

MINUTES

BOARD OF DIRECTORS MEETING

ORLANDO, FL Sunday, February 2, 2020

Note: These draft minutes have not been approved and are not the official record until approved by the Board of Directors.

TABLE OF CONTENTS

Board of Directors Meeting Sunday, February 2, 2020

CALL TO ORDER	3
ASHRAE CODE OF ETHICS	. 3
INTRODUCTIONS	. 3
REVIEW OF MEETING AGENDA	. 3
REVIEW OF ACTION ITEMS	. 3
OPEN SESSION	3
REPORT OF NOMINATING COMMITTEE	4
ASHRAE HEADQUARTERS AD HOC COMMITTEE UPDATE	. 4
TREASURER'S REPORT	- 5
PLANNING COMMITTEE REPORT	. 5
EXECUTIVE COMMITTEE REPORT	6
PRESIDENTIAL AD HOCS	- 8
SOCIETY STREAMLINING AND LEAN ASSESSMENT	
BRUSSELS STAFF PRESENCE REVIEW AND FUTURE PLANNING	
CODE/STANDARD JURISDICTION SUPPORT SERVICES	. 8
ACTIVITY UPDATES	. 9
UNEP ASHRAE ACTIVITIES UPDATE	9
MARKETING ACTIVITIES UPDATE	9

PRINCIPAL APPROVED MOTIONS

Board of Directors Meeting Sunday, February 2, 2020

No Pg.	Motion				
1 - 3	That the Board of Directors' minutes from November 15-16, 2019 be approved.				
2 - 5	That ROB Section 2.416.002 regarding Planning Committee composition be revised as follows: 2.416.002 MEMBERSHIP 2.416.002.1 Composition (02-01-13-19/04-06-27-08/05-06-26-16/09-06-21-13/12-06-24-12) The members of this committee are as follows: A. Between seven-nine (97) and twelve (12) voting members, including a chair and vice chair B. In addition to chair and vice chair Other voting members shall include to one vice President (who serves as coordinating officer)				
	2-1. one Director-at-Large, 3-2. one Director and Regional Chair, 4-3. one member who is serving on the YEA Committee at the time of appointment, and 5-4. twoone members in good standing who have not served on the Board of Directors, 6-5. at leastup to five(5) two (2) to seven six (67) other members of the Society who are serving or have served as Board members				
	C. Non-voting members include the Executive Vice President and one Staff Director. 2.416.002.2 Qualifications A. All voting members, except the member who represents YEA, must hold the grade of Member or higher in the Society.				
	B. All councils should be represented on the voting membership of the committee. C. Representation from outside North America should be considered.				
3 - 6	That MOTION 2 be called to question.				
6 - 7	That MOTION 4 be postponed until the Wednesday BOD meeting.				
7 - 7	That the following diversity commitment statement be approved: ASHRAE is committed to providing a welcoming environment. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We proactively pursue and celebrate diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender, ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation and or education.				
9 - 8	That MOTION 8 be postponed until the Wednesday BOD meeting.				

ACTION ITEMS

Board of Directors Meeting Sunday, February 2, 2020

No Pg.	Responsibility	Summary of Action	Status
1 -	Gulledge/Knight	Prepare a report on European membership growth, publications, training and the	
(carryover		impact of dealing with other organizations for ExCom review.	
from March			
22, 2019)			
2 - 7	Gulledge	Work with Members Council to develop a plan to proactively pursue diversity and	
		inclusion at all levels of the Society.	



MINUTES BOARD OF DIRECTORS MEETING

Sunday, February 2, 2020

MEMBERS PRESENT:

Darryl K. Boyce, President Charles E. Gulledge III, President Elect Michael C.A. Schwedler, Treasurer K. William Dean, Vice President Malcolm Dennis Knight, Vice President William F. McQuade, Vice President Faroog Mehboob, Vice President Christopher Phelan, Region I DRC Jeff Clarke, Region II DRC Dunstan Laurence Macauley III, Region III DRC Steven A. Marek, Region IV DRC Douglas F. Zentz, Region V DRC Richard D. Hermans, Region VI DRC Michael P. Cooper, Region VII DRC Jonathan L. Symko, Region VIII DRC Trenton S. Hunt, Region IX DRC

Marites Dagulo Calad, Region X DRC
Russell J. Lavitt, Region XI DRC
Robin Bryant, Region XII DRC
Apichit Lumlertpongpana, Region XIII DRC
Constantinos A. Balaras, Region XIV DRC
Ahmed Alaa Eldin Mohamed, RAL DRC
Kelley Cramm, DAL
Van Baxter, DAL
Don Brandt, DAL
Katherine Hammack, DAL
Jaap Hogeling, DAL
Sarah Maston, DAL
Tim McGinn, DAL
Chandra Sekhar, DAL
Ashish Rakheja, DAL

GUESTS PRESENT:

Paul Jackson

Tony Gleeson Devin Abellon

Miguel Angel de Frutos Andres Sepulveda

Zeki Poynan Mehmet Zahid Poyraz

Sheila Hayter

BJill Bahnfleth Hugh Crowther Blake Ellis

Joe Furman Adnan Khurshid Wayne Reedy Lynne Jack

Mohammad Tassi Bassel Anbari Michael Patton

Roberto Aguilo

Umar Abbas Ginger Scoggins

Julia Keen Muhammad Omer Khan

Khurram Malick James Tobermann

David Rose Vineet Nair

Badri Patel Vanessa O'Connor

Sarah Toy Shaun Nienhueser Elizabeth Primeau Simona Tsveikova Laura Luckhurst

Daniele Passaglia

Richard Bowman Kemal Gani Bayraktar

Silvio Jobosi

Stephen Matthews Mark Miller

Jesus Lopez Max Sherman James Arnold

Walter Lenzi

Allessandra Prata Shimomura

Atilla Biyikoglu Rob Risley

Ross Montgomery

Tom Watson Victor Goldschmidt

Tom Phoenix Gordon Holness Bill Harrison

Randy Jones

Larry Schoen Farhan Mehboob

Adeeba Mehboob

Cindy Davis Robert Kunkel Bratislav Blagojevic

Azim Ashraf Saedar Ali

Michael Woodford Doug Chochrane Vikram Murthy Douglas Fick Lee Millies Rachel Romero

Bryan Holcomb Keiron D. Nanan

Tyler Glesne

Anna Vanderstelt Nick Janssen Kelly Gunn Chris Krieps Syed Mubarak Ralph Kison

Usman Tariq Chughtai

Sherif Omran
Rob Craddock
Nicole Bunbar
Hywel Davies
Stuart MacPherson
Donald P. Gariepy
James Curlin
Ayman Eltalouny
Mark Hegberg
Walid Chakroun
Bassem Elessead
Chris Gray

M. Baris Özerdem Ryuichi Nagaosa

STAFF PRESENT:

Jeff Littleton - Executive Vice President Candace DeVaughn - Mgr., Board Services Chandrias Jacobs - Coord., Board Services Joslyn Ratcliff, Sr. Mgr. - Mktg. Communications

Alice Yates - Director, Govt. Affairs

Stephanie Reiniche - Director, Technology Joyce Abrams - Director, Member Services Craig Wright - Director, Finance & Admin. Services

Vanita Gupta - Director, Marketing Dustin Mason - Development Mgr. Kim Mitchell - Chief Development Officer Mark Owen - Director, Pub & Education Steve Comstock - Mgr., Business Dev. Ayah Said - Mgr., Global Training Center

CALL TO ORDER

Mr. Boyce called the meeting to order at 1:31 pm.

ASHRAE CODE OF ETHICS

Mr. Boyce read the ASHRAE Code of Ethics commitment and stressed that all ASHRAE meetings operate under this code. He encouraged all present to read and become familiar with the code.

INTRODUCTIONS

Members and guests introduced themselves. Mr. Boyce thanked guests for attending.

REVIEW OF MEETING AGENDA

Mr. Boyce reported that the Building Ad Hoc report will be given after the Report of the Nominating Committee.

APPROVAL OF MINUTES

Ms. Hammack moved and Mr. Hermans seconded

1. That the Board of Directors' minutes from November 15-16, 2019 be approved.

MOTION 1 PASSED (UNANIMOUS VOICE VOITE, CNV).

REVIEW OF ACTION ITEMS

Action item 2 was reported as ongoing. All other action items were reported as complete.

OPEN SESSION

The Board of Directors was addressed by:

- Richard Bowman expressed that the AHR Expo is a 'target rich environment' to grow ASHRAE membership.
- O Victor Goldschmidt thanked the BOD and previous BODs for approving a vision statement that can be remembered. He expressed concern over a number of MOUs the he does not understand the implications of. He asked the BOD to consider how current MOUs enhance the status of Society.
- Bassam Valsad, Chair of Sub-Region B, expressed his excitement about the role that ASHRAE is
 playing on a global scale. Specifically, ASHRAE's role in the Montreal Protocol and MOU with
 UNEnvironment. Mr. Valsad has been present at meetings and has seen the good work of
 ASHRAE in Europe. He requested a permanent presence at the Montreal Protocol, perhaps a

Presidential Member or staff member can help to ensure that ASHRAE has a continuous presence.

Mr. Boyce thanked everyone for their comments.

REPORT OF NOMINATING COMMITTEE

Mr. Olesen announced the slate of Officers and Directors for the 2020-21 Society year (ATTACHMENT A). He reported that there were very clear decisions from the Nominating Committee.

Mr. Boyce thanked Mr. Olesen and the Nominating Committee and congratulated those elevated for continued service to the Society.

ASHRAE HEADQUARTERS AD HOC COMMITTEE UPDATE

Ms. Scoggins reported on behalf of the ad hoc. Full report in ATTACHMENT B.

Ms. Scoggins reported that the new ASHRAE Headquarters is currently in construction with a substantial completion date of August 2020.

Interior demolition is complete, and the walls are currently being framed.

The project is currently in budget, there is a very hefty contingency that has not been needed up to this point. The ad hoc is expecting an even larger contingency because of a large donation of piping and is hoping to be able to pick up alternate items.

Ms. Scoggins thanked Mr. Brandt of his efforts in securing around \$110,000 in rebates from GA Power. The exact dollar amount will be reported soon.

Ms. Scoggins reiterated that the ad hoc is a fantastic team and is working really hard.

TREASURER'S REPORT

Mr. Schwedler reminded members that the BOD must be good stewards of the member's dollars.

Mr. Schwedler reported that consolidated net assets are moving in a positive direction.

Membership dollars are phased in over time. Mr. Schwedler quickly reviewed the membership grace period that was discovered by the Tiger Team. The Finance Committee currently does not have a recommendation to change the Bylaws at this time. The Tiger Team is continuing a deep dive into the Society's membership numbers.

Pub and Ed Council is investigating areas where revenue can be increased from a training and education standpoint.

Mr. Schwedler reviewed several areas where expenses have been reduced, including cutting back on app development and eliminating the BOD opportunity fund. Staff has also reached out to collect old receivables that were previously written off.

The Finance Committee expects the budget to break even by the end of the Society year.

The Committee does not have recommendations for reductions for future budgets at this time.

The work from the lean assessment that was approved for this Society year will be moved forward on a continual basis. The goal is to use member's dollars wisely, have a surplus budget and replenish the general reserve.

The Investment Subcommittee has started work on a form that will help the BOD make business decisions when considering future motions that have a financial impact. Items that do not immediately generate income, like benefits to members, will also be included on the form.

PLANNING COMMITTEE REPORT

Mr. McGinn moved and Mr. Cooper seconded:

2. That ROB Section 2.416.002 regarding Planning Committee composition be revised as follows:

2.416.002 MEMBERSHIP

2.416.002.1 Composition

(02-01-13-19/04-06-27-08/05-06-26-16/09-06-21-13/12-06-24-12)

The members of this committee are as follows:

- A. Between seven nine (97) and twelve (12) voting members, including a chair and vice chair
- B. In addition to chair and vice chair Other Vvoting members shall include
 - 1. one Vice President (who serves as coordinating officer)
 - 2.1. one Director-at-Large,
 - 3.2. one Director and Regional Chair,
 - 4.3. one member who is serving on the YEA Committee at the time of appointment, and
 - 5.4. twoone members in good standing who have not served on the Board of Directors,
 - 6-5. at leastup to five(5)two (2) to seven six (67) other members of the Society who are serving or have served as Board members
- C. Non-voting members include the Executive Vice President and one Staff Director.

2.416.002.2 Qualifications

- A. All voting members, except the member who represents YEA, must hold the grade of Member or higher in the Society.
- B. All councils should be represented on the voting membership of the committee.
- C. Representation from outside North America should be considered.

Mr. Phoenix reported that in the process of reviewing the ROB, Planning discovered that Planning is not in compliance and has not been in compliance for several years. The proposed motion will revise the rules to align with how the committee has been operating.

The Committee wanted to give future President-Elects flexibility on who was chosen to serve on the Planning Committee. The proposed changes reduce the number of voting members to between 9 and 12. The changes represent a cross section of members that are needed as the Planning Committee looks to the future.

MOTION 2 PASSED (22:8:0, CNV).

After much discussion, Mr. McQuade moved

3. That MOTION 2 be called to question.

MOTION 3 PASSED (27:3:0, CNV).

Mr. Phoenix continued the Planning Committee has reorganized some this year to accomplish the goal of ensuring the new Strategic Plan is installed properly. A number of subcommittees have been organized and the Committee is working with the Councils and committees to ensure that MBOs are in line with the new Strategic Plan.

EXECUTIVE COMMITTEE REPORT

Mr. Boyce reported two Associate Societies had been determined to be inactive and disassociation was approved by ExCom.

Presidential Members Sheila Hayter and Tim Wentz have been assigned as liaisons to the CIBSE initiative which is looking at the industry 20-30 years from now.

ExCom approved the purchase of insurance to provide protection for the Winter and Annual Conference. Further investigation will be done to better understand coverage for reduced attendance rates due to the coronavirus.

Mr. Boyce moved:

4. That the following revisions (noted in red) to the ASHRAE Code of Ethics Commitment statement be approved:

ASHRAE Code of Ethics and Core Values Commitment - In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity, inclusiveness and respect for others and we shall avoid all real or perceived conflicts of interests.

(Code of Ethics: https://www.ashrae.org/about/governance/code-of-ethics) (Core Values: https://www.ashrae.org/about/ashrae-s-core-values)

There was discussion of adding the terms diversity and inclusion to the statement.

Ms. Hammack moved and Mr. Hunt seconded:

5. That MOTION 4 be amended as follows:

ASHRAE Code of Ethics and Core Values Commitment - In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity, <u>diversity</u>, inclusiveness and respect for others and we shall avoid all real or perceived conflicts of interests.

(Code of Ethics: https://www.ashrae.org/about/governance/code-of-ethics)

(Core Values: https://www.ashrae.org/about/ashrae-s-core-values)

There was discussion that the word *inclusiveness* does not carry the weight that it needs to; stronger language should be used.

MOTION 5 FAILED (3:27:0, CNV).

Mr. Cooper moved and Ms. Hammack seconded:

6. That MOTION 4 be postponed until the Wednesday BOD meeting.

MOTION 6 PASSED (28:1:1, CNV).

Mr. Boyce moved:

7. That the following diversity commitment statement be approved:

ASHRAE is committed to providing a welcoming environment. Our culture is one of inclusiveness, acknowledging the inherent value and dignity of each individual. We proactively pursue and celebrate diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender, ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation and or education.

Editorial edit to the motion noted in red.

MOTION 7 PASSED (30:0:0, CNV).

Mr. Gulledge will work with Members Council to develop a plan to proactively pursue diversity and inclusion at all levels of the Society.

Mr. Boyce reported that a defunct organization was disassociated from AASA and a new organization was added.

ExCom will soon be reviewing a proposed new MOU from VISRAE (Vietnam Society of Refrigeration and Air-Conditioning Engineers) and if approved, will come before the BOD for review and approval.

PRESIDENTIAL AD HOCS

SOCIETY STREAMLINING AND LEAN ASSESSMENT

Ms. Bryant thanked the ad hoc members for the incredible amount of work that was done. The group has compiled and reviewed over 20 reports from previous ad hocs that have been assigned a similar charge. The group has also looked at case studies investigating what the effectiveness is of BOD size of organizations like ours.

The group has discovered that the average BOD size is about half the size of ASHRAE's BOD.

Next steps for the Ad Hoc are to investigate how the structure of the regions can be changed, the addition of a staff person to help with regional operations.

The Ad Hoc is not ready to make a formal recommendation at this time. A written report will be provided at the Wednesday BOD meeting.

BRUSSELS STAFF PRESENCE REVIEW AND FUTURE PLANNING

Mr. Macauley reported on behalf of the Ad Hoc. Full report in ATTACHMENT C.

AI - 2

Mr. Macauley reported that the Ad Hoc set three primary goals for the European office - membership support and engagement; government and regulatory affairs; and training.

The Ad Hoc's recommendation for staffing is to hire a senior level staff member and hire a secretariat.

The group also investigated potential revenue sources for the European office. Currently, there is no income associated with the office. However, there has been growth in initiatives that the office has supported; specifically, an increase in ALI registrations and significant growth in eLearning registrations.

Current staff has done great work in getting the national associations in Europe to see ASHRAE as collaborators. A primary way that this was accomplished was through training and education offerings. The creation of ASHRAE Sections has also been very successful in Region XIV.

Mr. Boyce directed the BOD to consider the value and cost of the Ad Hoc's recommendation and be prepared to vote on Wednesday.

CODE/STANDARD JURISDICTION SUPPORT SERVICES

Ms. Hammack reported that the Ad Hoc was charged with examining the increased number of requests that ASHRAE has received for assistance with code compliance and incorporation of ASHRAE Standards. Currently, ASHRAE is not staffed with professional engineers that can fulfill these requests.

The Ad Hoc concluded that there is an opportunity for ASHRAE to handle these requests and provide opportunities for ASHRAE members to provide these services. The group feels that there is a case to be made for additional staff to field and prepare requests and assist in preparing RFPs and work with members to funnel these requests. There is an opportunity for this to be a self-funding initiative.

Ms. Hammack moved and Mr. Hermans seconded:

8. That ASHRAE add one additional staff person (Coordinator) dedicated to spear heading the development of custom codes and related services in the next Society Year (20-21) as detailed in the attached business case (ATTACHMENT D).

The person hired should have some understanding of ASHRAE. It requires a unique skill set.

Mr. Littleton reported that this is already a revenue generator for ASHRAE with the Kuwait project, the Kuwait Foundation for the Advancement of Science. Additionally, staff has received requests from jurisdictions that have carbon reduction goals. It may be beneficial to consider this opportunity in the larger budget context that the BOD will have this spring.

This is a chance to help our members as well, by assisting with business development opportunities.

Ms. Hammack moved and Mr. Hermans seconded:

9. That MOTION 8 be postponed until the Wednesday BOD meeting.

MOTION 8 PASSED (30:0:0, CNV).

ACTIVITY UPDATES

UNEP ASHRAE ACTIVITIES UPDATE

Full report in ATTACHMENT E. Mr. Eltalouny reported that OzonAction assists companies in meeting requirements under the Montreal Protocol, with a focus on developing countries.

ASHRAE has been a partner for 13 years. During that time, there has been collaboration on 2 eLearning courses. Work has also been done through other partnerships.

MARKETING ACTIVITIES UPDATE

Full report in ATTACHMENT F. Ms. Gupta reported on the marketing activities of the Society.

Onsite branding for the 125th Society Anniversary was reviewed.

ASHRAE 365 was very well received at the Orlando Conference. Downloads have more than doubled in the past Society year.

This year's Society theme was featured in 22 influential media articles.

The meeting recessed at 5:18 pm.

Jeff H. Littleton, Secretary

ATTACHMENTS:

- A. Report of Nominating Committee
- B. ASHRAE Headquarters Ad Hoc Committee Update
- C. Brussels Staff Presence Review and Future Planning
- D. Code/Standard Jurisdiction Support Services Business Case
- E. ASHRAE-UNEP Presentation
- F. Marketing Activities Presentation



Report of Nominating Committee Sunday, February 2, 2020

SLATE OF OFFICERS AND DIRECTORS FOR 2020-21

PRESIDENT-ELECT:

Michael "Mick" Schwedler

TREASURER:

Farooq Mehboob

VICE PRESIDENTS:

Bill Dean Don Brandt Tim McGinn Bill McQuade

DIRECTORS AND REGIONAL CHAIRS:

Region VII - Chris Gray

Region VIII - Randy Schrecengost

Region IX - Tyler Glesne

Region X - Devin Abellon

Region XIV - Andres Sepulveda

DIRECTORS-AT-LARGE:

Ken Fulk Wade Conlan Adrienne Thomle Art Giesler (Alternate)

ASHRAE HEADQUARTERS UPDATE – JANUARY, 2020



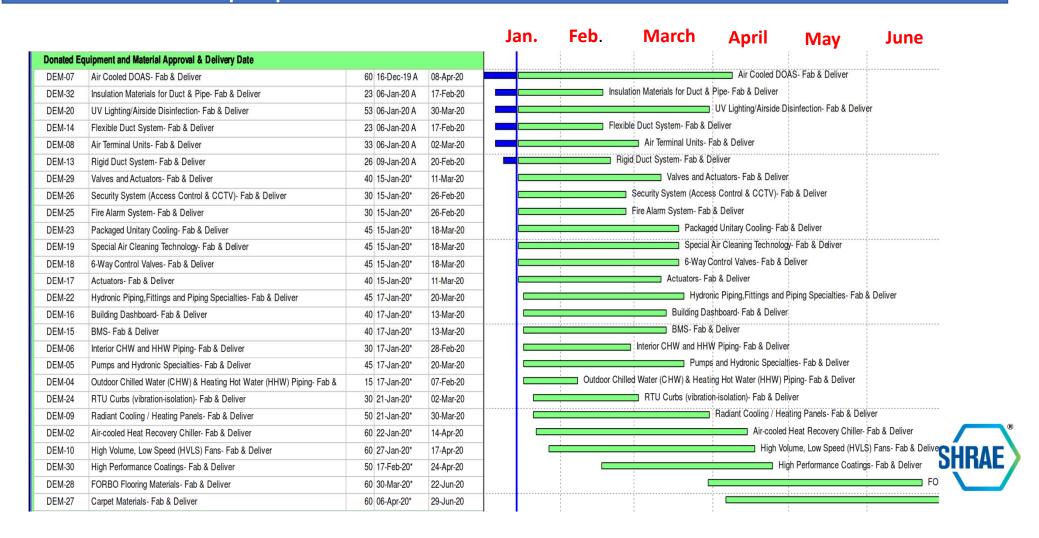


Project Status & Schedule

- •Sep. 25 and Oct. 23 design progress reviews with Ad Hoc Committee
- ◆Oct. 4 issue 95% Architectural/Structural for GMP pricing
- ✓ •Oct. 11 issue 95% MEP for GMP pricing
- ◆Oct. 12 submit to Gwinnett County for Fire/Safety/Health permit
- •TBD submit to Peachtree Corners for building permit (following Gwinnett Co. approval)
- ✓ •Nov. 4 Draft GMP due to Design Team for review
- ✓ •Nov. 7 GMP proposal due to Owner
- ✓ •Nov. 15 Board Meeting
- ✓ •Dec. 1 GMP contract amendment
- ✓ •Jan. 2, 2020 Mobilization
- ✓ •Jan. 3, 2020 100% reconciled CDs
 - •Aug. 28 Substantial Completion



Donated Equipment Coordination Schedule

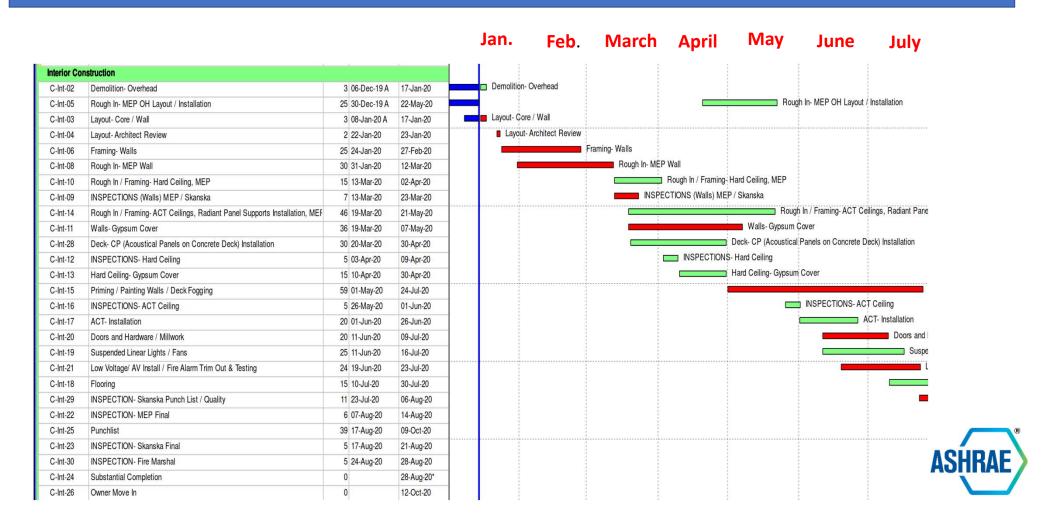


Exterior Construction Schedule

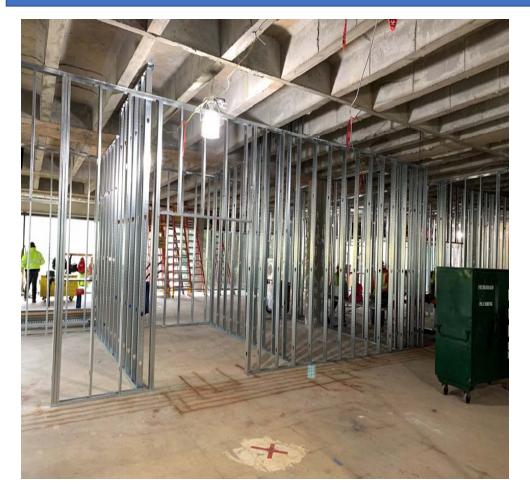
				Jan.	Feb.	March	April	May	June
Exterior Co	onstruction						•	_	
C-Ext-12	Roof- Rework / Temporary at the Existing	30 03-Feb-20*	13-Mar-20			Roof- Rewo	k / Temporary at the Ex	risting	
C-Ext-02	Glazing- Demo Exterior	20 03-Feb-20*	28-Feb-20			Glazing- Demo Exterior			
C-Ext-35	Waterproofing- Installation	5 10-Feb-20	14-Feb-20		■ Waterpro	ofing- Installation			
C-Ext-10	Skylights- Cut in / Install Curbs	15 10-Feb-20	28-Feb-20			Skylights- Cut in / Insta	ll Curbs		
C-Ext-03	Wall / Exterior Sheathing - Frame for New Glazing	20 10-Feb-20	06-Mar-20			Wall / Exterior Sh	eathing- Frame for Nev	v Glazing	
C-Ext-27	Glazing- Exterior Header Steel Supports	8 17-Feb-20	26-Feb-20			Glazing- Exterior Header	Steel Supports		
C-Ext-11	Skylights- Installation	5 28-Feb-20	05-Mar-20			Skylights- Installat	on		
C-Ext-13	Curb for RTU (DOAS)- Installation	5 02-Mar-20	06-Mar-20			Curb for RTU (DC	DAS)- Installation		
C-Ext-04	Glazing- Exterior Installation	30 02-Mar-20	10-Apr-20				Glazing- Exter	ior Installation	
C-Ext-08	Roofing- Installation	25 23-Mar-20*	24-Apr-20				Ro	ofing- Installation	
C-Ext-07	EIFS- Installation	40 23-Mar-20	15-May-20		· ·			EIFS- Insta	Illation
C-Ext-34	Steel Handrails- New and Reworked Installation	15 01-Apr-20	21-Apr-20				Steel	Handrails- New and Re	worked Installation
C-Ext-33	Concrete Deck- Pavers Installation	5 10-Jul-20	16-Jul-20						

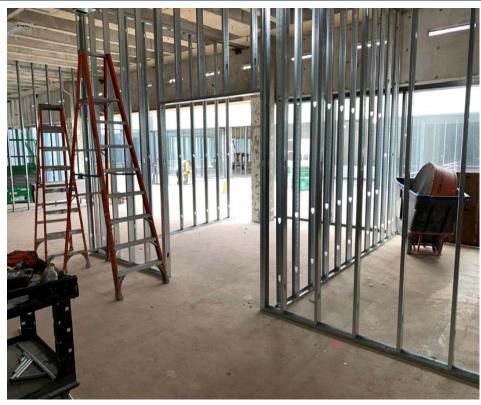


Interior Construction Schedule



PROGRESS PHOTOS





www.ashrae.org/newhq



Budget:

	Original Board Approved Budget	\$15,750,000		
	Additional Board Authorization (July 2019)	\$2,355,000		
	Additional Board Authorization (Nov. 2019)	\$1,895,000		
	Total	\$20,000,000		
e following	hard/soft costs are excluded from Current Project Budget	(may be added in	future if budget a	llows)
A	. Photovoltaic Panels	8		
В	. Civil Engineering	8		
C	. Landscape, Hardscape & Irrigation Design			
D	. Geotechnical Investigation			
E	Utility Consumption Charges (Construction phase, bldg. flush, commissioning, etc.)			
F	Room Scheduling System			
G	. Elevator Refurbishment			
Н	. Car Charging Stations			
1.	Weather Station / Lightning Protection Equipment			
J.	New generator and/or existing generator repairs			
K	Appliances/Kitchen Equipment			
L	Fitness/Wellness Equipment			

- We are currently on budget!
- Owner Contingency remains at \$429,721
- Alternates have not been approved yet.
- We expect contingency to increase due to piping donation.



Recent Budget Decisions:

ent)
ent)
ent (installed by Meridian) ent)
<mark>luct</mark> - Lenel, Milestone, My way ent)

Georgia Power Rebate:

Prescriptive:

Improvements	Rebate Total Amount
Partial Building Lighting - New Construction	\$4,920.00
Reflective Roof	\$1,400.00
Variable Speed Drive - HVAC Fans	\$2,000.00
Variable Speed Drive - HVAC Pumps	\$31,250.00
Daylight Sensor	\$1,000.00

Total Rebate: \$40,570.00

Custom:

Applied for but unknown at this time Estimated to be another \$70,000.00



Photo-voltaic System Status



RFP for 3rd Party Lease Agreement to be issued around March 15th.

Expected size of Array will be between 240-289 KW



Upcoming Items

Audio-Visual System to be Bid in coming weeks

Commissioning Kick-off Meeting – 2/19/20

CISCO 4th Utility Coordination Meeting – 2/19/20



Questions?





ASHRAE's New Global Headquarters Renovation Kickoff - January 10, 2020



Capital Campaign Status

Corporate Summary	
All cash and pledges	1 -000
1/14/20	\$5,866,000
In-kind gifts (List Price)	\$1,816,842
Total	\$7,682,842
Foundation Summary	
All cash and pledges	
1/14/20	\$300,000
Individual/Member	
Summary	
All cash and pledges	
1/14/20	\$160,279
Total	
All cash and pledges	
1/14/20	\$6,326,279
In-kind gifts (List Price)	\$1,816,842
Total	\$8,143,121



BOD Focus Group – Brussels Staff Presence Review and Future Planning Update

February 2, 2020 Orlando, FL

Group Members
Don Brandt
Dunstan Macauley
Bill McQuade



Europe Membership Support & Stakeholder Collaboration

Business Development: Schedule training & prospect for advertising

Marketing & Sales: Develop strategies & collaterals for market penetration

Identify partner opportunities with European Associations to become a relevant stakeholder in the regulation of the built environment.

Engage with the member state national associations in the spirt collaboration and shared purpose to ensure access potential members.



UNEP & Developing Country Engagement

Grants: Seek funding opportunities & negotiate contracts

Project Management: Oversee multi-faceted event, publishing & electronic product development

Expert Identification: Align ASHRAE experts with developing country need



Middle East Outreach through Global Training Center Dubai

Business Development: Refine business model, strategies & execution

Product Development: Apply knowledge of ASHRAE resources and

ASHRAE philosophy to match market demand

Marketing & Sales: Messaging & campaign development

HQ Coordination: Advocate operational change based on global practices

Current Function of the ASHRAE European Office

Highlights of ASHRAE's European Office

- Executing two Kigali Cooling Efficiency Program (K-CEP) work plans under grants from Climate Works Foundation
- Quadrupling the number of registrants served by Dubai Center in second year of operation
- Strategically establishing Dubai Center as a resource for RAL,
- Employing a different model (compared to RAL) for European training delivery based on chapter coordination and ASHRAE credentialing
- Including reference to ASHRAE Thermal Guidelines for Data Centers in EU Eco-design Regulations for Enterprise Servers
- Creating free member access (and UNEP network access) to eLearning courses and Refrigerant University course developed with UNEP
- Launching Sound Management of Refrigerants eLearning course and translation into Spanish and French of the Refrigerants Literacy eLearning course
- Securing funding and developing products and training related to district cooling in Middle East
- Developing 2019/2020 ASHRAE UNEP Work Plan, positioning ASHRAE on the world stage of atmospheric and climate change policy and connecting developing country policy makers with ASHRAE volunteers















- Support chapter growth in Region XIV by engaging with national associations (seen as partner association).
- Expand ASHRAE's influence and collaboration with European Commission, UNEP and other regulatory agencies in Europe.
- Interface with UNEP and KCEP in Paris for education opportunities.
- Engage with other EU associations that have similar interests and position ourselves as technology leader in the built environment.
- Sell training and education in Europe.
- Interface with other HVACR organizations related to cooperation and training.
- Strengthening of relationship with CIBSE and REHVA
- Provide a conduit to ASHRAE on regulations and laws (government affairs) that will impact the HVACR industry.
- Help to take ASHRAE products and make them more relevant in EU markets.

01

Membership Support and Engagement 02

Government and Regulatory

Affairs

03

Training

Primary Goals of an ASHRAE European Office

Membership Support and Engagement

Primary Goals

- Serving as a resource for ASHRAE members.
- Create member awareness of office and promote the services provided.
- Use the office as a resource for recruitment of new members.

Secondary Goals

- Developing marketing materials that is more European focused for use by the region and chapters.
- Create resources that membership can use to maximize their participation in ASHRAE.
- Create tools that emphasize how ASHRAE is a valuable asset within the European engineering and building technology community.
- Assist in recruiting highly qualified speakers for the chapters.

Tertiary Goals

 Conduct member outreach to foster the concept of members in Europe being part of a larger ASHRAE community that speaks to their regional needs.

Government and Regulatory Affairs

Primary Goals

- The first goal of the new ASHRAE Strategic plan is to position ASHRAE as an Essential Knowledge and Resource for the Built Environment.
- To be relevant in the regulatory and legislative process ASHRAE must have a voice with the EU Commission.

Secondary Goals

 High-level energy efficiency and goals are set at the EUlevel, but the practical implementation happens at the national level. ASHRAE must partner with EU Member national associations to have a voice become relevant to local chapter members.

Tertiary Goals

 Europe continues to be a progressive leader in the development of high-performance building regulations and performance requirements that are copied in North America and the rest of the world.

Training

Primary Goals

Engage with other associations in the HVAC&R industry

Secondary Goals

- Develop a training program for to keep members up to date on Fundamentals, Technology, Standards and Guidelines in EMEA
- Interface and collaboration with European Commission, UNEP, KCEP, and other regulatory agencies in EMEA.

Tertiary Goals

 Attract HVAC & R professionals to training and increase membership in EME Prepare for certification testing in the EMEA.

European Office Staffing Options

Option 1

Direct hire and/or relocation of an ASHRAE employee to staff the European Office

- Advantages
- Individual is fully dedicated to ASHRAE
- Individual is knowledgeable about the ASHRAE's culture
- Disadvantages
- The individual is the sole employee of the European office.
- Identifying an individual that can excel in the areas of the primary goals may be difficult to find.
- ASHRAE is responsible for all front office support required for managing an office in Europe.

Option 2

Utilize secretariat to represent ASHRAE's interest in Europe.

- Advantages
- The association will provide multiple individuals to assist with ASHRAE related functions.
- Will provide individuals who are subject matter experts to assist with the required tasks.
- Provide front office support for ASHRAE.
- Will assign a point person to be the face of ASHRAE.
- Disadvantages
- Association management point person may not be well versed in the ASHRAE culture.

Option 3

Utilize a secretariat with ASHRAE staff in Europe to represent ASHRAE's interest.

- Advantages
 - The association will provide multiple individuals to assist with ASHRAE related functions.
 - Will provide individuals who are subject matter experts to assist with the required tasks.
- Provide front office support for ASHRAE.
- Will assign a point person to be the face of ASHRAE.
- Individual is knowledgeable about the ASHRAE's culture
- Disadvantages
- Potential increased cost over Option 2

Recommended Option for ASHRAE Brussels

Utilize a secretariat with ASHRAE staff in Europe to represent ASHRAE's interest.

Advantages

The association will provide multiple individuals to assist with ASHRAE related functions.

Will provide individuals who are subject matter experts to assist with the required tasks.

Provide front office support for ASHRAE.

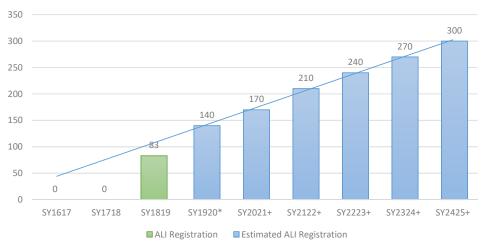
Will assign a point person to be the face of ASHRAE.

Individual is knowledgeable about the ASHRAE's culture

Disadvantages

Potential increased cost over Option 2.

ALI Registration





Option 3 Financial Analysis

Budget based on an average revenue growth rate of 6% per annum

	FY19	FY20	FY21	FY22	FY23	FY24
REVENUE						
Total Revenue	117	127	127	146	155	164
(Estimated for FY 20 - FY 24)	117	127	137	146	155	164
EXPENSES						
Total Expenses	252.1	215.6	180.0	186.5	193.3	200.4
(Estimated for FY 20 - FY 24)	252.1	215.0	180.0	100.5	195.5	200.4
SURPLUS (DEFICIT)	(134.7)	(88.8)	(43.5)	(40.1)	(38.2)	(36.4)

Budget based on an average revenue growth rate of 10% per annum

	FY19	FY20	FY21	FY22	FY23	FY24
REVENUE						
Total Revenue	117	134	149	166	183	202
(Estimated for FY 20 - FY 24)						
EXPENSES						
Total Expenses	252.1	215.6	180.0	186.5	193.3	200.4
(Estimated for FY 20 - FY 24)						
SURPLUS (DEFICIT)	(134.7)	(81.9)	(31.0)	(21.0)	(10.4)	1.2

Budget based on an average revenue growth rate of 15% per annum

	FY19	FY20	FY21	FY22	FY23	FY24
REVENUE						
Total Revenue (Estimated for FY 20 - FY 24)	117	139	163	190	220	255
EXPENSES						
Total Expenses (Estimated for FY 20 - FY 24)	252.1	215.6	180.0	186.5	193.3	200.4
SURPLUS (DEFICIT)	(134.7)	(76.6)	(17.4)	3.0	26.6	54.3

Questions



Report from Presidential Ad Hoc

Codes/Standards Jurisdiction Support Services

Members

Katherine Hammack, Chair

Rick Hermans
Apichit Lumlertpongpana
Jeff Clarke
Steve Marek
Staff
Stephanie Reiniche
Alice Yates

1. It is recommended that ASHRAE add one additional staff person (Coordinator) dedicated to spear heading the development of custom codes and related services in the next Society Year (20-21) as detailed in the Attached Business Case(Attachment A).

Background: The Ad-Hoc reviewed its charge, looked at examples of requests received to date, and examined what services were available in the marketplace. The information considered by the Ad-Hoc is included below for the Board's consideration. It was determined that there is a need to do a pilot program. The details are included in the business case. There is currently a new request at headquarters from KFAS that could potentially fund a staff person for one year, that may make the first year of the program cost neutral.

Fiscal Impact: \$50,000 salary plus \$14,000 anticipated benefits cost

Information Items:

Review of Ad-Hoc Charge.

Charge 1 - Determine if there is a need by jurisdictions (e.g., localities, states, governmental bodies)l what is the extent of services needed?

Examples of where jurisdictions requested code development services.

- Recently Lafayette, Colorado's code office reached out for assistance in development of a building code. This was part of a submission for grant to develop the code. This would have resulted in staff review to determine if what was developed would not conflict with ASHRAE Standard 90.1. Unfortunately, the code office was not awarded the grant. One issue is that smaller jurisdictions don't have the finances available to pay for code development.
- 2. Washington, DC asked ASHRAE to publish the DC Energy Code, which was 90.1-2016 including a number of amendments. DC would have paid ASHRAE to do this. However, due to resource constraints and ASHRAE's relationship with the ICC, ASHRAE instead reached out to ICC to request that ICC develop the custom code for DC. When ICC does this, ASHRAE still receives royalties on the ICC document sales, but if ASHRAE had the capacity to publish the code directly, ASHRAE would receive greater revenues.
- 3. The Conference of Mayors asked ASHRAE for a model ordinance that could be adopted by local governments for improving the energy efficiency of existing buildings. We shared Standard 100 with the Conference of Mayors, but they wanted more specificity and assistance. It is unclear whether this group would be willing to pay ASHRAE for this type of assistance.
- 4. The Smart Cities Council asked if ASHRAE had a "Smart Building Standard¹." Smart Cities Council would likely not pay for development of this code, but they suggested that many communities with whom they work have been interested in such a code.

Extent of Services Needed.

- 1. Create a group of ASHRAE members capable of providing services and training to jurisdictions, this will be billable work.
- 2. Initial consultation to identify code related potentials. Staff and member driven services.
- 3. Adapt 90.1 energy code to meet jurisdictional requirements, start with producing a code enforceable document that could be adjusted to meet several different energy saving potentials by say 2030. Contract service.
- 4. Create learning institute class to be included in the help.
- 5. Create learning institute class for carrying out the code
- 6. Create specific user manual
- 7. ASHRAE should provide full support to those jurisdictions that want to adopt 90.1, 90.2, 100, etc. as an energy 'code'.
- 8. ASHRAE should create a package of services and materials for those jurisdictions that have passed climate mandates and deadlines.
- 9. ASHRAE should develop and provide free of charge an ordinance frame to support the adoption of 90.1 as an energy 'code'.
- 10. ASHRAE should create a dedicated staff position that coordinates these services for jurisdictions.
- 11. ASHRAE should explore opportunities to *adapt* standards to meet the unique needs and goals of various jurisdictions.

¹ ASHRAE has a Smart Building Systems Technical Committee 7.5.

Charge Number 2 - Identify organizations that are already providing these types of services:

- The ICC currently offers code development resources. Their program can be found here: https://www.generalcode.com/.] ASHRAE's publication department and ICC do work together to develop custom codes. A prime example is with New York State (a custom IECC/90.1 code). This is done when 90.1 is involved. ASHRAE receives money for this.
- 2. **IAPMO** offers some code development resources. Their program can be found here: http://cqrcengage.com/iapmo/CDBG
- 3. **NASEO** (https://www.naseo.org/jobs) NASEO has a place where RFPs can be announced for the public to bid on developing assessments of current practices (energy storage) in a particular state and how it will affect the landscape. The current posting shows a request for an energy storage assessment in lowa.
- 4. APPA Services (https://www.appa.org/standards-codes-landing-page/) This what APPA provides: Engaging the education sector in standards and codes activities requires a consensus-based process that is impartial and brings together a diverse range of stakeholders and subject matter experts. The APPA Standards and Codes Council establishes Work Groups to develop APPA standards and to make recommendations and propose changes to codes and standards established and maintained by other standards development organizations.

The ASCC works on behalf of APPA's members to ensure the needs of educational institutions are heard on changes coming from the International Code Council (ICC), the National Fire Protection Association (NFPA), and ASHRAE. The council monitors the ISO TC 267 Work Group regarding the development of international standards for Facility Management.

We are engaging in activities with APPA.

- 5. **IFMA** There were no listings or information on their website related to codes/standards development services.
- 6. Alliance to Save Energy No services provided.
- 7. **BOMA** No services provided.
- 8. **ASME** No services provided
- 9. **NIBS** No services provided
- 10. American Iron and Steel No services provided.
- 11. American Wood Council No services provided.
- 12. American Society of Civil Engineers No services provided
- 13. **ACCA** No services provided.
- 14. **NAHB** They have code adoption kits https://www.nahb.org/nahb-priorities/construction-codes-and-standards/code-adoption.aspx
- 15. ASPE No services provided
- 16. International Institute of Refrigeration No services provided.
- 17. **IIAR** Has a government portal but it doesn't appear to provide code development services https://www.iiar.org/iiar/government and code/government portal/wcm/government agenc y/government portal.aspx?hkey=b6d6bcb2-8563-494d-9610-65bf14af8e5b
- 18. **SMACNA** No services provided.
- 19. **NBI** Doesn't have services but they do have some alternative type publications. https://newbuildings.org/hubs/codes-policy/#tools-guides
- 20. **NFPA** No services provided.

Individual Consulting Services - One ASHRAE member, Darren Meyers, offers code development services. https://www.ieccode.com/code-development/

Of note no one posts the costs for the services, if offered.

Charge Number 3 – Assess the potential for overlap and/or conflict with ASHRAE's current operations. That is, if ASHRAE were to offer such services to assist state and local governments in developing their building codes, how would it impact? A. Standards development, including but not limited to, overlap and conflict with the work of standards committees and B. Consulting services provided by our members?

The Ad-Hoc reviewed existing procedures used for the development of code change proposals by the Code Interaction Subcommittee (excerpts of the procedures are included for information) as it relates to code development. For general information code change proposals and positions on other organization code proposals are approved by the relevant SPC and then CIS. All proposals and positions must be technically equivalent to our standards. A similar approach with GAC is used in terms of the positions and proposals must be technically equivalent to our standards. Based on available data there didn't appear to be things that would conflict with consulting services provided by our members.

12.1 Code Development Procedures

This section establishes procedures for processing code change proposals by the Code Interaction Subcommittee (CIS). CIS provides a means for ASHRAE to represent the interests of ASHRAE members and to promote uniform adoption of ASHRAE SCDs by U.S. Model Building Codes and other codes. CIS will focus on national model codes and parts of codes that affect ASHRAE member interests, including, but not limited to the Mechanical Code, Building and Fire Code provisions related to fire and smoke control and Building Code provisions related to HVAC and Energy issues. All ASHRAE Code Interaction shall be processed by and through the CIS.

12.1.1 ASHRAE Prepared Code Proposals and Comments

CIS will submit code proposals and comments on code proposals which provide a single, simple and direct prescriptive method for minimum compliance with the data or practice contained in a Design, Method of Test or Classification Standard. When possible, the information contained in the Code proposal shall be identical to the SCD from which it is prepared. If CIS determines the information should not be identical, the information shall be technically equivalent to the information in the SCD and shall be in an easy to follow format.

Where practicable, CIS shall primarily rely on the cognizant committee to ensure the proposal is consistent with an ASHRAE SCD but may also decide to disapprove a proposal if it is not consistent with the related SCD. Code proposals require approval by the majority of CIS voting members and, when practicable, more than 50% of the designated SPC or SSPC, GPC or SGPC, or TC voting membership (hereafter referred to as the "cognizant committee") responsible for the preparation of the source SCD. The cognizant TC for a standard can be requested by CIS to be the cognizant committee when no SPC, SSPC, GPC, or SGPC is active. When working under a compressed timeline, requiring CIS to submit proposals and comments without formal approval of the cognizant committee, a timely report of this action must be made to the Standards Committee Chair and the Chair of the cognizant committee.

All official ASHRAE proposals and supporting comments that contain material from copyrighted ASHRAE material shall be submitted by ASHRAE Staff. Individuals who submit copyrighted ASHRAE material without obtaining permission shall be in violation of ASHRAE copyright policy.

CIS is responsible for ensuring appropriate attendance at code hearings to promote adoption of ASHRAE code change proposals through the code development process.

12.1.2 Code Proposals Not Submitted By ASHRAE

CIS shall also respond to code proposals submitted by others, when they affect or conflict with current or pending ASHRAE SCDs, the ASHRAE Handbooks or when directed by ASHRAE leadership. Where practicable, CIS will submit these code changes to the designated cognizant committee for their input on how to respond to each code change proposals. The recommended ASHRAE position on proposals will be one of the following:

- 1. Strongly Support The content is identical to the affected SCD and is significantly impactful (ASHRAE Staff encouraged to so comment)
- 2. Support The content is identical to the affected SCD and not significantly impactful or the content is technically equivalent to the affected SCD and is significantly impactful (ASHRAE Staff may so comment)
- 3. Oppose The content is not identical to the affected SCD and is not significantly impactful (ASHRAE Staff may so comment)
- 4. Strongly Oppose The content is not identical to the affected SCD and is significantly impactful (ASHRAE Staff encouraged to so comment)

Responses to code proposals not submitted by ASHRAE require approval by the majority of CIS voting members and, when practicable, more than 50% of the designated cognizant committee. When working under a compressed timeline, requiring CIS to submit responses without formal approval of the cognizant committee, a timely report of this action must be made to the Standards Committee Chair and the Chair of the cognizant committee.

12.1.3 Code Development Involvement Request

If any SPC, SSPC, GPC, SGPC, or TC wishes to become involved with ASHRAE code development, the chair of the committee may submit a request for involvement to the chair of CIS and the staff liaison which contains justification for such. If a standing committee is present, it shall be responsible for the development of all proposals and comments related to the Code Development, unless CIS determines it should assume those responsibilities.

Any cognizant committee whose subject of interest corresponds to provisions of building codes that may be the subject of CIS code proposals shall appoint a liaison to the Code Interaction Subcommittee or CISTG, subject to approval by the CIS Chair. The liaison is responsible for providing code proposals and comments to code proposals from the cognizant committee to CIS for consideration.

In addition, the Ad-Hoc considered an approach that would have a Codes Consultant Board perhaps similar to how the Appeals Board is set up. Below is an excerpt from PASA indicating how the Appeals Board is established. This could potentially serve as a model for establishing a Codes Consultant Board. If this is done some questions to consider should include:

- 1. Determine the expertise needed on the Board.
- 2. Determine how members will be added to the Board or if the model below will work.
- 3. Define a scope of work.
- 4. Determine a fee structure the covers the cost to the requester and monies paid to the volunteer or to offset staff cost.

B7 APPEALS BOARD

B7.1 An Appeals Board and a chair of the Board shall be appointed by the ASHRAE President, with the approval of the Board of Directors. The Appeals Board shall have 15 members. The Appeals Board shall consist of past members of the BOD, past members of the Standards Committee or Technology Council, and/or persons who are knowledgeable about the ANSI Standards development process.

B7.2 Terms of Membership

Terms shall be staggered so that approximately one-third of the membership of the Appeals Board is appointed each year. Members shall be appointed for a term of three years commencing on July 1, and shall be eligible for reappointment for one additional 3-year term, for a total of two consecutive terms. A member of the Appeals Board may serve beyond the normal two-term limitation if the member is serving as chair, provided the term of chair is contiguous with the six-year tenure as a member. The total maximum length of service under such circumstances would be nine years.

B7.3 Vacancies

A vacancy in the membership of the Appeals Board shall be filled for the remainder of the term by an individual appointed by the ASHRAE President.

B7.4 Conflict of interest

A member of the ASHRAE Appeals Board shall act at all times in a manner that promotes confidence in the integrity and impartiality of ASHRAE's processes and procedures and should avoid a conflict of interest or the appearance of a conflict of interest in connection with all ASHRAE Appeals activities. Should the Appeals Board Chair have a conflict of interest with any appeal he/she shall select another member of the Appeals Board to serve is his/her place with respect to consideration of that appeal.

If a materially affected party (either the appellant or the respondent) asserts that it believes a member of the ASHRAE Appeals Board has a conflict of interest, that materially affected party is required to state the reason(s) for its belief. That information shall then be forwarded to the member of the ASHRAE Appeals Board identified as having a possible conflict for that person's response. If that member disagrees with the assertion, then the Chair of the ASHRAE Appeals Board shall make a final determination as to whether a conflict of interest exists.

Members of the ASHRAE Appeals Board who are disqualified from a particular discussion shall not participate in the arguments, deliberations or decisions.

B7. 5 When appeals of jointly sponsored standards are being considered by ASHRAE as lead sponsor or by ANSI, the joint sponsor shall assist in preparing or responding to appeals in its field of expertise.

Charge Number 4 – If a need exists which is not currently met in the marketplace and which does not conflict with ASHRAE's current operations: Define a delivery method for provided these consulting services (business plan) potentially considering the following: a. Additional paid staff, B. Staff leveraging members (who are paid for their services, and C. Contracting with other service providers. Assess the potential for overlap and/or conflict with ASHRAE's current operations.

The Ad Hoc determined that a need does exist in the marketplace that wouldn't conflict with ASHRAE's current operations. A proposed business plan is included. One thing that the Ad Hoc also considered was past projects in particular the Kuwait 90.2 project.



Business Case for

Codes/Standards Jurisdiction Support Services

STATEMENT OF THE OPPORTUNITY

ASHRAE is often asked for assistance in development and review of state and local building codes including those from smaller communities that may only have one person who is responsible for all building codes. Requests are also received for training and education for code enforcement bodies. ASHRAE's primary focus is the promotion of and adoption of current standards and guidelines without modifications. In the alternative, we ask that portions be adopted that are technically equivalent. We do not currently have a mechanism in place to quickly and efficiently handle and assist with custom code development, custom code review requests or the related requests for training and education at a large scale. Most custom code developments have been coordinated with the ICC and relate to 90.1. However, we also have custom codes for Standards 62.2, 154, and 170 (into FGI Guidelines), as well as the Practical Guide to Seismic Restraint. There is also the potential for custom codes, with training opportunities, related to 15, 34, 55, 62.1, 90.1, 90.2, 90.4, 100, 154,188, 201, and 202.

Member Opportunities

This presents opportunities for ASHRAE members both as paid and volunteers for the following:

- 1. Providing advice related to ASHRAE standards.
- 2. Presenting (roadshow) to jurisdiction officials materials to describe ASHRAE's resources. Could be presented by local Chapter volunteers.
- 3. Contracting work for the development of custom codes.
- 4. Contracting work for updating and/or creation of new education and training materials in support of the custom codes.

Hiring Additional Staff

- Other similar organizations (ICC, IAPMO) have a much larger staff that are dedicated to developing custom codes, with accompanying products (education courses/additional documents) and have ongoing relationships at the local level.
- In order to coordinate and improve the reach and effectiveness of potential business for the development of custom codes, we propose hiring additional staff. The priorities of the staff

would be as shown below. As a pilot, we propose adding one additional staff person dedicated to spear heading development of custom codes and related services effective in the next Society Year (20-21), who would:

- 1. Create a package of services and materials for those jurisdictions that have passed climate mandates and deadlines.
 - a. All relevant ASHRAE standards that can support the mandate.
 - b. Other forms of technical guidance and tools (AEDGs, standards user's manuals, etc.)
 - c. Educational courses that are relevant to jurisdictional officials and to the buildings industry in that jurisdiction.
 - d. Identify local Chapter volunteers that can provide advice related to ASHRAE standards.
 - e. Presentation (roadshow) for jurisdiction officials designed to describe ASHRAE's resources. Could be presented by local Chapter volunteers.
- 2. Spearhead and develop the following:
 - a. A business model for contracting ASHRAE expert members to support this work is needed. Jurisdictional support services cannot rely solely on volunteers that are busy with day jobs.
 - b. A method to engage volunteers to support this work.
 - c. An understanding of jurisdictional funding opportunities is needed.
- 3. Identify and respond to requests for custom codes and related training opportunities.
- 4. Establish and maintain relationships with officials the local level to better understand possible back channels to get standards adopted.
- 5. Target jurisdictions likely to do energy modeling and point out the weaknesses of the performance path in the IECC and highlight the benefits of using 90.1 with Appendix G. ASHRAE should provide full support to those jurisdictions that want to adopt 90.1, 90.2, 100, etc. as an energy 'code'.
- 6. Target jurisdictions with other needs, such as water system safety (Standard 188, and eventually Standard 514), and those developing resilience ordinances and requirements.
- 7. Work with Publications to provide a standard/code document in the name of the jurisdiction.
- 8. Special distribution and sales agreements with the jurisdiction covering both the standard/code and user's manual (if available). Thought should be given to these business models.
 - a. Code officials education and training options should be developed and included.

Cost Analysis

1. Cost for new staff position at approximately \$45,000 to \$50,000 (if this is added as a coordinator position) plus cost of employee benefits. Added cost of benefits is between \$12,600 to \$14,000.

- 2. Potential of reallocation of existing staff time across the Society (Technology, Government Affairs, and Publications) department as part of coordination efforts and dependent on the proposed project. Net zero cost on paper.
- 3. Loss of Standards Sales would be case specific because it would be based on the standard, the region, the standard version (E.g., 2014, 2016, 2019), and the business model of the new document. For example, if the custom code was based on 90.1 there could be loss of sales could be \$0 in a state like Alaska but it could be as high as \$50,000 in the state of New York.
- 4. Potential for an increase in income in either or both standards sales and custom code sales. Based on past agreements with ICC this could be income generators of potentially \$15,000 to \$20,000 per custom code or higher since there would be no middle man.
- 5. Potential for an increase in sales of educational courses or training. If we did 3 training courses a year with a good turnout that could potentially net \$60,000 to \$75,000.
- 6. Potential to affect our custom code activities with the ICC when a jurisdiction asks to customize the IECC and 90.1. This may also affect future royalty agreements with ICC. (We generally earn between \$5,000 to \$14,000 plus some residuals for each custom code with the ICC). Note: We have asked what ICC charges but at this time are unwilling to share. The royalties we've received from ICC during the last 8 years have averaged \$50k to \$65K, with outlier years of \$148K (2012) and \$219K (2018).
- 7. If we wanted to develop a database similar to what ICC has done for Washington State then there would be an initial up front cost for that. It's possible we could add on to an existing piece of software like in the Technology Portal. Would estimate a minimum of \$100,000 up front cost.
- 8. This would allow for us to develop more custom international codes. The latest project with KFAS netted \$44,000 to ASHRAE.

RETURN TO REPORT



Since 2007, ASHRAE has engaged with UN Environment OzonAction in a partnership leading to tools and products that fit within programs of Article-5 countries of the Montreal Protocol.

In 2019, ASHRAE and UNEP signed a new MOU.



ASHRAE-UN Environment Work Plan 2019 and 2020

Refrigerant Management for Developing Economies

A biennium workplan is always developed to strategies the service lines that both entities offer based on needs and emerging issues

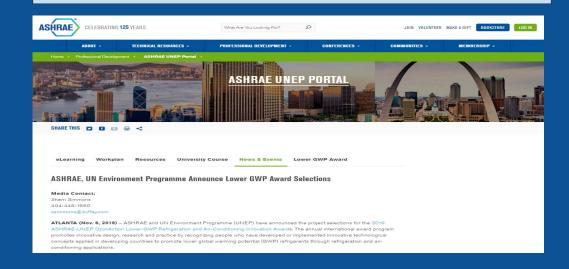
The ASHRAE-UNEP Portal

www.ashrae.org/ashrae-UN Environment-portal

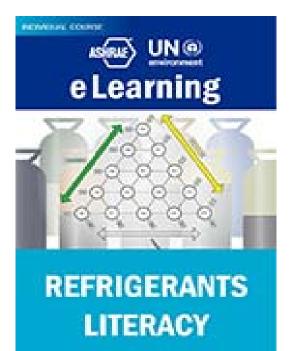
Launched September 2019

Users can access free content such as:

- eLearning courses
- University course
- Lower GWP Awards
- The current ASHRAE and UN Environment OzonAction Workplan
- News and Events
- Other ASHRAE and UN Environment resources



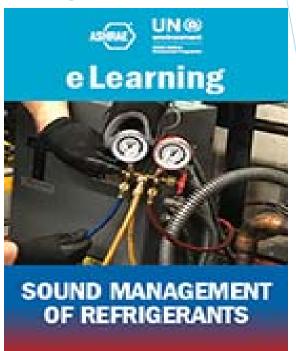
Refrigerants Literacy



The course is offered in:

- ✓ English (released April 2017)
- ✓ Spanish (released February 2019)
- ✓ French (released November 2019)

Sound Management of Refrigerants

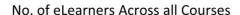


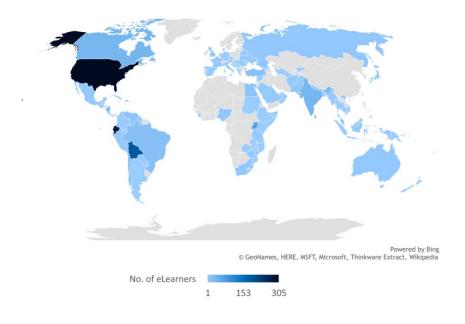
The course is offered in:

✓ English (released April 2017)

Other languages under consideration

All eLearning Courses Combined



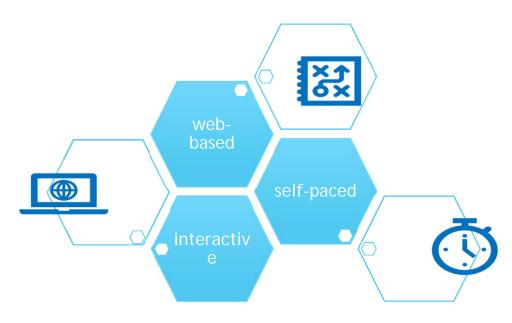


- 1,598 registered eLearners across all courses so far
- eLearners registered in 109 countries

Countries with at Least 1 Registered eLearner Across all Courses



UN Environment Tring Courses



Moving to Face-to-Face

Experience from Uganda



University Course



Country	No. universities
Bolivia	1
Brazil	4
Canada	6
Egypt	2
Honduras	1
India	8
Indonesia	1
Lebanon	1
Malaysia	1
Nigeria	1
Pakistan	3
Peru	1
Philippines	4
Republic of Singapore	2
Serbia	1
Trinidad And Tobago	1
Turkey	1
UAE	2
USA	17
Venezuela	1
Total	59



- 59 universities have downloaded the course material for teaching purposes
- The course has been downloaded in 20 countries

2019 ASHRAE - UN ENVIRONMENT

LOWER GWP
REFRIGERATION AND
AIR-CONDITIONING
INNOVATION AWARD



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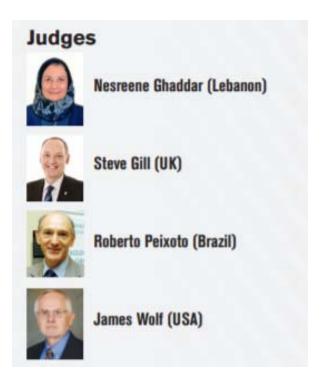


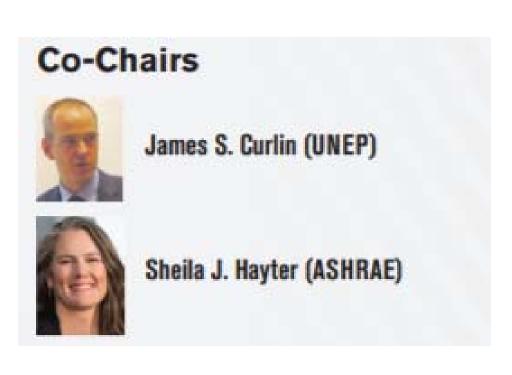
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lqqrydwlyh#whfkqrorjlfdd#frqfhsw



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PANEL OF JUDGES:





Residential Applications Category

- HFC-161 Application Technology Development for Replacing HCFC-22 in High Cooling Capacity Household Air Conditioners in China
- 2. Low Charge Ammonia Vapor Compression Refrigeration System for Residential Air-Conditioning in India

Commercial/Industrial Applications Category

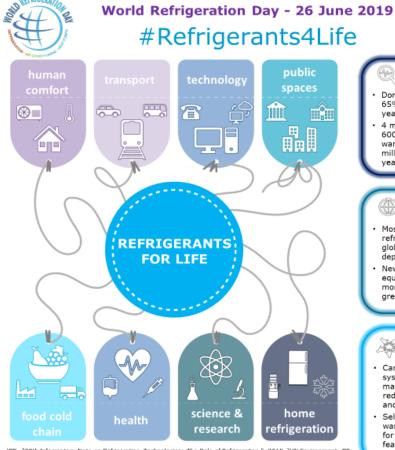
- 1. The Crocodile Project CO2 Trans-critical Refrigeration System for a Hot-and-Humid Region implemented in Thailand
- 2. Packaged Chillers with Integrated Air Handling Units Using HFC-32 and HC-290 in Saudi Arabia
- 3. Low Charge Propane Chiller for a Supermarket Commercial Refrigeration System implemented in Brazil

2019 SELECTED ENTRIES: RESIDENTIAL APPLICATIONS



WORLD REFRIGERATION DAY

26 JUNE EVERY YEAR



LIR, "29th Informatory Note on Refrigeration Technologies: The Role of Refrigeration," 2015. 2UN Environment, IIR, "Cold Chain Technology Brief: Commercial, Professional, and Domestic Refrigeration" 2018, "UN Environment, "Refrigeration, Air-Conditioning, and Heat Pumps Technical Options Committee; 2018 Assessment Report," 2018.







Context

- Domestic refrigerators use 65% less energy than 15 years ago1.
- 4 million refrigerated trucks & 600 million m³ of refrigerated warehouses help preserve 400 . 5.6 billion air-conditioners in million tonnes of food each
- · 2+ billion domestic refrigerators & freezers (with 170 million produced annually) consuming 4% of global energy3.
 - use by 2050, tripling the sector's energy demand3.

Environmental Issues and Safety

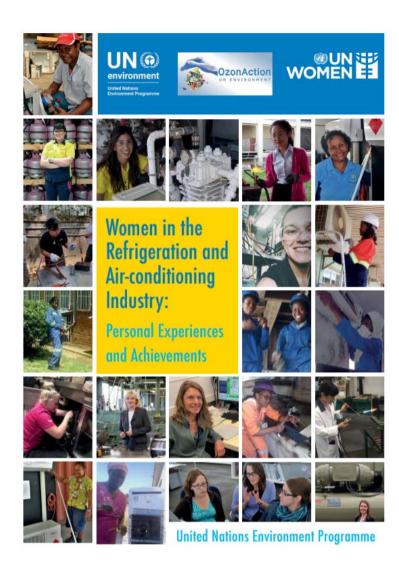
- Most commercially available refrigerants contribute to global warming and/or ozone depletion if released.
- Newer energy efficient equipment can save owners money and reduce greenhouse gas emissions.
- Alternative refrigerants are available but some have flammability, high-pressure or toxicity that require proper management.
- Efficient operation and management of cold chain applications curbs food loss and enhances food security.



What Action is Needed

- Careful refrigerant selection, system design, and management of operation can reduce refrigerant emissions and save energy costs.
- Selecting lower global warming potential refrigerants for new systems, where feasible, and promote relevant
- Promoting recovery, reuse, reclamation of refrigerants and prohibiting release into the atmosphere.
- · Using certified companies and individuals to ensure good practice and servicing, and safe use of flammable refrigerants.

WOMEN IN RAC



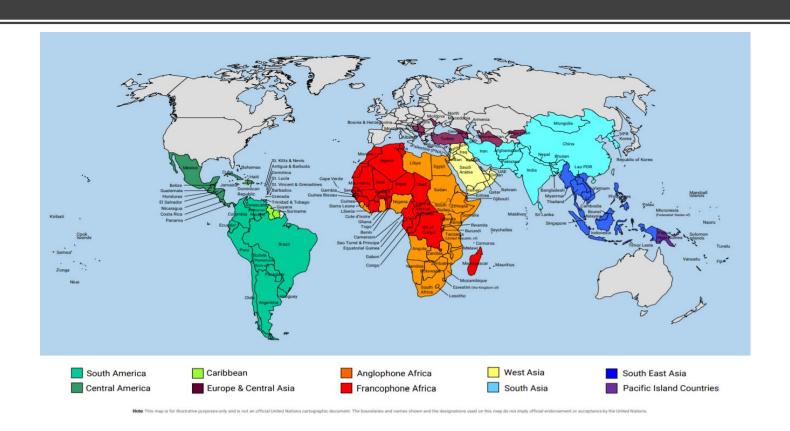
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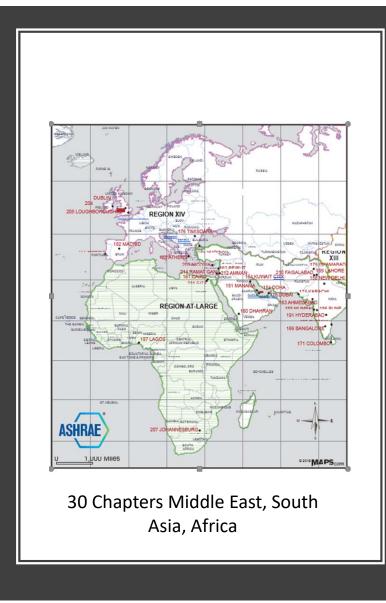
Best practices related to operation and management of RAC systems/plants with checklists and assessments:

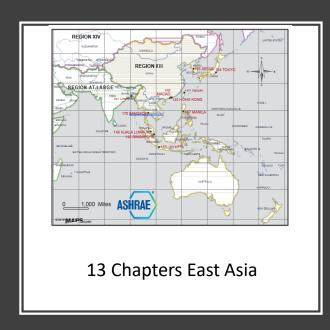
- 1. Safe storage and proper handling of refrigerants
- 2. Periodic leak checking and proper documentation
- 3. Checklist for maintaining equipment to extend life and maintain energy efficiency
- 4. Fault detection and preventative maintenance
- 5. Proper commissioning and recommissioning practices to optimize system performance
- 6. Minimum required servicing equipment and tools
- 7. Proper disposal of equipment and reclamation of refrigerant at end of product life.
- 8. Competencies of personnel/companies responsible of operating and/or maintaining the refrigeration and air-conditioning plants

MOVING FORWARD

Members of the Regional Networks of Ozone Officers









ASHRAE Chapters in Developing Countries

MOVING FORWARD

For current workplan

- 1. Ensure successful completion of planned activities
- 2. Efficient promotion and outreach all tools and products
- 3. Collect feedback and evaluate usefulness and need

For the future engagement

- 1. Strategically review the joint cooperation in view of achievements and emerging business
- 2. Incorporate gender mainstreaming in 2021-2022 workplan
- 3. ASHRAE role in supporting local HAVAC&R associations in developing countries
- 4. Further engagements of ASHRAE members with their communities

WKDQN#\RX

CONTACT INFORMATION

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ASHRAE Marketing Update

Winter 2020

Vanita Gupta

Director of Marketing

Membership Marketing



Member Recruitment

Join Us!

Member Recruitment Campaign

Oct. 1 - Nov. 30

Join Us! encouraged members and non-members to participate by offering two prizes:

- Non-members are entered to win by joining ASHRAE
- Current members are entered to win by using the Connect-a-Colleague tool

Two winners received complimentary registration and hotel stay to attend the 2020 Winter Conference and AHR Expo!

New members: 97

Net Revenue = \$16,669



Connect-a-Colleague

March 1, 2016 – January 1, 2020

Connections: 3,414

New Members: 446

Revenue: \$92,397

Member Onboarding & Retention

New member communications focus on welcoming and informing members of benefits:

- Welcome series with 4 corresponding emails and postcards sent during the first 8 months of membership
- New member packets with comprehensive
 16-page Membership Guide
- A phone call welcome 3 months after joining
- Check-in survey at 6 months



ashrae.org/myashrae = **16,501** unique visitors in 2019

Member Appreciation Month



Each April we celebrate ASHRAE members! Activities spread throughout the month are planned to show appreciation and thanks for member support.

Member Appreciation Month Overview



Member Crush Monday videos featured weekly



Friday Swag Day randomly selected winner (from social likes, shares, posts) will get ASHRAE swag every Friday



Website Scavenger Hunt one lucky winner will get a free registration to the 2020 Annual Conference in Austin, TX!

Conference & Topical Conference Marketing Support



2020 Winter Conference Branding









2020 Winter Conference Marketing

- **13** Social Media Posts
- **9** Targeted Emails
- **5** Facebook Ads
- 4 App Push Notifications
- **3** LinkedIn Ads
- **2** Press Releases
- 1 YouTube Video Ad
- 1 ASHRAE Journal Ad
- **1** Digital Journal Insert



Video Ad on YouTube 160k Impressions | 16,861 Views



Celebrating 125th – Video Shorts

Created Plenary Opening Video Celebrating 125 Years



ashrae.org/orlando: 79,493 visitors

#1 landing page on ashrae.org

+ 732 Justification Toolkit downloads

Topical Conferences Marketing Support

Marketing Efforts Include:

- ✓ Email Promotion
- ✓ Press Releases
- ✓ Social Media Posts
- ✓ Landing Page Creation
- ✓ App Exposure
- ✓ Web Promotion



2020 Building Performance
Analysis Conference & SimBuild
Co-organized by ASHRAE & IBPSA-USA
August 12-14, 2020 | Chicago, IL



IAQ 2020: Indoor Environmental Quality
Performance Approaches
September 14-16, 2020 | Athens, Greece
Co-organized by ASHRAE & AVIC



The Fourth International Conference on Efficient
Building Design
October 1-2, 2020 | Beirut, Lebanon
Co-organized by ASHRAE, Munib & Angela Masri
Institute of Energy and Natural Resources &
American University

Publication & Education Marketing Support



ASHRAE Certified



NEW Certified

Digital Badging

Show your ASHRAE

Certified credentials:

- ✓ LinkedIn Page
- ✓ Resume
- ✓ Website
- ✓ Email Signature











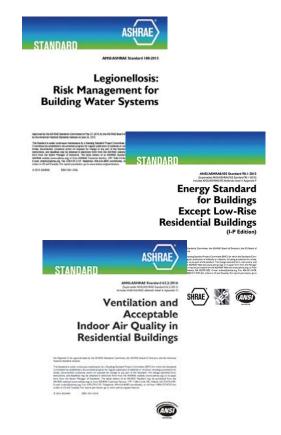




NEW brochure available for download

ashrae.org/certification

Bookstore Promotion *TechStreet*



22

Total number of promotional emails in CY 2019

\$1,510,534

Online Bookstore Revenue in CY 2019*

4.2%
Conversion Rate in CY 2019

Top Sellers

*Code Cycle release year of high profile standards

- 1. ASHRAE 90.1-2016 (I-P), Energy Standard for Buildings Except Low-Rise Residential Buildings
- 2. ASHRAE 62.1-2016, Ventilation and Acceptable Indoor Air Quality
- 3. ASHRAE 170-2017, Ventilation of Health Care Facilities
- **4. ASHRAE 188-2018,** Legionellosis: Risk Management for Building Water Systems
- **5. Guideline 36-2018,** High Performance Sequences of Operation of HVAC Systems

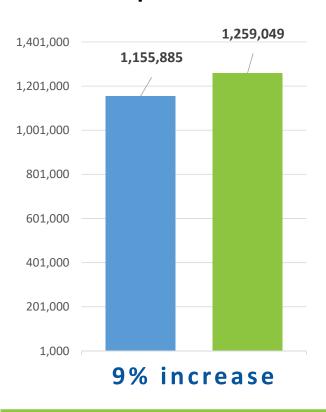
Marketing Technology



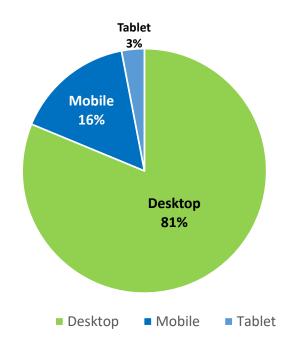
ASHRAE Website

ashrae.org

Unique Users



Sessions by Device Type



Top Searches

2019

- 1. Indoor Pool
- 2.90.1
- 3. 62.1

2018

- 1. 90.1
- 2. 62.1
- 3. Handbook

Marketing Central

ashrae.org/marketing

Created for YOU - The Busy Volunteer

Resources organized by file type:

PowerPoint Presentations

- Videos
- PDFs
- Images
- Templates
- Toolkits
- Websites & Forms
- News & Events
- Tradeshow Resources



How to find Marketing Central:



ASHRAE 365 App

Almost 16,000 downloads of the ASHRAE 365 app since launching in May 2018



Download at ashrae.org/365 or search for ASHRAE 365 on the App Store or Google Play

TOTAL ANNUAL DOWNLOADS



TOP GEOGRAPHICAL DOWNLOAD REGIONS



- 1. North America
- 2. Asia
- 3. Middle East

Tech Hour

*replaces Annual Webcast

November 2019, new technical content was featured on the app with **ASHRAE Tech Hour**. These videos are one-hour and conveniently available through the **ASHRAE 365 App**.



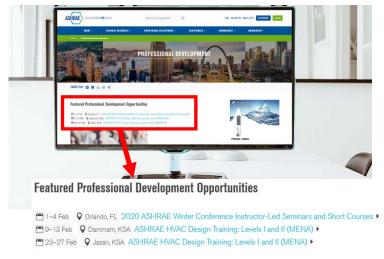
Access Tech Hour in ASHRAE 365

- PDH eligible within the first 30 days
- New quarterly content
- Tech Hour #1: Optimize Occupant Health, Building Energy Performance and Revenue through Indoor-Air Hydration (available on YouTube)
- Tech Hour #2: coming February 25
 Where Have All the Ethics Gone?

ashrae.org/techhour

Dynamic Regional Targeted Content

Targeted regions include Region-at-Large, Region IV, Region VIII, and Region XII



Professional Development Page – Region-at-Large View

Unique Pageviews – Most Visited IP Targeted Pages

Page	RAL	Region IV	Region VIII	Region XII
Homepage	73,652	31,492	31,426	36,981
Conferences	2,237	1,839	1,206	1,021
CRCs	1,605	470	474	432
Regions	1,908	628	649	840
Prof. Development	2,066	900	869	908

Social Media / Video / PR



Social Media

Facebook, LinkedIn, Twitter

Facebook Followers 2019



Twitter Followers 2019



LinkedIn Followers 2019



68,551 total followers 3%

Monthly Likes: 5,938

• Monthly Clicks: 546

Monthly Impressions: 236,014

18,300 total followers 7%

Monthly Likes: 170Monthly Clicks: 122

Monthly Impressions: 70,264

78,191 total followers 63% 1

Monthly Likes: 2,052Monthly Clicks: 5,040

Monthly Impressions: 248,489

ASHRAE Video

youtube.com/ASHRAEvideo

Top Ten 2019	Views
2020 ASHRAE Winter Conference and AHR Expo	15877 (23.8%)
Using ASHRAE's Psychrometric Chart App	7846 (11.7%)
ASHRAE HVAC Psychrometric Chart App	5400 (8.1%)
ASHRAE HVAC Design Training	3565 (5.3%)
The Future of Refrigerants: 2018 ASHRAE Webcast	1940 (2.9%)
The Value of ASHRAE Certification: CHD	1677 (2.5%)
Achieving Net-Zero Energy Buildings - ASHRAE	1525 (2.3%)
What ASHRAE Membership Grade is Right for You?	1358 (2%)
Legionnaire's Disease: Making Building Water Systems Safer through Regulation	1305 (2%)
Tech Hour: Occupant Health, Building Energy Performance and Humidity	1288 (1.9%)

29 videos were published to ASHRAEvideo, ASHRAE's YouTube channel in 2019.

Views:

66,793 (272,803 LTD)

Hours watched:

2,724 (9,641 LTD)

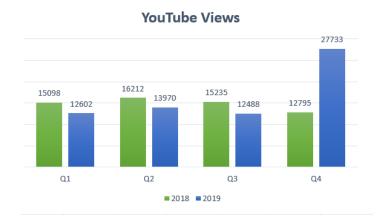
Subscribers:

3,740 (+827 over CY 2018)



YouTube

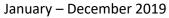
Public Relations

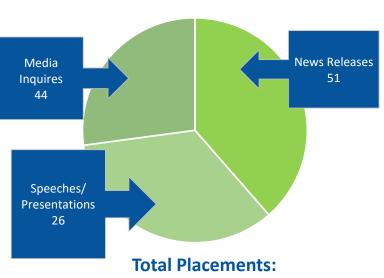


YouTube Watch Time (in hours)



PR Activities





The number of times
ASHRAE is mentioned in
magazines and newspapers
(both print and electronic)

21,534

Media Engagement

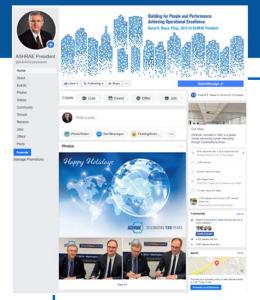
President Darryl K. Boyce

2019-20 Society Theme

Building for People and Performance.
Achieving Operational Excellence.

Featured in 22 influential industry media articles





ASHRAE President Facebook Page @ASHRAEpresident

Highlights:

- 21 Posts
- 1,972 Facebook Followers
- 3,958 Engagements
- 195 Link Clicks

Other Marketing



ASHRAE New HQ

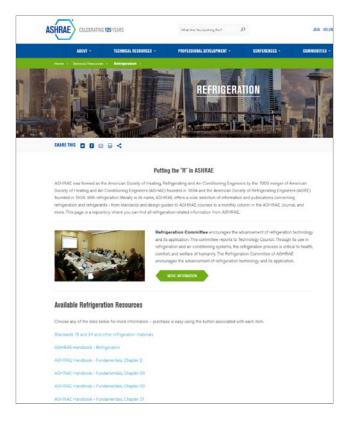
New Global Headquarters Highlights



ashrae.org/newhq

- Renovation Kickoff January 10, 2019
 - Press Release
 - Social Media
 - Updates to ashare.org/newhq
 - How to donate / donor logos
 - FAQ's
 - Photos
- 5,163 pageviews from 52 countries since inception, with another 3,300 to the separate FAQ page

Putting the "R" in ASHRAE



Refrigeration Page Highlights

- Launched May 2019
- Highlights the Society's commitment to supporting the role of refrigeration worldwide.
- Includes publications concerning refrigeration and refrigerants such as standards, design guides, ASHRAE courses and more.
- **8,626** pageviews from **81** countries since inception
- Average time on page of 2 minutes and 20 seconds
- ASHRAE's top post on Facebook in 2019 with over 25,000 reactions

ashrae.org/refrigeration

Job Board Marketing

Social Media posts to promote the ASHRAE Job Board and encourage followers to utilize free resources available for improving their resume, passing an interview and more.

2019 Promotions

Metrics

April 30 July 30

December 30

Total Engagements: 211

Total Impressions: 31,103

Total Reach: 7,492

- Approximately \$90,000 in annual sales
- 1 million job listings viewed
- More than 125,000 job listings clicked



ashrae.org/jobs

Celebrating 125 Years

- New logo and PPT options created and available for download at ashrae.org/marketing
- New Commemorative Merchandise available in the Logo Store
- Branding efforts Include:
 - Header logo ashrae.org
 - Inclusion in staff outgoing email signature
 - Placement in ASHRAE 365 App menu
 - Inclusion in Chapter Notes newsletter
 - Placement in all outgoing marketing communications
 - Created new PPT and Word Templates
- Plenary video featuring member interviews
- Discount in ASHRAE's online Bookstore Use THANKYOU125 for 12.5% discount through February
- Webpage launched January 2020



Tradeshows in 2020

What?	Where?	When?	
AHR Expo	Orlando, FL, USA	February 3-5	
RESNET	Scottsdale, AZ, USA	February 24-26	
ACREX 2020	New Delhi, India	February 27-29	
NCSL Legislative Summit	Indianapolis, IN	August 10-13	
AHR Mexico	Monterrey, Mexico	September 22-24	
Greenbuild	San Diego, CA, USA	November 3-6	





Come visit us at Booth #3201

Receive a limited edition 125th anniversary lapel pin and spin the prize wheel for more logo merchandise and coupons



Employer Support: Reach

The ASHRAE Reach program is designed to aid in the discussion between ASHRAE representatives and employers who are not aware of the benefits of ASHRAE involvement.





What resources are available online?

- Request folders
- Elevator speech
- Talking points
- Follow up email

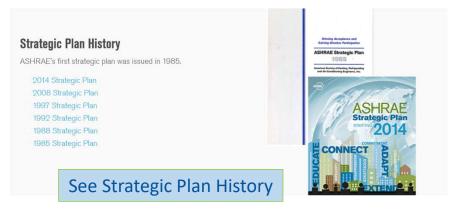
ashrae.org/reach

Strategic Plan New Mission & Vision





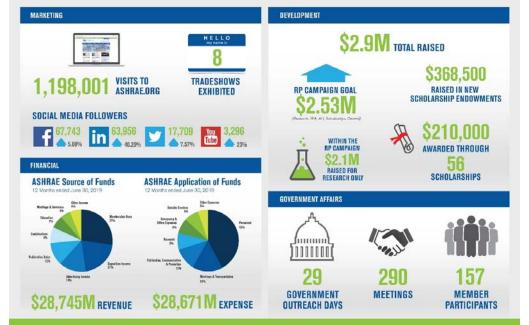




ashrae.org/strategicplan

Society Snapshot Finalized November 2019





ashrae.org/societysnapshot

Thank You!

Questions?

