ontario L6J 6M9

by e-mail: [dunderwood@hvactrdu.com](mailto:dunderwood@hvactrdu.com)

12 April 2016

Dear Mr. Underwood,

In reference to your application letter of 11 November 2015, I am pleased to inform you that ASHRAE, Inc. has been accepted as an Actor in the HFCs Initiative (Promoting HFC Alternative Technology and Standards) of the Climate and Clean Air Coalition (CCAC). For your easy reference, please find attached the Guidelines and Rules of Engagement document which will provide you with an overview of the expectations of the Actors in the Coalition.

For further information, please feel free to contact the Coordinator of the CCAC HFCs Initiative, Denise Sioson, [Denise.Sioson.affiliate@unep.org](mailto:Denise.Sioson.affiliate@unep.org), +33 1 44 37 76 37.

We look forward to adding you to our distribution lists of general information and invite you to use our website and share information.

Sincerely,

Helena Molin Valdes  
Head of CCAC Secretariat

CC: Mr. Jeff Littleton, Executive Vice President, ASHRAE, Inc., [jlittleton@ashrae.org](mailto:jlittleton@ashrae.org)



## Memorandum of Understanding

### ASHRAE and the Kuwait Foundation for the Advancement of Sciences

This Memorandum of Understanding (“MOU”) dated \_\_\_\_\_ is between:

ASHRAE, with its principal office located at 1791 Tullie Circle, N.E. Atlanta, GA 30329, hereinafter referred to as “ASHRAE”;

Commented [a1]: Please confirm.

And

Kuwait Foundation for the Advancement of Sciences, a private, non-profit organization, with its principal office at Kuwait, Sharq Area P.O. Box: 252632 Safat 13113, Kuwait, hereinafter referred to as “KFAS”.

#### BACKGROUND

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 1976, the ~~Kuwait Foundation for the Advancement of Sciences~~ (KFAS) exists to stimulate, support and invest in initiatives and human resources that contribute to the building of a strong Science, Technology and Innovation System and Culture (STI) and fostering an enabling environment. The initiatives include improving public understanding of science; strengthening innovation and research capacity and enhancing the enabling cultural environment; supporting the gifted and talented; translating knowledge into innovation; and encouraging more private technological capability.

ASHRAE and KFAS agree to support the ~~Memorandum of Understanding MOU~~ to advance and promote the mutual interests of their respective members. ~~We ASHRAE and KFAS~~ are committed to working together towards ~~and on~~ the following ~~goals activities~~ and ~~activities 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 ~~and~~ KFAS senior representatives to:

- Ensure ongoing advancement of collaborative projects.

- Keep each respective organization informed of major initiatives.
- Discuss new opportunities for collaboration.

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

**For ASHRAE:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**For KFAS:**

[Ms. Dina Al-Nakib](#)  
[Assistant PM/Research Directorate](#)  
[P.O. Box 25263, Safat, 13113, Kuwait](#)  
[dalnakib@kfas.org.kw](mailto:dalnakib@kfas.org.kw)

**CONFERENCES AND MEETINGS**

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

ASHRAE and KFAS 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 ACTIVITIES**

ASHRAE and KFAS agree to take advantage of ASHRAE’s extensive global chapter network to advance common goals and objectives.

**ADVOCACY**

Where mutually beneficial and to the extent allowed by laws and corporate policies, ASHRAE and KFAS agree to work together on common government 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.
- Education of policy makers on scientific issues important to each organization.

**PUBLICATIONS**

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

- Provide at least one complimentary subscription the primary organizational periodical to be received at the headquarters location of the other organization.
- Explore opportunities to jointly produce books and other publications of mutual benefit.

**Formatted:** Not Highlight

**Commented [EO2]:** KFAS doesn’t have periodicals related to ASHRA’s activities

**Formatted:** Not Highlight

- 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 Arabic for distribution in Kuwait.

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Commented [EO3]: Such publications are not within KFAS activities.

## EDUCATION

As leading providers of education and professional development, ASHRAE and KFAS agree to:

- Cross-market educational offerings and at the national and international levels.
- Explore opportunities to co-develop new courses or other training programs that take advantage of overlapping and complimentary expertise between ASHRAE and KFAS relevant local institutions.

Commented [EO4]: This is not within KFAS mandate!

## TECHNICAL ACTIVITIES COORDINATION

ASHRAE and KFAS or individuals appointed by KFAS agree to foster technical cooperation in areas of common interest by:

- Encourage joint participation 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 subjects of common interest to both organizations.
- Explore establishment of technical liaison representatives to key to support key research and technical activities.

## RESEARCH

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

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

In the event where funding from ASHRAE, KFAS and other sources is required to support such research, the funding commitment and relevant terms applicable to each party shall be detailed in a separate agreement.

Any collaborative research agreements arising from this MOU will include, but not be limited to, provisions setting forth the approved budget, specific financial and administrative arrangements, a description of the scope of work to be performed, the rights to intellectual property arising from the collaborative research effort and the right to publish. This MOU does not necessarily anticipate any present exchange of monies between KFAS and ASHRAE or guarantee specific funding.



## ADMINISTRATIVE CONTACTS

The administrative contacts for actions tied to this MOU 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 KFAS:

[Essam Omar Asem](mailto:Essam.Omar.Asem@kfascr.org)  
[Director, Research Directorate](mailto:Essam.Omar.Asem@kfascr.org)  
[KFAS](mailto:Essam.Omar.Asem@kfascr.org)  
[P.O. Box 25263, Safat, 13113, Kuwait](mailto:Essam.Omar.Asem@kfascr.org)  
[965-22278111](tel:965-22278111)  

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[eomar@kfascr.org](mailto:eomar@kfascr.org)

## 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 MOU 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 between both KFAS and ASHRAE.

## CONFIDENTIALITY

In the normal course of this collaboration, it will be necessary to share proprietary information. The recipient of such information shall treat the discloser's proprietary information as confidential for a period of five (5) years and shall handle it with the same degree of care that it uses with its own proprietary information but in all cases, no less than reasonable care. In particular, during this period, the recipient shall use the proprietary information only in furtherance of the purpose and not (without the written consent of the discloser) (a) divulge any such information to any third party, or (b) make any commercial or unauthorized use thereof.

KFAS and ASHRAE agree not to use each other's name in any advertising or other form of publicity without the prior written consent of such party.

## LEGAL STANDING

This MOU reflects a commitment by ASHRAE and KFAS 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 except the confidentiality provisions mentioned herein which shall survive the termination of this MOU, 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 KFAS. Furthermore, it is understood that this Memorandum of Understanding-MOU 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.

IN WITNESS WHEREOF, THE KFAS AND ASHRAE HAVE EXECUTED THIS MOU AS OF THE DATES SET FORTH ABOVE.

**FOR ASHRAE**

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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**FOR KFAS**

[Dr. Adnan Shihab-Eldin/Director General](#)  
Printed Name/Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

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

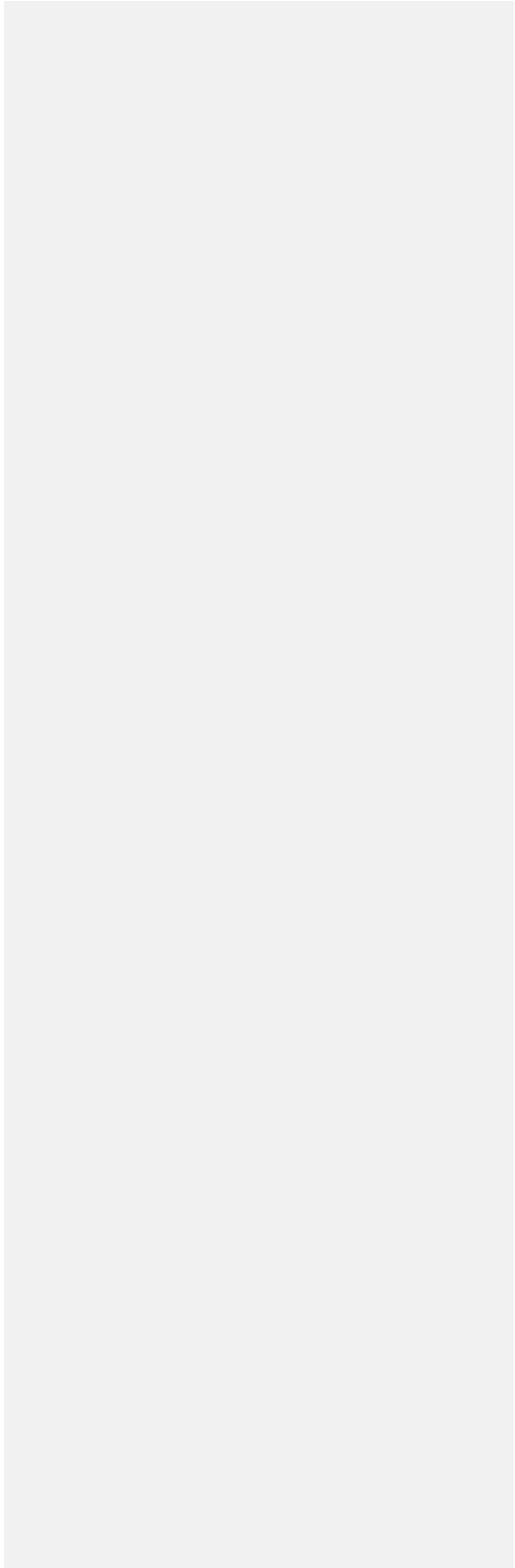
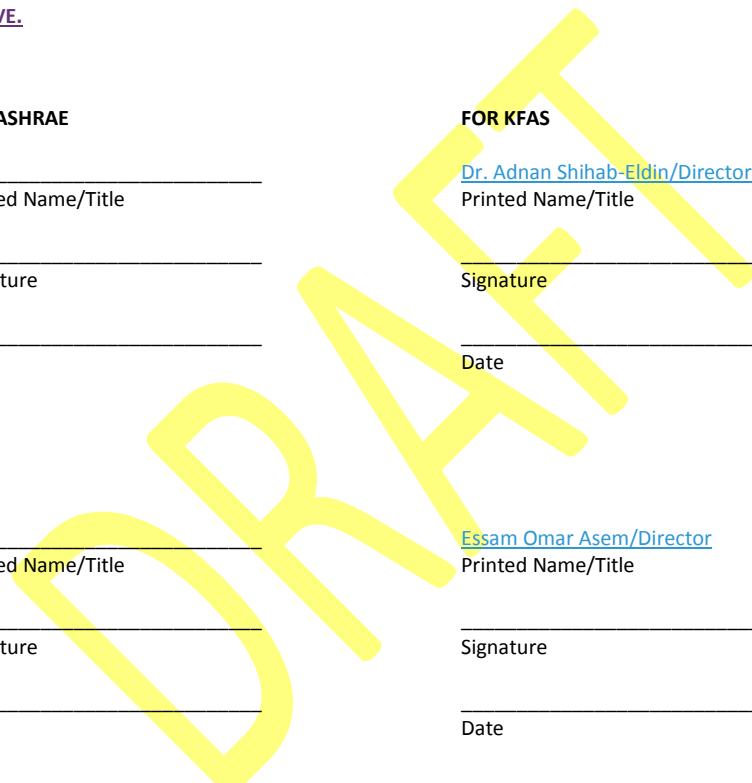
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Signature

\_\_\_\_\_  
Date

[Essam Omar Asem/Director](#)  
Printed Name/Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



#### CURRENT SALES OF ISO STANDARDS BY ASHRAE

1. ASHRAE members and others can purchase ISO standards in the ASHRAE bookstore by using the All Industry Catalog filter in our bookstore (rather than the default ASHRAE Catalog filter). Thousands of ISO standards are available through this manner.
2. ASHRAE receives a 10% royalty from these sales from our bookstore partner, Techstreet.
3. During the 2015 calendar year, there were 113 unique ISO related searches, details attached. Some people might have typed in the name of an ISO standard without using ISO which would mean that search would not be counted in the 113 but it is still a good indication. (There were 40,320 unique searches on the ASHRAE store in 2015, so 0.3% had 'ISO' as part of the search term.)
4. In 2015, 43 ISO units were purchased in the ASHRAE store in this manner totaling \$6,810. In all, the store brought in \$1.54M in 2015, and in addition we earned another \$220,000 in royalties and catalog sales from Techstreet in 2015.
5. Two ISO standards that are identical adoptions of ASHRAE standards are currently sold in the ASHRAE Catalog of the bookstore. (See point 11 below)

#### WHAT WE CAN DO NOW

6. Draw attention to our offering ISO standards through the all industry search on periodic ashrae.org home page teasers.
7. Draw attention to our offering of ISO standards on periodic bookstore landing page teasers.
8. Promotional HTML message about our ISO offering to members where there is likely high degree of ISO standard interest (Europe primarily).
9. After 6 months of this activity, assess sales performance to determine the extent of interest.

#### CONTRACTUAL TERMS FOR ASHRAE SALE OF ISO STANDARDS

10. ANSI is the licensed reseller of ISO standards in the US.
11. When ISO adopts an ASHRAE Standard and the ISO and ASHRAE Standards are identical or technically equivalent, no royalties are due to ANSI from ASHRAE.
12. If ASHRAE would like to sell ISO standards DIRECTLY rather than through Techstreet sales channel in the ASHRAE bookstore, an agreement would be needed between ASHRAE and ANSI and royalties due to ANSI. ANSI shares the royalty with ISO. (Note: The All Industry filter in the ASHRAE bookstore is a channel where Techstreet rather than ASHRAE is the ISO distributor through sublicense to ANSI. Techstreet pays the royalty to ANSI.)
13. If ASHRAE sells directly, royalties would depend on whether ASHRAE is the US TAG for the ISO standards it wishes to sell. If ASHRAE is the US TAG, then a reduced royalty would be due to ANSI of 65% of ANSI's list price of the ISO standard. If ASHRAE is not the US TAG, royalties would be a bit higher. Strict ISO-specific watermarking instructions apply to electronic versions that are sold. Also an ISO specific user

agreement must be agreed to by the purchaser. This would increase cost for the ASHRAE bookstore infrastructure and would mean a different type of water marketing for ISO products than is used for ASHRAE products.)

14. If ASHRAE provides content to ISO from an ASHRAE standard or other document that is used in the ISO standard for inclusion in whole or in part in an ISO standard, then ISO asserts its copyright on the published standard.
15. ISO does not pay a royalty to an SDO if they adopt an SDO's standard and publish it as an ISO standard. (This applies to points 11 and 14.)

Steve Comstock | Publisher/Director of Publications & Education  
Extension:1102

Jeff Littleton | Executive Vice President  
Extension:1100

**ILS/ISAS implementation plan for the international promotion of ASHRAE standards  
(Society year 2015-2016)**

Action	Assigned to	Fiscal impact
1 International Standards Administration: a) Administer ISO TCs and SCs b) Administer US Technical Advisory Groups c) Support ISO working groups d) Support ISO TC chairman expenses	International Standards/staff	None (currently budgeted)
2 Develop Memoranda of Understanding (MOU): a) Develop MOUs with associations and national standardization organizations for the use, adoption and promotion of ASHRAE standards b) Develop MOUs with regional and international standardization organizations for the use, adoption and promotion of ASHRAE standards	International Standards	\$ TBD (consultant fees and travel)
3 International Promotion: a) Identify key ASHRAE standards to promote – Gdl 0, 15, 34, 55, 62.1, 62.2, 90.1, 90.2, 135, 135.1, 161, 170, 180, 189.1, and 113 b) Promote ASHRAE standards to international membership (particularly the Region-at-Large and international ASHRAE chapters) and associate societies c) Support SPC Chairs in the promotion of specific standards internationally and identify ASHRAE members capable of promoting standards internationally, including ASHRAE distinguished lecturers d) Exhibit (booth sales) at and participate in regional and international trade shows and conferences	Marketing / International Standards staff	\$ TBD (staff and volunteer travel and materials)
4 Increase participation with US-based organizations: a) ANSI committees related to adoption of US standards by regional and international standardization organizations b) Dept. of Commerce activities related to international standards c) Other US SDOs and industry trade groups	International Standards staff / volunteer participation	\$ TBD (staff travel)
5 ASHRAE standards development: a) Encourage ASHRAE SPCs to consider international standards and participation of international experts when developing ASHRAE standards [ASHRAE SPCs considering the adoption of ISO standards: 16/58, 30, 95, 96 (TC 6.7)] b) Revise ASHRAE MOPs to ensure TC and SPC consideration of international standards c) Support the understanding of development rules among standards developers (ASHRAE and ISO)	ILS/SPLS/PPIS	None
6 Education: a) Promote the international standards policy to the SPCs and TCs and educate the SPCs and TCs on the international standards development process and international standards published in their fields b) Provide worldwide list of standards publishers and an international standards matrix to SPCs and TCs c) Regular articles and/or column on international standards activities in <i>Insights</i>	ILS/SPLS/TCLS	None
Total fiscal impact		\$ TBD

## ISO Involvement from ASME and NFPA

Date: 4/4/2016  
From: Claire Ramspeck  
To: Jeff Littleton  
CC: Steve Comstock, Stephanie Reiniche

Hi, Jeff-

At last week's directors meeting, we discussed briefly that we may seek to increase or decrease our ISO activities. I reached out to two of my colleagues at ASME and NFPA to see where they stand. Here is what they said. I think it is very telling.

- **ASME**
  - ASME has 3 Secretariats and about 40 TAG's, which has been a pretty constant number for the last 10 years or so. So, the international activity assessment portion of their ANSI dues is close to \$100K.
  - Comment from ASME: I don't see how our participation in ISO activities benefits revenue generation from ASME Standards. If companies participate in ISO activities so that there can be one standard they can build equipment to and sell to multiple countries, they are more likely to use the ISO Standard than the ASME Standard even if the two were equivalent (removes any stigma of using an "American" standard). The only possible gain for us is if the ISO standard includes a normative reference to ASME Standards, and we've found it almost impossible to get a European-dominated organization to bring themselves to recognize an American standard. So, while the creation of the ISO Standard would benefit the industry we supposedly serve, it doesn't do a whole lot for ASME, the organization. Then, there's also the notion of the TAG Administrator doing this work on behalf of ANSI, yet we have to pay ANSI for that privilege. Doesn't make a whole lot of sense to me. So, yes, I plan to evaluate our current level of involvement in ISO activities before our next ANSI dues statement arrives.
- **NFPA**
  - About 5-7 years ago we did the analysis and came to the same conclusion [that there is little benefit to being involved at ISO]. Since then we have been actively unwinding any ISO activity that does not benefit our mission. We stopped 90% within a couple months of doing the analysis.
  - Through most of the world we have find that working directly with our standards and the local officials yields significantly better results than trying to do it through ISO or ANSI.
  - We are down to 1 TAG and 5 P members through ANSI - Total International fee about 12.5K. One of those is purely defensive since ISO copied one of our standards a few years ago. We were much higher in the past - I think we have been at this level for 3-4 years.

As an interesting aside, my NFPA contact was emailing me from UAE. When I asked what he was doing there, he said, "We are holding a two day technical symposium for Civil Defense across all 7 Emerits since they adopt, enforce, and utilize many NFPA codes and standards." Food for thought.

# Future of AASA – Olesen

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## Change AASA into the “The Global Alliance for HVAC&R” by ASHRAE

### Background:

AASA is now consisting of more than 70 national societies representing the HVAC&R industry worldwide. Untill now it has been operated within ASHRAE with a small meeting during ASHRAE annual meeting (summer) and a large number of participation at the semi-annual meeting (Winter). Even if it is a very international group this alliance has not been known outside ASHRAE and the member societies. Most of the meetings have been focused on exchange of information regarding conferences and other activities. Recently there have been attempts to make AASA even more active and use the exceptional situation of having more than 60 societies in a meeting.

To do that there is a need to give AASA a more prominent position and make it more influential on the global scene.

### The Global Alliance for HVAC&R

The proposal is to move the alliance from the back corner of ASHRAE to a Global Alliance. It should still be under the administration of ASHRAE; but must be promoted as a Global Alliance. Meetings should also be organized outside North-America.

### Scope and possible activities

A small group under AASA has been working on how to extend the activities. We should build on this and form an AdHoc under AASA to come up with an extended scope and concept for a Global Alliance.

Here is a list of possibilities:

#### The Alliance/federation could speak for the HVAC&R industry:

- At UN-organizations,
- At COPXX meetings,
- Make global policy,
- Organize an international student competition every year
- Develop global guidelines
- Exchange of information

#### Reasons:

- We are facing global issues (resource scarcity, climate change, lack of skills, hidden industry, HFC phasedowns, massive rise in middle classes in Asia
- We live in a globally connected world
- People can now go and work anywhere around the world
- There is a lot of duplication of effort going on
- Limited resources to tackle the global issues
- A lot of research is needed to map our way to the future

- A future where all refrigerants are flammable.
- A focus on occupant wellness
- Rapid rate of change of new and often numerous disruptive technologies- how do we all keep up (eg BIM, big data, IoT, offsite construction)
- Safety issues with emerging refrigerants and natural refrigerants
- Multiplicity of global, local regulations we all have to deal with
- Implementation of new standards
- Relevance in the refrigeration sector.

### Opportunities:

- By collaborating we can share the load of what needs to be achieved
- We can share our learnings
- Work on identified global priorities
- We could create a global research strategy
- Help developing nations leap frog the issues of HFC use
- Sharing of knowledge on solutions on indoor environment
- Sharing advocacy positions
- Creating global advocacy positions

### Action plan

- 2016-05 Form an AdHoc to come up with a scope and concept for bringing AASA to a Global Alliance. This was decided at the AASA meeting in Orlando 2016-01 as an action item to BWO. Some members have indicated their interest in participating. Proposed list is:
- Phil Wilkinson, AIRAH, Australia, [phil@airah.org.au](mailto:phil@airah.org.au), [www.airah.org.au](http://www.airah.org.au), (Phil helped putting this together)
- Lars Nielsen, DANVAK, Denmark, [lsn@enexio.dk](mailto:lsn@enexio.dk), [www.danvak.dk](http://www.danvak.dk), (volunteered)
- Xudong Yang, CHVAC, China, [xyang@mail.tsinghua.edu.cn](mailto:xyang@mail.tsinghua.edu.cn), [www.chinahvac.com.cn](http://www.chinahvac.com.cn), (volunteered)
- Stephano Corgnati, REHVA/AICARR, Italy [stefano.corgnati@polito.it](mailto:stefano.corgnati@polito.it), [www.rehva.eu](http://www.rehva.eu),
- John Field, CIBSE, UK, [john.field@native-hue.com](mailto:john.field@native-hue.com), [www.cibse.org](http://www.cibse.org)
- Shin-Ichi Tanabe, SHASE, Japan, [tanabe@waseda.jp](mailto:tanabe@waseda.jp),
- Tomaz Cleto, ABRAVA, Brasil, [tomazcleto@yawatz.com.br](mailto:tomazcleto@yawatz.com.br), [www.abrava.com](http://www.abrava.com),
- Bill Bahnfleth, ASHRAE, USA, [WBahnfleth@enr.psu.edu](mailto:WBahnfleth@enr.psu.edu), [www.ashrae.org](http://www.ashrae.org)
- Tom Watson, ASHRAE, USA, [Tom.Watson@daikinapplied.com](mailto:Tom.Watson@daikinapplied.com), [www.ashrae.org](http://www.ashrae.org)
- 2016-06-27 Adhoc is formed and informal discussions at AASA meeting during ASHRAE-Summer in St. Louis
- 2017-01-30 Presentation from the Adhoc at the AASA meeting during ASHRAE-Winter in Las Vegas
- 2017-06-26 The Global HVAC&R alliance is officially formed at the ASHRAE summer meeting in Long Beach
- 2018-04 Organize a first meeting of the Global Alliance outside North America in spring 2018 together with an ASHRAE-UNEP conference and maybe exhibition:
- Conference focus on developing economies



- Energy efficient buildings
- Indoor environmental quality
- Residential and/or schools
- Combine with result of student competition

**Position Statement Speed and Relevance**

**From:** Vallort, James [<mailto:jvallort@esdglobal.com>]

**Sent:** Friday, April 8, 2016 7:54 AM

**To:** Walid Chakroun

**Cc:** Littleton, Jeff; Bjarne Olesen; Chuck Gullede; [dunderwood@hvacrtdu.com](mailto:dunderwood@hvacrtdu.com); Edward Tsui; Ginger Scoggins; Pat Graef; Sheila Hayter; Tim Wentz

**Subject:** RE: ASHRAE Participation in Montreal Protocol Flammable Refrigerants Research Announcement

If allowed please add another item to the Excom agenda.

ASHRAE Publication of "Position Statements" for the purpose of demonstrating support or future activities.

Background: Currently the Position Document process is to provide a "position" based on research and facts. As ASHRAE strives to become more mainstream the ability to show support for initiatives prior to comprehensive research being created may be desirable. This will help put ASHRAE in the forefront of many emerging technologies and initiatives. With this comes the risk of being in the forefront. The ExCom discussion may focus on what area should monitor external communication that is a hybrid of technical and marketing. A side conversation related to this is the proliferation of "publication" outlets for ASHRAE with the use of websites, Position Documents, Briefs, White Papers, blogs, social media and the list goes on. With this easy of publication the QA/QC process becomes complicated.

**Jim Vallort** CEM, CBCP, CSDP, LEED AP  
Fellow ASHRAE  
Executive Vice President  
Chief of Services



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## **DOE State Energy Program Grant Projects**

**From:** Littleton, Jeff [<mailto:JLittleton@ashrae.org>]

**Sent:** 1. marts 2016 22:28

**To:** Bjarne W. Olesen; Chuck Gullledge; [dunderwood@hvactrdu.com](mailto:dunderwood@hvactrdu.com); Edward Tsui; Ginger Scoggins; Jim Vallort; Pat Graef; Sheila Hayter; Tim Wentz; Walid Chakroun; Ramspeck, Claire; Wright, Craig; Abrams, Joyce; Mitchell, Kim; Sears, Stephanie; Comstock, Steve; Gupta, Vanita

**Subject:** DOE State Energy Program Grant Projects

**Importance:** Low

No action needed. Creation of a National Energy Efficiency Registry (NEER) funded by an \$800,000 grant from DOE is interesting, as profiled in the message below

You can view other DOE State Energy Program awards [here](#). Another project that stood out for me is that “Vermont and 6 partner states will develop a Home Energy Labeling Information Exchange (HELIX) database so realtors (and new home buyers) can access Home Energy Score - a tool that allows homeowners to compare the energy performance of their homes to others nationwide - data in the Multiple Listing Services.” Funding for that project is \$786,103. It might be of interest to the Residential Building Committee. Finally an \$800,000 DOE project in Tennessee harkens to bEQ: “Tennessee and its partners will develop a roadmap with potential pathways for voluntary adoption and implementation of a national energy efficiency registry.”

Just FYI. Thanks,  
Jeff



Shaping Tomorrow's  
Built Environment Today

**Jeff Littleton**  
**Executive Vice President**  
ASHRAE  
1791 Tullie Circle NE  
Atlanta, GA 30329  
Tel: 678-539-1100  
[JLittleton@ashrae.org](mailto:JLittleton@ashrae.org)  
[www.ASHRAE.org](http://www.ASHRAE.org)

#MarchIntoMembership and you could win a \$500 AMEX Gift Card!  
Connect-A-Colleague at [www.ashrae.org/connect](http://www.ashrae.org/connect)

**From:** The Climate Registry [<mailto:newsletter@theclimateregistry.ccsend.com>] **On Behalf Of**  
The Climate Registry

**Sent:** Monday, February 29, 2016 2:31 PM

**To:** Littleton, Jeff

**Subject:** NEER Stakeholder Introduction Webinar

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The Climate Registry



**NEER Stakeholder Introduction Webinar**  
**Wednesday March 9th**

**NEER**  
NATIONAL ENERGY  
EFFICIENCY REGISTRY

The Climate Registry (TCR) invites you to join us for a **webinar on March 9th 3-4 EST / 12-1 PST** to introduce the National Energy Efficiency Registry (NEER) development process to potential stakeholders.

The **NEER** is infrastructure that will allow states to transparently track energy efficiency initiatives within their own programs as well as help demonstrate compliance with U.S. EPA's Clean Power Plan. The NEER will provide uniformity of energy efficiency accounting and will support a range of energy efficiency programs and project types. This will lower the cost of and streamline energy efficiency program administration and will provide a consistent, robust framework for energy efficiency to be included as an eligible resource at the state and federal levels.

The U.S. Department of Energy is providing its largest award in the **2015 State Energy Program Competitive Award** cycle to lead state Tennessee and its project partners - Georgia, Michigan, Minnesota, Oregon, Pennsylvania, TCR, and the National Association of State Energy Offices (NASEO) - to create the foundation for the NEER.

As a first step in designing the NEER, TCR is managing a stakeholder process to develop the NEER's principles and operating rules, which will ultimately describe the functionality that the NEER will provide. The stakeholder process will kick-off in April 2016 and will include between 5 and 9 webinar meetings through January 2017.

The **introduction webinar** is open to all individuals interested in participating in the stakeholder process. During the webinar, you will learn about the NEER project, the stakeholder process and timeline, and will have an opportunity to ask questions. Following the webinar, you will have the opportunity to volunteer to participate as a stakeholder in the development of the NEER principles and operating rules.

The NEER is a unique opportunity to drive energy efficiency to scale. Please join us!

**REGISTER FOR THE NEER  
INTRODUCTION WEBINAR NOW**

A copy of the slides and a recording of the webinar will be made available after March 9th on **TCR's website** if you are unable to participate.



For more information please contact TCR's Policy Associate  
Jenna Jorns at [jjorns@theclimateregistry.org](mailto:jjorns@theclimateregistry.org).



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90071

**12I-Overview of the open sessions at the Orlando Board meeting**

In my reading of the open session notes, I would recommend that the MCI/RAL, building envelope design principles, and certification topics should be on either spring ExCom agenda or at our next EXAIL conference call on a suggested date of the week March 7<sup>th</sup> or April 11<sup>th</sup> ( Mary please send out a doodle pole for best date).

Regards,

David

**From:** Townsend, Mary [<mailto:MTownsend@ashrae.org>]

**Sent:** Friday, February 5, 2016 2:17 PM

**To:** Ginger Scoggins; Edward Tsui; Hayter, Sheila; Bjarne Olesen; [cgulledge@accorporation.com](mailto:cgulledge@accorporation.com); David Underwood; James Vallort; Littleton, Jeff; [pat.graef@munters.com](mailto:pat.graef@munters.com); Timothy Wentz ([tim.wentz@windstream.net](mailto:tim.wentz@windstream.net)); Walid Chakroun ([wchakroun@gmail.com](mailto:wchakroun@gmail.com))

**Cc:** Townsend, Mary

**Subject:** Overview of the Open Sessions at the Orlando Board Meetings

To: ExCom 15-16 and Nominees

Attached is a quick review of the information presented by those that spoke to the Board of Directors during the open sessions on Sunday and Wednesday.

Please take a moment to review and we can place this on the Spring ExCom agenda for further discussion.

Thank you,  
Mary

Mary Townsend | Executive Assistant to the BOD  
Extension:1141

**SHARE YOUR THOUGHTS WITH THE BOARD**

The following information was submitted using the Share Your Thoughts with the Board Form:

**Sunday, January 24, 2016**

Submitted prior to meeting:

**Name: Samir Traboulsi**

Affiliation: CEC Member

Email: [traboulsi.samir@gmail.com](mailto:traboulsi.samir@gmail.com)

Outline of Comments:

The methodology of the Board handling initiatives in particular to Globalization.

Additional notes and comments from the actual open session on Sunday:

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1. Two Board members and Planning Committee Members.
2. Sitting judges should not be interviewed.
3. Conflict of interest in MCI Report
4. Remove from all publications.
5. Competency of the Board in having global issues:

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  - a. Board does not know enough to set a clear direction for the Society
  - b. You need to change the Board because it is not set
  - c. Remove a quote from the Board.

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**Name: Victor Goldschmidt**

Affiliation: life member, fellow, member of the northern section of the western Michigan chapter

Email: [creating2@earthlink.net](mailto:creating2@earthlink.net)

Outline of Comments:

1) I will start by challenging the Board, without their looking into files, to say what our Vision Statement is. Their inability is understandable. The current vision statement is not useful. I would then offer to be part of facilitating the development of an energizing and unifying vision statement.

2) The common understanding of sustainability is that future generations will have the same opportunity for quality of life that we have. Sustainability has become a framework for a paradigm which implies a steady state; a maintenance. I think we in ASHRAE should not focus in sustainability assuring future generations have the same opportunities we have, but rather, to drive for future generations to have far better opportunities for quality of life, that than what we currently have. In other words, not to rest in sustainability but to go well beyond that, better than what we now have.

Additional notes and comments from the actual open session on Sunday:

1. How many of the Board members know the vision statement for ASHRAE?
2. You don't remember the vision statement.



3. Core Values
4. He is willing to serve on a task group to draft a vision statement.
5. Embracing sustainability. Implies the status quo.

**Name: Ray Patenaude**

Affiliation: Did not submit before meeting

Email: [raypatenaude@tampabay.rr.com](mailto:raypatenaude@tampabay.rr.com)

Outline of Comments during the Sunday meeting:

1. Standards that support forensic engineering are needed.
2. A weakness among our members is understanding how to design the building envelope. Moisture in buildings is a big concern.

**Wednesday, January 27, 2016**

Submitted prior to meeting:

**Name: Steve Kavanaugh**

Affiliation: University of Alabama

Email: [skavanaugh@eng.ua.edu](mailto:skavanaugh@eng.ua.edu)

Outline of Comments:

System Efficiency and Verification of Energy Performance 1. System Efficiency as Preliminary Indicator 2. Limits of Existing Field Data 3. Economic value to building owners especially my to K-12 schools  
The following information was submitted using the Share Your Thoughts with the Board Form:

Outline of Comments during Wednesday meeting:

1. Please see hand out attached, "Rethinking ASHRAE 90.1 – Is there Data to Verify It's Working Well and Worth the Added Cost"

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**Potential participant that would like to speak but is there another forum other than an open form:**

**From:** Roger Chang [<mailto:rchan@WRLdesign.com>]

**Sent:** Thursday, January 21, 2016 3:23 PM

**To:** Neme, Claire <[CNeme@ashrae.org](mailto:CNeme@ashrae.org)>

**Subject:** Member Input - Open Sessions in Orlando

Claire,

I was interested in providing input, but was wondering if there are other ways to provide input, other than in an open forum? My topic is in some ways quite broad and complex, but I'm not clear how this would turn to a concrete initiative.

“Proposal as a topic for consideration: development of a professional credentialing requirement for sales engineers that provide product selections/data. We have discovered that as buildings utilize more complex systems, an engineer is highly dependent on the technical information represented by a sales engineer. There needs to be a greater level of accountability for these engineers and their companies as representatives of products. We've noticed such a significant variation in vendor/contractor/designer relationships depending on market, product, and manufacturer, which can significantly impact the success of a project. The greatest variation is seen in packaged equipment and building automation system vendors.”

Regards,

**Roger Chang | PE, Assoc. AIA, BEMP, LEED Fellow, GGP | Principal**  
Director of Engineering

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**Architect Magazine 2014; Ranked #1 Overall among U.S. design firms; #5 in Sustainability**

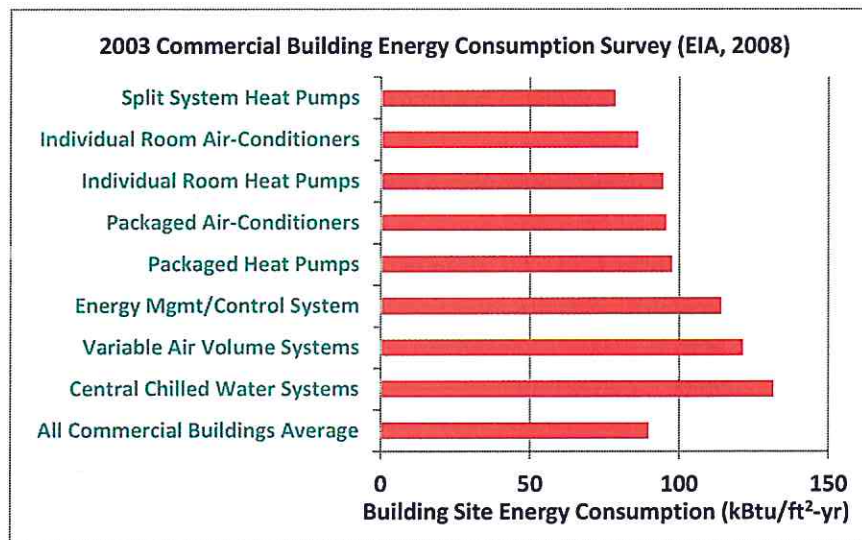
## Rethinking ASHRAE 90.1 – Is there Data to Verify It’s Working Well and Worth the Added Cost

**System Efficiency Calculation** is recommended as a preliminary indicator and verification of efficiency (fact checker) prior to detailed energy modeling or design.

### 1. System Efficiency as Preliminary Indicator Example - 400 ton AC-CWS (Std. 90.1-2013 Compliant)

Qty.	Component	Input Power (kW)		Fan/Pump Heat		Cooling Cap.	
		Each	Total	Tons	kW	Tons	kW
2	200 -Ton (700 kW) AC Chillers (10.1 EER/3.0 COP)	238	476	0		400	1400
8	20,000 cfm/4 in. (68,000 cmh/1000 Pa) AHUs	14.9	119.3	33.9	119.3	-33.9	-119
160	1000 cfm (1700 cmh) FPVAV terminals	0.38	60.8	17.3	60.8	-17.3	-60.8
2	500 gpm/100 ft. (32 Lps/300 kPa) pumps	15.0	29.9	8.5	29.9	-8.5	-29.9
			686.0			340	1190
		<b>kW/ton=</b>	<b>2.02</b>	<b>EER=</b>	<b>5.95</b>	<b>COP=</b>	<b>1.74</b>

2. ASHRAE has limited measured field data and relies primarily on energy models for setting standards. Sufficient data not available from ASHRAE, thus dated EIA CBECs results are the most appropriate source and can substantiate low EER results generated by system efficiency calculation.



3. Without a large amount of measured field data, energy performance simulations, economic value, and effectiveness of energy standards (i.e. ASHRAE Standard 90.1) are suspect.

■ Leander (TX) Independent School District (LISD) has over 30 GSHP schools with an average ENERGY STAR rating of 96 and four schools achieved a rating of 100. Between 2006 and 2010 the average mechanical cost for these schools was between \$20 and \$24/ft<sup>2</sup> (including the ground heat exchanger). **However, none of these schools are compliant with ASHRAE Standard 90.1-2010.**

■ ASHRAE HQ received a LEED Platinum award (based on energy simulations) but required substantive corrections to achieve an ENERGY STAR certification of only 77 (in 2010) and even with additional corrections did not meet the average rating of LISD in spite of \$1.95 million in equipment donations (\$47.52/ft<sup>2</sup>).

4. In order for ASHRAE to remain a credible source of HVAC information and design guidance, measured performance data must be used to validate the effectiveness of Society standards and to provide indicators for building owners wishing to evaluate the quality of engineers.

Example Calculations:

Fan Power and Heat per AHU fan (multiply by 8 for system totals)

$$W_{Fan}(hp) = \frac{Q(cfm) \times TP(in. wtr.)}{6350 \times \eta_{fan}} = \frac{20,000 \times 4}{6350 \times 70\%} = 18 hp$$

$$W_{FanMotor} = 0.746 kW/hp \times \frac{W_{fan}}{\eta_{Motor}} = 0.746 \times \frac{18hp}{91\%} = 14.8 kW$$

$$q_{Fan} = W_{FanMotor} = 14.8 kW \times 3,412 Btu/kWh = 50,340 \frac{Btu}{h} = 4.20 tons$$

Chilled Water Pump Power and Heat per pump (multiply by 2 for system totals)

$$W_{Pump}(hp) = \frac{Q(gpm) \times h(ft. wtr.)}{3960 \times \eta_{Pump}} = \frac{500 \times 100}{3960 \times 70\%} = 18 hp$$

$$W_{PumpMotor} = 0.746 kW/hp \times \frac{W_{fan}}{\eta_{Motor}} = 0.746 \times \frac{18hp}{91\%} = 14.8 kW$$

$$q_{Pump} = W_{PumpMotor} = 14.8 kW \times 3,412 Btu/kWh = 50,350 \frac{Btu}{h} = 4.20 tons$$

VAV Terminal Fans (160) with Electronically Commutated Motors (ECMs)

$$W_{ECM}(watts) = 0.38 \left( \frac{W}{cfm} \right) \times Q(cfm)^* = 0.38 \times 1000 = 380 watts$$

$$q_{TermFans} = 160 \times W_{ECM} = 160 \times 380 W \times 3.412 Btu/Wh = 207,450 \frac{Btu}{h} = 17.3 tons$$

\*Reference: A Simplified Model of the Fan/Motor Performance of Fan-Power Terminal Units That Use ECMs (O'Neal, et. al., ASHRAE Transactions, Vol. 121, Pt. 2, 2015)

$$kW/Ton = 686 kW/340 Ton = 2.02$$

$$EER = \frac{12 (kBtu/ton-hr)}{(kW/ton)} = \frac{12}{2.02} = 5.95 Btu/Wh$$

$$COP = \frac{EER}{3.412 Btu/Wh} = \frac{5.94 Btu/Wh}{3.412 Btu/Wh} = 1.74$$

**U.S. Chemical Safety and  
Hazard Investigation Board**

1750 Pennsylvania Avenue NW, Suite 910 | Washington, DC 20006  
Phone: (202) 261-7600 | Fax: (202) 261-7650  
[www.csb.gov](http://www.csb.gov)

Vanessa Allen Sutherland  
Chairperson and Member

Manny Ehrlich, Jr.  
Board Member

Rick Engler  
Board Member

Kristen M. Kulinowski, Ph.D.  
Board Member



David Underwood  
President

American Society of Heating, Refrigerating and Air-Conditioning Engineers  
1791 Tullie Circle, N.E.  
Atlanta, GA 30329

January 20, 2016

Dear Mr. Underwood,

On September 14, 2005, the U.S. Chemical Safety Board issued Recommendation No. 2003-13-I-LA-R22 to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). The recommendation was issued during the CSB investigation into the July 20, 2003, release of chlorine gas from the Honeywell refrigerant manufacturing plant in Baton Rouge, Louisiana. The accident resulted in the hospitalization of four plant workers and required residents within a half-mile radius to shelter in their homes. During the incident, chlorine entered the control room through the HVAC system, forcing employees to evacuate before they could stop the leak. The chlorine then corroded the process control system, rendering it inoperable. The CSB determined that guidance and standards for design and maintenance of positive pressure control rooms were lacking in the U.S. chemical industry. The CSB therefore made the following recommendation to ASHRAE to develop such guidance:

**CSB Recommendation No. 2003-13-I-LA-R22**

*Develop guidance on the effective design and maintenance of HVAC systems and other necessary control room components designed to protect employees and equipment in the event of a release of hazardous materials.*

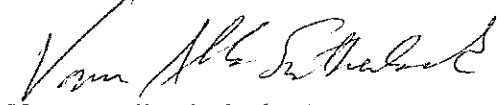
I am writing to notify you that the Board voted on January 7, 2016, to designate this recommendation with the status: **"Open – Acceptable or Alternate Response."** This status reflects the Board's determination that ASHRAE has made progress towards satisfying the intent of the CSB's recommendation. Please see the attached "Recommendation Status Change Summary" for further detail, copies of which will also be posted on our website ([www.csb.gov](http://www.csb.gov)).

Although this recommendation was issued over a decade ago, the issue remains important to the CSB. I appreciate that TC5.8 Industrial Ventilation Committee has consistently supported the development of the recommended guidance document over time and has now created an outline of the document. I am, however, concerned about the pace at which the full document is being developed given the reliance on volunteer contributors. I urge ASHRAE to move forward on issuing a guidance document in a timely manner and to consider devoting additional resources to develop it. Closure of this recommendation will be contingent upon ASHRAE issuing guidance that meets the intent of the recommendation.

**U.S. Chemical Safety and  
Hazard Investigation Board**

If you have any questions, or need further information on the recommendations process, please contact Mark Kaszniak, Recommendations Specialist, at: (202) 261-7654 or via email at: mark.kaszniak@csb.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Vanessa Allen Sutherland". The signature is written in a cursive style with a large initial "V".

Vanessa Allen Sutherland  
Board Chairperson

Attachment

Cc: Mike Baucom, Chairman of ASHRAE TC9.2





## U. S. Chemical Safety and Hazard Investigation Board RECOMMENDATIONS STATUS CHANGE SUMMARY

<b>Report:</b>	Honeywell International Inc.
<b>Recommendation Number:</b>	2003-13-I-LA-R22
<b>Date Issued:</b>	September 14, 2005
<b>Recipient:</b>	American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE)
<b>New Status:</b>	Open – Acceptable Response or Alternate Response
<b>Date of Status Change:</b>	December 29, 2015

### Recommendation Text:

*Develop guidance on the effective design and maintenance of HVAC systems and other necessary control room components designed to protect employees and equipment in the event of a release of hazardous materials.*

### Board Status Change Decision:

#### A. Rationale for Recommendation

On July 20, 2003, there was a release of chlorine gas from the Honeywell refrigerant manufacturing plant in Baton Rouge, Louisiana. The accident resulted in the hospitalization of four plant workers and required residents within a half-mile radius to shelter in their homes. On July 29, 2003, a worker was fatally injured by exposure to antimony pentachloride when a gas cylinder released its contents to the atmosphere. On August 13, 2003, two plant workers were exposed to hydrofluoric acid, and one was hospitalized.

During the July 20, 2003, incident, chlorine entered the control room through the HVAC system, forcing employees to evacuate before they could stop the leak. The chlorine then corroded the process control system, rendering it inoperable. The CSB determined that guidance and standards for design and maintenance of positive pressure control rooms were lacking in the U.S. chemical industry. The CSB therefore made a recommendation to ASHRAE to develop such guidance. ASHRAE, founded in 1894, is an international association with a mission of advancing “the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world.”<sup>1</sup> The organization works to accomplish its mission by performing research, publishing standards and other technical documents, and conducting continuing education.

#### B. Response to the Recommendation

ASHRAE has expressed support for the recommendation and has developed an outline of a new guidance document, “Heating, Ventilation & Air Conditioning of Hazardous Spaces,” proposed as either an ASHRAE handbook chapter or standard. ASHRAE has also indicated that they plan to begin drafting the guidance document in February 2016.

#### C. Board Analysis and Decision

<sup>1</sup> [www.ashrae.org/about-ashrae](http://www.ashrae.org/about-ashrae), accessed December 1, 2015.



As ASHRAE has developed an outline for the guidance document called for in the recommendation and has indicated that they will begin drafting the document in February 2016, the Board voted to change the status of CSB Recommendation No. 2003-13-I-LA-R22 to: **“Open – Acceptable Response or Alternate Response.”**

## ASHRAE STANDARDS IN THE UNITED ARAB EMIRATES

ExCom Colleagues:

Thanks to the dedicated efforts of Farooq Mehboob, Dr. Ahmed Alaa, Dr. Ibrahim Sidawi and several others, I had a very productive visit to the United Arab Emirates (UAE). I was able to present to the Falcon Chapter and to visit members, employers and universities in Dubai and Abu Dhabi.

I want to bring one particular meeting to your attention, as I think it warrants an agenda item on the Spring ExCom in Banff. Farooq, Ahmed, Ibrahim and I had the opportunity to meet with Abdulla Abdelqader Al Maeeni, the Director General of the Emirates Authority for Standardization and Metrology. Mr. Abdulla is a very highly placed government official who is in charge of standards for all seven of the Emirates that make up the UAE.

I think there are some unique opportunities available to us in the UAE, as well as other countries in the Gulf Coast, such as Lebanon and Qatar. In our meeting with the Director General, he expressed some real interest in our previous project in adapting ASHRAE 90.2 to serve Kuwait. We also received very strong sentiment on the same topic in Lebanon and Qatar. There is a real need for codes and standards in Middle East as so many have either no code or a code that isn't meeting their energy conservation needs. The Director General also reacted very positively to our recommendation to implement our Building Energy Quotient (bEQ) program. We explained how it could help drive energy conservation in the UAE and could be a part of a regulatory environment.

I would be more than happy to discuss this topic in greater depth at the Spring ExCom meeting, if David concurs.

Thanks,

Tim Wentz

# 2016 – 2017 PEAC Membership – Olesen

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The rules for PEAC say 9 members including President Elect and treasurer. So that leaves 7 selected members. As I have 9 on my TRAC committee and I would not like to dismiss any of them I will ask for a waiver to include two additional members. There will be no additional fiscal impact as probably 6 of them have their transportation paid through other committees.

The Directors should also participate in PEAC. Should they then also be included as members and should we change the rules accordingly

This is my list for PEAC members:

Sheila Hayter, [sheila.hayter@nrel.gov](mailto:sheila.hayter@nrel.gov)

Bill Bahnfleth, [WBahnfleth@engr.psu.edu](mailto:WBahnfleth@engr.psu.edu)

Hugh Crowther, [hugh.crowther@swegon.com](mailto:hugh.crowther@swegon.com)

Julia A. Keen, [jkeen@ksu.edu](mailto:jkeen@ksu.edu)

Kwang Woo Kim, [snukkw@snu.ac.kr](mailto:snukkw@snu.ac.kr)

Karine Leblanc, [karine@rezine.net](mailto:karine@rezine.net)

Chris Mathis, [Chris@mathisconsulting.com](mailto:Chris@mathisconsulting.com)

Kent Peterson, [kent.peterson@p2seng.com](mailto:kent.peterson@p2seng.com)

Rachel Romero, [Rachel.Romero@nrel.gov](mailto:Rachel.Romero@nrel.gov)

Max Sherman, [mhsherman@lbl.gov](mailto:mhsherman@lbl.gov)

All Directors

If the waiver is accepted Claire/Mary please send out invitations to the members

**120-Machine Readable Data Website**

I hate to add another item but I would to consider the formation of a Presidential AdHoc: Machine Readable Data. The committee will consider issues and develop appropriate policies required for managing data to support standards including machine-readable data, definitions, or other information and other ASHRAE products.

The ad hoc that standards committee formed to address this issue as it related to standards is attached. Since that initial effort, it has been recognized that the need and application of this data management is much broader than Standards. As such, the formation of this type of committee should probably come from the BOD or President level.

It is my understanding that a number of ASHRAE members who are very knowledgeable of the issues revolving around such data management would welcome a request to serve on a committee.

**Jim Vallort** CEM, CBCP, CSDP, LEED AP  
Fellow ASHRAE  
Executive Vice President  
Chief of Services



## Open Access to ASHRAE Machine-Readable Standards Definitions and Data

To: ASHRAE Standards Committee / January 2015 (Chicago)

From: Ad-hoc Subcommittee on Open Data Access

Charles S. Barnaby (chair), James F. Butler, Mike Galler, Rob Hitchcock, Dennis Knight, Neal Kruis, Nicholas Long, Dave Robin, Mike Newman; Staff participation: Steve Comstock

### Background

A growing number of ASHRAE standards need machine-readable data, definitions, or other information to support their efficient application. Some examples include Standard 135 (BACnet), Standard 201P (Facility Smart Grid Information Model), Standard 205P (Standard Representation of Performance Simulation Data for HVAC&R and Other Facility Equipment), and Guideline 20 (Documenting HVAC&R Work Processes and Data Exchange Requirements). Some supporting information is already available. For example, Guideline 13 is accompanied by an example digital control specification at <http://www.ashrae.org/G13Spec>. Forms for documenting compliance with Standard 90.1 are found at <https://www.ashrae.org/standards-research--technology/standards-forms--procedures>.

The trend is clear and accelerating. Without high-level guiding policies and procedures, a collection of ad-hoc internet postings will evolve, with the risk that important aspects of ASHRAE's standards efforts will be difficult to find and access via automated processes.

### Recommendation

ASHRAE should host unified, open Internet access to machine-readable portions of ASHRAE standards and other machine-readable files that support the use of ASHRAE standards. This will enable efficient access to application information and allow development of automated data exchange processes that are specified in standards such as those listed under Background.

The proposed service should be available via a fixed internet URL, such as <http://data.ashrae.org>. Application software would retrieve authoritative definition files, such as XML "xsd" schemas, that are required to control data exchange. Application software and users would also be able to conveniently retrieve ASHRAE-sanctioned data that supports standards application.

The data made available will be developed by ASHRAE PCs and subject to public review and/or PC approval. The files will be copyrighted or otherwise suitably licensed by ASHRAE. However, they should be accessible on an open basis without explicit acknowledgement of licensing. This is necessary for practical implementation of modern, fully automated software.

Many of the formats suitable for these uses are text-based and somewhat human readable; however, they are structured to support unambiguous parsing by software, supporting accurate data exchange and/or automated access.

It must be emphasized that what is proposed here is an extension of the current ASHRAE standards publication business model, not an alternative. Typeset, human-readable, and publicly reviewed documents will remain

the defining standard specifications. The machine-readable portions will be made available to support efficient and accurate software-assisted application of the standards.

## Example

Capabilities analogous to those proposed here are illustrated by ISO 4217 currency code definitions. The page [http://www.iso.org/iso/home/standards/currency\\_codes.htm](http://www.iso.org/iso/home/standards/currency_codes.htm) provides a human readable introduction to the standard. Then <http://www.currency-iso.org/en/home/tables/table-a1.html> provides clickable links to currency code definition in XML and Microsoft Excel (xlsx) formats. The definitions can be directly accessed via [http://www.currency-iso.org/dam/downloads/table\\_a1.xml](http://www.currency-iso.org/dam/downloads/table_a1.xml). The direct access link requires no credentials for use. Further, it is clear that typeset publication of the definition text would have limited utility for both human readers and automated applications.

Another example is <http://api.data.gov>. This platform enables sharing of government datasets via web-based protocols and common data formats such as XML and JSON. The site is self-documenting, allowing software developers to easily embed direct access to government data in their applications.

## Justification

Data exchange among software applications is becoming ubiquitous. The methods involved *will* become widely used in HVAC-related processes, as in all other technical realms. ASHRAE should remain a central actor in this domain. If ASHRAE moves slowly or retards development with impractical policies, others will step in.

By offering open access to definitions, schemas, and datasets, ASHRAE will foster efficient standards application and accurate data exchange in BIM systems. This will increase ASHRAE's visibility, impact, and relevance in the information economy.

Why free? Extensive experience has established that access to this type of data must be free and automatic. Any price, even if very low ("effectively free") severely reduces uptake because of 1) increased complexity of interface development and 2) reduced transaction convenience.

This proposal strongly supports the ASHRAE Strategic Plan (Initiative 3A) and the Standards Committee Strategic Plan (Direction 1 – Anticipate HVAC&R Community Needs and Direction 2 – Maintain Leadership in Standards).

## Implementation

### Policy

Assuming this recommendation is approved, procedural and policy details will have to be established. In particular, the procedures must be established for review and approval of published items. Full public review is time consuming and probably unnecessary for "bug fixes" that should be promulgated promptly. PCs should be given authority to make corrections with minimal administrative overhead.

### Technical

Many technical particulars will require specification and implementation for this proposal to become real. These must obviously be addressed, but they have been routinely handled many times before.

The resources required are modest; some needed features are:

- Publicly-accessible server(s) and a stable addressing scheme. Preliminarily, a per-standard structure would be established. For example, <http://data.ashrae.org/Std205/> would contain files supporting Standard 205. The files within that folder would be named and controlled by SPC 205.
- Carefully controlled privileges for adding, modifying or deploying files to the server. The server must have suitable security, logging, and rate-limiting to prevent abuse. While access must be secure, it must also be convenient, allowing quick correction of problems with efficient administrative procedures.
- Reliable, 24/7 availability, probably via redundant servers at different sites.
- A unified version control system that retains the full history of all published items. This management should not be left to individual PCs – that approach would result in a disorganized scheme that would inevitably result in lost files and history as PC membership turns over.

While some of these capabilities are new to ASHRAE, it again must be emphasized that the total amount of information to be managed is relatively small and all of the above features can be readily implemented with available software and services.



## MONTREAL PROTOCOL OBSERVER (MOP) STATUS

**From:** Comstock, Steve  
**Sent:** Monday, April 18, 2016 5:15 PM  
**To:** Littleton, Jeff  
**Cc:** [dunderwood@hvacrtdu.com](mailto:dunderwood@hvacrtdu.com)  
**Subject:** UNEP item for ExCom agenda

Jeff, a full report on the ASHRAE UNEP meetings is forthcoming from David Underwood.

David, however, asked that I let you know about one specific item he would like on the agenda for ExCom discussion:

**ASHRAE Observer Status at Montreal Protocol (MOP) Meetings:** ASHRAE to determine if it wishes to pursue accreditation with observer status to follow negotiations. While members of ASHRAE may actively participate in meetings of the parties, such members are doing so with recognition given to their employers, not ASHRAE. If ASHRAE pursues this and is recognized, ASHRAE will be the only non-industry position association participant. The observer seat would be for ASHRAE society and not for individuals. ASHRAE can designate one or more people to attend. These people will not have to be the same every time.

Related but not necessarily connected is:

**Side Sessions at MOP Meetings:** UNEP recommended that ASHRAE consider holding side sessions at meetings of the parties. UNEP staff will help to organize logistics. The first side session topic was recommended as ASHRAE standards activities related to refrigerant handling and management. Another potential side session could be the launch of the new eLearning course. Another topic suggested was the research in which ASHRAE, AHRI and the White House have agreed to. Side sessions help influence decision makers, and this is a critical time considering the specifics of the MOP are being negotiated. ASHRAE can contribute to the solution and final determination. The first side session should ASHRAE wish to organize it would be at the October meeting of the parties (8<sup>th</sup> to 14<sup>th</sup> Rwanda).

Thanks. Please let me know if more background is needed.

Steve

Steve Comstock | Publisher/Director of Publications & Education  
Extension:1102

**REPORT TO THE EXECUTIVE COMMITTEE  
From Technology Council  
As of May 5, 2016**

**Recommendations for ExCom Approval:**

**1. Motion:**

*That Technology Council recommend to BOD ExCom to revise the Indoor Air Quality Position Document title, purpose and scope (TPS) as shown in Attachment A and B.*

**TechC Vote: 6-2\*-3, CV (Yes-No-Absent) Motion Passed**

**Background:** Track changes shows modifications compared to the previously approved TPS (**Attachment C**). The committee is making significant progress on a draft PD but requests changes to the official purpose and scope. Cognizant committee (EHC) reviewed and approved 13-0-2 (CV). DRSC approved 4-1-0 CV.

*Reason for Negative/Abstaining Vote(s):*

*\*D. Conover: • Scope statement 1 is subjective (high quality). • Scope statement 4 is not complete (research needed to address what?).*

*\*C. Culp: The TPS should state an ASHRAE Position in a Position Document. The TPS does not mention establishing a position. As written, this is a White Paper.*

**Information Items:**

May 5, 2016  
Date

James Vallort  
James Vallort, Chair



**TECHC LETTER BALLOT – Attachment A  
DRSC-2016-04.1  
Results:**

<b>Revision of the Indoor Air Quality Position Document TPS</b>			
	<b>Yes</b>	<b>No</b>	<b>Abstain</b>
<b>MOTION 2:</b> That Technology Council recommend to BOD ExCom to revise the Indoor Air Quality Position Document title, purpose and scope (TPS) as shown.  <b>TechC Vote: 6-2-3, CV (Yes-No-Absent)</b> <b>Motion Passed**</b>			
<i>Reason for Negative/Abstaining Vote(s):</i>  <i>D. Conover: • Scope statement 1 is subjective (high quality). • Scope statement 4 is not complete (research needed to address what?).</i>  <i>C. Culp: The TPS should state an ASHRAE Position in a Position Document. The TPS does not mention establishing a position. As written, this is a White Paper.</i>			

**\*\*Secretary's Note:** Because this was a letter ballot with negative votes, this motion was recirculated. The result was the same but the vote changed to 7-2-2, CV (Yes-No-Absent) and closed on 5/27/16.

## Attachment B

### Title

Indoor Air Quality

### Purpose

The purpose of this position document is to inform the ASHRAE membership and the public of the importance of indoor air quality (IAQ) ~~as a public health issue.~~

### Scope

1. Identify issues that affect the provision of high quality indoor air.
2. Summarize current state of knowledge including health, comfort, and productivity impacts of IAQ.
3. ~~Exclude industrial, healthcare, laboratory and transportation environments.~~
4. ~~Include both health and comfort.~~
5. ~~Recommend research needed.~~
3. Discuss implementation of current knowledge through codes, standards and guidelines.
4. Recommend research needed.
5. Recommend needed education efforts and interaction with other relevant public and private organizations.

**REPORT TO EXECUTIVE COMMITTEE**  
**From ASHRAE/AHRI Joint Exposition Policy Committee**  
**April 27, 2016 - Conference Call**

**Action Required:**

1. AHRI and IEC members of the committee would like ASHRAE to provide a range of dates that would be acceptable for holding the AHR Expo in years when the Chinese New Year conflicts with its normal Winter Conference dates. Conflicts occur in the year 2022 (Las Vegas) and 2028 (Orlando). IEC will be contacting each city for alternate dates, if available, for the AHR Expo in these years.

Background: AHRI has taken the position that they will not participate in further voting on AHR Expo dates if they conflict with the dates of the Chinese New Year for that year. AHRI members of the committee cite their decision on the emerging HVAC&R industry in China with the majority of their customers in that country observing the holiday.

**Information Items:**

1. Final Report of AHR Expo 2016 – Orlando – Attachment A
  - Several records were set and are noted with asterisks in the attached report
  - The number of registrants who did not attend due to inclement weather along the east coast was approximately 1,000.
2. Report on Future AHR Expo Dates/Locations – Attachment B
  - 2017 Las Vegas, January 30 – February 1
    - 458,853 sq. ft. of exhibition space sold to date (reflects a 20% increase over the 379,450 sq. ft. sold at the 2011 show in Las Vegas) with the potential layout of a record-breaking 500,000 sq. ft.
    - 1,413 exhibitors under contract with an additional 50-60 on a wait list
  - 2018 Chicago, January 22 – 24
    - 20,000–30,000 sq. ft. of expansion space available over the last show in Chicago
    - An exhibitor space rate of \$39.00 per square feet was approved for the 2018 AHR Expo. This represents a 1.3% increase over the 2017 rate.
  - 2025
    - Option #1: New York, January 21 – 23 (Tuesday – Thursday)  
Maximum 425,000 sq. ft. of exhibit space available
    - Option #2: Orlando, Dates January 13-15 (Monday – Wednesday)
3. Report on Future AHR Expo Mexico Dates/Locations – Attachment C
  - 2016 Monterrey, September 20-22
    - 71,295 sq. ft. of exhibition space sold to date (on track to break record set in 2014)
    - 260 exhibitors under contract

4. Attendance Report of ASHRAE Sessions at the 2016 AHR Expo – Orlando

*Seminar 55: Don't Call it a Comeback! The New and Improved Design-Build Survival Guide*

1/26/16, 11:00 am – 12:00 pm

Design Build Track

Attendance: 84

*Seminar 56: Avoiding Pesky Pitfalls Integrating Seismic and Sound Controls*

1/26/16, 1:00 pm – 2:00 pm

Design Build Track

Attendance: 58

*Workshop 5: Design-Build for DDC: Yes, It Works! No, It Doesn't! A Healthy Debate by Two Experts*

1/26/16, 2:30 pm – 3:30 pm

Attendance: 63

*Seminar 57: How Does the Criterion Engineer's Role Affect the Design Build Contractor's and Design Build Engineer's Roles during All Phases of a Design Build Project?*

1/26/16, 3:45 pm – 5:15 pm

Attendance: 52

5. The IEC “Guidelines for ASHRAE Chapter Involvement with HVAC Shows Outside North America” presented at the 2016 ASHRAE Winter Conference has been revised and re-titled “Policy for ASHRAE Chapter Involvement with HVAC Shows Outside North America”. The revised policy is included as Attachment D to this report.

April 27, 2016

Date



William A. Harrison, Chair



March 11, 2016

Mr. Jeff H. Littleton, Exec. V. P.  
 American Society of Heating, Refrigerating  
 and Air-Conditioning Engineers, Inc.  
 1791 Tullie Circle, N.E.  
 Atlanta, GA 30329

Mr. Stephen R. Yurek, Pres.  
 Air- Conditioning, Heating & Refrigeration Institute  
 2111 Wilson Blvd., Suite 500  
 Arlington, VA 22201-3001

Dear Jeff & Steve,

The following is our final accounting for the 2016 AHR Expo® as of March 7, 2016. The amount due at this time is based on the following:

469,540 square feet of total space occupied  
 -3,190 square feet complimentary space for Sponsors and Endorsing Associations  
-3,910 square feet of space traded for advertising  
 462,440 square feet of total space sold

Rental Income @ \$37.50/per square foot	\$17,341,500.00
Less Uncollected Accounts	-\$20,585.00
Plus Collected (past shows)	\$147,309.60
Adjusted total income	\$17,468,224.60
Total Royalty @ 48.5%	\$8,472,088.93

	<u>ASHRAE @ 39%</u>	<u>ASHRAE RESEARCH @ 22%</u>	<u>AHRI @ 39%</u>
Total Royalty due	\$3,304,114.68	\$1,863,859.56	\$3,304,114.68
Paid 5/22/2015	\$1,037,014.88	\$584,982.75	\$1,037,014.88
Paid 12/30/2015	\$1,765,953.29	\$996,178.78	\$1,765,953.29
Paid 1/6/2016	\$87,067.34	\$49,114.91	\$87,067.34
Due Now	\$414,079.17	\$233,583.12	\$414,079.17

We are enclosing the appropriate checks and as uncollected funds are received, we will forward the additional royalty payments. In an effort to conserve, we are emailing the final detailed report to you as a PDF.

Very Truly Yours,

INTERNATIONAL AIR-CONDITIONING, HEATING,  
 REFRIGERATING EXPOSITION – 2016 – AHR EXPO®

*Clay G. Stevens*  
 Clay G. Stevens, Manager



**STATISTICAL OVERVIEW**
**42,396 REGISTERED VISITOR ATTENDANCE - 2ND LARGEST EVER**

Registered Visitor Attendance .....	<b>42,396</b> **	Net Sq. Ft. of Exhibit Space .....	<b>469,540</b> **
Registered International Visitors .....	<b>10,103</b> *	Exhibiting Companies .....	<b>2,063</b> **
Countries Represented .....	<b>159</b> *	International Exhibitors .....	<b>561</b> **
First-time Visitors .....	<b>17,852</b>	Countries Represented .....	<b>37</b> **
Registered Exhibitor Personnel .....	<b>17,978</b> **	Sponsors & Endorsing Associations .....	<b>39</b>
Total Registered Attendance .....	<b>60,374</b> **		

\*New AHR Expo All-time Record    \*\*New AHR Expo Orlando Record

**GEOGRAPHIC BREAKDOWN**
**ALL 50 STATES AND 159 COUNTRIES REPRESENTED**
**UNITED STATES**

West Coast .....	<b>2,079</b>
Mountain .....	<b>1,089</b>
North Central .....	<b>4,881</b>
South Central .....	<b>4,018</b>
New England .....	<b>1,428</b>
Mid Atlantic .....	<b>6,109</b>
South Atlantic .....	<b>12,370</b>
Puerto Rico & US Territories .....	<b>319</b>

**TOTAL 32,293**
**INTERNATIONAL**

Canada .....	<b>2,488</b>
Europe .....	<b>1,191</b>
Mexico .....	<b>701</b>
South/Central America/Caribbean .....	<b>2,041</b>
Middle East.....	<b>1,087</b>
Asia/Pacific Rim/Australia .....	<b>2,093</b>
Africa/All other regions .....	<b>502</b>

**TOTAL 10,103**
**TYPE OF BUSINESS**

Contractors/Dealers .....	<b>9,452</b>
Engineering, Design & Construction .....	<b>4,554</b>
Distribution .....	<b>12,305</b>
Manufacturers of HVACR and Allied Equipment & Components .....	<b>8,441</b>
Facility/Building/Plant Mgt. & Operations .....	<b>1,209</b>
Public Utilities .....	<b>622</b>
Education .....	<b>1,410</b>
Publishing/Press .....	<b>339</b>
Allied to the Field/Other .....	<b>4,064</b>

**JOB FUNCTION**
**78% HAVE A ROLE IN PURCHASING**

Senior Management .....	<b>17,670</b>
Engineer/Architect .....	<b>5,496</b>
Operations/Maintenance .....	<b>1,168</b>
Technician .....	<b>1,782</b>
Purchasing .....	<b>1,128</b>
Research/Product Design & Dev. ....	<b>930</b>
Marketing/Sales .....	<b>9,377</b>
Consultant/Allied to the Field .....	<b>1,805</b>
Publishing/Education .....	<b>1,222</b>
Not given/Other .....	<b>1,818</b>

AHR EXPO - FUTURE DATES

YEAR	CITY	SHOW DATES
2017	LAS VEGAS	1/30 - 2/1
2018	CHICAGO	1/22 - 1/24
2019	ATLANTA	1/14 - 1/16
2020	ORLANDO	2/3 - 2/5
2021	CHICAGO	1/25 - 1/27
2022	LAS VEGAS	1/31 - 2/2
2023	ATLANTA	2/6 - 2/8
2024	CHICAGO	1/22 - 1/24
2025	NEW YORK	(1/21 - 1/23)
2026	LAS VEGAS	
2027	CHICAGO	1/25 - 1/27
2028	ORLANDO	1/24 - 1/26

**AHR Expo-Mexico****- PROPOSED ROTATION -**

2015 – Guadalajara (every 6 years)

2016 – Monterrey (every 4 years)

2017

2018 – Mexico City (every 4 years)

2019

2020 – Monterrey (every 4 years)

2021 – Guadalajara (every 6 years)

2022 – Mexico City (every 4 years)

2023

2024 – Monterrey (every 4 years)

2025

2026 – Mexico City (every 4 years)

2027 – Guadalajara (every 6 years)

2028 – Monterrey (every 4 years)

2029

2030 – Mexico City (every 4 years)

**Report on Action Item 5 from January 24, 2016 Meeting – Bill Harrison**

IEC “Guidelines for ASHRAE Chapter Involvement with HVAC Shows Outside North America” was not presented to the Members Council meeting in Orlando. In consultation with IEC the original document was modified to be suitable for presentation to ASHRAE chapters and was forwarded to Joyce Abrams, Director of Member Services for distribution to affected chapters and for discussion at the next Members Council meeting. Joyce will investigate adding the policy to the Manual for Chapter Operations.

**Policy for ASHRAE Chapter Involvement  
With HVAC Shows Outside North America**

1. Chapters can apply for a variance to policy that will allow local chapter involvement with HVAC expositions outside North America. The variance will be granted by the International Exposition Company (IEC) after considering a specific request from a chapter.
2. Granting of a variance will be at the sole discretion of IEC and will depend on their evaluation of several factors including:
  - a. Location of Event / Country
  - b. Size of Event
  - c. Event’s Organizer
3. IEC reserves the right to turn down any request for a variance for reasonable cause, including potential detriment to the US AHR Expo.
4. Any variance granted will be on a one-time basis, with a maximum of 5 variances granted in any calendar year.
5. There will be no use of the terms “Sponsor”, “Sponsorship”, “Endorse”, “Endorser”, or “Endorsement”. The use of “Support” or “Supporter” is acceptable.
6. A chapter granted a variance to allow them to be a supporter of an exposition may use the chapter name only and may not use the term ASHRAE or the ASHRAE logo.
7. The US AHR Expo must be promoted at any event for which a variance is granted.
8. A request for variance should be sent to the Director and Regional Chair and to the Director of Member Services at least 120 days prior to the event. The request must include:
  - a. The complete name of the event and the dates it will be open
  - b. The location and name of the facility hosting the event
  - c. The floor space for the event
  - d. The number of anticipated exhibitors
  - e. The event organizers
  - f. Other sponsors or endorsers of the event
  - g. Information describing technical sessions to be held at the event
9. A formal answer to the request will be provided within 30 days of the request.

Vanita Gupta  
Director of Marketing  
April 15, 2016

## Interim Marketing Report

**This Interim Marketing report includes updates on many of the projects and activities that were approved at the January ExCom meeting in Orlando.**

**Connect-a-Colleague** is a membership recruitment tool that was launched in March using the campaign #MarchIntoMembership. The initial marketing push resulted in 133 new members joining ASHRAE through 942 connections (or referrals) made by current ASHRAE members. Marketing efforts included email, Facebook, Twitter, LinkedIn and a strong homepage presence. Going forward, this tool will be on the majority of outbound communication to the membership and 1X monthly email marketing will continue.

### **Email Service Provider Selected: Real Magnet**

ASHRAE currently uses 4 different email systems to communicate to our contacts which function independent of each other. We have selected Real Magnet to unify all our emails under one system that will sync to our netFORUM database. Staff training has begun and expected full launch of this system to be following the St. Louis meeting. Benefits of a unified email system integrated with netFORUM include:

- Central subscription preference center allowing users to control the emails received and opt outs
- Robust reporting features including tracking email trends, individual user habits, and transitional data
- Automated email campaigns for membership renewals and welcome campaigns
- Mobile responsive templates that respond to the readers' device screen size
- Social media integration allowing readers to share articles or emails real time

**Shape It Campaign** launched April 7<sup>th</sup> and is the newest multi-channel marketing program to attract membership internationally.

- Since launching, **21 new joins** within first 6 days of campaign
- Total reach estimated at 40,000+ from direct mail, email, webcast, phone calls

**2016 Retention Program** newly created Postcards and Videos are being developed to share quarterly with new members in an effort to retain them as members of ASHRAE. This ongoing communication will begin July 1, 2016.

Vanita Gupta  
Director of Marketing  
April 15, 2016

**Member Spotlight** relaunched in March 2016. To date, 302 Views on ashrae.org (under membership and conferences homepage) along with 209 Facebook likes and 72 LinkedIn likes.  
3 candidates to date:

- **Burns Bradford**, *CFL Chapter president*
- **Leslie Jonsson**, *TTC Committee Chair*
- **LeAnna Reynolds**, *NEOK Chapter president*

**ASHRAE Tradeshow participation** (remaining for 2016) managed by marketing staff:

April 7-9, 2016	ASHRAE	China Refrigeration Expo/ Beijing, China
April 15-16, 2016	ASHRAE	U.S. Science & Engineering Festival/ Washington, D.C.
May 19-21, 2016	ASHRAE	American Institute of Architects (AIA) 2016
Sept. 20-22, 2016	ASHRAE	AHR Mexico Expo/ Monterrey, Mexico
Oct. 5-6, 2016	ASHRAE	International Facilities Managers Association (IFMA)
Oct. 5-6, 2016	ASHRAE	U.S. Green Building Council: Greenbuild/ Los Angeles, CA
Oct. 11-13, 2016	ASHRAE	Chillventa/ Nurnberg, Germany

**Website stats YTD include:**

- 571 Pages Updated
- 661 pieces of content edited
- 411 files uploaded
- 213 images uploaded

**Grassroots Government Affairs Committee**

- Finalized U.S. brochure and created an informational document about ASHRAE's involvement with Canada
- New Facebook presence created with 4X weekly posts to engage and expand followers.

**Newsletters produced since January: Six**

- Keynotes: 3
- Students: 2
- Young Engineers: 1

**Graphic design department** has completed **13** new projects for various ASHRAE departments.

Vanita Gupta  
Director of Marketing  
April 15, 2016

**St. Louis Conference Marketing** includes 3 touches per week consisting of social media posts, emails and outreach via regions and chapters. A new tool is under development (Invite-a-Friend) which will encourage past conference attendees to invite colleagues to join ASHRAE at the winter or annual meeting. Target launch 5/2.

**Technical Marketing projects** include a trial of a new simplified ASHRAE Join process. Prototype was created to test Connect-a-Colleague and resulted in 60% increase in new joins. Revamping conference registration, the Shape It marketing campaign, and updating forward facing forms to be more user friendly are some of the current marketing technology projects.

### **Basecamp 3 Rollout**

- Basecamp 3 rollout officially started 3/29/16 with 3 more calls scheduled. There are currently a total of 78 active projects in both Basecamp 2 and Basecamp 3.
- Of the 78 projects, 63 of are in Basecamp 2 and 15 are in Basecamp 3.
- The number of projects in Basecamp 2 will not grow since all new projects will be created in Basecamp 3 but the number of projects in Basecamp 3 will continue to grow as more projects come online.

### **TC Websites**

- Surpassing the original target date of St. Louis, all 92 sites are live on the new platform (4 have elected not to move over as of yet).
- To provide a birds-eye-view of what was entailed, from the project's first discovery call 3/31/15, the team has held stakeholder and user interviews, selected a site look and feel from a series of wireframes and comps, set-up and beta tested several sites, recorded 2 training videos and written online documentation in two different ways.
- A total of 288 e-mails directly from staff's Outlook account to announce the sites were ready for review, to assign credentials, and to confirm when the sites went live. In addition to this, four separate communications were sent to webmasters and chairs.

**bEQ next steps** include the marketing department reviewing the initial proposal from Godfrey and making suggestions and recommendations of the overall plan and where centralized marketing can implement versus outsourcing. Next steps and final approvals will be given during the bEQ marketing subcommittee face-to-face meeting to be held in Atlanta in May 2016.

### **Development**

Updated brochure designed and printed to increase awareness of the Foundation's ability to assist chapters in the management of scholarship funds. The brochures will be available at the CRCs and information will be available via social media and included in the May edition of Keynotes.



Vanita Gupta  
 Director of Marketing  
 April 15, 2016

### Certification

Certification Exam Guidelines and certification program-specific Candidate Guides were updated creatively with a new look and combined into six program-specific Candidate Guidebooks. The new Candidate Guidebooks are all posted on the certification web pages and require an email to be entered in order to be downloaded. The size of the YouTube video player windows on the certification program pages have been enlarged and now when the videos are linked from promotional emails they will go to the certification pages instead of YouTube.

### Reach (Employer Support)

The Reach program was created in response to the ASHRAE Strategic Plan directive to increase employer support of ASHRAE and its members. Formerly known as VITAL, Reach will be launched at the spring and fall CRCs during the vice president’s PowerPoint presentation as well as during the MP training session at the Annual meeting in St. Louis.

- Fresh collateral created, new promotional articles and emails developed, and created an updated landing page, [www.ashrae.org/reach](http://www.ashrae.org/reach), to support the initiative. Over 1,700 kits will be created and sent to the above mentioned meetings and CRC’s to help launch this program.

### Inflation Adjusted ASHRAE Research Expenditures

In celebration of ASHRAE’s investment of \$147 Million in today’s dollars on research projects, grants and awards since 1959 a host of deliverables will be created to showcase our commitment to shaping the built environment.

- The campaign will include components like social media posts, an infographic that will appear on the web site and be displayed on posters at the annual conference, and e-newsletter articles, to name just a few. The campaign will thank members for their continued support, call attention to top earning chapter events, and highlight key completed projects.

**ASHRAE Bookstore promotions** Since January 2016, seven promotions have been completed for ASHRAE publications. YTD Sales for promoted books:

Date HTML sent		Sales	Conversion Rate
1/6/2016	Std. 90.1-2013 Appendix G HTML and promotional materials	611	
2/18/2016	Standard 188 Resend to MI residents	40275	
NO HTML, ads and other items	kBIM software promotional materials excluding HTML message	5000	
3/28/2016	FYI e-mail to members in Pakistan regarding new IP-based discount	sales not tracked	0%
3/28/2016	FYI e-mail reminder to members in India regarding IP-based discount	sales not tracked	1%
4/7/2016	Standard 62.1 HTML e-mail and promo materials	22459	
4/18/2016	Datacom Book #13	44.75	
<b>Total Gross Sales Tracked</b>		<b>\$68,345.00</b>	

**Social Media Dashboard** launched in February 2016.

- March 2016 dashboard attached (page 5)

Followers					Social Media Dashboard March 2016		
	#	Compare to last month					
			# change	% change			
Facebook	42,354	↑	769	2%			
Twitter	12,290	↑	160	1%			
LinkedIn	19,694	↑	573	3%			
YouTube	964	↑	90	10%			
ASHRAExCHANGE	1,498	↑	35	2%			
Facebook							
Page	# of posts	Reach			Engagement		
		Reach (page)	Reach (posts)	Impressions	Engaged (unique)	Consumers	Consumption
<a href="#">Main (ASHRAE)</a>	60	163,992	156,092	481,049	5,520	3,017	6,987
<a href="#">YEA</a>	33	24,054	23,702	81,054	490	290	1,089
<a href="#">Student Connection</a>	22	23,360	16,803	73,348	406	272	741
<a href="#">Membership Promotion</a>	20	7,523	7,447	22,507	109	52	93
<a href="#">GGAC</a>	18	3,058	2,579	6,309	158	87	329
<a href="#">ASHRAE President</a>	2	2,743	2,325	5,409	193	114	491
Top posts from main page					Likes	Shared	Reach
<a href="#">Passing of architect Zaha Hadid</a>				3/31, 9:15 pm	152	36	15,855
<a href="#">Guardian article re: MIT research</a>				3/23, 8:25 am	94	25	11,262
<a href="#">Women in Engineering: CA Civil Engineer</a>				3/16, 8:30 am	61	2	7,572
Twitter							
Page	# of posts	Impressions		Engagement			
		Total	Total engagements	Retweets	Likes	URL clicks	
<a href="#">@ashraenews</a>	46	63,362	443	61	64	209	
Top Tweets				Retweets	Likes	URL clicks	
<a href="#">UK Tube train air-conditioning article</a>				3/21	6	4	11
<a href="#">#ADVRTUcampaign</a>				3/23	2	1	3
<a href="#">Guardian article re: MIT research</a>				3/23	4	2	5
LinkedIn							
Page	# of posts	Impressions		Consumers			
		Total	Unique	Likes	Shared	Clicks	
<a href="#">LinkedIn company page</a>	19	307,428	126,003	758	101	1,482	
Top posts				Likes	Clicks	Engagement	
<a href="#">VRF Course</a>				3/17	46	140	1.64%
<a href="#">#ADVRTUcampaign</a>				3/23	75	183	1.46%
<a href="#">Upcoming Webcast</a>				3/27	65	142	1.15%
YouTube							
Page	# of new videos	Engagement			Traffic Sources		
		Views	Likes	Shares	External	Suggested	Search
<a href="#">ASHRAEvideo</a>	3	2,814	15	15	58%	13%	11%
New videos					Likes	Shared	Views
<a href="#">Orlando Conference Video</a>				3/1	2	0	84
<a href="#">ASHRAE HVAC Design Training II</a>				3/8	1	2	627
<a href="#">ASHRAE Histories: Iron Ring</a>				3/28	9	0	441
ASHRAExCHANGE							
Page	# of posts	Impressions		Users			
		Pages Viewed per Session	Pageviews	Sessions	Users	New Sessions	
<a href="#">ASHRAExCHANGE.org</a>	26	1.54	2,706	1,761	1,577	87.11%	



**Executive Committee**

# **Reference Manual**

**March 16, 2014**

# Executive Committee Reference Manual

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**ExCom Minutes Posted on ASHRAE Website**

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## DEFINITION

### **(ROB 1.100.002)**

Each council or committee may establish a Reference Manual, which may contain guidelines, procedures, sample documents and other tools that the council or committee uses in its day-to-day operation. The Reference Manual ensures consistency in the operation of the council or committee and serves as an educational tool for new members. The Reference Manual is an internal document of the council or committee and requires the approval of that council or committee only.



## ASHRAE Speaker's Guide for Officers

ASHRAE Officer Involvement  
In Commercial Speaker Invitations  
(Approved by ExCom 2007-11-12)

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Most speaking engagements give ASHRAE officers the opportunity to build relationships and publicize ASHRAE in a positive way. Occasionally, speaking invitations will come directly from or be closely allied to commercial firms. Guidance is needed to avoid ASHRAE officer speaking engagements from being used to inappropriately imply ASHRAE's endorsement of companies or products.

Commercial firms and even the media can sometimes 'spin' an otherwise innocent and non-commercial appearance into an implied endorsement of a firm or products in corporate newsletters, meeting announcements, press releases, and all forms of electronic communications. Hence, ASHRAE officers must avoid putting themselves in the position where the 'spin' can occur.

ASHRAE officers should not speak at:

- Closed corporate events – Examples include distributor conferences, company-wide management meetings, headquarters grand openings, etc. Note that this restriction applies only to firms active in built environment and related markets. It does not apply to not-for-profit organizations.
- Conference events named for a company – Examples include the "Bry-Air Awards" tied to ACREX ("Bry-Air has instituted the "Awards for Excellence in HVAC&R" to encourage, motivate and award excellence in innovative thinking..."). The line between an event named for a company and sponsored by a company is thin. It would be appropriate, for example, for ASHRAE officers to speak at "ACREX Innovation Awards" which happens to be sponsored by Bry-Air but not to speak at the "Bry-Air Awards".
- Political events that support one particular political party or politician – Examples include fund-raising events.
- Paid speaking engagements – All events in which an ASHRAE officer receives compensation for speaking. The appearance can be made if the payment is turned down and if the appearance does not otherwise imply endorsements.

Because the commercialism involves many 'gray' areas, officers should consult with EVP if they are not sure about whether the speaking opportunity is appropriate.



## Opportunity Fund Procedure

ExCom Procedure for Prioritizing Requests of Opportunity Funds  
Approved by ExCom 06-01-26

1. Decisions on use of Opportunity Funds will be considered at any time of a Society year other than at Society annual meetings.
2. All council chairs will report their requests to ExCom at its Wednesday meeting at Society winter meetings.
3. ExCom requests will be submitted to the Board of Directors.\*

\*See ROB 2.407.003.4 (below)

### 2.407.003.4

The Executive Committee is responsible for prioritizing and setting funding amounts of requests for funds from the Opportunity Fund prior to submitting the requests to the Board of Directors.

# ASHRAE Media Guide for Spokespeople

January 2011

## **ASHRAE Communications Staff**

Jodi Scott, [jscott@ashrae.org](mailto:jscott@ashrae.org)

Amanda Dean, [adean@ashrae.org](mailto:adean@ashrae.org)



# Media Procedures for Publicizing ASHRAE

Media calls received by members or other staff should be forwarded to communications staff to ensure that the most appropriate spokesperson is interviewed and to ensure that ASHRAE's key messages are delivered.

*The ASHRAE president is the chief spokesperson for the Society. When external contacts occur, the ASHRAE staff will identify the appropriate spokesperson for that topic. (ROB 1.201.036)*

## Guiding Principles

ASHRAE, as the worldwide leader in advancing the arts and sciences of HVAC&R, is in a position to create many opportunities to obtain media coverage. To take advantage of these opportunities, ASHRAE has developed clear media procedures that can be utilized by the Society's volunteer and professional leadership. The policy is supported by resources, training and the commitment of ASHRAE leadership.

There are three guiding principles that form the basis for ASHRAE's approach to working with the media to deliver its messages.

1) Communicating to the public has important benefits to ASHRAE

- Member recruitment
- Member retention
- Building support for ASHRAE standards and the process by which they are developed
- Maintaining its status as the leading HVAC&R organization
- Public education
- Increased sales of products and programs

2) Communicating with the media is a very efficient (and inexpensive) way to communicate to ASHRAE key audiences:

- Current members
- Potential members
- Government officials (local/regional/state/federal)
- Opinion leaders
- General public
- Model code officials
- Building owners and managers
- Industry stakeholders

3) Communicating with the media must follow the basic rules of the trade:

- Meet the reporter's deadline (missing the deadline destroys media relationships and diminishes ASHRAE's value to the public and its own members)
- Speak with positive clarity, have a clear message and deliver it with conviction
- Build relationships with reporters, especially those that will cover ASHRAE related issues over time.
- When organizations refuse to speak to the press, the organization loses credibility and reporters assume there is something being avoided, some uncomfortable issue or angle that the group does not want to disclose. Either way, it is a very bad policy.
- There is always something positive to say on any issue. With just a little training this is easy to do.

### **Media Procedures**

The intent of these procedures is to address these communication challenges.

Procedures. Media calls are handled by the communications staff. Media calls received by members or other staff should be forwarded to this section to ensure that the most appropriate spokesperson is interviewed and to ensure that ASHRAE's key messages are used. Communications staff talks to media to determine the subject of the story being written or produced, the deadline and any additional materials that reporters may be interested in (such as studies or position documents). Staff then contacts the most appropriate spokesperson. Our goal is to provide a spokesperson's name and contact information on the same day of the media call and for the spokesperson to speak to reporters in advance of their deadlines.

Media contact. ASHRAE encourages its officers and spokespeople to speak with the media. This document, in large part, was prepared to offer guidelines on how best to work with the media in order to advance ASHRAE's mission and continued growth. The answer to the question, "Is it okay to talk with the media?" is yes, absolutely.

When The Press Calls. All media contacts should be reported to the ASHRAE Communications office. This allows the entire organization to benefit from the media interest and it allows for a more strategically executed media plan.

Authorization. While it is helpful to have ASHRAE represented in the general and trade press as a leader in the field of standards development and industry expertise, it is also useful to calibrate how members speak to reporters. Based on ASHRAE's organizational structure, a system of using members trained in media contact makes the most sense. This approach enables reporters to report on ASHRAE activity more accurately and assists ASHRAE in providing to the media messages that advance the Society's mission. Two tiers of media contact are used by ASHRAE:

#### Tier One

The first tier utilizes pre-determined spokespersons, including members of the Executive Committee, to respond to media requests. Spokespersons will be identified by Communications staff based on past media experience with those members. Topics include:

- Role of ASHRAE (standards, research, professional development)

- Current issues of interest to the general public and media (indoor air quality, energy design guidelines, etc.)
- Positions on more specific technical topics that generate media interest, such as air craft cabin indoor air quality, office productivity, etc.

### Tier Two

The second tier outlines messages limited to the current president and Executive Committee of ASHRAE. Topics would include everything in the first tier and sensitive issues related to specific ASHRAE activities. In these cases, the ASHRAE Communications staff can prepare tightly designed message points that will allow ASHRAE to have a voice in media coverage without taking a conflict-causing position. Examples would be Society positions on specific challenges to standards or research projects.

### The Interview Process

Pre-Interview. When a reporter calls for information, there are a few questions that ASHRAE's professional staff asks to help make the subsequent interview more successful. These questions may include:

- 1) Asking for the reporter's deadline (when they have to turn the story in to their editor).
- 2) Asking the reporter about the story. What is it about? Who have they spoken to already? What do they see as the key issues of interest to their readers? What does the reporter know about ASHRAE?
- 3) Asking if their questions can be made available ahead of time. Don't expect they will comply (the more sophisticated the publication, the less likely you are to see any questions in advance).
- 4) Asking if the spokesperson can fact-check their portion of the story once it is completed. Again don't expect a yes every time.

Interview. Keep in mind that this is an ASHRAE interview. You should identify your ability to talk on the reporter's topic by citing your ASHRAE qualifications, your past or current committee membership, for example. There is no benefit to ASHRAE if your company name and affiliation are used to identify you in articles.

*Key Messages.* Your goal in talking to the media is to share the important work that ASHRAE is doing. Reporters have only so many inches or seconds in which to tell a story. Your focus should be on sharing the Society's work and how it positively impacts the industry. Try to avoid providing too much background or too many details about the inner-workings of ASHRAE – readers don't care how a committee is established – they just want to know how the committee's work impacts them.

Follow-up. Once an interview is over, there is still important work to be done. Make sure the ASHRAE media interview procedures have been followed. If the reporter typically covers issues related to ASHRAE's mission, it may be useful to establish a relationship with the reporter in order to encourage further interaction. ASHRAE professional staff can provide guidance in this regard. Follow-up is also called for once the story is published to either compliment the reporter on a job well done or to correct misinformation if the reporter got it wrong.

Post-Interview Perception. It is not uncommon to feel disappointment once the final story is published. Reporters can get the facts wrong; they can misquote you or take your quote out of context. While media training can help to minimize these challenges, they do happen and spokespersons should know that ASHRAE professional staff and elected officers understand that there is always some risk when speaking to the media. On balance, however, ASHRAE has decided that the overall benefits of a more proactive media policy far outweigh the occasional misquote or misinformation.

Rehearse. Practice the procedures using simulations. Do they work well? What adjustments are necessary? Also, once an interview is scheduled, have someone play the role of the reporter and ask the tough questions. Everyone benefits from this kind of preparation.

Collateral material. ASHRAE has a number of fact sheets, issues papers and other background materials specifically designed for reporters that can answer many of their basic questions. These materials are supplements to, not a replacement for, a media interview. Reporters want to be able to quote a person, not a piece of paper.

**Communication Assistance Contact List.** When ASHRAE members have questions or need help with media related issues they should contact:

- Jodi Scott at [jscott@ashrae.org](mailto:jscott@ashrae.org)
- Amanda Dean at [adean@ashrae.org](mailto:adean@ashrae.org)

## **ExCom Minutes Posting on ASHRAE Website**

On March 16, 2014, ExCom passed the following motion:

That approved Executive Committee open minutes and attachments be posted to the website within 30 days after approval and that this motion be placed in the Executive Committee's Reference Manual.

The motion was reported to the Board of Sunday, June 29, 2014/

On July 14, 2011, ExCom passed the following motion:

That approved Executive Committee minutes and attachments be posted on the ASHRAE website within 30 days after approval and that this motion be placed in the Executive Committee's Reference Manual.

The motion was reported to the Board on July 21, 2011.



## CRC SCHEDULE 2015-2016

<b><u>FALL 2015</u></b>	<b>HOST CHAPTER LOCATION</b>	<b>ALTERNATE CHAPTER LOCATION</b>	<b>TARGET MONTH/WEEK</b> (1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> week, etc.)	<b>ACTUAL CRC DATES</b>	<b>OFFICIAL VISITOR</b>	<b>STAFF</b>	<b>CRC CHAIR</b>
<b>REGION I</b>	CENTRAL NEW YORK SYRACUSE, NY	ROCHESTER ROCHESTER, NY	AUGUST 3 <sup>RD</sup> WEEK AUGUST 9-15	AUGUST 20-22	OLESEN GULLEDGE	PETTIGREW	STEVE SILL
<b>REGION II</b>	HAMILTON HAMILTON, ON	NB/PEI MONCTON, NB	AUGUST 4 <sup>TH</sup> WEEK AUGUST 16-22	AUGUST 21-23	VALLORT GRAEF	LITTLETON	DAVE RASMUSSEN
<b>REGION III</b>	JOHNSTOWN JOHNSTOWN, PA	PHILADELPHIA PHILADELPHIA, PA	AUGUST 3 <sup>RD</sup> WEEK AUGUST 9-15	AUGUST 13-15	OLESEN GRAEF	ABRAMS	CHRIS ALBRIGHT
<b>REGION IV</b>	TRIANGLE RALEIGH DURHAM, NC	ATLANTA ATLANTA, GA	AUGUST 2 <sup>ND</sup> WEEK AUGUST 2-8	AUGUST 6-8	UNDERWOOD VALLORT	GUPTA	JIMMY LEONIDA
<b>REGION V</b>	EVANSVILLE EVANSVILLE, IN	DAYTON DAYTON, OH	AUGUST 2 <sup>ND</sup> WEEK AUGUST 2-8	AUGUST 6-8	OLESEN CHAKROUN	GURLEY	SHAWN MOWERY
<b>REGION VII</b>	MEMPHIS MEMPHIS, TN	BIRMINGHAM BIRMINGHAM, AL	AUGUST 1 <sup>ST</sup> WEEK JULY 26-AUGUST 1	JULY 23-25	WENTZ GRAEF	RAMSPECK MITCHELL	MIKE BILDERBECK JIM MORGAN
<b>REGION IX</b>	BLACK HILLS AREA RAPID CITY, SD	NEBRASKA OMAHA, NE	AUGUST 1 <sup>ST</sup> WEEK JULY 26-AUGUST 1	JULY 23-25	UNDERWOOD CHAKROUN	ABRAMS	MIKE MUELLER
<b>REGION X</b>	SAN JOSE SAN JOSE, CA	SOUTHERN CALIFORNIA LOS ANGELES, CA	AUGUST 2 <sup>ND</sup> WEEK AUGUST 2-8	AUGUST 13-15	UNDERWOOD GULLEDGE	LITTLETON WRIGHT	JOSEPH CHIN
<b>REGION XII</b>	GOLD COAST FORT LAUDERDALE, FL	SOUTHWEST FLORIDA FORT MEYERS, FL	AUGUST 1 <sup>ST</sup> WEEK JULY 26-AUGUST 1	AUGUST 6-8	WENTZ GULLEDGE	RATCLIFF	DANNY DENARO ROBIN BRYANT
<b>REGION XIII</b>	PHILIPPINES MAKATI CITY, PHILIPPINES	THAILAND BANKOK, THAILAND	AUGUST 4 <sup>TH</sup> WEEK AUGUST 16-22	AUGUST 21 – 22	UNDERWOOD CHAKROUN	RAMSPECK MASTERSON ADELMANN	EMMANUEL PUNSALAN
<b>RAL</b>	TURKISH ISTANBUL, TURKEY	ASHRAE FALCON DUBAI, UAE	SEPTEMBER 3 <sup>RD</sup> WEEK SEPTEMBER 13-19	OCTOBER 2-4	UNDERWOOD VALLORT	COMSTOCK ADELMANN	MEHMET BARIS
<b><u>SPRING 2016</u></b>	<b>HOST CHAPTER LOCATION</b>	<b>ALTERNATE CHAPTER LOCATION</b>	<b>TARGET MONTH/WEEK</b> (1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> week, etc.)	<b>ACTUAL CRC DATES</b>	<b>OFFICIAL VISITOR</b>	<b>STAFF</b>	<b>CRC CHAIR</b>
<b>REGION VI</b>	MADISON MADISON, WI	ST LOUIS ST LOUIS, MO	MAY 1 <sup>ST</sup> WEEK	APRIL 28-30	OLESEN VALLORT	MASTERSON	CAROL MORI
<b>REGION VIII</b>	EAST TEXAS TYLER, TEXAS	CENTRAL OKLAHOMA OKLAHOMA CITY, OK	APRIL 4 <sup>TH</sup> WEEK	APRIL 28-30	WENTZ GRAEF	LITTLETON	RHAMY MORRISON
<b>REGION XI</b>	SASKATOON SASKATOON, SK	PUGET SOUND SEATTLE, WA	MAY 2 <sup>ND</sup> WEEK	MAY 11-14	WENTZ GULLEDGE	GURLEY	RYAN MACGILLIVRAY

**NOTE: ALL TARGET WEEK/DATES ARE FINAL AND CANNOT BE CHANGED. IF THERE IS A CONFLICT IN THE SCHEDULE, THE REGION MUST RESOLVE.**

Additions and/or revisions are shaded.

Revised: July 13, 2015

Distribution: EXCOM, DRCS, LITTLETON, TOWNSEND, COMSTOCK, WRIGHT, ABRAMS, RAMSPECK, GUPTA, MITCHELL, SEARS, ADELMANN, PETTIGREW, GURLEY, MASTERSON, THOMSON, SCARBOROUGH, GRANT, KELLER, RATCLIFF



# CRC SCHEDULE 2016-2017

<b><u>FALL 2016</u></b>	<b>HOST CHAPTER LOCATION</b>	<b>ALTERNATE CHAPTER LOCATION</b>	<b>TARGET MONTH/WEEK</b> (1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> week, etc.)	<b>ACTUAL CRC DATES</b>	<b>OFFICIAL VISITOR</b>	<b>STAFF</b>	<b>CRC CHAIR</b>
<b>REGION I</b>	ROCHESTER ROCHESTER, NY	LONG ISLAND GARDEN CITY, NY	AUGUST 3 <sup>RD</sup> WEEK	AUGUST 18-20	WENTZ/CHAKROUN	WRIGHT	JIM BROWE
<b>REGION II</b>	NB/PEI MONCTON, NB		AUGUST 4 <sup>TH</sup> WEEK	AUGUST 26-28	HAYTER/SCOGGINS	ABRAMS	DAN BOUDREAU
<b>REGION III</b>	PHILADELPHIA PHILADELPHIA, PA	ROANOKE ROANOKE, VA	AUGUST 3 <sup>RD</sup> WEEK	AUGUST 18-20	HAYTER/TSUI	MITCHELL	GARY DEBES
<b>REGION IV</b>	ATLANTA ATLANTA, GA	SOUTH CAROLINA COLUMBIA, SC	AUGUST 2 <sup>ND</sup> WEEK	AUGUST 11-13	WENTZ/TSUI	LITTLETON	BRIAN JUSTICE
<b>REGION V</b>	DAYTON DAYTON, OH		JULY 4 <sup>TH</sup> WEEK	JULY 28-30	WENTZ/GRAEF	ABRAMS	EVAN NUTT
<b>REGION VII</b>	BIRMINGHAM BIRMINGHAM, AL		AUGUST 1 <sup>ST</sup> WEEK	AUGUST 4-6	OLESEN/SCOGGINS	COMSTOCK	CHRIS GRAY GREG HAMAKER
<b>REGION IX</b>	NEBRASKA OMAHA, NE	KANSAS CITY KANSAS CITY, MO	AUGUST 1 <sup>ST</sup> WEEK	AUGUST 4-6	WENTZ/GRAEF	LITTLETON	TYLER GLESNE
<b>REGION X</b>	SOUTHERN CALIFORNIA LOS ANGELES, CA		AUGUST 3 <sup>RD</sup> WEEK	AUGUST 11-13	OLESEN/CHAKROUN	GURLEY	CHRISTINE LAZO
<b>REGION XII</b>	SOUTHWEST FLORIDA FORT MEYERS, FL	BRASIL SAO PAULO, BRAZIL	AUGUST 3 <sup>RD</sup> WEEK	AUGUST 4-6	HAYTER/CHAKROUN	RAMSPECK	RICHARD BROOKS
<b>REGION XIII**</b>	THAILAND BANGKOK, THAILAND	SINGAPORE SINGAPORE	AUGUST 4 <sup>TH</sup> WEEK	SEPT 30 – OCT 2	ALL OFFICERS	ALL DIRECTORS ADELEMANN MASTERSON	APICHIT LUMLERTPONGPANA
<b>RAL**</b>	THAILAND BANGKOK, THAILAND	SRI LANKAN COLOMBO	SEPTEMBER 3 <sup>RD</sup> WEEK	SEPT 30 – OCT 2	ALL OFFICERS	ALL DIRECTORS ADELEMANN MASTERSON	PANKAJ DHARKAR
<b><u>SPRING 2017</u></b>	<b>HOST CHAPTER LOCATION</b>	<b>ALTERNATE CHAPTER LOCATION</b>	<b>TARGET MONTH/WEEK</b> (1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> week, etc.)	<b>ACTUAL CRC DATES</b>	<b>OFFICIAL VISITOR</b>	<b>STAFF</b>	<b>CRC CHAIR</b>
<b>REGION VI</b>	ST LOUIS ST LOUIS, MO		MAY 1 <sup>ST</sup> WEEK	APRIL 27-29	WENTZ/SCOGGINS	PETTIGREW	BRIAN INGENTHON
<b>REGION VIII</b>	CENTRAL OKLAHOMA OKLAHOMA CITY, OK	ALAMO SAN ANTONIO, TX	APRIL 4 <sup>TH</sup> WEEK	APRIL 27-29	OLESEN/TSUI	COMSTOCK	JOHN SEMTNER JOE SANDERS
<b>REGION XI</b>	PUGET SOUND SEATTLE, WA	VANCOUVER ISLAND VICTORIA, BC	MAY 2 <sup>ND</sup> WEEK	MAY 17-20	OLESEN/GRAEF	GUPTA	TAMAS BENCSIK

Additions and/or revisions are shaded. \*\* Joint CRC Regions

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Distribution: EXCOM, DRCS, LITTLETON, TOWNSEND, COMSTOCK, WRIGHT, ABRAMS, RAMSPECK, GUPTA, MITCHELL, ADELMANN, PETTIGREW, GURLEY, MASTERSON, SCARBOROUGH, GRANT, KELLER, RATCLIFF



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David Underwood, President  
Executive Committee

April 11, 2016

Dear David,

My report this year is a little different than previous years. I am combining the ASHE and the FGI reports together. As you may recall from my past reports, these two organizations have a close relationship.

## *FGI*

My role in the Facility Guidelines Institute is to serve on two committees. One is the Healthcare Guidelines Revision Committee (HGRC) and the other is the Steering Committee for the HGRC. The HGRC is a group of about 100 health care professionals from all aspects of the industry who propose changes to the *Guidelines for Design and Construction of Health Care Facilities*. This document is the primary product and the reason why the Institute exists. The steering committee is the consensus body for the content of this document and makes all final edits and content decisions. The Guidelines are on a four year publication cycle.

## **Guidelines 2018**

This year the HGRC is reviewing new proposals for revisions to the 2014 Guidelines. The end of the process is to publish a new Guideline in March of 2018. The next two years will be spent commenting on the proposals submitted during a public review period that ends in February 2017. From that time to publication the document is edited and presented to the HGRC for a vote to approve in October 2017.

The FGI envisions a future where the patient is paying for high value health care and has a high engagement in their own care. Through a colloquium last year, they discovered that there will be very similar, if not identical, health care services delivered in the future as they are now but will happen in different venues such as primary care facilities and even retail facilities. In the future, more clinical care and health testing will be accomplished interactively with patients communicating through electronic connections to some health care institution. Telemedicine will become more pervasive in the industry.

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Near term, the 2018 Guidelines will divide into three building types: In-Patient, Out-Patient, and Residential. There will also be an attempt to create a venue to disseminate design concepts that go beyond the fundamentals of minimum health care facilities design. This “Beyond Fundamentals” concept will give a home to many great ideas that come out of the HGRC but can’t be included in the Guidelines. The platform for the new venue will be developed during the last part of the four year cycle. There is some potential to include high efficiency design and construction practices in this new document.

Some highlights of the conference in April follows:

Construction estimate for 2016:

**\$26 billion is predicted for healthcare spending in 2016 construction by Dodge.**

### **Bipartisan Budget Act of 2015**

There was a change in CMS reimbursement policy that occurred last November as part of the federal budget negotiations.

The bipartisan budget act of 2015(BBA) imposes a new policy for Medicare reimbursement relative to outpatient facilities. It is characterized as "site neutral" policy for new off-campus provider-based hospital outpatient locations established after November 2, 2015.

One reviewer stated that this new policy is an effort to move towards eliminating differential payments for services based on the location where the service is delivered.

K&L Gates wrote an article on December 8, 2015 to discuss this new policy. They feel this new policy removes one incentive for hospitals to acquire physician practices and ambulatory surgical centers.

Prior to BBA Medicare paid more for outpatient services furnished in a hospital provider-based department, regardless of where it was located, than in a freestanding physician practice or an independent ambulatory surgical center (ASC). The differential was a result of the hospital’s ability to bill for a facility fee reimbursed under the Outpatient Prospective Payment System(OPPS). While both the physician fee schedule (PFS) and Ambulatory Surgical Center Payment System (APC) include a facility component, the facility fee is less than that given to hospital owned facilities and so the new reimbursement will be less for new outpatient facilities that are not located within their associated hospital campus.

This change in reimbursement is not retroactive, so all existing outpatient facilities will still be able to charge the hospital facility fee. Any new outpatient facilities that are not close to a hospital facility will not be able to charge the higher hospital facility fee.

If this change to the Medicare reimbursement policy remains by next fall in spite of expected lobbying efforts by the health care industry, we can expect a shift away from independently owned outpatient facility construction.

I expect heaving lobbying by the hospital association to overturn this policy change. The incentive to build new outpatient facilities outside of the existing campus’ of the providers will be reduced by this ruling.

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### **Three Books, not Two**

One key change in the next edition of the Guidelines is to divide the document into three volumes: One for hospitals one for Residential Facilities and one for Outpatient Facilities. The outpatient volume will be created in the next two years.

The new outpatient facility group made much use of Standard 170 in defining the requirements for clinics. The feeling among all was that ASHRAE was trusted to manage the ventilation side of healthcare requirements.

The FGI still intends to publish Std 170 within all three books. However, the CEO of FGI has asked that SSPC 170 consider modifying the standard to differentiate between these three building types. The SSPC met at this conference according to our MOU with FGI and considered revisions to the standard to accommodate this request. No action was taken however.

## **ASHE**

The American Society of Healthcare Engineering (ASHE) is the publisher of the FGI Guidelines and is a co-sponsor of Standard 170. ASHE conducts meetings twice each year with a product exposition. I have explained to the ASHE leadership that ASHRAE would not be able to be a co-sponsor of their conferences as long as they hold the product exposition.

The Planning Design and Construction Summit was held on March 20 to 23rd, 2016.

### **Comfort in HC**

A presentation was made by Andrea Love, AIA on thermal comfort in health care facilities. Ms Love works for Payette, a Boston based architectural and building science design firm. Amazingly, this is not a topic that has been discussed much prior to the Affordable Care Act which requires hospitals to ask patients to rate their experience. The HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey is the first systematic survey of patient opinions of their experience in the care they received during their hospital stay. Unfortunately, the thermal comfort of the patient space is not surveyed but two other environmental issues – cleanliness and quietness, are surveyed. The cleanliness results appear good in the results published so far but quietness ranks quite low. It is impossible to distinguish between noise caused by health care staff and HVAC equipment.

The research reported Ms Love was amazing in its accuracy and use of engineering principles. This presentation was fit for any ASHRAE conference. It relied on Standard 55, psychrometrics, CFD analysis, Standard 170 and specifically mentioned the work of Ole Fanger. It described concepts of mean radiant temperature, clothing values, psychrometric state points, and air velocity and how they relate to patient comfort. This topic happens to be one of importance to SSPC 170 at the moment due in part to the recent issues with Kaiser Permanente. This research and Ms Love impressed me so much that we should consider placing this firm on our list of contractors for ASHRAE research. ([www.payette.com](http://www.payette.com))

### **Evidence Based Codes and Standards: FGI research**

Walt Vernon gave a presentation on the FGI research project to discover the evidence behind the Guidelines requirements. He discussed the difficulties of determining the strength of evidence and dangers of drawing conclusions from results that may only have indirect effects on health outcomes.

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The investigation of the evidence for the Guidelines is completed. Walt mentioned the joint research project between FGI, ASHE and ASHRAE. He gave no results for this effort since there are none. The Project Monitoring Subcommittee which oversees this research has determined that the principle investigator Dr. Shelton Jeter and Georgia Tech University did not understand the scope of the project and, by mutual agreement, have terminated the contract. The PMS is now considering awarding the contract to the other bidder, the University of Nebraska. It is likely that the scope and fee will need to be re-negotiated with Nebraska.

### **Chilled Beams in Healthcare**

There was a presentation on the performance of chilled beams in patient rooms. This is a hot design topic lately and Std 170 issued an addendum to allow chilled beams. It appears from the presentation that the design of this hospital predates the addendum. The presenter made the case that chilled beams do have the potential for problems due to the lack of filtration. The prediction of maintenance going into the planning for the installation was to vacuum the chilled beam coils every 2 to 3 years. After six months the staff felt that the coils had accumulated too much lint even though the performance of the beams didn't seem to be affected. The recommendation was then to perform HEPA vacuuming of each chilled beam every quarter.

This type of experience is valuable for both SSPC 170 and for the Technical Committees writing handbook chapters.

### **Integrated Project Design for Healthcare**

A presentation described the process used in one project to select an HVAC system using the integrated design approach (IPD). This method of project delivery has been around for several years but has not become as popular as predicted. For the selection of the hospital HVAC, five systems were evaluated: GSHP, WSHP, VRF, traditional Chillers with VAV, and active Chilled Beams. The ground source heat pump was selected as the lowest EUI and the lowest life cycle cost after seven years. The predicted EUI for the project was 120 kBtu/sf-yr and the actual EUI from April 2014 to April 2015 was 142 kBtu/sf-yr. The building achieved LEED Gold. The building is the Methodist Olive Branch Hospital in Olive Branch, MS.

### **Standard 188 Legionella**

As has been the case for a couple years, there was a presentation on ASHRAE Standard 188 Legionellosis: Risk Management for Building Water Systems. This presentation was presented by John Martinelli and Michael Chihoski. The specific issue for this presentation was the increased risk associated with construction using the integrated approach. The presenters used Std 188 to demonstrate how to avoid legionellosis outbreaks during construction. The emphasis was on building a team of experts including building staff and clearly establishing duties and responsibilities of the team members at the outset of project planning.

### **Joint Commission Survey Findings**

There was a presentation on the findings of the Joint Commission regarding the environment of care in hospitals. In 2014 over 42% of the environment of care findings were a failure to follow the static pressure relationships in certain healthcare spaces as required in Std 170. Other findings of the built environment were improper air flow or humidity control as required by Std 170.

It is results like these that help explain why both ASHE and FGI are so interested in the work of SSPC 170.

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## *Conclusions*

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

Having said that, we must continue to pursue the new research with ASHE and FGI to validate the requirements of Std 170 and be prepared to undertake new research to fill the gaps in our understanding of the relationship between HVAC and healthcare.

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

Best Regards,

A handwritten signature in black ink, appearing to read "Richard Otterman". The signature is written in a cursive style with a horizontal line at the end.

CC: Jeff Littleton, Executive Vice President  
Claire Ramspeck, DOT  
Steve Comstock, Director of Publications and Education

Report to ASHRAE Board of Directors

April 2016

North American Technician Excellence (NATE)

I attended the April 13, 2016 NATE Board of Trustees meeting held in Arlington, VA.

The NATE Trustees were presented results of the annual audit of NATE's activities. Some highlights include the administration of almost 17,000 exams during 2015 representing an increase of 20% over 2014 and up 10% over the 2015 budget. The passing rate remains consistent at approximately 71%. NATE COO John Lanier reported a growing transition from paper to online testing. Equipment manufacturers continue to account for a large percentage of NATE testing. Carrier Corporation is a big leader here.

NATE is considering the addition of a customer representative to its staff who would be tasked with making calls on potential vendors and administrators of NATE exams. NATE estimates a near-term investment with position returns possible in later years as the program grows.

The Trustees discussed the benefits of seeking ANSI certification for NATE's advanced-level certifications. At one time, NATE was ANSI certified but lost the designation due to misrepresentation of its control of testing agents. To minimize the reoccurrence of previous issues, NATE may pursue accreditation for only its most senior level exams which are administered in highly controlled environments. Expect this effort to begin in 2017. NATE believes that any ANSI accreditation of even limited NATE certifications would enhance credibility across the broad range of its products.

The next NATE Board of Trustees meeting is scheduled for October 19, 2016 in Washington DC.

The NATE website can be accessed at: <http://www.natex.org/>

Respectfully Submitted,  
Stephen D. Kennedy  
ASHRAE Representative to NATE Board