## Voting Members

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<tr>
<th>Name</th>
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<tr>
<td>Julia Keen</td>
<td>Chair</td>
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<td>Farooq Mehboob</td>
<td>Vice Chair</td>
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<tr>
<td>Billy Austin</td>
<td>Member/Director</td>
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<tr>
<td>Katherine Hammack</td>
<td>Member/Director</td>
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<td>Ahmed Alaa Eldin</td>
<td>Member/Director</td>
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<tr>
<td>Chandra Sekhar</td>
<td>Member/Director</td>
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<tr>
<td>Benjamin Skelton</td>
<td>Member/Director</td>
</tr>
<tr>
<td>Cameron Labunski</td>
<td>Member/Past Certification</td>
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<tr>
<td>Heather Platt</td>
<td>Member/Past ECC</td>
</tr>
<tr>
<td>Daniel Dettmers</td>
<td>Member/Past Handbook</td>
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<tr>
<td>Larry Fisher</td>
<td>Member/PDC</td>
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<tr>
<td>Jin Jin Huang</td>
<td>Member/Past Publications (absent)</td>
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<tr>
<td>William Dean</td>
<td>Member at Large</td>
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<tr>
<td>Mohammad Hosni</td>
<td>Member at Large</td>
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## Visitors

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<tr>
<td>Cindy Michaels</td>
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<td>Eunice Njeru</td>
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<td>David Soltis</td>
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<td>Tim Kline</td>
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<td>Joslyn Ratcliff</td>
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<td>Heather Kennedy</td>
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<td>Emily Sigman</td>
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<td>Karen Murray</td>
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<td>Emily Sigman</td>
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<td>Steve Comstock</td>
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<td>Joyce Abrams</td>
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<td>Jay Scott</td>
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<td>Sarah Foster</td>
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<td>Larry Markel</td>
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<td>Jim Leverette</td>
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<td>Priyang Garg</td>
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<td>Heather Schopplein</td>
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<td>Ginger Scoggins</td>
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<td>Kelley Cramm</td>
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<td>Natalie MacDonald</td>
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<td>Reinhard Radermacher</td>
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<td>Michael Patton</td>
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<td>Jon Symko</td>
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<td>Dan Brandt</td>
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<td>Keith Reihl</td>
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<td>Bert Phillips</td>
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<td>Stan Listoff</td>
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<td>Don Bennet</td>
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## Non-Voting Members

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Eric Fullerton</td>
<td>Certification Chair</td>
</tr>
<tr>
<td>Mark Bettin</td>
<td>Certification Vice Chair</td>
</tr>
<tr>
<td>Megan Tosh</td>
<td>ECC Chair</td>
</tr>
<tr>
<td>Gerardo Alfonso</td>
<td>ECC Vice Chair</td>
</tr>
<tr>
<td>Donald Fenton</td>
<td>HB Chair</td>
</tr>
<tr>
<td>Suzanne Leviseur</td>
<td>HB Vice Chair</td>
</tr>
<tr>
<td>Bruce Flaniken</td>
<td>Historical Chair</td>
</tr>
<tr>
<td>Stanley Westhoff</td>
<td>Historical Vice Chair</td>
</tr>
<tr>
<td>Charles Henck</td>
<td>PDC Chair</td>
</tr>
<tr>
<td>Frederick Betz</td>
<td>PDC Vice Chair/Planning (absent)</td>
</tr>
<tr>
<td>Jeremy Smith</td>
<td>PDC Vice Chair/Operations (absent)</td>
</tr>
<tr>
<td>Jose Luis Correa</td>
<td>Publications Chair</td>
</tr>
<tr>
<td>Chee Sheng Ow</td>
<td>Publications Vice Chair</td>
</tr>
<tr>
<td>Mark Owen</td>
<td>Staff Liaison</td>
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</tbody>
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## Additional Distribution:
Jeff Littleton, Executive Vice President, Candace DeVaughn, ASHRAE Staff Directors, Publications & Education Managers
# Table of Contents

1. Call to Order .................................................................................................................. 5
2. ASHRAE Code of Ethics Commitment ........................................................................... 5
3. Introduction of Members and Visitors ........................................................................... 5
4. Review of Agenda .......................................................................................................... 5
5. Minutes - Meeting of June 26, 2018 Houston ................................................................ 5
6. Review of Approved Motions .......................................................................................... 5
7. Review of Action Items ................................................................................................... 5
8. Items Referred by PEC to Other Groups ....................................................................... 7
9. Items Referred from Other Groups to PEC ................................................................. 8
10. Subcommittee Reports
   10.1 eLearning .................................................................................................................. 9
   10.2 Journal Advertising Sales .......................................................................................... 9
   10.3 Fiscal Planning ......................................................................................................... 10
   10.4 Functional Planning .................................................................................................. 12
   10.5 Research Journal .................................................................................................... 13
11. Committee Reports
   11.1 Certification ............................................................................................................ 14
   11.2 Electronic Communications ...................................................................................... 14
   11.3 Handbook ............................................................................................................... 15
   11.4 Historical ................................................................................................................ 15
   11.5 Professional Development ....................................................................................... 15
   11.6 Publications ............................................................................................................. 16
12. Global Training ............................................................................................................. 16
13. Old Business
   13.1 Units Policy ............................................................................................................... 16
   13.2 PEC MBOs .............................................................................................................. 18
   13.3 PEC Restructure Ad Hoc ......................................................................................... 18
14. New Business
   14.1 Thank You Letters to Employers ............................................................................ 18
   14.2 Certificates of Appreciation ..................................................................................... 18
   14.3 STBE Editor ............................................................................................................. 18
15. Adjourn ......................................................................................................................... 18
### Motions

**Meeting of June 25, 2019**

<table>
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<tr>
<th>No.</th>
<th>Page</th>
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| 1   | 5    | Approved the draft minutes as distributed for the April 18, 2019 GoToMeeting.  
Approved 11-0-0 CNV |
| 2   | 10   | Approved and recommended that BOD approve section 3.910.006. of the ROB changed as shown in Attachment O.  
Approved 11-0-0 CNV |
| 3   | 11   | Approved recommending to Ecom that staff investigate an electronic means for recording attendance at ASHRAE meetings at Society and grassroots meetings.  
Approved 11-0-0 CNV |
| 4   | 12   | Approved final version of the PEC restructure as shown in *Attachment A of the Functional Planning Report to PEC* for implementation on July 1, 2020.  
Approved 11-0-0 CNV |
| 5   | 12   | Approved, effective July 1, 2019, the Electronic Communications Committee (ECC)'s reporting structure be changed from reporting to PEC to reporting to Members Council.  
Approved 11-0-0 CNV |
| 6   | 12   | Approved and recommended BOD approve changes to the following documents as a consent agenda: PEC ROB, PEC MOP, Certification Committee ROB, ECC ROB, Handbook Committee ROB, Historical Committee ROB, PDC ROB, Publication Committee ROB.  
Approved 11-0-0 CNV |
| 7   | 13   | Approved changes to the following standing committee MOPs: Certification Committee MOP, ECC MOP, Historical Committee MOP.  
Approved 11-0-0 CNV |
| 8   | 16   | Confirmed and recommended BOD approve the ASHRAE Units Policy (ROB 1.201.002).  
Approved 11-0-0 CNV |
Recommended BOD approve the restructure of PEC as shown in Attachment Z for implementation on July 1, 2020.

Approved 11-0-0 CNV

Action Items
Meeting of June 25, 2019

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<tr>
<td>1</td>
<td>Staff</td>
<td>5</td>
<td>Post approved minutes of the April 18, 2019 GoToMeeting on the PEC page of the ASHRAE website and the PEC Basecamp.</td>
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Complete.
1. **Call to Order**

Dr. Keen called the meeting to order at 8:01 a.m.

2. **ASHRAE Code of Ethics Commitment**

Dr. Keen reviewed with the council the ASHRAE Code of Ethics.

In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests. (See full Code of Ethics: [https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics](https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics).)

3. **Introduction of Members and Visitors**

Members of the council roll call was conducted with an introduction of staff and other visitors.

4. **Review of Agenda**

Dr. Keen reviewed the agenda with the council.

5. **Approval of Meeting Minutes - Meeting of April 18, 2019 GoToMeeting**

It was moved and seconded:

(1) **To approve the draft minutes as distributed for the April 18, 2019 GoToMeeting.**

**MOTION (1) Approved 11-0-0, CNV**

An action was assigned to staff to post the approved minutes on the PEC page of the ASHRAE website and the PEC Basecamp website. **(ACTION ITEM 1) Complete.**

6. **Review of Approved Motions – Meeting of April 18, 2019 GoToMeeting**

Mr. Owen reviewed approved motions from the previous meeting with council members.

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<tr>
<td>1</td>
<td>7</td>
<td>Approved the draft minutes as distributed for the January 15, 2019 Meeting in Atlanta.</td>
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<td>Approved Unanimously, CNV</td>
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7. **Review of Action Items - Meeting of April 18, 2019 GoToMeeting**

Mr. Owen reviewed actions items from the previous meeting with council members.

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<tbody>
<tr>
<td>1</td>
<td>Staff</td>
<td>8</td>
<td>Post approved minutes of the October 11, 2018 meeting in Houston on the PEC page of the ASHRAE website and the PEC Basecamp.</td>
</tr>
</tbody>
</table>
Send referral response to Members Council for Region XII (Brasil Chapter) Motion 11 (11/8/2018): That ASHRAE Bookstore pays a sales percentage of 10% to the Chapter promoting the sale of any ASHRAE Media at a pre-approved function promoting the ASHRAE media.

Background: Chapters can have computer during a program, like a Chapter Dinner or Seminar and promote bookstore sales among the attendance. The sale can be verified by means of a promotional code or sales coupon, available in every e-commerce tools. The objective is both promote sales of ASHRAE bookstore items and create incentive to Chapter Program participation.

Fiscal Impact: Develop a website platform + certificates, estimate U$ 10,000.

Create a simplified version of the ASHRAE Commercialism Policy suitable for release to the general public to respond to Members Council referral Region X (San Diego Chapter) Motion 10 (11/8/2018): That Society develop a simple (bulleted-format) ASHRAE Commercialism Policy more suitable for non-ASHRAE members (lay-persons) who are invited to present at regular ASHRAE chapter meetings.

Refer to ExCom’s Membership Model Ad Hoc for their consideration Members Council RAL (Cairo Chapter) Motion 19 (11/8/2018): That ASHRAE Chapters activate protocols with the Engineering Authorities through the Government Affairs Committee using ALI courses at a requested 50% discount on the six (6) ASHRAE certifications (CPMP, BEAP, BEMP, HFDP, OPMP and BCP) preparation codes and standards (validation of these courses are a must have credential for built-environment professionals in each country, not only the USA).

Background: The ASHRAE Cairo Chapter is seeking to make the Egyptian engineers syndicate to recognize all ASHRAE certificate tracks and make it mandatory for consultant offices registered within Egypt to have at least one (1) track certified member within its crew. We need the preparation codes to be reviewed for approval by the syndicate scientific board and we need the discount to encourage them to do it.

Fiscal Impact: Egyptian Engineers Syndicate as an engineering authority party has over 800,000 registered and licensed mechanical engineers within its manpower and over 200 working Mechanical Consulting Offices and firms. Once it becomes mandatory for each consulting office to have at least one (1) ASHRAE certified member within its crew, the result will be a boost in
ASHRAE members and ASHRAE certified members too and this will bring back more revenues to the society than the initial cost of the discounts. This is applicable to all countries.

Complete. (Attachment C)

5 Keen & Staff

Refer to ExCom’s Membership Model Ad Hoc for their consideration Members Council RAL (ASHRAE Deccan Chapter) Motion 22 (11/8/2018): That Society offers members in good standing (full membership completely paid every 5 years), rewarded access to a free online training program or offline 50% discount training program effective July 1, 2019.

Background: This will infuse motivation for paying membership dues on time. Self-motivating programs could retain members and attract new members.

Fiscal Impact: Online program – Nil. Offline program – 50% of the program cost per participant.

Complete. (Attachment D)

6 Owen

Investigate and report to Fiscal Planning Subcommittee and PEC the potential cost savings for eliminating polybag wrapping of ASHRAE Journal before the June 2019 Annual Meeting in Kansas City.

(See report from Fiscal Planning Subcommittee.)

Complete. (Attachment E)

7 Owen

Investigate and report Fiscal Planning Subcommittee and PEC on economic models of other academic journals for comparison to ASHRAE Research Journal – Sustainable Technology for the Built Environment (STBE) before the June 2019 Annual Meeting in Kansas City.

(See report from Fiscal Planning Subcommittee.)

Complete. (Attachment F)

8 Owen

Recommend a new minimum list price formula for special publications found in section 3.910.006.3 of the ASHRAE ROB.

(See report from Fiscal Planning Subcommittee.)

Complete. (Attachment G)

8. Items Referred from Other Groups to PEC

8.1 Conferences and Exposition Committee – Motion 4 (01/15/2019): (Attachment H)
CEC recommends that the referral motion from Region X (Golden Gate Chapter) Motion 12 (11/8/2018) regarding the podium time of the sponsor of the plenary speaker and commercialism be referred to Publishing and Education Council with the following reply:

The referral recommends several changes to the Rules of the Board for the Society’s Commercialism Policy by citing very specific changes related to restricting what can be said or done by the sponsor. The responsibility for this document and the responsibility for selecting the plenary sponsor and reviewing their introductory comments resides with the Publishing and Education Council not with CEC. Therefore, CEC recommends the motion be referred to Publishing and Education Council.

8.2 Region II (Toronto Chapter) Motion 5 (11/8/2018): (Attachment I)
That the Society provide an option to its members to opt-out of paper copies of the Journal.

8.3 Region X (San Diego Chapter) Motion 10 (11/8/2018): (Attachment B)
That Society develop a simple (bulleted-format) ASHRAE Commercialism Policy more suitable for non-ASHRAE members (lay-persons) who are invited to present at regular ASHRAE chapter meetings.

8.4 Membership Promotion Committee – Motion 11 (01/15/2019): (Attachment J)
That e-learning courses be translated to major non-English languages based on membership demographics.

8.5 Region XII (Brasil Chapter) Motion 11 (11/8/2018): (Attachment A)
That ASHRAE Bookstore pays a sales percentage of 10% to the Chapter promoting the sale of any ASHRAE Media at a pre-approved function promoting the ASHRAE media.

8.6 Region-At-Large (Cairo Chapter) Motion 19 (11/8/2018): (Attachment C)
That ASHRAE Chapters activate protocols with the Engineering Authorities through the Government Affairs Committee using ALI courses at a requested 50% discount on the six (6) ASHRAE certifications (CPMP, BEAP, BEMP, HFDP, OPMP and BCP) preparation codes and standards (validation of these courses are a must have credential for built-environment professionals in each country, not only the USA).

8.7 Region-At-Large (ASHRAE Deccan Chapter) Motion 22 (11/8/2018): (Attachment K)
That Society offers members in good standing (full membership completely paid every 5 years), rewarded access to a free online training program or offline 50% discount training program effective July 1, 2019.

8.8 Region XII (Brasil Chapter) Motion 36 (11/8/2018): (Attachment L)
That the online registration form be enhanced to include the appropriate international addressing requirements.

9. Items Referred by PEC to Other Groups

None.
10. **Subcommittee Reports**

10.1 **Journal Advertising Sales**

Dr. Keen gave the subcommittee report. (Attachment M)

ASHRAE Journal’s paid advertising share of market (SOM) increased to 63% of all pages sold during the past 12 months compared to a 62% SOM during June 2017-May 2018. At the same time, a loss of paid pages impacted ASHRAE Journal. Total advertising pages for HVACR Engineering publications also declined. While traditional publishers continue programs to compete for reaching ASHRAE’s audience, nontraditional publishers are also becoming more competitive. These include Google, Facebook, and other online publishers offering advertising. Staff is developing new opportunities to accelerate online advertising revenue growth for the Society.

Reductions in expenses include removal of poly-bagging for most issues of ASHRAE Journal and changing the binding of HPB magazine to a smaller footprint. Together, these will remove about $18,000 of expenses annually.

10.2 **eLearning**

Dr. Keen gave the subcommittee report. (Attachment N)

Subscription revenue for ASHRAE eLearning is on track to make the forecast for the 2018-2019 fiscal year. Most of this revenue is from individual subscriptions, with corporate subscriptions beginning to gain traction. This revenue includes UNEP projects of new courses development and translation of existing courses.

Dr. Keen reported a substantial amount of ASHRAE eLearning staff time and resources effort has been expended towards assisting with UNEP Projects. ASHRAE staff will review the project and define the amount of resources, staff time, and cost expended to complete UNEP projects.

It was also reported that a collective topical catalog for all ASHRAE products, with a goal of making it easier for members to find and purchase products by topics is being developed by staff.

During the Members Council 2019 winter meeting in Atlanta, the following motion was referred to PEC and PEC assigned an action item to ECC to review and make recommendations:

**Membership Promotion Committee – Motion 11 (01/15/2019):** (Attachment J)

That e-learning courses be translated to major non-English languages based on membership demographics.

**Background:** ASHRAE’s vision is to be a global leader and foremost source of technical and educational information. Based on membership demographics, the top eight non-English speaking countries include: Canada (French), India (Urdo), Hong Kong (Chinese), Philippines (Tagalog), UAE (Arabic), Malaysia (Malay), Brazil (Portuguese), and Mexico (Spanish). Voice-over audio recording of the e-learning materials will provide greater
global membership value. Translations can be completed by volunteer members with peer review.

**Fiscal Impact:** Recommend $0 fiscal impact. Generate income with new e-learning benefit and increase use of e-learning.

ASHRAE staff is reviewing the project requirements of time, resources, and cost to evaluate the feasibility of completing translations for eLearning courses and make recommendations to PEC.

Course offerings are being updated to improve the course interactivity and engagement for better marketability to both corporate and individual customers. Fundamentals courses take priority as they have a higher market demand.

*Attachment A* shows a list of new, in-progress, and proposed courses to broaden and diversify the eLearning course catalog.

*Attachment B* shows an overview of the UNEP projects completed in the 2018-2019 fiscal year.

10.3 Fiscal Planning

Ms. Gulledge gave the subcommittee report (Attachment O), which included the following motions:

(2) That PEC recommend to the BOD that section 3.910.006. of the ROB be changed as shown in the following excerpt:

************************************************************************
3.910.006.3 Special Publications
A. List prices for publications are established by staff to be above unit cost, with consideration given to pricing of similar publications, publishing and marketing costs, demand, budget needs, and the publication’s role in achieving the mission of ASHRAE.

************************************************************************

**Background:** Staff was assigned an action item recommend new minimum list price formula for special publications in ROB.

**Staff Recommendation:** Publication list pricing is a market-based business decision-making process governed by factors including costs, demand, budgeting considerations, and foremost—the mission of the organization.

The current procedure shown in the ROBs is quite prescriptive, but it also allows for use of a factor that varies so much (“6 to 10 or higher”) as to render much of the prescribed procedure moot. An allowance is also made in case a publication has “greater demand than normal.” The end result is a list price that has been adjusted by publications staff to succeed in the marketplace. The salient point of the procedure is that the list price is...
built up to cover all costs and be comparable to that for similar titles from ASHRAE and other publishers.

The staff recommendation is that this section of the ROBs be modified and simplified as shown in the motion, to (1) reflect current publishing business practice, and (2) allow publishing business staff appropriate leeway to adjust pricing to market conditions. 

(Approved by Fiscal Planning Subcommittee 10-0-0 CNV)

Fiscal Impact: None.

MOTION (2) Approved 11-0-0, CNV

(3) That PEC recommend to ExCom that staff investigate an electronic means for recording attendance at ASHRAE meetings at Society and grassroots meetings.

Background: ECC brought this motion to Functional Planning Subcommittee. By using an electronic tool instead of paper sign in sheets to track attendance of members and guests during TC meetings, standing committee meetings, at CRC workshops and meetings, and other meetings across Society, Society would be able to gather the information more easily and more importantly, efficiently. It would avoid the loss of paper sign-in sheets and reduce administrative effort required for both volunteers and staff in printing, distributing, scanning, and saving paper sign-in sheets.

A digital record of attendance would greatly simplify the process of gathering data and determining past total attendance for meetings in order to better plan space and timing for future meetings. Digital attendance records would also simplify the administrative work required to determine what meetings a specific member has attended over time, which could be useful for other society activities such as the region nominating committee.

ASHRAE society should lead the way in new technology moving away from paper to electronic. It would also save money in mailing paper and save staff time to gather all the sign in sheets since they would be all uploaded automatically. (ECC approved 8-0-0 CV) (Approved by Fiscal Planning Subcommittee 10-0-0 CNV)

Fiscal Impact: Minimal cost plus some initial staff time to develop a simple electronic sign in method that would be saved to a cloud platform.

MOTION (3) Approved 11-0-0, CNV

Staff was assigned an action item to investigate and report the potential cost savings for eliminating polybag wrapping of ASHRAE Journal. Staff recommended eliminating the print version of the ASHRAE Insights publication with a potential saving of $31,500 annually. 

(Attachment A)

Staff was assigned an action item to investigate and report on business models of academic journals and gave a response to the subcommittee as shown in Attachment B.
10.4 Functional Planning

Mr. Hosni gave the subcommittee report (Attachment P), which included the following motions:

(4) That PEC approve the final version of the PEC restructure as shown in Attachment A for implementation on July 1, 2020.

Background: These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan to be implemented July 1, 2020. (PEC Functional Planning Subcommittee Approve 4-0-0 CV)

Fiscal Impact: Positive due to the reduction of committee members on standing committees.

MOTION (4) Approved 11-0-0, CNV

(5) That PEC approve effective July 1, 2019, the Electronic Communications Committee (ECC)’s reporting structure be changed from reporting to PEC to reporting to Members Council.

Background: These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan. More specifically, the Board Focus Group (FG) 5 was set up in Houston, June 2018. The focus area was the Evolution of the Electronic Communications Committee (ECC) with a charge to make “a realistic assessment of if/how we (ASHRAE) should use the volunteer participation on this commitment for the highest benefit to ASHRAE.” The FG provided a report to the Board in October 2018 with its recommendations. This was done parallel to the PEC restructure that was happening in tandem as a separate effort. One of the suggestions of the Board Focus Group was to re-evaluate the reporting council of the committee and Members Council was suggested. ECC supports this move and feels it is in line with the restructure of PEC and seeks PEC’s support that the committee report to Members Council effective July 1, 2019. (PEC Functional Planning Subcommittee Approved 4-0-0 CNV)

Fiscal Impact: None.

MOTION (5) Approved 11-0-0, CNV

(6) ..... That PEC recommend to the BOD changes to the following documents as a consent agenda:

PEC ROB (Attachment B)
PEC MOP (Attachment C)
Certification Committee ROB (Attachment D)
ECC ROB (Attachment E)
Handbook Committee ROB (Attachment F)
Historical Committee ROB (Attachment G)
PDC ROB (Attachment H)
Publication Committee ROB (Attachment I)

**Background:** These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan to be implemented July 1, 2020. *(PEC Functional Planning Subcommittee Approve 4-0-0 CV)*

**Fiscal Impact:** Positive due to the reduction of committee members on standing committees.

**MOTION (6) Approved 11-0-0, CNV**

(7) That PEC approve changes to the following standing committee MOPs:

- **Certification Committee MOP (Attachment J)**
- **ECC MOP (Attachment K)**
- **Historical Committee MOP (Attachment L)**

**Background:** These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan to be implemented July 1, 2020. Additional editorial and clean up changes to these documents were also made. *(PEC Functional Planning Subcommittee Approve 4-0-0 CV)*

**Fiscal Impact:** None

**MOTION (7) Approved 11-0-0, CNV**

Dr. Keen reviewed the proposed PEC restructure and the timeline to implement the changes to PEC. At the subcommittee’s January Winter Meeting, the subcommittee recommended a special orientation module to be created to help council and committee members with the restructure changes. This module could be used every year to ensure the continued effectiveness of the committees and subcommittees. Dr. Keen volunteered to take this action item after the BOD has approved the final PEC restructure plan.

10.5 Research Journal

Dr. Keen gave the subcommittee report. *(Attachment Q)*

Dr. Radermacher will retire as Editor-in-Chief (EIC) of STBE as of June 30 and was thanked by the chair and the subcommittee for his many years of service to ASHRAE and the growth of the journal during his tenure as EIC. Dr. Jeff Spitler will take on the EIC role as of July 1.

Dr. Radermacher reports an increase in paper submissions, and notes that associate editors are also contributing papers, some being highly cited. Papers published annually have grown from 37 in 2006 to an average of 102 each of the last four years. *(Attachment A)*

Bailey Young of publishing partner Taylor & Francis gave the subcommittee a detailed publisher’s report highlighting the success of Open Access papers, topical issues and improvement in the submission to publication process. The report states that *Science &*
Technology for the Built Environment received 48,907 article downloads in 2018, which is 16% higher than downloads received in 2017. From January-June 2019, there have been 20,326 article downloads, which is 28% higher than the same period in 2018. (Attachment B)

The 2018 Impact Factor (IF) for Science and Technology for the Built Environment (STBE) is tracking to be similar to last year’s (1.183). [Editor’s note: the new IF (1.199) was released following this meeting. New rankings are 43/60 in the Thermodynamics JCR category, 42/63 in Construction & Building Technology, and 90/129 in Mechanical Engineering.]

11. Committee Reports

11.1 Certification

Mr. Fullerton gave the committee’s report. (Attachment R)


There has been an increase on the certification application rate year-to-date compared to last year by 10.5% with 378 applications over the previous year’s 342.

ANSI completed its Year 4 Annual Surveillance of accredited programs with the recommendation that ASHRAE continues to fulfill all components of the 17024 Accreditation Standard and citing only one opportunity for improvement.

Mr. Fullerton reported on the ongoing exam development activities planned for 2019-20 will help ensure the continued relevancy and validity of ASHRAE’s certification programs:
- CHD - Exam passing score to be finalized in August-September.
- HBDP - New form to launch in November.
- HFDP - New form to launch in November.

11.2 Electronic Communications (ECC)

Ms. Tosh gave the committee’s report. (Attachment S)

The Electronic Collaboration Tools Subcommittee is working to set up Basecamps for all chapters and regions and plans to schedule training in several sessions based on time zone. The subcommittee also discussed the need for folders and files to be maintained, cleaned-up and/or archived in Basecamp as well as Basecamp standardization in terms of where items are stored across Basecamps.

The Social Media Subcommittee is reviewing methods to increase social media presence of ASHRAE Regions on Society’s social media channels.

The Websites Subcommittee shared progress on a survey it will be sending to chapter leaders involved with ECC-style positions, chapter presidents and DRCs as part of work the
subcommittee is doing to create website templates in answer to Region I (Granite State Chapter) Motion 25 (11/8/2018) and Membership Promotion Committee – Motion 10 (01/15/2019).

ECC discussed a motion from the Membership Promotion Committee – Motion 9 (01/15/2019): That the Electronic Communications Committee research the feasibility and capabilities of expanding the ASHRAE 365 App by January 2020 to allow chapters, regions and Society to distribute information to members. The committee had previously responded to the motion that it would take on the research requested.

11.3 Handbook

Mr. Fenton gave the committee’s report. (Attachment T)

ASHRAE Handbook Online now has 15,756 active subscribers and income generated is on track to exceed $100,000 for FY 2018-19

Two new spreadsheets were added with the 2019 Handbook Online update and out-of-sequence updates are planned for two chapters during the second half of 2019.

The committee approved TC 6.5’s plan to consolidate their radiant heating and cooling chapters (currently Chapter 6 in HVAC Systems and Equipment, and Chapter 54 in HVAC Applications) into one Applications chapter.

11.4 Historical

Mr. Flaniken gave the committee’s report. (Attachment U)

Historical Committee reviewed and unanimously approved the committee’s ROB and MOP which have been revised for the organizational changes to the PEC structure. This restructure will result in a cost savings of about $3,000, because of the reduction in voting members from nine to seven. The committee also reviewed the Chapter and Historians Guide to make sure it would be consistent with the committee’s restructure, but still be a valid and valuable tool to share with chapter and region historians. The committee discussed ways to continue to provide guidance to region and chapter historians even though there is no longer an official connection.

11.5 Professional Development (PDC)

Mr. Henck gave the committee’s report. (Attachment V)

PDC is working to review all existing courses, establish guidelines for future reviews and develop criteria for new course instructors. PDC will also seek ways to package higher-level training in a format that can be used as a certification exam-prep resource.

Mr. Henck reported five new courses were presented in Kansas City with new Guideline 36 course drew the highest number of registrants.
PDC approved a proposed slate of courses for the 2019 Fall Online Course Series; one new 3-hour course combining Guideline 0 and Standard 202; and the first one-hour course, an overview of the new IgCC with a primary focus on HVAC.

11.6 Publications

Mr. Correa gave the committee’s report. (Attachment W)

Publications Committee will participate in a project with RAC wherein those submitting a proposal to receive RAC funding specifically earmarked for a publication as a deliverable will go through submission and approval procedures with RAC and Publications Committee.

Mr. Correa reported the committee supports the proposed new ASHRAE Design Guide for Air Curtains.

12. Global Training Center Monitoring Ad Hoc

Mr. Mehboob reviewed the Ad Hoc Committee’s report to PEC. (Attachment X)

Mr. Mehboob reported the most in demand course is HVAC Design Essentials Level-I followed by Standard 90.1 and Standard 62.1.

Mr. Mehboob reported 29 courses held:
- 13 were held in Dubai by GTC
- 1 was held in Pakistan
- 1 was held in Qatar
- 12 were held in Saudi Arabia
- 2 were held in South Africa

Policy & Guidelines for Training Centers have been drafted, reviewed and finalized. (Attachment A)

13. Old Business

13.1 Units Policy

It was moved and seconded:

(8) That PEC confirm and recommend the BOD approve the ASHRAE Units Policy (ROB 1.201.002):

*************************************************************************

Units Policy

1.201.002.1 The units use or application policy shall include, as a minimum, time-dated directions on the use of SI and I-P in all ASHRAE publications.

1.201.002.2 TC 1.6 shall serve as the authority on SI and I-P usage and application.

1.201.002.3 Research projects; codes, standards, guidelines and addenda thereto; special publications; Insights articles; Journal articles; and Handbooks shall be prepared using the International System of Units (SI) and/or inch-pound units (I-P) in formats approved by the Publishing and Education Council.

1.201.002.4 The Publishing and Education Council shall review annually the approved formats to be used in ASHRAE publications, considering suggestions from members and committees, and shall establish any changes in the approved formats.

1.201.002.5 The Publishing and Education Council shall consider this Units Policy annually and shall recommend to the Board of Directors the formats to be used in ASHRAE publications.

A. The format for ASHRAE publications shall be dual units, except in cases determined by the Publishing and Education Council, where two separate versions are to be published, where one is rational SI and the other is rational I-P. For selected ASHRAE standards and guidelines, the Standards Committee may approve use of SI units only.

B. In dual unit publications, the units used in calculating the work being reported shall be listed first. The alternate system of units should follow in parentheses. Authors shall round off equivalents in the alternate system of units so that they imply the same accuracy as is implied with primary units.

C. Exceptions require the approval of the Director of Publishing and Education.

1.201.002.6 Handbook volumes shall be published in separate SI and I-P editions.

1.201.002.7 Science and Technology for the Built Environment, as ASHRAE’s international research journal may publish papers in dual units or, in cases where the original research being reported was conducted in SI units, in SI units only.

***************************************************************************
Background: The ASHRAE Units Policy is required by the PEC Rule of Board to be reviewed and reconfirmed at the annually.

Fiscal Impact: None.

MOTION (8) Approved 11-0-0, CNV

13.2 PEC MBOs
Dr. Keen reviewed PEC 2018-2019 MBOs. (Attachment Y)

13.3 PEC Restructure Ad Hoc
Dr. Keen reviewed the final form of the PEC Restructure Ad Hoc, and presented the following motion:

(9) That BOD approve the restructure of PEC as shown in Attachment Z.

Background: The PEC Restructure Ad Hoc has reviewed the current structure of and finalized the Ad Hoc’s recommendations.

Fiscal Impact: None.

MOTION (9) Approved 11-0-0, CNV

14. New Business

14.1 Thank you letters to Employers
Dr. Keen reported on an offer from ASHRAE to send a thank you letter to a member’s employers.

14.2 Certificates of Appreciation (Attachment AA)
Dr. Keen gave certificates of appreciation to out-going chairs of the PEC standing committees.

14.3 STBE Editor
Dr. Keen asked the council to recognize Dr. Reinhard Radermacher tenure as ASHRAE’s Research Journal editor.

15. Adjourn
Dr. Keen adjourned the meeting at 11:58 a.m.
Attachment List

A  Region XII (Brasil Chapter) Motion 11 (11/8/2018) -- Referral to PEC & PEC Response 21
B  Region X (San Diego Chapter) Motion 10 (11/8/2018) -- Referral to PEC & PEC Response 22-23
C  Region-At-Large (Cairo Chapter) Motion 19 (11/8/2018) -- Referral to PEC & PEC Response 24
D  Region-At-Large (Deccan Chapter) Motion 22 (11/8/2018) -- Referral to PEC & PEC Response 25
E  Action Item #6: Eliminating polybag wrap of ASHRAE Journal 26
F  Action Item #7: Investigate and report on business models of academic journals 27
G  Action Item #8: Recommend new minimum list price formula for special publications in ROBs 28-29
H  Region X (Golden Gate Chapter) Motion 4 (01/15/2019) -- Referral to PEC & PEC Response 30
I  Region II (Toronto chapter) Motion 5 (11/8/2018) 31-32
J  Membership Promotion Committee--Motion 11 (01/15/2019) 33
K  Region-At-Large (ASHRAE Deccan Chapter) Motion 22 (11/8/2018) 34
L  Region XII (ASHRAE Brasil Chapter) Motion 36 (11/8/2018) 35-36
M  Journal Advertising Sales Subcommittee Report to PEC 37
N  eLearning Subcommittee Report to PEC 38-39
  Attachment A - New Course Development 40
  Attachment B - ASHRAE - UNEP Partnership Projects 41
O  Fiscal Planning Subcommittee Report to PEC 42-44
  Attachment A - Action Item #6: Eliminating polybag wrap of ASHRAE Journal 45
  Attachment B - Action Item #7: Investigate and report on business models of academic journals 46
  Attachment C - Action Item #8: Recommend new minimum list price formula for special publications in ROBs 47-49
  Attachment D - Motion Identification #ECC1-03212019 50
  Attachment E - Lean Assessment 51-58
P  Functional Planning Subcommittee Report to PEC 59-60
  Attachment A - PEC Restructuring 61-68
  Attachment B - PEC ROB 69-70
  Attachment C - PEC MOP 71-82
  Attachment D - Certification Committee ROB 83-84
  Attachment E - ECC ROB 85-86
  Attachment F - Handbook Committee ROB 87-90
  Attachment G - Historical Committee ROB 91
  Attachment H - PDC ROB 92-95
  Attachment I - Publications Committee ROB 96-101
  Attachment J - Certification Committee MOP 102-105
  Attachment K - ECC MOP 106-113
  Attachment L - Historical Committee MOP 114-119
Q  Research Journal Subcommittee Report to PEC 120
  Attachment A - Editor's Report 121-126
  Attachment B - Taylor & Francis Publisher's Report 127-154
R  Certification Committee Report to PEC 155-156
  Attachment A - Certification House Ad 157
  Attachment B - Certification Committee 2018-2019 MBOs 158-160
  Attachment C - Certification Committee 2019-2020 MBOs 161-162
S  ECC Report to PEC 163-164
  Attachment A - ECC 2018-2019 MBOs 165

19
<table>
<thead>
<tr>
<th>Attachment</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment B</td>
<td>ECC 2019-2020 MBOs</td>
<td>166</td>
</tr>
<tr>
<td>T</td>
<td>Handbook Committee Report to PEC</td>
<td>167</td>
</tr>
<tr>
<td>Attachment A</td>
<td>HBC 2018-2019 MBOs</td>
<td>168</td>
</tr>
<tr>
<td>U</td>
<td>Historical Committee Report to PEC</td>
<td>169</td>
</tr>
<tr>
<td>Attachment A</td>
<td>Historical Committee 2018-2019 MBOs</td>
<td>170-171</td>
</tr>
<tr>
<td>V</td>
<td>PDC Report to PEC</td>
<td>172</td>
</tr>
<tr>
<td>Attachment B</td>
<td>PDC 2019-2020 MBOs</td>
<td>173</td>
</tr>
<tr>
<td>Attachment A</td>
<td>PDC 2018-2019 MBOs</td>
<td>174</td>
</tr>
<tr>
<td>W</td>
<td>Publications Committee Report to PEC</td>
<td>175</td>
</tr>
<tr>
<td>Attachment A</td>
<td>Publications Committee MBOs 2018-2019</td>
<td>176</td>
</tr>
<tr>
<td>X</td>
<td>Global Training Centre Report</td>
<td>177-183</td>
</tr>
<tr>
<td>Attachment A</td>
<td>Operating Policies &amp; Guidelines</td>
<td>184-188</td>
</tr>
<tr>
<td>Y</td>
<td>PEC 2018-2019 MBOs</td>
<td>189</td>
</tr>
<tr>
<td>Z</td>
<td>PEC Restructuring</td>
<td>190-198</td>
</tr>
<tr>
<td>Attachment A</td>
<td>PEC MOP Clean</td>
<td>199-208</td>
</tr>
<tr>
<td>Attachment B</td>
<td>PEC MOP with changes</td>
<td>209-219</td>
</tr>
<tr>
<td>Attachment C</td>
<td>PEC ROB Clean</td>
<td>220</td>
</tr>
<tr>
<td>Attachment D</td>
<td>PEC ROB with changes</td>
<td>221-222</td>
</tr>
<tr>
<td>AA</td>
<td>Certificates of Appreciation</td>
<td>223</td>
</tr>
<tr>
<td>BB</td>
<td>PEC Report to BOD - At Conference</td>
<td>224-226</td>
</tr>
<tr>
<td>Attachment A</td>
<td>PEC ROB</td>
<td>227-228</td>
</tr>
<tr>
<td>Attachment B</td>
<td>Certification Committee ROB</td>
<td>229</td>
</tr>
<tr>
<td>Attachment C</td>
<td>Communications Committee ROB (now under Members Council)</td>
<td>230-231</td>
</tr>
<tr>
<td>Attachment D</td>
<td>Handbook Committee ROB</td>
<td>232-233</td>
</tr>
<tr>
<td>Attachment E</td>
<td>Historical Committee ROB</td>
<td>234</td>
</tr>
<tr>
<td>Attachment F</td>
<td>Training &amp; Education Committee ROB (renamed PDC)</td>
<td>235-236</td>
</tr>
<tr>
<td>Attachment G</td>
<td>Publications Committee ROB</td>
<td>237-239</td>
</tr>
<tr>
<td>Attachment H</td>
<td>PEC Restructuring</td>
<td>240-248</td>
</tr>
<tr>
<td>Attachment I</td>
<td>Units Policy</td>
<td>249</td>
</tr>
<tr>
<td>Attachment J</td>
<td>Global Training Centre Report</td>
<td>250-261</td>
</tr>
<tr>
<td>CC</td>
<td>PEC Report to BOD - Post Conference</td>
<td>262-266</td>
</tr>
</tbody>
</table>
Members Council referred the (Motion 11) to PEC on December 5, 2018.

**Region XII (Brasil Chapter) Motion 11 (11/8/2018):**
That ASHRAE Bookstore pays a sales percentage of 10% to the Chapter promoting the sale of any ASHRAE Media at a pre-approved function promoting the ASHRAE media.

**Background:** Chapters can have computer during a program, like a Chapter Dinner or Seminar and promote bookstore sales among the attendance. The sale can be verified by means of a promotional code or sales coupon, available in every e-commerce tools. The objective is both promote sales of ASHRAE bookstore items and create incentive to Chapter Program participation.

**Fiscal Impact:** Develop a website platform + certificates, estimate U$ 10,000.

**PEC Response**
PEC referred this motion to their Fiscal Planning Subcommittee. The subcommittee reviewed the referral and concluded implementation would have a net negative fiscal impact on revenue, considering the lost revenue and the cost associated with creating and tracking numerous additional discount codes and administering the 10% payments back to chapters. It was also noted that chapters already have the opportunity to purchase publications on consignment at a 50% discount from society (for as few as 10 copies) and then sell them, keeping the difference and negating the need for sending money back to the chapter. The consensus of the council is that the current publications discount provides a more practical, low-cost way for chapters to receive income and benefit members. PEC will work with Members Council to promote this benefit.
During the Members Council November 2018 meeting in Atlanta, the council referred the motion below to the Publishing and Education Council. The council will revisit these motions after your comments are received.

**Region X (San Diego Chapter) Motion 10 (11/8/2018):**
That Society develop a simple (bulleted-format) ASHRAE Commercialism Policy more suitable for non-ASHRAE members (lay-persons) who are invited to present at regular ASHRAE chapter meetings.

**Background:** Review of the current ASHRAE commercialism policy (online) suggests that it is clearly written for ASHRAE members who develop and present technical papers at the Winter and Summer annual meetings. It is much too “wordy” and difficult to understand let alone implement effectively regarding lay-person presenters. It is NOT written for non-ASHRAE members (lay-persons) who are often engaged by each chapter for regular chapter meetings. And the PowerPoint (online) is of little value. See attached current ASHRAE Commercialism Policy & the PowerPoint.

**Fiscal Impact:** None. Only requires an administrative action/function to develop the appropriate & ASHRAE-approved verbiage.

**PEC Response**
The following draft, edited to address only chapter meetings per the motion, is proposed:

**Commercialism Policy Summary for ASHRAE Chapter Meetings**

ASHRAE is a technical society for advancing the arts and sciences of HVAC&R, not commercial interests. Chapter officials are responsible for enforcing policy guided by the following principles:

- Don’t imply ASHRAE endorsement of a product, service, or company.
- Don’t advertise. Presentations at any meeting are to educate the audience about research or technology, not to advertise or promote a commercial product or service. No product- or service-specific programs.
- Include your company’s logo only to identify yourself or those who contributed to the presentation. You can include it only on the opening or title slide that identifies you as presenter. You should also not wear clothing that features the logo of your company. Don’t use commercial logos, model names, or part numbers in your presentation’s title, text, or illustrations. Your company’s logo should appear only on the opening or title slide that identifies you as presenter.
- Don’t promote a company’s exclusively available product and service.
• Mention company names and products **only** if citing historical works or if such information has historical significance directly relating to the technology discussed in a presentation or paper.

• The manufacturer and model number of test instruments may be noted if it is necessary for the purpose of aiding accurate reproduction of the work described.

• If not HVACR related, it’s okay to mention products or companies not directly related to the HVACR industry. Examples include using a non-HVACR company’s software is used in the presentation (such as Microsoft, Apple, Autodesk), or if it helps with understanding the subject matter.

• Be positive. Avoid criticizing another product or company in your presentation.
Members Council sent the following referral on December 5, 2018 to PEC for their consideration at the January 2019 Winter Meeting in Atlanta.

**Region-At-Large (Cairo Chapter) Motion 19 (11/8/2018):**
That ASHRAE Chapters activate protocols with the Engineering Authorities through the Government Affairs Committee using ALI courses at a requested 50% discount on the six (6) ASHRAE certifications (CPMP, BEAP, BEMP, HFDP, OPMP and BCP) preparation codes and standards (validation of these courses are a must have credential for built-environment professionals in each country, not only the USA).

**Background:** The ASHRAE Cairo Chapter is seeking to make the Egyptian engineers syndicate to recognize all ASHRAE certificate tracks and make it mandatory for consultant offices registered within Egypt to have at least one (1) track certified member within its crew. We need the preparation codes to be reviewed for approval by the syndicate scientific board and we need the discount to encourage them to do it.

**Fiscal Impact:** Egyptian Engineers Syndicate as an engineering authority party has over 800,000 registered and licensed mechanical engineers within its manpower and over 200 working Mechanical Consulting Offices and firms. Once it becomes mandatory for each consulting office to have at least one (1) ASHRAE certified member within its crew, the result will be a boost in ASHRAE members and ASHRAE certified members too and this will bring back more revenues to the society than the initial cost of the discounts. This is applicable to all countries.

**PEC Response**
PEC discussed the motion at length developing several questions needing clarification:

- Should this discount apply to all certifications or just the six listed?
- What is the potential member increase estimates?
- Is this a 50% discount on member or non-member prices?
- What would the government involvement be?
- Would this discount only apply to developing economies?
- What duration would the discount be applied?
- Should the monetary exchange rate be considered in the discount?

Ultimately the Council decided this was a policy issue that would be better handled by ExCom’s Membership Model Ad Hoc. The PEC Chair was tasked with bringing this to the attention of the ad hoc at their next meeting. The ad hoc included consideration of such discounts in formulating a recommendation to be presented to the Executive Committee and the Board of Directors at the 2019 Annual Conference in Kansas City. If this is brought back to PEC due to it not being addressed by the ad hoc recommendations, it is recommended that responses to the questions above be attained before further action is taken.
TO: Darryl K. Boyce, Members Council Chair
Joyce Abrams, Members Council Staff Liaison

FROM: Julia Keen, Publishing and Education Council Chair
Mark Owen, Publishing and Education Council Staff Liaison

DATE: June 25, 2019

SUBJECT: Response from PEC to Members Council Referral
Region-At-Large (ASHRAE Deccan Chapter) Motion 22 (11/8/2018)

The following motion was referred to PEC on December 5, 2019 by Members Council.

Region-At-Large (ASHRAE Deccan Chapter) Motion 22 (11/8/2018):
That Society offers members in good standing (full membership completely paid every 5 years),
rewarded access to a free online training program or offline 50% discount training program effective July 1, 2019.

Background: This will infuse motivation for paying membership dues on time. Self-motivating programs
could retain members and attract new members.

Fiscal Impact: Online program – Nil. Offline program – 50% of the program cost per participant.

PEC response
After some discussion, PEC concluded this motion involved the broader policy issue of Member benefits
being considered by the ASHRAE Executive Committee’s Membership Models Ad Hoc Committee for
their consideration. The motion was forwarded to the ad hoc committee, which considered the motion
in formulating its recommendations to be presented to ExCom and the Board of Directors at the 2019
Annual Conference in Kansas City.
To: Heather Platt, PEC Fiscal Planning Subcommittee Chair
From: Mark Owen, PEC Staff Liaison
Date: June 4, 2019
Subject: Action Item #6: Eliminating polybag wrap of ASHRAE Journal

Typically, 10 times per year additional printed pieces are mailed with ASHRAE Journal in a polybag wrapper. These “ride-along” items include ASHRAE Insights (6x/yr), the Meeting Planner (6x/yr), AMCA inmotion supplement (1x/yr), and the publications minicatalog (3x/yr). Sometimes multiple items ride with the same issue. The current polybag cost is about $1500 per issue. This occurs 10x/yr for a total annual cost of $15,000.

In response to requests from members that ASHRAE adopt a more sustainable practice and eliminate the polybag (plastic) wrapping of ASHRAE Journal, staff has investigated the following alternatives to using such wrapping when a second piece needs to be sent with the Journal.

1. “Sustainable” Polybag. Cost = about $6000 per issue. It’s still plastic and takes 50 years to degrade.
2. Envelope. Cost = $12,000 per issue. Adds 3 days to production schedule.
3. Binding. Cost = $3000 per issue. This process is normally used for ad inserts.

Pieces can be mailed separately, but this costs more because of separate labeling and postage at a higher rate. And for some items, such as the AMCA supplement, the cost is prohibitive and would render the collaborative effort unprofitable.

The staff recommendation is to retain the polybag wrap only for AMCA inmotion and the publications minicatalog, while eliminating the wrap for other items. This would eliminate 7 wrapped issues per year, for a savings of $10,500/yr. To facilitate this change, we are working with Meetings and Marketing staff to condensed Meeting Planner content inside the Journal, with digital distribution for the rest of the content.

In addition, the recommendation requires that we transition ASHRAE Insights from print to all digital distribution. The savings from this change is approximately $21,000/yr.

The estimated total annual savings from these changes is $31,500.
TO: Heather Platt, PEC Fiscal Planning Subcommittee Chair
FROM: Mark Owen, PEC Staff Liaison
DATE: June 24, 2019
SUBJECT: Action Item #7: Investigate and report on business models of academic journals

All journals must support costs of production, including those for manuscript management systems, editing/printing, online hosting, and distribution. All these factors are taken into consideration when budgeting, planning, or deciding which model best fits a journal. ASHRAE’s publishing partner for STBE, Taylor & Francis (T&F), has three different business models that are typical of those used for academic journals worldwide: subscription, pure open access, and hybrid:

- A **subscription journal** gets revenue through subscriptions and could also have nonsubscription revenue streams, which can vary by journal.
- A **pure open access (OA) journal** could have article processing charges (APCs) paid by authors/funders or could be subsidized by a society/organization so that authors do not have to be responsible for APCs. There aren’t many other revenue streams for a pure OA journal, but some are possible — supplements being one.
- A **hybrid journal** takes both APCs or other publishing fees and subscription revenue (and can also have nonsubscription revenue). Variations in the OA take-up will affect the extent to which a journal relies on each type of revenue.

Many associations subsidize their journals to some extent. Advertising is also an option for scholarly journals to generate nonsubscription revenue streams, although relatively fewer such journals carry ads.

STBE’s business model is that of a **hybrid** that sells subscriptions to individuals and institutions and also offers a limited number of OA papers per year, subsidized by ASHRAE. ASHRAE pays a fee for T&F to provide free online access for its members; for an additional $40 per year, members can opt to receive the print edition as well. T&F pays ASHRAE a royalty on revenues received for subscription sales, and T&F retains the balance to support publishing costs.
TO: Heather Platt, PEC Fiscal Planning Subcommittee Chair

FROM: Mark Owen, PEC Staff Liaison

DATE: June 24, 2019

SUBJECT: Action Item #8: Recommend new minimum list price formula for special publications in ROBs

The current formula for minimum special publication list prices is as follows, from ROB 3.910.006.:

***

3.910.006.3 Special Publications

A. List prices are established in two parts, based on printing and mailing costs, marketing expense, and demand for the publication:

1. Minimum list price is determined approximately by the formula:
   Minimum List Price = (Factor) (Unit Variable Cost) where the Factor is a constant which relates the ratio of total fixed and variable costs established for the Special Publications budget, the average income per sale, and the number of free copies required for distribution. The unit variable cost is equal to the total printing cost divided by the number of copies printed, plus the cost per copy for postage and handling. Because the market and the free distribution requirements are different for many of the special publications, the Factor used varies from 6 to 10 or higher. Staff is given latitude in rounding off values for minimum list prices.

2. Added Value Increment. If a publication is deemed to have a greater demand than normal, an increment is added to the minimum list price to establish the final list price. This increment will not exceed the value of the minimum list price determined by the formula in Section 1.

B. List prices for existing publications are established by staff in preparing the budget for the next fiscal year. List prices for publications approved after the budget is approved by the BOD are established by staff, subject to approval by the chair of the Publishing and Education Council, and will be consistent with pricing of similar recent publications.

C. When a publication is reprinted for inventory replacement, the original list price prevails unless costs escalate beyond original unit cost or unless the market or distribution requirements change. New prices will be consistent with pricing of similar publications.

D. The Director of Finance will provide fiscal records so that income and expenses can be identified for future control and formula revision, as follows:
   Income and Variable Costs:
   - Transactions
   - Preprints
   - Reprints
   - Standards
   - Bulletins
   - Other Special Publications
   Fixed Costs:
   - Publications for Sale
   - Publications not for Sale.

E. The pricing formula is reviewed annually for the Publishing and Education Council budget meeting (spring), and changes are recommended as required to maintain the cost/revenue basis.
F. Complete sets of ASHRAE Standards are available in hard cover ring binders at a price not less than 50 percent of the combined prices for the individual standards in the set, if sold separately.

G. Prices for Psychrometric Charts are established in the following manner;
   1. The lowest published list price corresponds to the unit cost for quantity orders of 1000 single charts, 500 pads of 50 sheets, or 500 laminated charts; with a multiplier of 3.0 (to account for fixed costs) being used to determine the list price.
   2. The Publishing and Education Council adjusts the multiplier as required to assure that the sales price is maintained at competitive levels.
   3. Income from the sale of Psychrometric Charts is considered as income from Other Special Publications.
   4. Overprinting of company name, logo, or other approved material is furnished upon request at an added charge of 10 percent of the price for the desired quantity. Minimum quantities for overprinting are 1000 individual charts, 200 pads, and 500 laminated charts.

***

**Staff Recommendation:**
Publication list pricing is a market-based business decision-making process governed by factors including costs, demand, budgeting considerations, and foremost—the mission of the organization.

The current procedure shown in the ROBs is quite prescriptive, but it also allows for use of a factor that varies so much (“6 to 10 or higher”) as to render much of the prescribed procedure moot. An allowance is also made in case a publication has “greater demand than normal.” The end result is a list price that has been adjusted by publications staff to succeed in the marketplace. The salient point of the procedure is that the list price is built up to cover all costs and be comparable to that for similar titles from ASHRAE and other publishers.

The staff recommendation is that this section of the ROBs be modified and simplified as follows, to (1) reflect current publishing business practice, and (2) allow publishing business staff appropriate leeway to adjust pricing to market conditions:

**3.910.006.3 Special Publications**

A. List prices for publications are established by staff to be above unit cost, with consideration given to pricing of similar publications, publishing and marketing costs, demand, budget needs, and the publication’s role in achieving the mission of ASHRAE.
During the Members Council 2019 winter meeting in Atlanta, the Golden Gate Chapter motion was originally referred to the Conferences and Expositions Committee from Members Council’s 2018 fall meeting. CEC has asked that the motion be referred to Publishing and Education Council.

Conferences and Exposition Committee – Motion 4 (01/15/2019):
CEC recommends that the referral motion from Region X (Golden Gate Chapter) Motion 12 (11/8/2018) regarding the podium time of the sponsor of the plenary speaker and commercialism be referred to Publishing and Education Council with the following reply:

The referral recommends several changes to the Rules of the Board for the Society’s Commercialism Policy by citing very specific changes related to restricting what can be said or done by the sponsor. The responsibility for this document and the responsibility for selecting the plenary sponsor and reviewing their introductory comments resides with the Publishing and Education Council not with CEC. Therefore, CEC recommends the motion be referred to Publishing and Education Council.

Background: The referral also includes proposed changes to CEC’s Rules of the Board and CEC’s Commercialism Policy for Conferences regarding a commercialism policy applied to the sponsor of the plenary speaker. CEC chooses to not make any of the proposed changes in its ROB and Commercialism Policy for Conferences because the proposed language is very specific to what the sponsor can say and do during the introduction of the speaker.

The original motion from the Golden Gate Chapter and attachments are included as attachments in the email.

PEC response
The issue of sponsorships for events, including for the Plenary Session, at the Winter and Annual Conferences has been taken up by a Presidential Ad Hoc Committee, which is expected to recommend (and the Board adopt) a list of approved sponsorship options that will not include the opportunity for sponsors to speak, rendering the matter moot. In the meantime, the remaining keynote sponsorship—sold for the Kansas City Conference prior to receiving this motion—will include the last podium time opportunity. The sponsor’s remarks are limited to 250 words in addition to the bio of the keynote speaker, and those remarks have been edited by staff and vetted by the Executive Committee.

In light of this, PEC recommends no changes to the Commercialism Policy or Rules of the Board at this time.
During the Members Council November 2018 meeting in Atlanta, the council referred the motion below to Staff.

<table>
<thead>
<tr>
<th>Motion#</th>
<th>Staff/Section</th>
<th>Due Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion 5</td>
<td>Advertising Sales</td>
<td>Jan-2019</td>
<td>Determine if there is a solution to sustain advertising in the online digital journal as valuable print</td>
</tr>
</tbody>
</table>

**Region II (Toronto Chapter) Motion 5 (11/8/2018):**

That the Society provide an option to its members to opt-out of paper copies of the Journal.

**Background:** The Journal is currently distributed as a hard copy to all its members. In the interest of fulfilling the ASHRAE mission statement “and promote a sustainable world.” It is counterintuitive to distribute a hard copy of the Journal (made from dead trees) for the sole interest of its advertisers while the majority of its members are likely to appreciate the electronic version. The Society should change its focus and develop a strategy to derive the equivalent amount, if not more income, from an online campaign.

**Fiscal Impact:** None to implement the opt-out feature. Likely will be able to derive more income from online advertisements.

**PEC response**

The council appreciates the concern for sustainability and is working to grow online/digital advertising revenue, which has supplemented or replaced a portion of many print advertising programs. That growth is occurring; however, print advertising revenue still outpaces online by more than three to one. It will be some years before online revenue makes it possible to rely on it without a substantial print advertising component. Opting out of receiving the print edition has the potential to severely damage the circulation, and the accompanying value to advertisers, of the Journal.

In addition, the interests of many ASHRAE members are not completely inseparable from those of advertisers in ASHRAE Journal and High Performing Buildings, and as long as the significant revenue
stream from advertising supports the greater mission of ASHRAE, it is believed that the Society’s work in advancing energy efficiency and sustainability in the built environment worldwide can more than offset the use of renewable/recyclable paper in disseminating its technical information.

In the spirit of the chapter’s concerns about sustainable practices, the council is looking for ways to operate more sustainably. As an example, ASHRAE Insights is transitioning to digital-only distribution, and the use of polybag wrap for the Journal is being reduced from 10 issues to 3, with options being explored for eliminating it entirely.
During the Members Council 2019 winter meeting in Atlanta, the motion below was referred to Publishing and Education Council for consideration.

**Membership Promotion Committee – Motion 11 (01/15/2019):**
That e-learning courses be translated to major non-English languages based on membership demographics.

**Background:** ASHRAE’s vision is to be a global leader and foremost source of technical and educational information. Based on membership demographics, the top eight non-English speaking countries include: Canada (French), India (Urdu), Hong Kong (Chinese), Philippines (Tagalog), UAE (Arabic), Malaysia (Malay), Brazil (Portuguese), and Mexico (Spanish). Voice-over audio recording of the e-learning materials will provide greater global membership value. Translations can be completed by volunteer members with peer review.

**Fiscal Impact:** Recommend $0 fiscal impact. Generate income with new e-learning benefit and increase use of e-learning.

cc: Michelle L. Swanson, Membership Promotion Committee Chair
    Daniel B. Gurley, III, Membership Promotion Committee Staff Liaison

**PEC Response**
PEC has referred this motion to the eLearning Subcommittee of PEC for further study. A recommendation is to be reported at the PEC Fall meeting which will then be communicated to Members Council.
The following motion was referred to PEC on December 5, 2019 by Members Council.

**Region-At-Large (ASHRAE Deccan Chapter) Motion 22 (11/8/2018):**
That Society offers members in good standing (full membership completely paid every 5 years), rewarded access to a free online training program or offline 50% discount training program effective July 1, 2019.

**Background:** This will infuse motivation for paying membership dues on time. Self-motivating programs could retain members and attract new members.

**Fiscal Impact:** Online program – Nil. Offline program – 50% of the program cost per participant.

**PEC response**
After some discussion, PEC concluded this motion involved the broader policy issue of Member benefits being considered by the ASHRAE Executive Committee’s Membership Models Ad Hoc Committee for their consideration. The motion was forwarded to the ad hoc committee, which considered the motion in formulating its recommendations to be presented to ExCom and the Board of Directors at the 2019 Annual Conference in Kansas City.
TO: Darryl K. Boyce, Members Council Chair
        Joyce Abrams, Members Council Staff Liaison
FROM: Julia Keen, Publishing and Education Council Chair
        Mark Owen, Publishing and Education Council Staff Liaison
DATE: June 25, 2019
SUBJECT: Response from PEC to Members Council Referral
        Region XII (ASHRAE Brasil Chapter) Motion 36 (11/8/2018)

The following motion was referred to staff on December 10, 2018:

Region XII (Brasil Chapter) Motion 36 (11/8/2018):
That the online registration form be enhanced to include the appropriate international addressing
requirements.

Background: The current method of data entry is not in alignment with the postal system of Brasil. The
ASHRAE reports do not produce accurate data to locate our members. This is causing our members to
not receive their handbooks and causing loss of members. There is also a financial cost to ASHRAE to
have to replace lost materials.

Fiscal Impact: Develop a website platform + certificates, estimate U$ 1,000. May save money by not
having to replace materials.

PEC response
This motion was initially referred to IT staff, who at a later point engaged David Soltis of PubEd staff
because of his expertise in issues involving postage and shipping.

ASHRAE depends on multiple distribution carriers that distribute items to our Members. There is no
single distribution carrier that can successfully meet ASHRAE’s entire distribution needs. Each
distribution network operates differently and has different requirements for their distribution
network. ASHRAE must use a combination of all distribution carriers/network to meet its needs. Each
distribution carrier has its own benefits and problems. No distribution carrier has a perfect track record
or process for distribution being received to the end user. Publishing Services maintains a book’s worth
of information on each country’s address variations that may or may not be completely followed within
the country.

Staff reviewed each distribution carrier’s requirements, all vendors that ASHRAE uses for distribution,
the type of automated mailing equipment, the labeling methods, and how much data will fit onto a label
without losing data. The conclusions are as follows:

• We are limited to two address lines to fit the only postage and shipping address labels and
  labeling equipment in use worldwide by all reliable, available carriers.
• 35 characters is the maximum for each line. This is the maximum that works with every
distribution system as well as the labels and labeling equipment used.
If data exceed two lines or 35 characters per line, the address will not print on the label during the automated mailing process for different mailing types and/or different distribution carriers.

About 400 ASHRAE members reside in Brazil. Here is the cost information for Brazil distribution options:

**Current method:**

**USPS Standard Mail.** Magazines enter Brazil as USPS Standard Mail with a Brazil postal agent accepting the mail at the country post in Rio de Janeiro. Once accepted at Rio de Janeiro, the magazines are sorted to regional posts. If an address is not complete or has abbreviations, it is possible that the Rio de Janeiro Post may remove mail for nondelivery. At the regional post, the magazine would be sorted again to the local post with the sorting continuing until final distribution occurs. Mail has no priority for distribution. Mail is not trackable.

**ASHRAE Cost:** $2.11 ea./$844 per month

**Upgrade options:**

**USPS First Class Mail.** In this option, the time is reduced and the agreement of who is accepting the mail is between each country postal system. This mail has a priority to be sorted and distributed. If the address has address problems, the mail will still fall out of the sortation. Follows the same process of sorting for distribution. Some distribution could improve just because of the service priority, but not all distribution. Mail has priority for distribution. Mail is not trackable.

**ASHRAE Cost:** $11 ea./$4400 per month

**FedEx Envelope.** Magazines are no longer mail, but a package. The packages are subject to all customs rules with duties and taxes applying even if the package is marked printed materials. This process is using FedEx distribution network with alternate processes of email and phone contact for additional distribution instructions before distribution abandonment occurs with the package. Package has priority for distribution but does not use country’s post. Package is trackable.

**ASHRAE Cost:** $25 ea./$10,000 per month

**Address Data Cleansing.** This process is complex and requires IT resources. Cost is $300 plus review time before addresses are accepted back into our database. The process would include the following steps:

- Cleanse the data.
- Review the suggested data change with distribution vendors. This is the hard part as the data will come back with grades of cleansing: A B C levels.
- Have vendors explain why the address is wrong and what is right.
- Determine the best way to get the data back in Netforum--automatic or manual.
- Enter the data back into Netforum before the next circulation list is pulled.

**ASHRAE Cost:** $300

**Recommendation:**

**Address Data Cleansing.** The recommendation is to pursue address data cleansing. It is believed that most member addresses are good but may need slight modifications. The focus would be on Brazil with active members who should be receiving ASHRAE Journal. Publishing, IT, and Member Services will cooperate in the effort, led by David Soltis.
Journal Advertising Subcommittee
Report to Publishing and Education Council (PEC)

Members Attending: Julia Keen, Chair; Heather Platt; Mark Owen, staff liaison
Visitors: Greg Martin, staff Manager of Advertising Sales

Action Items for PEC

None.

Information Items

ASHRAE Journal’s paid advertising share of market (SOM) increased to 63% of all pages sold during the past 12 months compared to a 62% SOM during June 2017-May 2018. At the same time, a net loss of 34 paid pages impacted ASHRAE Journal. Total advertising pages for HVACR Engineering publications declined 67 pages. This is a result of increased market competition for advertising dollars. The Journal’s SOM has risen from 47% in 2009 to 63% for 2019 calendar year. Journal rates per page have been increasing since greater rates and an expanded integration program was implemented early in FY18-19.

While traditional publishers continue programs to compete for reaching ASHRAE’s audience, nontraditional publishers are also becoming more competitive. These include Google, Facebook, and other online publishers offering advertising. Additionally, suppliers have allocated advertising budgets toward improving their own company website, renting emails and trade show marketing as an alternative to ASHRAE Journal advertising.

Online-only advertising for ASHRAE Journal is projected to be near the FY18-19 budget amount of $775,000. Staff is developing new opportunities to accelerate online advertising revenue growth for the Society. Mr. Owen presented a list of completed advertising programs along with those in development, along with projected potentials for FY20. The estimated fiscal impact of these new programs for FY18-19 is $119,456.

HPB magazine advertising revenue is projected to finish at $112,200 for the magazine and $105,400 for online-only advertising sales. A rate increase, and improved circulation will support increased revenue and advertising for the next fiscal year.

Reductions in expenses include removal of polybagging for most issues of ASHRAE Journal and changing the binding of HPB magazine to a smaller footprint. Together, these will remove about $18,000 of expenses annually.

Respectfully submitted,
Julia Keen, Chair
Journal Advertising Sales Subcommittee
JK: jh/mso
eLearning Subcommittee
Report to Publishing and Education Council (PEC)
Meeting of Wednesday, June 25, 2019

Attendees
Julia Keen — Chair (Present); Farooq Mehboob — Vice Chair (Absent); Charles Henck — Member; Jose Luis Correa — Member (Absent); Chandra Sekhar — Member (Absent); Mark Owen — Staff Liaison; Eunice Njeru — Staff; David Soltis — Staff; Susan Polite — Staff

Information Items

1. Financial Review. Subscription revenue for ASHRAE eLearning is on track to make the forecast for the 2018-2019 fiscal year. The cumulative subscription revenue for the fiscal year to date is 175.2k, on a forecast of 200k. Most of this revenue is from individual subscriptions, with corporate subscriptions beginning to gain traction. With the ASHRAE-UNEP partnership, the cumulative revenue for the fiscal year to date is 30K, on a forecast of 179k. This revenue includes UNEP projects of new courses development and translation of existing courses.

2. UNEP Partnership. A substantial amount of ASHRAE staff time and resources effort has been expended towards assisting with UNEP Projects. ASHRAE staff will review the project and define the amount of resources, staff time, and cost is expended to complete UNEP projects. All resources will be converted to a cost to determine the profitability of this partnership. Or, determine if these resources should be applied to other eLearning revenue generating projects.

3. Topical Catalog. ASHRAE staff will develop a collective topical catalog for all ASHRAE products, with a goal of making it easier for members to find and purchase products by topics.

4. Translation. During the Members Council 2019 winter meeting in Atlanta, the motion below was referred to Publishing and Education Council for consideration.

Membership Promotion Committee – Motion 11 (01/15/2019):
That e-learning courses be translated to major non-English languages based on membership demographics.

Background: ASHRAE’s vision is to be a global leader and foremost source of technical and educational information. Based on membership demographics, the top eight non-English speaking countries include: Canada (French), India (Urdo), Hong Kong (Chinese), Philippines (Tagalog), UAE (Arabic), Malaysia (Malay), Brazil (Portuguese), and Mexico (Spanish). Voice-over audio recording of the e-learning materials will provide greater global membership value. Translations can be completed by volunteer members with peer review.
Fiscal Impact: Recommend $0 fiscal impact. Generate income with new e-learning benefit and increase use of e-learning.

ASHRAE staff will review the project requirements of: time, resources, and cost to evaluate the feasibility of completing translations for eLearning courses. This study is to be completed by the Fall Publishing and Education Council meeting, and no later than January 2020 Winter Conference.

5. Course Content Updates Status. ASHRAE eLearning is updating its course offerings to improve the course interactivity and engagement. This will make our courses more marketable to both corporate and individual customers. Fundamentals courses take priority as they have a higher market demand. The project started in March 2019 with two courses launching end of June 2019. The eLearning Subcommittee will help staff identify Subject Matter Experts (SMEs) for eLearning course development.

6. New Course Development

*Attachment A* shows a list of new, in-progress, and proposed courses to broaden and diversify the eLearning course catalog.

7. ASHRAE - UNEP Partnership Projects

*Attachment B* shows an overview of the UNEP projects completed in the 2018-2019 fiscal year:

Respectfully submitted,
Julia Keen, Chair
eLearning Subcommittee
25 June 2019
JK: jh/mso
New Course Development
Below is a list of new, in-progress, and proposed courses to broaden and diversify the eLearning course catalog.

<table>
<thead>
<tr>
<th>Category</th>
<th>Course Name</th>
<th>Status</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>Sound Management of Refrigerants</td>
<td>Launched</td>
<td>July 2018</td>
</tr>
<tr>
<td></td>
<td>Refrigerants Literacy (Spanish)</td>
<td>Launched</td>
<td>January 2019</td>
</tr>
<tr>
<td></td>
<td>Safe Handling of Refrigerants for Technicians</td>
<td>Under Review</td>
<td>June 2019</td>
</tr>
<tr>
<td>In-progress</td>
<td>Energy Efficiency Literacy</td>
<td>Content Development</td>
<td>January 2020</td>
</tr>
<tr>
<td></td>
<td>Designing Toward Net-Zero Energy Commercial Buildings</td>
<td>Content Design</td>
<td>January 2020</td>
</tr>
<tr>
<td>Proposed</td>
<td>BIM Process, Practice and Workflow</td>
<td>Pending</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Building Energy Modeling (BEM)</td>
<td>Pending</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>The Last Word on Energy Audits</td>
<td>Pending</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Improving Existing Building Operations (IEBO)</td>
<td>Pending</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Designing Geothermal Systems</td>
<td>Proposed</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Clean Air Infiltration</td>
<td>Proposed</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
ASHRAE - UNEP Partnership Projects

Below is an overview of the UNEP projects completed in the 2018-2019 fiscal year:

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Management of Refrigerants</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency Literacy</td>
<td>Content Development</td>
<td></td>
</tr>
<tr>
<td><strong>Translations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refrigerants Literacy – English to Spanish.</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>Refrigerants Literacy – English to French</td>
<td>Undergoing Review</td>
<td></td>
</tr>
<tr>
<td><strong>KCEP Seminars</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KCEP – Adapting content to various UNEP geographical locations.</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td><strong>UNEP Portal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portal for all things ASHRAE-ENEP partnership.</td>
<td>June 2019</td>
<td></td>
</tr>
</tbody>
</table>

**Potential Future Projects**

<table>
<thead>
<tr>
<th>Translations</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Management of Refrigerants – English into Spanish and French.</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency Literacy translations into Spanish and French.</td>
<td>TBD</td>
<td></td>
</tr>
</tbody>
</table>
Motions

1. That PEC approve and recommend to the BOD that section 3.910.006. of the ROB changed as shown.

3.910.006.3 Special Publications

A. List prices for publications are established by staff to be above unit cost, with consideration given to pricing of similar publications, publishing and marketing costs, demand, budget needs, and the publication’s role in achieving the mission of ASHRAE.

A. List prices are established in two parts, based on printing and mailing costs, marketing expense, and demand for the publication:

1. Minimum list price is determined approximately by the formula:
Minimum List Price = (Factor) (Unit Variable Cost) where the Factor is a constant which relates the ratio of total fixed and variable costs established for the Special Publications budget, the average income per sale, and the number of free copies required for distribution. The unit variable cost is equal to the total printing cost divided by the number of copies printed, plus the cost per copy for postage and handling. Because the market and the free distribution requirements are different for many of the special publications, the Factor used varies from 6 to 10 or higher. Staff is given latitude in rounding-off values for minimum list prices.

2. Added-Value Increment. If a publication is deemed to have a greater demand than normal, an increment is added to the minimum list price to establish the final list price. This increment will not exceed the value of the minimum list price determined by the formula in Section 1.

B. List prices for existing publications are established by staff in preparing the budget for the next fiscal year. List prices for publications approved after the budget is approved by the BOD are established by staff, subject to approval by the chair of the Publishing and Education Council, and will be consistent with pricing of similar recent publications.

C. When a publication is reprinted for inventory replacement, the original list price prevails unless costs escalate beyond original unit cost or unless the market or distribution requirements change. New prices will be consistent with pricing of similar publications.

D. The Director of Finance will provide fiscal records so that income and expenses can be identified for future control and formula revision, as follows:

- Income and Variable Costs:
  - Transactions
  - Preprints
Reprints
Standards
Bulletins
Other Special Publications

Fixed Costs:
Publications for Sale
Publications not for Sale.

E. The pricing formula is reviewed annually for the Publishing and Education Council budget meeting (spring), and changes are recommended as required to maintain the cost/revenue basis.

F. Complete sets of ASHRAE Standards are available in hard cover ring binders at a price not less than 50 percent of the combined prices for the individual standards in the set, if sold separately.

G. Prices for Psychrometric Charts are established in the following manner:
1. The lowest published list price corresponds to the unit cost for quantity orders of 1000 single charts, 500 pads of 50 sheets, or 500 laminated charts; with a multiplier of 3.0 (to account for fixed costs) being used to determine the list price.
2. The Publishing and Education Council adjusts the multiplier as required to assure that the sales price is maintained at competitive levels.
3. Income from the sale of Psychrometric Charts is considered as income from Other Special Publications.
4. Overprinting of company name, logo, or other approved material is furnished upon request at an added charge of 10 percent of the price for the desired quantity. Minimum quantities for overprinting are 1000 individual charts, 200 pads, and 500 laminated charts.

(79-06-28-48/83-01-23-16)

******************************************************************************

Background: Staff was assigned an action item recommend new minimum list price formula for special publications in ROB.

Staff Recommendation: Publication list pricing is a market-based business decision-making process governed by factors including costs, demand, budgeting considerations, and foremost—the mission of the organization.

The current procedure shown in the ROBs is quite prescriptive, but it also allows for use of a factor that varies so much (“6 to 10 or higher”) as to render much of the prescribed procedure moot. An allowance is also made in case a publication has “greater demand than normal.” The end result is a list price that has been adjusted by publications staff to succeed in the marketplace. The salient point of the procedure is that the list price is built up to cover all costs and be comparable to that for similar titles from ASHRAE and other publishers.

The staff recommendation is that this section of the ROBs be modified and simplified as follows, to (1) reflect current publishing business practice, and (2) allow publishing business staff appropriate leeway to adjust pricing to market conditions.

Fiscal Impact: None.

(Approved by Fiscal Planning Subcommittee 10-0-0 CNV)

2. That PEC recommend to Excomm that staff investigate an electronic means for recording attendance at ASHRAE meetings at Society and grassroots meetings.
**Background:** ECC brought this motion to Functional Planning Subcommittee. By using an electronic tool instead of paper sign in sheets to track attendance of members and guests during TC meetings, standing committee meetings, at CRC workshops and meetings, and other meetings across Society, Society would be able to gather the information more easily and more importantly, efficiently. It would avoid the loss of paper sign-in sheets and reduce administrative effort required for both volunteers and staff in printing, distributing, scanning, and saving paper sign-in sheets.

A digital record of attendance would greatly simplify the process of gathering data and determining past total attendance for meetings in order to better plan space and timing for future meetings. Digital attendance records would also simplify the administrative work required to determine what meetings a specific member has attended over time, which could be useful for other society activities such as the region nominating committee.

ASHRAE society should lead the way in new technology moving away from paper to electronic. It would also save money in mailing paper and save staff time to gather all the sign in sheets since they would be all uploaded automatically.

*(ECC approved 8-0-0 CV)*

**Fiscal Impact:** Minimal cost plus some initial staff time to develop a simple electronic sign in method that would be saved to a cloud platform.

*(Approved by Fiscal Planning Subcommittee 10-0-0 CNV)*

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**Information Items**

3. Mr. Owen reviewed the financial statements with the subcommittee and Dr. Keen reported that the Finance Committee had made a budget adjustment of the Print Online Sales Revenue for 2020.

4. ASHRAE participation in the UN projects has brought in some money but the expense of staff time to work on UN projects has negatively impacted eLearning sales efforts.

5. Staff was assigned an action item to investigate and report the potential cost savings for eliminating polybag wrapping of ASHRAE Journal. Staff recommended eliminating the print version of the ASHRAE Insights publication with a potential saving of $31,500 annually. *(Attachment A)*

6. Staff was assigned an action item to investigate and report on business models of academic journals and gave a response to the subcommittee as shown in *Attachment B.*
To: Heather Platt, PEC Fiscal Planning Subcommittee Chair

From: Mark Owen, PEC Staff Liaison

Date: June 4, 2019

Subject: Action Item #6: Eliminating polybag wrap of ASHRAE Journal

Typically, 10 times per year additional printed pieces are mailed with ASHRAE Journal in a polybag wrapper. These “ride-along” items include ASHRAE Insights (6x/yr), the Meeting Planner (6x/yr), AMCA inmotion supplement (1x/yr), and the publications minicatalog (3x/yr). Sometimes multiple items ride with the same issue. The current polybag cost is about $1500 per issue. This occurs 10x/yr for a total annual cost of $15,000.

In response to requests from members that ASHRAE adopt a more sustainable practice and eliminate the polybag (plastic) wrapping of ASHRAE Journal, staff has investigated the following alternatives to using such wrapping when a second piece needs to be sent with the Journal.

1. “Sustainable” Polybag. Cost = about $6000 per issue. It’s still plastic and takes 50 years to degrade.
2. Envelope. Cost = $12,000 per issue. Adds 3 days to production schedule.
3. Binding. Cost = $3000 per issue. This process is normally used for ad inserts.

Pieces can be mailed separately, but this costs more because of separate labeling and postage at a higher rate. And for some items, such as the AMCA supplement, the cost is prohibitive and would render the collaborative effort unprofitable.

The staff recommendation is to retain the polybag wrap only for AMCA inmotion and the publications minicatalog, while eliminating the wrap for other items. This would eliminate 7 wrapped issues per year, for a savings of $10,500/yr. To facilitate this change, we are working with Meetings and Marketing staff to condensed Meeting Planner content inside the Journal, with digital distribution for the rest of the content.

In addition, the recommendation requires that we transition ASHRAE Insights from print to all digital distribution. The savings from this change is approximately $21,000/yr.

The estimated total annual savings from these changes is $31,500.
TO: Heather Platt, PEC Fiscal Planning Subcommittee Chair
FROM: Mark Owen, PEC Staff Liaison
DATE: June 24, 2019
SUBJECT: Action Item #7: Investigate and report on business models of academic journals

All journals must support costs of production, including those for manuscript management systems, editing/printing, online hosting, and distribution. All these factors are taken into consideration when budgeting, planning, or deciding which model best fits a journal. ASHRAE’s publishing partner for STBE, Taylor & Francis (T&F), has three different business models that are typical of those used for academic journals worldwide: subscription, pure open access, and hybrid:

- A subscription journal gets revenue through subscriptions and could also have nonsubscription revenue streams, which can vary by journal.
- A pure open access (OA) journal could have article processing charges (APCs) paid by authors/funders or could be subsidized by a society/organization so that authors do not have to be responsible for APCs. There aren’t many other revenue streams for a pure OA journal, but some are possible – supplements being one.
- A hybrid journal takes both APCs or other publishing fees and subscription revenue (and can also have nonsubscription revenue). Variations in the OA take-up will affect the extent to which a journal relies on each type of revenue.

Many associations subsidize their journals to some extent. Advertising is also an option for scholarly journals to generate nonsubscription revenue streams, although relatively fewer such journals carry ads.

STBE’s business model is that of a hybrid that sells subscriptions to individuals and institutions and also offers a limited number of OA papers per year, subsidized by ASHRAE. ASHRAE pays a fee for T&F to provide free online access for its members; for an additional $40 per year, members can opt to receive the print edition as well. T&F pays ASHRAE a royalty on revenues received for subscription sales, and T&F retains the balance to support publishing costs.
The current formula for minimum special publication list prices is as follows, from ROB 3.910.006.:  

***

3.910.006.3 Special Publications

A. List prices are established in two parts, based on printing and mailing costs, marketing expense, and demand for the publication:

1. Minimum list price is determined approximately by the formula:
   Minimum List Price = (Factor) (Unit Variable Cost) where the Factor is a constant which relates the ratio of total fixed and variable costs established for the Special Publications budget, the average income per sale, and the number of free copies required for distribution. The unit variable cost is equal to the total printing cost divided by the number of copies printed, plus the cost per copy for postage and handling. Because the market and the free distribution requirements are different for many of the special publications, the Factor used varies from 6 to 10 or higher. Staff is given latitude in rounding off values for minimum list prices.

2. Added Value Increment. If a publication is deemed to have a greater demand than normal, an increment is added to the minimum list price to establish the final list price. This increment will not exceed the value of the minimum list price determined by the formula in Section 1.

B. List prices for existing publications are established by staff in preparing the budget for the next fiscal year. List prices for publications approved after the budget is approved by the BOD are established by staff, subject to approval by the chair of the Publishing and Education Council, and will be consistent with pricing of similar recent publications.

C. When a publication is reprinted for inventory replacement, the original list price prevails unless costs escalate beyond original unit cost or unless the market or distribution requirements change. New prices will be consistent with pricing of similar publications.

D. The Director of Finance will provide fiscal records so that income and expenses can be identified for future control and formula revision, as follows:
   Income and Variable Costs:
   - Transactions
   - Preprints
   - Reprints
   - Standards
   - Bulletins
   - Other Special Publications
   Fixed Costs:
   - Publications for Sale
   - Publications not for Sale.

E. The pricing formula is reviewed annually for the Publishing and Education Council budget meeting (spring), and changes are recommended as required to maintain the cost/revenue basis.
F. Complete sets of ASHRAE Standards are available in hard cover ring binders at a price not less than 50 percent of the combined prices for the individual standards in the set, if sold separately.

G. Prices for Psychrometric Charts are established in the following manner:
   1. The lowest published list price corresponds to the unit cost for quantity orders of 1000 single charts, 500 pads of 50 sheets, or 500 laminated charts; with a multiplier of 3.0 (to account for fixed costs) being used to determine the list price.
   2. The Publishing and Education Council adjusts the multiplier as required to assure that the sales price is maintained at competitive levels.
   3. Income from the sale of Psychrometric Charts is considered as income from Other Special Publications.
   4. Overprinting of company name, logo, or other approved material is furnished upon request at an added charge of 10 percent of the price for the desired quantity. Minimum quantities for overprinting are 1000 individual charts, 200 pads, and 500 laminated charts.

*(79-06-28-48/83-01-23-16)*

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Staff Recommendation:

Publication list pricing is a market-based business decision-making process governed by factors including costs, demand, budgeting considerations, and foremost—the mission of the organization.

The current procedure shown in the ROBs is quite prescriptive, but it also allows for use of a factor that varies so much (“6 to 10 or higher”) as to render much of the prescribed procedure moot. An allowance is also made in case a publication has “greater demand than normal.” The end result is a list price that has been adjusted by publications staff to succeed in the marketplace. The salient point of the procedure is that the list price is built up to cover all costs and be comparable to that for similar titles from ASHRAE and other publishers.

The staff recommendation is that this section of the ROBs be modified and simplified as follows, to (1) reflect current publishing business practice, and (2) allow publishing business staff appropriate leeway to adjust pricing to market conditions:

3.910.006.3 Special Publications

A. List prices are established in two parts, based on printing and mailing costs, marketing expense, and demand for the publication:

1. Minimum list price is determined approximately by the formula:
   \[
   \text{Minimum List Price} = (\text{Factor}) \times (\text{Unit Variable Cost})
   \]
   where the Factor is a constant which relates the ratio of total fixed and variable costs established for the Special Publications budget, the average income per sale, and the number of free copies required for distribution. The unit variable cost is equal to the total printing cost divided by the number of copies printed, plus the cost per copy for postage and handling. Because the market and the free distribution requirements are different for many of the special publications, the Factor used varies from 6 to 10 or higher. Staff is given latitude in rounding off values for minimum list prices.

2. Added Value Increment. If a publication is deemed to have a greater demand than normal, an increment is added to the minimum list price to establish the final list price. This increment will not exceed the value of the minimum list price determined by the formula in Section 1.
B. List prices for existing publications are established by staff to be above unit cost, with consideration given to preparing the budget for the next fiscal year. List prices for publications approved after the budget is approved by the BOD are established by staff, subject to approval by the chair of the Publishing and Education Council, and will be consistent with pricing of similar recent publications, publishing and marketing costs, demand, budget needs, and the publication’s role in achieving the mission of ASHRAE.

C. When a publication is reprinted for inventory replacement, the original list price prevails unless costs escalate beyond original unit cost or unless the market or distribution requirements change. New prices will be consistent with pricing of similar publications.

D. The Director of Finance will provide fiscal records so that income and expenses can be identified for future control and formula revision, as follows:

Income and Variable Costs:
- Transactions
- Preprints
- Reprints
- Standards
- Bulletins
- Other Special Publications

Fixed Costs:
- Publications for Sale
- Publications not for Sale.

E. The pricing formula is reviewed annually for the Publishing and Education Council budget meeting (spring), and changes are recommended as required to maintain the cost/revenue basis.

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2. The Publishing and Education Council adjusts the multiplier as required to assure that the sales price is maintained at competitive levels.
3. Income from the sale of Psychrometric Charts is considered as income from Other Special Publications.
4. Overprinting of company name, logo, or other approved material is furnished upon request at an added charge of 10 percent of the price of the desired quantity. Minimum quantities for overprinting are 1000 individual charts, 200 pads, and 500 laminated charts.

(73-06-28-48/83-01-23-16)
Motion Identification No.
ECC1-03212019

Moved By: Ms. Pamela Duffy, seconded by Ms. Jessica Mangler

Motion: The PEC recommends to Excomm that staff investigate an electronic means for recording attendance at ASHRAE meetings at Society and grassroots meetings.

Background: By using an electronic tool instead of paper sign in sheets to track attendance of members and guests during TC meetings, standing committee meetings, at CRC workshops and meetings, and other meetings across Society, Society would be able to gather the information more easily and more importantly, efficiently. It would avoid the loss of paper sign-in sheets and reduce administrative effort required for both volunteers and staff in printing, distributing, scanning, and saving paper sign-in sheets.

A digital record of attendance would greatly simplify the process of gathering data and determining past total attendance for meetings in order to better plan space and timing for future meetings. Digital attendance records would also simplify the administrative work required to determine what meetings a specific member has attended over time, which could be useful for other society activities such as the region nominating committee.

ASHRAE society should lead the way in new technology moving away from paper to electronic. It would also save money in mailing paper and save staff time to gather all the sign in sheets since they would be all uploaded automatically.

Fiscal Impact: Minimal staff time to develop a simple electronic sign in method that would be saved to a cloud platform.

Vote Count: 8

For: 8    Against: 0    Abstained: 0    Chair Voting: Y
Passed: X    Failed:    Withdrawn:  

Chair Voting: ___Y_____
Presented to and approved by ExCom
Presented to and approved by ExCom but already reflected in budget that was presented $ 55,000

<table>
<thead>
<tr>
<th>Line Item Number</th>
<th>Ranking</th>
<th>Provide a descriptive title.</th>
<th>Submitted by</th>
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<tbody>
<tr>
<td>7</td>
<td>3</td>
<td>Certified HVAC Designer (CHD) certification</td>
<td>PEC</td>
</tr>
<tr>
<td>76</td>
<td>3</td>
<td>Reduce Development Committee FY19 budget by $7.7k</td>
<td>DEV</td>
</tr>
<tr>
<td>77</td>
<td>3</td>
<td>Reduce Foundation Committee FY19 budget by $11.2k</td>
<td>FDN</td>
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<tr>
<td>148</td>
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<td>Reaffirm CM Standards - Steve Ferguson is currently working on this but we wouldn't likely see the results until the 2020 or 2021 ANSI bill. Right now we are charged for all published addenda to CM standards for the last 10 years. For 90.1 that is at least 124 addenda every 3 years. The ANSI bill for ANSs is based on a spread of the number of published ANSs. If we reaffirm the CM standards right after republication and accept comments as change proposals then we would substantially save money. Steve has already discussed this with ANSI and DOE (specifically for 90.1). Our goal is to do this with the 2019 versions of the standards.</td>
<td>Staff</td>
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<tr>
<td>147</td>
<td></td>
<td>What we’ve noticed in many of the standing committees it's the guests eating the food. Perhaps food should be limited to the Council and the Board committees and just coffee and tea for standing committees.</td>
<td>Staff</td>
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<tr>
<td>170</td>
<td></td>
<td>Improved audited statements by adding life members, who were previously counted as unpaid.</td>
<td>MC</td>
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<tr>
<td>21</td>
<td>3</td>
<td>Prioritize marking bad addresses in NetForum from returned mail – maybe an ongoing task for whomever is sitting at the front desk – save money on postage</td>
<td>PEC</td>
</tr>
<tr>
<td>112</td>
<td></td>
<td>Prioritize marking bad addresses in NetForum from returned mail – maybe an ongoing task for whomever is sitting at the front desk – save money on postage</td>
<td>Staff</td>
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<tr>
<td>131</td>
<td></td>
<td>Reduce or eliminate most or all Staff Activities Committee events – specifically eliminate summer event and participation in KP 5K altogether – those two events alone make up almost half of budget</td>
<td>Staff</td>
</tr>
<tr>
<td>41</td>
<td>1</td>
<td>8252-2-601-000000-00 Off-Telephone and 8242-2-601-000000-00 Post Exp</td>
<td>TechC</td>
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<td>117</td>
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<td>The Chapter Opportunity Fund could be reduced (or eliminated)</td>
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<td>145</td>
<td></td>
<td>Convert Residential Building Committee to an MTG - The activities of the RBC would better be served in an MTG (we could still continue to offer staff support). The reports have generally been the same (with little change to the text- see attached reports). While the committee is looking at proposing changes to membership it’s actually going to be limiting if approved. Not much is being done between meetings (Fall/Summer/Winter). The same core group of members is populating all residential activities. Changing the RBC to an MTG would allow more interested parties to participate and open it up for new blood. As more activities occur then changing it back to a standing committee could be reconsidered</td>
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<tr>
<td>175</td>
<td></td>
<td>CEC: Eliminate Sustainability Project</td>
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<tr>
<td>14</td>
<td>3</td>
<td>Increased Journal Advertising rates; online by 10% on average; Journal by 3% on average.</td>
<td>PEC</td>
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<td>15</td>
<td>3</td>
<td>Increased webinar offerings by 14 positions to a total of 36/year at an average rate of $8,000 per webinar. MS: Increase price for webinar. $8000 seems very reasonable.</td>
<td>PEC</td>
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<tr>
<td>16</td>
<td>3</td>
<td>Added value of customized reprints for advertisers increasing programs.</td>
<td>PEC</td>
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<td>17</td>
<td>3</td>
<td>Rebranded print advertising into ASHRAE Journal advertising because of automatic integration of print and digital editions.</td>
<td>PEC</td>
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<tr>
<td>18</td>
<td>3</td>
<td>Added video advertising to AHR newsletters with hosting on ASHRAE Journal landing page.</td>
<td>PEC</td>
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<td>Added additional advertising positions on ASHRAE.org home page and throughout the website.</td>
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<td>19</td>
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<td>Added additional advertising position on best-read newsletter, HVACR Industry.</td>
<td>PEC</td>
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<td>23</td>
<td>1</td>
<td>Eliminated SRDS advertising program</td>
<td>PEC</td>
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<td>12</td>
<td>1</td>
<td>In lieu of printing the Insights 6 times per year, move this to 100% electronic.</td>
<td>PEC</td>
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<tr>
<td>13</td>
<td>1</td>
<td>Send ASHRAE Journal without plastic wrap unless cost supported by additional advertising piece included.</td>
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<td>180</td>
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<td>SA: Discover E Sponsorship</td>
<td>MC</td>
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<td>181</td>
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<td>SA: Solar Decathlon Sponsorship</td>
<td>MC</td>
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<td>182</td>
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<td>SA: Future City Sponsorship</td>
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<td>183</td>
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<td>SA: Zero Student Design Sponsorship</td>
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<td>184</td>
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<td>SA: National Engineer's Week Sponsorship</td>
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<td>179</td>
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<td>YEA: Promotional Budget</td>
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<td>120</td>
<td></td>
<td>Related to DRC travel to other Regions' CRCs: Finance Committee could investigate:</td>
<td>Staff</td>
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<tr>
<td>Page</td>
<td>Line</td>
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<td>59</td>
<td>EHC Travel (exl Staff)</td>
<td>TechC</td>
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<td></td>
<td>102</td>
<td>ExCom should fly economy like other members</td>
<td>Staff</td>
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<td></td>
<td>58</td>
<td>REF Travel (excl Staff)</td>
<td>TechC</td>
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<td>119</td>
<td>The transportation reimbursement caps for Region XIII and RAL could be deleted from the Travel Policy</td>
<td>Staff</td>
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<td>149</td>
<td>Staff Travel - For years that ASHRAE meetings are in Atlanta and cheaper locations (Kansas City) consider reducing the staff travel expenses since the expenses will be lower. Consider allowing all staff that attend meeting that attend the Winter and Annual conferences to telecommute the day after if they take a flight that gets them in late (9 pm or later) in order to save on hotel costs.</td>
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<td>34</td>
<td>Standards Travel (excl Staff)</td>
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<td>Dues and subscriptions</td>
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<td>Meetings Food &amp; Beverage</td>
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<td>Operations Shipping &amp; Mailing</td>
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<td>Operations Staff Morale</td>
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<tr>
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<td>Travel Standards</td>
<td>$5,000</td>
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Totals Excluding Yellow Highlighted: $555,000 $0 $404,800

Totals Excluding Opportunity Funds: $254,800
Functional Planning Subcommittee of PEC Report  
Meeting of Monday, June 24, 2019

**Motions**

1. That PEC approve the final version of the PEC restructure as shown in *Attachment A for implementation on July 1, 2019*.

   **Background:** These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan to be implemented July 1, 2020.

   **Fiscal Impact:** Positive due to the reduction of committee members on standing committees.

   *(PEC Functional Planning Subcommittee Approve 4-0-0 CV)*

2. That PEC approve effective July 1, 2019, the Electronic Communications Committee (ECC)'s reporting structure be changed from reporting to PEC to reporting to Members Council.

   **Background:** These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan. More specifically, the Board Focus Group (FG) 5 was set up in Houston, June 2018. The focus area was the Evolution of the Electronic Communications Committee (ECC) with a charge to make “a realistic assessment of if/how we (ASHRAE) should use the volunteer participation on this commitment for the highest benefit to ASHRAE.” The FG provided a report to the Board in October 2018 with its recommendations. This was done parallel to the PEC restructure that was happening in tandem as a separate effort. One of the suggestions of the Board Focus Group was to re-evaluate the reporting council of the committee and Members Council was suggested. ECC supports this move and feels it is in line with the restructure of PEC and seeks PEC’s support that the committee report to Members Council effective July 1, 2019.

   **Fiscal Impact:** None.

   *(PEC Functional Planning Subcommittee Approve 4-0-0 CV)*

**Consent Motion**

3. That PEC approve and recommend to the BOD changes to the following documents:

   **PEC ROB (Attachment B)**
PEC MOP (Attachment C)
Certification Committee ROB (Attachment D)
ECC ROB (Attachment E)
Handbook Committee ROB (Attachment F)
Historical Committee ROB (Attachment G)
PDC ROB (Attachment H)
Publication Committee ROB (Attachment I)

Background: These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan to be implemented July 1, 2020.

Fiscal Impact: Positive due to the reduction of committee members on standing committees.

(PEC Functional Planning Subcommittee Approve 4-0-0 CV)

4. That PEC approve changes to the following standing committee MOPs:

Certification Committee MOP (Attachment J)
ECC ROB (Attachment K)
Historical Committee ROB (Attachment L)

Background: These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan to be implemented July 1, 2020. Additional editorial and clean up changes to these documents were also made.

Fiscal Impact: None

(PEC Functional Planning Subcommittee Approve 4-0-0 CV)

Information Items

5. Dr. Keen reviewed the proposed PEC restructure and the timeline to implement the changes to PEC. At the at subcommittee’s January Winter Meeting the subcommittee recommended a special orientation module to be created to help council and committee members with the restructure changes which could be used every year to ensure the continued effectiveness of the committees and subcommittees. Dr. Keen has volunteered to take this action item after the BOD has approved the final PEC restructure plan.

Respectfully submitted,
Mohammad Hosni, Chair
Functional Planning Subcommittee
6/25/2019
MH/jh
PEC Restructuring
June 2019
Ad Hoc Members:
Julia Keen (Chair)
Dan Dettmers
Charlie Henck
Jin Jin Huang
Restructuring Goals

• Reshape the role of PEC and its subcommittees’ functions
• Efficient use of volunteer and staff time
• More effectively use volunteer talent and knowledge to provide direction on all publication and education member products
• Improve communication and planning between all things publication and education related
• Build in an evaluation process of committee progress on Council and Society Strategic Plan
• Organize in a logical manner all ASHRAE PEC responsibilities
  • Staff transition
  • New responsibilities as ASHRAE evolves and adds services
Existing Committee Structure

Not addressed: training centers, external education, university courses, etc.

PEC

VP1 (Chair), VP2 (Vice Chair), (5) Past Committee Members, (5) ExO, (2) At-Large [13*]

Standing Committees

Subcommittees


Certifications: Chair, Vice Chairs, & Members, ExO1 [12]
Handbook: Chair, Vice Chair, & Members, ExO2 [25]
Professional Development: Chair, Vice Chairs, & Members, ExO3 [12]
Publications: Chair, Vice Chair, & Members, ExO4 [12]
Historical: Chair, Vice Chair, & Members, ExO5 [9]
Research Journal Subcommittee: Editor, Appointed members [3]

Appointments*
(2) VPs
(5) ExOs
(80) Members

*ECC not included in count
Revised Proposed Committee Structure

PEC

Fiscal Subcommittee

VP1 (Chair), VP2 (Vice Chair), (5) Committee Chairs, (5) ExOs, (4) Past Committee Members [16]

Planning Subcommittee


Products Subcommittee

3 Past Comm. Members, Chair & Vice Chair of Committees, 3 ExOs [13]

Professional Development Subcommittee

Chair, Vice Chair, & Members, ExO1 [25]

2 Past Comm. Members, Chair & Vice Chair of Committees, 2 ExOs [12]

Handbook

Chair, Vice Chair, & Members, ExO2 [12]

Certification

Chair, Vice Chair, & Members, ExO3 [7]

Training & Education

ExO2 (serves as chair), Appointed Members [3]

Historical

Chair, Vice Chairs, & Members, ExO4 [12]

Research Journal

Chair, Vice Chairs, & Members, ExO5 [12]

ECC relocated to Members Council

Appointments

(2) VPs
(5) ExOs
(75) Members
# PEC
(Monitor and Planning)

<table>
<thead>
<tr>
<th>Planning</th>
<th>Fiscal</th>
</tr>
</thead>
</table>
| • Set strategic direction  
• Develop MBOs  
• Prioritize resource allocations  
• Ensure alignment with Society Strategic Plan  
• Identify future PEC leadership  
• Maintain MOP & ROB of PEC  
• Assist with committees’ MOP & ROB  
• Act as a resource for rule interpretation  
• Assist w/ motions  
• Review MBO progress  
• Recommend action when goals are not met  
• Evaluate & document progress toward Society Strategic Planning goals | • Manage budget  
• Monitor Revenue and Expenses  
• Review for potential efficiencies  
• Provide data to help drive decisions  
• Advertising  
• Recognize advertising opportunities  
• Evaluate advertising and sales yield and potential  
• Job board  
• Supplier Directory  
• Supplier Webinars |
## Products
(Monitor, Planning, Review of Bookstore and Portals & Point of contact for other society pubs)

<table>
<thead>
<tr>
<th><strong>Handbook</strong></th>
<th><strong>Publications</strong></th>
<th><strong>Historical</strong></th>
<th><strong>Research Journal Subcommittee</strong></th>
</tr>
</thead>
</table>
| - Manage the development and revision of Handbook content  
- Provide effective means for content delivery  
- Assist TC’s to identify new content developers (authors) | - Books  
- AEDGs  
- Charts/Tools  
- ASHRAE Transactions  
- Proceedings  
- ASHRAE Journal  
- HPB Magazine  
- ASHRAE Insights and eSociety  
- Electronic Pubs - Apps/Data Bases/Software | - Archives (including Library)  
- Content Support/Development (research, sessions, papers, books, etc.)  
- Landmarks  
- Anniversary/Special Event Projects | - S&T for the Built Environment |
# Professional Development

## (Monitor and Planning)

### Training and Education

- E-learning
- Certificates
- Instructor Led Courses
- Self-Directed Learning
- In-Company Courses
- Chapter Resources
- Develop strategy for the evaluation of existing and need for additional training centers
- Assist in the review of training centers – effectiveness and financial impact
- Assist in identification of courses for each training center
- University Course(s)
- ASHRAE Career Enhancement Curriculum Program

### Certification

- Maintain existing certifications and development of new
- Evaluate market demand
- Develop strategy for evaluation
Implementation Time Line

Society Year 2018 – 2019

- Winter Conference
  Atlanta

Present Structure
Discuss ROBs & MOPs

Standing Committees
Vote on:
Structure ROB
MOP

Society Year 2019 – 2020

Today

- Annual Conference
  Kansas City

January
BOD Meeting

August
BOD
Motion

Vote on:
Structure ROB
MOP
(PEC/Committees)

- Winter Conference
  Orlando

Implement PEC Restructure

Annual Conference
Austin

Nomination Process & Election

SRC Review
Deadlines and Deliverables

- Monday, June 24 - PEC Functional Subcommittee vote on:
  - Changes to PEC MOP and ROB and, if approved, forwarded to PEC
  - Changes to Committee ROBs and, if approved, forwarded to PEC

- Tuesday, June 25 - PEC vote on:
  - Changes to PEC MOP and ROB and, if approved, forward to SRC and BOD
  - Changes to Committee ROBs and, if approved, forwarded to SRC and BOD

- Tuesday, June 25 - SRC vote on MOP changes

- Tuesday, June 25 - SRC vote to recommend changes to the ROBs to the BOD

- Wednesday, June 26 - BOD vote on ROB changes

- January 2020 –
  - Changes to committee MOPs & Reference Manuals approved by committee
  - Committees submit to PEC Functional Subcommittee for approval
  - If, approved, Functional Subcommittee forwards to PEC for approval
2.302 PUBLISHING AND EDUCATION COUNCIL

2.302.001 SCOPE AND PURPOSE
This council is responsible for the manufacturing, delivery, and fiscal impact of all ASHRAE publications and professional development products with consideration given to (1) recognized need, (2) potential for sales income, (3) budget constraints, and (4) joint funding agreements. Using established guidelines and procedures, this council shall work with the managing groups of publications at project inception, during execution, and upon completion to ensure a balance of the above considerations is achieved.

2.302.002 MEMBERSHIP

2.302.002.1 The members of this Council are as follows: (08-12-08-04/12-01-25-15/15/07/04/03)

A. Chair: A Vice President of the Society
B. Vice-Chair: A Vice President of the Society
C. Voting Members: Chair, Vice Chair, up to five (5) four (4) Directors, plus the following positions elected by the Board of Directors:
   1a. One past voting member from each of the following committees: Certification, Electronic Communications, Training and Education, Handbook, Professional Development, and Publications.
   2b. Two (2) at-large members. Current Chair of the following committees: Certification, Training and Education, Handbook, and Publications.
D. Non-Voting Members: Chair and Vice Chair(s) of each committee reporting to this council.

2.302.001.2 (05-02-10-23)
At-large members are chosen for their past broad experience and expertise relevant to this council. Recommendations for at-large members should consider maintaining Historical Committee experience on the council.

2.302.003 OPERATIONS

A. The council shall review and recommend changes, when appropriate, to any ASHRAE publications or professional development products.

B. This council is responsible for reviewing, recommending changes, and interpreting the following: Rights and Responsibilities and General Guidelines for Co-Sponsoring Organizations for ASHRAE Public Sessions.

C. This council shall facilitate the communication and planning between all things related to ASHRAE publications and education.

2.302.002 SPECIAL PUBLICATIONS (10-06-30-18)
This council is responsible for the manufacturing, delivery and fiscal impact of all ASHRAE publications and products with consideration given to (a) recognized need; (b) potential for sales income; (c) budget constraints and (d) joint funding agreements. Using established guidelines and procedures, this council shall work with the managing groups of special publications at project inception, during execution, and upon completion to ensure a balance of the above considerations is achieved.

2.302.0034 STRATEGIC PLAN (09-06-21-12C)
A. This council shall develop procedures for recommending updates to the strategic plan on a continuous basis. The council as a minimum shall at the Annual Meeting submit a report to the BOD which includes the current status of each activity which supports the fulfillment of their assignments under the strategic plan. The council shall solicit and report recommendations for
changes to the strategic plan as reported by the committees reporting to the council at the Annual Meeting.

2.302.004 MANUALS AND PROCEDURES
This council is responsible for reviewing, recommending changes and interpreting the following:
Rights and Responsibilities and General Guidelines for Co-Sponsoring Organizations for ASHRAE Public Sessions
TABLE OF CONTENTS

Section 1: Introduction ...................................................................................................................... page 3
Section 2: General Responsibilities of the Council ................................................................. page 3
Section 3: Appointment of Subcommittees ........................................................................... page 4
Section 4: Responsibilities of Standing Council Standing Committees and Subcommittees .... page 4
Section 5: Responsibilities of the Chair ..................................................................................... page 6
Section 6: Responsibilities of the Vice Chair ........................................................................... page 6
Section 7: Responsibilities of the Directors ............................................................................... page 6
Section 8: Responsibilities of Voting Members ........................................................................ page 7
Section 9: Responsibilities of Non-Voting Members ................................................................ page 8
Section 10: Responsibilities of Publishing & Education Director ............................................. page 8
Section 11: Responsibilities of All Council Members ............................................................... page 8
Section 12: Fiscal Planning ........................................................................................................ page 8
Section 13: Motions .................................................................................................................... page 9
Section 14: Meetings .................................................................................................................. page 9
Appendix A: Guidelines for Publication & Distribution of ASHRAE Position Documents .. page 10

TABLE OF ACRONYMS

BOD       Board of Directors
ExCom     Executive Committee
ExO       Ex Officio
HVAC&R    Heating, Ventilating, Air-conditioning and Refrigerating
MOP       Manual of Procedures
PEC       Publishing & Education Council
ROB       Rule of Board
MBO       Management by objectives
MANUAL OF PROCEDURES
PUBLISHING AND EDUCATION COUNCIL

1. INTRODUCTION

1.1. The MOP is an internal document of PEC. It is subject to change from time to time as needed due to changes in the Society.

1.2. The MOP provides a description of some, but not all, of the duties and responsibilities of the Council Members, Chair, Vice Chair, and Directors.

2. GENERAL RESPONSIBILITIES OF THE COUNCIL

2.1. Refer the following types of action to the BOD for action:
   - Approval of policy statements
   - Change fiscal limits
   - Change existing ASHRAE policy
   - Approval of projects exceeding the authority of the Council

2.2. Act as a communications link between BOD and committees.

   2.2.1. BOD to PEC
          - PEC Chair designates one or more Directors to work with staff to distribute key BOD actions to PEC members immediately following preparation of the BOD minutes.
          - Communicating BOD actions to standing committees remains the responsibility of the BOD ExO.

   2.2.2. PEC to BOD
          - PEC will report in writing to the BOD all principal motions immediately after each PEC meeting. At the Winter and Annual Meetings the written reports shall be distributed to the BOD in time for its meeting.
          - PEC reports and actions shall include summary support information provided to it by its standing committees.

   2.2.3. Committees to Council
          - Committee reports at regular PEC meetings shall be in writing, and include all principle motions requiring PEC action, and supporting information.
          - Minutes of each standing committee shall be distributed to all members of PEC.
          - The Products Subcommittee, Professional Development Subcommittee, Planning Subcommittee and Fiscal Subcommittee shall hold meetings outside of the regular PEC meetings. Subcommittee reports shall be provided to PEC in writing prior to its meeting. The report must include all principle motions as well as summary information regarding the actions of the subcommittee and supporting information.
Minutes of standing committees under the Products Subcommittee shall be distributed to all members of the Fiscal Subcommittee.

Minutes of standing committees under the Professional Development Subcommittee shall be distributed to all members of the Fiscal Subcommittee.

Minutes of the Fiscal and Planning Subcommittees shall be distributed to all members of PEC.

The Products Subcommittee shall prepare a combined committee report of its reporting committees (Publications, Handbook, Historical). This report shall be provided in writing prior to regular PEC meetings, and include all principle motions requiring PEC action, and supporting information.

The Professional Development Subcommittee shall prepare a combined committee report of its reporting committees (Certification, Training and Education). This report shall be provided in writing prior to regular PEC meetings, and include all principle motions requiring PEC action, and supporting information.

2.2.4. Council to Council

Actions of PEC for which parallel or supporting action is required by another council shall be communicated in writing to that council chair for inclusion in the meeting agenda of the other Council. Where an oral presentation would be necessary, the PEC chair will arrange for an appearance of a PEC member wishing to report.

Minutes of all PEC meetings shall be sent to all Council chairs and vice chairs.

3. ESTABLISHMENT OF SUBCOMMITTEES

3.1. The PEC chair shall establish subcommittees, deemed appropriate, and make appointments from PEC members. Such subcommittees can be standing or ad hoc at the discretion of the chair.

3.2. Responsibilities of subcommittees shall be delineated by PEC chair at the time of establishment.

3.3. If a subcommittee is established as a standing subcommittee, the PEC chair or that subcommittee chair shall recommend appropriate responsibilities to PEC for inclusion in Item four section 4 of the PEC MOP.

4. RESPONSIBILITIES OF COUNCIL STANDING SUBCOMMITTEES

4.1. Fiscal Planning Subcommittee

4.1.1. The subcommittee consists of:

- One PEC voting VP member designated as subcommittee chair by PEC chair
- Chairs of all committees and subcommittees reporting to PEC
- Two voting members designated by PEC chair in addition to the chair of the subcommittee
- Five committee Chairs, five committee members from the standing committees, one Vice President, two past committee members, and three ExOs.
4.1.2. The subcommittee shall assist the Publishing & Education PEC Director in strategic planning, review and coordination of marketing activities, managing the budget, providing data to help drive decisions and manage advertising activities.

4.1.3. The subcommittee shall assist the Publishing & Education PEC Director in preparation of the budget and four-year plan. The subcommittee shall evaluate budgets to determine compatibility with the aims and policies of PEC and Society.

4.2. Functional Planning Subcommittee

4.2.1. The subcommittee shall consists of PEC members designated by PEC chair.

- One VP member designated as subcommittee chair by the PEC chair
- Five committee Vice Chairs, five committee members from the standing committees, one Vice President, three past committee members, and two ExOs.

4.2.2. The subcommittee shall continually review the operation of PEC and prepare for submission to PEC any suggested revisions or additions to the ROB, PEC’s MOP and MOPs of standing committees that report to PEC, set strategic direction, develop MBOs, prioritize resource allocations, ensure alignment with Society Strategic Plan, identify future PEC leadership, maintain MOP and ROB of PEC, assist with committees’ MOP and ROB, act as a resource for rule interpretation, assist with motions, review MBO progress, recommend action when goals are not met, and evaluate and document progress toward Society Strategic Planning goals.

4.2.3. The subcommittee shall review the status of all strategic plan objectives assigned to PEC and recommend action.

4.3. Journal Advertising Sales Subcommittee

4.3.1. The subcommittee consists of:

- Three past committee members: PEC chair
- Chair and Vice Chair of Handbook, Publications, and Historical standing committees. (Committees with more than one Vice Chair, only one is to be designated. No more than two members from each committee are to serve on the subcommittee)
- Fiscal Planning and Functional Planning Subcommittee chairs
- Three ExOs of Handbook, Publications, and Historical standing committees
- Publications Committee chair
- Publisher/Director of Publications & Education

4.3.2. The subcommittee shall review the advertising sales program and make recommendations for advertising policy development, monitor the progress and activities of the Handbook, Publications, and Historical standing committees and report to PEC.

4.3.3. The subcommittee shall annually recommend a ratio of advertising pages to total pages in ASHRAE Journal’s chair and vice-chair shall be determined by vote of the subcommittee.
4.3.4. The subcommittee shall annually recommend the rates for advertising in ASHRAE Journal.

4.4 eLearning Subcommittee Professional Development Subcommittee

4.4.1 The subcommittee consists of:
- PEC chair
- Two past committee members
- PEC vice chair Chair and Vice Chair of Certification and Training and Education standing committees. (Committees with more than one Vice chair, only one is to be designated. No more than two members from each committee are to serve on the subcommittee.)
- Professional Development Committee chair
- Two ExOs of Certification and Training and Education standing committees
- Publications chair
- Director appointed by PEC chair
- Consultants appointed by chair as needed.

4.4.2 The subcommittee provides Society oversight of the vendors for eLearning products and services shall monitor the progress and activities of the Training and Education and Certification standing committees and report to PEC.

4.4.3 The subcommittee's chair and vice chair shall be determined by vote of the subcommittee.

4.5 Research Journal Subcommittee

4.5.1 The Research Journal Subcommittee reports to the Product Subcommittee.

4.5.2 The subcommittee consists of:
- PEC chair
- PEC vice chair
- ExO of Publications Committee
- Two ASHRAE Fellows selected according to 4.5.1.2
- Science and Technology for the Built Environment editor (ex-officio member)
- Director of Publications & Education PEC (staff liaison)

4.5.2.1 PEC chair ExO shall serve as chair of the subcommittee.

4.5.2.2 The two ASHRAE Fellows serving on the subcommittee shall be appointed by the PEC chair, serving staggered two-year terms. They shall be selected based upon having achieved prominence in the field or as researchers in the sciences of HVAC&R and shall have extensive lists of published research works to their credit. The Director of Publications & Education PEC shall prepare annually a list of candidates meeting the qualifications for appointment.

4.5.3 The subcommittee has the following responsibilities:
- Appoint the editor of the Research Journal acting upon recommendations and suggestions made by the Director of Publications & Education PEC.
Confirm the recommendations of the editor for persons to serve as associate editors.
Recommend approval of the annual budget and four-year plan.
Submit a report to the Products Committee before their meeting at the Winter Annual Conference.

4.5.23.1 ASHRAE Science and Technology for the Built Environment Research Best Paper Award
- To solicit nominations
- To determine the most outstanding paper published in the volume year of Science and Technology for the Built Environment preceding the ASHRAE Winter Meeting
- To forward the name of the recommended award recipient to the Honors & Awards Committee at the Winter Meeting Conference for awarding at the Annual Meeting Conference.

5. RESPONSIBILITIES OF THE CHAIR

5.1. Preside over meetings of the PEC.

5.2. Prepare meeting agendas, check meeting minutes, and prepare or approve designated reports to the BOD.

5.3. Establish standing and special ad hoc subcommittees as may be required and assign chair and members to these subcommittees.

5.4. Delineate responsibilities and duties of the established subcommittees.

5.5. Serve as the conduit between PEC and the BOD, bringing issues of the BOD to PEC for action and PEC issues requiring BOD action forward.

5.6. The Chair shall appoint a liaison to the Society Rules Committee. The chair of the PEC Functional Planning Subcommittee is normally appointed as the Council liaison to the Society Rules Committee.

6. RESPONSIBILITIES OF THE VICE CHAIR

6.1. Preside over PEC meetings in the absence of PEC chair, and assist PEC chair with preparation of the agenda and supporting documentation.

6.2. Perform such other duties as may be assigned by PEC chair.

7. RESPONSIBILITIES OF THE DIRECTORS

7.1. Each Director will serve on at least one of the PEC standing subcommittees.

7.2. In the case of absence by PEC chair and vice chair, preside over PEC meeting.
7.3. The Director is an advisor to, and an advocate for, the committees to which they are assigned by the president-elect.

7.3.1. Serves as ExO non-voting member of the committee, its subcommittees and its Excom.

7.3.2. Is invited to attend and participate in all committee, subcommittee and ExCom meetings. Attendance at subcommittee meetings may be counted towards quorum requirements.

7.3.3. Moves committee motions to council, and acts as an advocate for the committee in all relevant discussions.

7.3.4. Assists committee in preparation of written motions. (To include answers to: who, what, when, why and how much. If fiscal impact been budgeted by ASHRAE, and if so, in which fiscal year?)

7.3.5. Communicates committee plans to other Director's to allow for intercommittee contribution and cooperation.

7.3.6. Conveys presidential goals to the committees.

7.3.7. Assists committee in preparation of “objectives” to satisfy committee scope, presidential goals and strategic plans.

7.3.8. Assists committee and staff liaison in the process of monitoring progress toward timely completion of objectives.

7.3.9. Assists committee in the ongoing review of operational guide, MOP, relevant ROB and Strategic Plan objectives.

7.3.10. Suggests changes in assigned scope, function and personnel.

7.3.11. Receives copies of all committee correspondence, including invitations to all committee meetings.

7.3.12. Interprets BOD and PEC actions to the committee.

7.4. At BOD meetings; acts as an advocate for committees to which they are ExO, in all relevant discussions.

8. RESPONSIBILITIES OF VOTING MEMBERS

8.1. Fully participate in all assigned subcommittees and complete assignments by the designated time.
8.2. PEC is supplied by the Director of Publication & Education with fiscal reports covering all publications. It is the duty of PEC members to review these reports and act on recommended changes, if needed, to keep publications within budget.

9. RESPONSIBILITIES OF NON-VOTING MEMBERS

9.1. Each committee chair shall be non-voting members of the council. Chairs report actions and recommendations of the committee and seeks approval. Each committee chair is responsible for conveying to the committee those actions of PEC which may have an impact on the committee's activities.

9.2. Each committee vice chair shall be non-voting members of the council and will act in the absence of the committee chair. (Committees with more than one vice chair, only one is to be designated to serve in this capacity.)

10. RESPONSIBILITIES OF DIRECTOR OF PUBLICATION & EDUCATION

10.1. The Director of Publications & Education serves as secretary to PEC. The Director also advises PEC on publishing matters and coordinates the activities of others assigned by the Executive Vice President to support the operations of PEC.

10.2. Along with the Fiscal Planning subcommittee, prepare and submit to PEC for approval an annual budget covering all publishing activities of PEC.

10.3. Implement and administer on behalf of PEC practices which fulfill the Society's publishing responsibilities, such as copyright protection, reprint permission, translation rights, etc.

10.4. Ensure that compliance with ASHRAE policy is adhered to.

RESPONSIBILITIES OF ALL COUNCIL MEMBERS

Review each issue of ASHRAE Journal. The Journal editor will provide a form each month that outlines the review material needed.

11. FISCAL PLANNING

11.1. Reports from Non-PEC Committees

11.1.1. Committees not represented on the council who require publication of material shall submit each year, prior to the Fall meeting of PEC, a report covering their plans for the following fiscal year. The Director of Publication & Education PEC shall notify all Society standing general committees of their need to submit such a report with sufficient time that the information is available to be incorporated in the PEC budget under preparation.
11.2. Preparation of Budget and Four Year Plan

11.2.1. Director of Publication & Education PEC prepares, with the assistance of the Fiscal Planning Subcommittee, a proposed budget for the following year and a four-year plan. This tentative budget is forwarded by the Comptroller to the Finance Committee. The Finance Committee includes the PEC budget, as approved or modified, in the overall budget submitted to ExCom of BOD.

11.2.2. The new budget and four-year plan, as approved by ExCom, is transmitted by the Comptroller to PEC and the Publishing & Education PEC Director for review and discussion at the Winter Meeting Conference.

11.2.3. PEC budget as approved or modified is incorporated by the Comptroller in the overall budget for action by the Finance Committee prior to its submission by the Finance Committee to the BOD at the Annual Meeting Conference for approval.

12. MOTIONS

12.1. Motions not involving Society policy or fiscal matters outside PEC’s fiscal plan can be approved by a majority of the voting members in accordance with the voting requirements outlined in the ROB.

12.2. Motions involving Society policy or fiscal matters outside PEC’s fiscal plan can be approved by a 2/3 of the voting members in accordance with the quorum requirements outlined in the ROB but must be submitted to the BOD for final approval.

13. MEETINGS

13.1. Meetings shall be called by the Chair in accordance with schedule outlined in the ROB.

13.2. Incoming members of the council shall be invited and strongly encouraged to attend the meeting of the council immediately preceding their term of office. When requested, they will be reimbursed for transportation costs in accordance with the approved travel reimbursement policy.

13.3. Conduct of meetings shall be governed by the current edition of Roberts Rules of Order.

13.4. Standing committees and subcommittees of the council shall meet separately at least twice a year at the call of their chairs.

13.5. Council Agenda

13.5.1. The secretary of the council (PEC Director of Publication & Education) shall prepare under the direction of the chair an agenda including, but not limited to, the following items: call to order; approval of minutes; list of action items assigned by chair at previous meeting; committee reports and recommendations; subcommittee reports; old and new business.
13.5.2. Any member of the council desiring that a subject be placed on the agenda for discussion should notify chair not less than thirty days before such a meeting.

13.5.3. A preliminary agenda shall be circulated to council members by the secretary so as to be in their possession no less that five working days prior to the meeting. The chair may modify the items at any time prior to or during the meeting.

Appendix A

**Guidelines for Publication & Distribution of ASHRAE Position Documents**

1. Labor for the editing and publication preparation for Position Documents shall be assigned to Publications & Education Department with that cost assigned to PEC. Costs associated with the printing of Position Documents shall be charged to Public Relations.

2. Single printed copies of Position Documents shall be made available to members on request at no cost. The main inventory will be maintained by the Public Relations Section, but other sections may maintain small inventories to meet their needs. Any staff member may respond to requests. (Note: Initial distribution to cognizant TCs and other Society committees and interested parties will be made by the assistant to the BOD upon Position Document publication.) Staff directors should advise the assistant to the BOD regarding distribution internal to Society.

3. Requests for bulk quantities of Position Documents will be judged on a case-by-case basis by the Publications & Education Director. Typically, there will be no charge for a reasonable number of multiple copies when they are for distribution at an ASHRAE function or at a function or for a purpose which supports ASHRAE activities.

4. When fees are assessed for either bulk distribution or non-member distribution pricing will be on a cost recovery basis.

5. Income from Position Document sales shall be credited to PEC and sales will be administered through normal publication sales channels.

6. At ASHRAE meetings, Position Documents will be displayed in the ASHRAE publications sales area. Attendees will be mailed single copies at no charge upon request.
2.429 CERTIFICATION COMMITTEE

2.429.1 SCOPE AND PURPOSE

This committee is responsible for ASHRAE certification of persons, including evaluating and recommending proposals for new programs, and developing, implementing, maintaining, and monitoring and evaluating ASHRAE certification credentialing programs.

2.429.2 MEMBERSHIP

2.429.002.1 Composition

The members of this committee are as follows:

A. Eleven (11) voting members, including a chair and two vice chairs.

B. Non-voting members include a Board ex officio member and coordinating officer

2.429.002.2 Qualifications

A. The chair and vice chairs shall hold the grade of Member or higher in the Society (SBL 7.2)

B. At least two (2) of the voting members shall be current ASHRAE certification holders. (12-01-25-16B)

C. Members should have an awareness of the current educational programs available from the Society and the technical information needs of various segments of the HVAC&R industry.

D. Membership should include broad representation from the HVAC&R industry, including the academic, design, construction, facility operations, and manufacturing communities.

2.429.002.3 Term of Service

The term of service for voting members is intended to be three (3) years, subject to ROB 3.300 Election and Appointment Procedures.

2.429.3 OPERATION

2.429.3.1 General Requirements

A. The principal objective of the committee is to establish specific credentialing goals, including identification of credentialing programs to be implemented.

B. The committee shall develop and maintain certification programs in accordance with ISO/IEC 17024, Conformity assessment – General requirements for bodies operating certification of persons.

C. The committee shall monitor and evaluate the effectiveness of programs after implementation.

D. The committee, working with staff, shall define the body of knowledge necessary to earn the credential and shall set up curricula for each credentialing program, which might include a series of courses required, dependent upon applicant’s education, experience, and performance.

E. The committee shall coordinate with other ASHRAE committees as appropriate.

F. The committee shall set up examination requirements including test papers, proctored examinations, and re-testing where applicable.

G. The committee shall investigate potential partnering organizations in developing credentialing and educational programs.
2.429.3.2 Travel Reimbursement Policy

A. The cost of committee members' travel or transportation to attend meetings of the committee will be reimbursed, if requested, based on the applicable Rule of the Board.

The budget of this committee may include travel costs for liaisons to other groups working on certification issues and travel costs to bring members of other societies/groups with needed expertise to meet with this committee. Travel costs (other than normal transportation costs) will be available only for Certification Committee members who have no allegiance to ASHRAE, and who would attend only to assist with this committee and related activities.

B. The committee's budget may include travel or transportation costs for liaisons to other groups working on certification programs.

C. This committee's budget may include travel or transportation costs to bring non-ASHRAE members to assist with the committee or its subcommittees and related activities.

D. This committee's budget may include travel or transportation costs for committee or subcommittee members who participate in activities that are unique and extraordinary to typical committee actions.

E. Individuals may request travel reimbursement for activities must be made prior to travel. Approval for travel will be by committee chair and Publishing and Education Council chair and must be given prior to travel.

2.429.004 STRATEGIC PLAN

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the Professional Development Committee council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the Professional Development Committee council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
2.405 ELECTRONIC COMMUNICATIONS COMMITTEE

2.405.001 SCOPE AND PURPOSE

The Electronic Communications Committee identifies the electronic communication and collaboration needs for the membership groups and staff, recommends and maintains policies, and ensures that the implementation of information technologies meets the objectives and needs of the Society.

2.405.002 MEMBERSHIP

2.405.002.1 Composition (13-01-30-09)

The members of this committee are as follows:

A. Eight (8) voting members including the chair and vice chair, with provision for 2 consultants, as needed.

B. Non-voting members include a Board ex officio member and coordinating officer.

2.405.002.2 Qualifications

A. Membership should include at least one past voting member from each council.

B. A substantial number of the members shall have recent experience with electronic communications technologies.

2.405.002.3 Term of Service

The term of service for voting members is intended to be three (3) years, subject to ROB 3.300 Election and Appointment Procedures.

2.405.003 OPERATION

2.405.003.1 General Requirements

A. Recommend and maintain policies and guidance for managing ASHRAE’s electronic communication infrastructure, within membership groups.

B. Ensure that electronic communications policies and guidance balance the multiple goals of generating income, promoting ASHRAE’s public image, being in alignment with ASHRAE’s Strategic Plan, providing services to members, and assisting volunteers in their service to the Society.

C. Review current membership group/Society activities for conformance with existing policy.

D. Provide oversight of staff activities in electronic communications.

E. Regularly communicate with members about the capabilities of ASHRAE’s electronic communications infrastructure.

F. Plan for future enhancements to the ASHRAE electronic communications infrastructure. Maintain a prioritized list of capabilities to be added.

G. Recommend and maintain policies and guidance governing data access, security, and privacy protection for electronic communications.

H. Provide assistance to staff to ensure coordination of electronic databases to ensure that data managed within the Society can be made available as necessary for the appropriate functions.

2.405.003.2

I. The committee shall define and maintain a process for evaluating and prioritizing requests for new electronic communications services that can be used by the council/membership groups. The execution of an approved request is a staff function.

2.405.003.3

J. The committee shall develop and maintain guidelines on how to prepare an electronic communications request.

Commented [J1]: Consider altering committee name per the ad hoc report

Commented [RJ2R1]: Suggestion in report is Member Communications Committee (MCC)

Commented [RJ3R1]: After further discussion, suggestion is for the name to be Communications Committee and that is now reflected in this version.

Commented [RJ4]: SRC Addition

Commented [RJ6]: Note per discussion in functional SRC’s suggested strike of the 2 consultants was removed due to the BOD voting the 2 consultants as needed in Motion 19 during the Atlanta meeting.

Commented [J7]: Content which references or is duplication of content from other chapters of the ROB should be removed to allow more efficient management of the ROB

Commented [RJ8]: SRC addition

Commented [J9]: Ensure this content reflects the revision made to the scope and purpose
The committee should provide assistance to those preparing proposals. The councils may use the Electronic Communications Committee to review proposals for completeness. The review criteria should include considerations such as adequate definition, justification of need, technical feasibility, etc.

Commented [J10]: More appropriate to list as part of General Requirements

2.405.004 STRATEGIC PLAN
(09-06-21-12C)

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
2.409.001 SCOPE AND PURPOSE

The Handbook Committee identifies HVAC&R technical information needs of members for a series of ASHRAE Handbook volumes that are updated and republished periodically; recommends and maintains policies; and oversees production and delivery of the Handbooks.

2.409.002 MEMBERSHIP

2.409.002.1 Composition

The members of this committee are as follows:

A. Twenty five (25) voting members including the chair and vice chair.

B. Non-voting members include a Board ex-officio member and coordinating officer.

2.409.002.2 Qualifications

A. The chair, vice chair, and volume subcommittee chairs shall hold the grade of Member or higher.

B. All members of the committee shall be voting members of ASHRAE.

C. Members should have TC handbook subcommittee experience and knowledge of a broad range of technical topics.

2.409.002.3 Term of Service (85-06-26-11/86-06-25-09)

The term of service for the voting members is intended to be four (4) years but may be extended as necessary to allow for Appointments to each subcommittee shall be for a term sufficient to completeion of the publication of the assigned volume.

2.409.003 OPERATION

2.409.003.1 General Requirements

A. In the performance of its functions, this committee shall be subject to the condition that the material published shall tend to advance the professional education of the individual engineer, shall be free from commercial bias, and shall tend to advance the objectives of the Society. (67-06-25-08/87-06-28-19)
B. Electronic versions of individual chapters of the ASHRAE Handbook may be made available for sale through the Internet, with appropriate safeguards to preserve the sales of ASHRAE Handbook volumes and value of ASHRAE membership. Paper reprints of individual chapters of the Handbook volumes are not sold by ASHRAE, except in the following instances:

1. Non-profit organizations engaged in research or education, as approved, at cost plus overhead.
2. Handbook authors and revisers, in quantities not to exceed 100, also at cost plus overhead.
3. This section applies to requests to reprint Handbook material.
4. Permission to reprint individual complete chapters is to be granted only to non-profit organizations engaged in research or education, with proper credit to ASHRAE and as approved.
5. Permission is to be refused to individuals or companies wishing to reprint entire chapters for sale or for free distribution for trade or promotional purposes.
6. Permission may be granted to individuals, corporate bodies, non-profit organizations and government agencies to reproduce charts, tables, illustrations, or reasonable portions of text not embracing a complete chapter, provided specific permission is obtained from ASHRAE for each such use and proper credit to ASHRAE is given with each use.

C. Members who are entitled to receive the print Handbook as their free annual benefit shall be given the following three choices for how they receive their Handbook member benefit:

1. Print volume (I-P or SI edition) with CD included
2. A one-year subscription to ASHRAE Handbook Online with separate mailing of CD
3. Print volume (I-P or SI edition) with CD included, plus a one-year subscription to ASHRAE Handbook Online (i.e., combined options 1 and 2), for a reasonable fee to be determined by Publishing and Education Council with input from ASHRAE staff.

2.409.003.2 Royalty Fees and Disclaimers
A. Royalty fees may apply depending on value of content and amount of material to be reprinted.
B. Permission may be granted to those asking to include Handbook tables and data in computer programs. When ASHRAE is identified as the source, the following disclaimer must be included with the program:"Material adopted by permission from (name and dates of publications). The American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. assumes no liability for the use or contents of this software or its fitness for a particular application. The American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. has not reviewed this software and does not endorse, warrant, or certify its contents, use or application."

2.409.003.3 Copyright
A. The following statement shall be included on the copyright page of the ASHRAE Handbook
B. No part of this book may be reproduced without permission in writing from ASHRAE, except by a reviewer who may quote brief passages or reproduce illustrations in a review with appropriate
credit; nor may any part of this book be reproduced, stored in a retrieval system, or transmitted in
any form or by any means—electronic, photocopying, recording, or other—without permission in
writing from ASHRAE.

C. Volunteer members of ASHRAE Technical Committees and others compiled the information in this
handbook, and it is generally reviewed and updated every four years. Comments, criticisms, and
suggestions regarding the subject matter are invited. Any errors or omissions in the data should be
brought to the attention of the Editor. Additions and corrections to Handbook volumes in print will
be published in the Handbook the year following their verification and as soon as verified on the
ASHRAE Internet web site.

D. DISCLAIMER "ASHRAE has compiled this publication with care, but ASHRAE has not investigated,
and ASHRAE expressly disclaims any duty to investigate, any product, service, process, procedure,
design, or the like that may be described herein. The appearance of any technical data or editorial
material in this publication does not constitute endorsement, warranty, or guaranty by ASHRAE of
any product, service, process, procedure, design, or the like. ASHRAE does not warrant that the
information in this publication is free of errors. The entire risk of the use of any information in this
publication is assumed by the user.

E. The footnote on the first page of each chapter of the ASHRAE Handbook shall read "The preparation
of this chapter is assigned to TC (number)." (73-06-27-16)

2.409.003.4 Responsibilities

A. ASHRAE shall publish and distribute to its members handbooks of current technical information for
the HVAC&R industry. The name of the publication shall be the ASHRAE Handbook. (ROB 520-130-
004)

B. The Handbook Committee shall continue to make reference to the best technical data available for use
in the ASHRAE Handbook, regardless of whether or not the referenced material was developed by
ASHRAE. (66-06-29-09)

C. The ASHRAE Handbook is published on a 4-year cycle in following sequence: Fundamentals,

D. The print edition is established as the official ASHRAE Handbook. (08-06-25-12)

E. The Handbook Committee, in cooperation with the Handbook Editor, shall prepare and maintain the
Handbook Authors and Revisers Guide. (05-06-29-13)

F. Handbook volumes shall be published in separate IP and SI editions. (88-20-04-66/89-06-29-
26(1))

2.409.004 STRATEGIC PLAN (09-06-21-12C)
This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
2.410 HISTORICAL COMMITTEE

2.410.001 SCOPE AND PURPOSE
The Historical Committee shall encourage and carry on historical research and provide support to history-related activities of the Society.

2.410.002 MEMBERSHIP

2.410.002.1 Composition
The members of this committee are as follows
A. Nine Seven (97) voting members including the chair and vice chair.
   (17-02-01-01)
B. Non-voting members include a BOD ex officio member and a coordinating officer.
   (92-01-29-36C/98-01-16-13/06-06-28-11B/07-01-31-10/07-06-27-20)
C. Corresponding members include a Regional Historian from each region

2.410.002.2 Qualifications
A. It is recommended that at least one committee member be from outside the United States.
   (96-02-22-51/01-06-27-22B)
B. At least three (3) of the voting members should have served as a Regional Historian (RVC) or as a Chapter Historian.
   (17-02-01-01)

2.410.002.3 Term of Service
The term of service for voting members is intended to be three (3) years—subject to ROB 3.300 Election and Appointment Procedures.

2.410.003 OPERATION

2.410.003.1 General Requirements
This committee shall sponsor, encourage and conduct research into the history of advances of the arts and sciences of heating, ventilating, air conditioning and refrigeration.
This committee shall conduct historical symposiums, seminars, etc., and sponsor historical displays at Society meetings.
This committee shall encourage authorship and publication of articles of a historical nature.
This committee shall locate and identify items of historical significance and determine if such items may be moved to more convenient locations for display or availability.
A repository and catalog of literature of historical significance shall be maintained.
This committee shall administer and review all ASHRAE HVAC&R Industry Milestone Plaque Awards guideline and judge the validity of the historical information presented by the ASHRAE Sponsoring Entity about the nominated eligible site, process milestone for the Award Plaque

2.410.004 STRATEGIC PLAN
This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the Products Subcommittee council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council Products Subcommittee all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.

Commented [SE1]: Committee believes that they should continue to provide guidance to regional and chapter historians even though the Committee focus will be on the larger picture, at least during this transitional period.
Motion:

Professional Development Committee recommends Functional Planning Subcommittee approve changes to the committee’s ROB as shown in Attachment A. A copy with complete revisions is shown in Attachment B.

Background: These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan.

Fiscal Impact: None.
ATTACHMENT A.

2.418 - TRAINING AND EDUCATION PROFESSIONAL DEVELOPMENT COMMITTEE

2.418.001 SCOPE AND PURPOSE

This committee identifies the educational and training needs of the HVAC&R industry, recommends and maintains policies, sets curriculum, evaluates the effectiveness and monitors the development and delivery of educational products and services.

2.418.002 MEMBERSHIP

2.418.002.1 Composition (02-01-16-24/04-01-28-32/13-06-26-02/15-01-28-06)

The members of this committee are as follows:

A. Twelve (12) voting members, including a chair and two (2) vice chairs,

B. Non-voting members include a Board ex officio member and coordinating officer.

2.418.002.1 Qualifications

A. Membership should include broad representation from the HVAC&R industry. No one interest group should dominate the membership.

B.

C. A majority of the committee members should have experience as users of continuing education courses or developers or providers of continuing education products to provide academic rigor to the Committee's products and curriculum. These include:

D. 1. Design professionals or contractors that provide seminars to others of their trade.

E. Educators that teach HVAC&R application courses.

F. Manufacturers that provide educational programs either to their internal staff or in support of the HVAC&R industry.

G. People that develop curricula or certificate programs in building sciences.

H. Several members should have recent experience with distance learning technologies.
B. Members of the committee are prohibited from working as course development contractors during their tenure on the committee (05-02-06-02).

2.418.002.3 Term of Service

The term of service for voting members is intended to be three (3) years, subject to ROB 3.300 Election and Appointment Procedures.

2.418.003 OPERATION

2.418.003.1 General Requirements

A. This committee is responsible for having the subject matter and details for all ASHRAE course and training material reviewed and appraised by the appropriate relevant Technical Committee representatives and/or other technical resources. (85-06-27-28/88-02-04-19/00-06-28-07)

B. This committee is responsible for defining the direction and content of the educational and training portfolio, marketing and creating awareness, assessment and evaluation, review cost and profit of courses, the design, development, marketing, and implementation of the courses and other deliverables under its jurisdiction.

C. This committee will provide a mechanism to formally recognize students participants for their successful completion of training and educational programs accomplishments obtained through the completion of ALI programs.

D. This committee is responsible for the operational aspects of its mission, which do not require prior approval of the Board of Directors except for matters involving Society policy.

E. This committee sets the price it deems appropriate for the courses and other deliverables offered with an approach to have the overall curriculum break even and not be profit driven. The committee prepares a 4-year fiscal plan consistent with its break even objective and submits this plan to the Board of Directors through the Finance Committee for approval.

F. The committee will seek the approval of the Board of Directors and the Finance Committee on major fiscal expenditures that are outside the reasonable limits of the fiscal plan. Publishing and Education Council will decide when such matters warrant submission for approval.

2.418.004 STRATEGIC PLAN (09-06-21-12C)

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.

Commented [J1]: Content which references or is duplication of content from other chapters of the ROB should be removed to allow more efficient management of the ROB.

Commented [J2]: Delete as this would be required if outside the allocated budget.
ATTACHMENT B.

TRAINING AND EDUCATION COMMITTEE

2.418.001 SCOPE AND PURPOSE

This committee identifies the educational and training needs of the HVAC&R industry, recommends and maintains policies, sets curriculum, evaluates the effectiveness and monitors the development and delivery of educational products and services.

2.418.002 MEMBERSHIP

2.418.002.1 Composition (02-01-16-24/04-01-28-32/13-06-26-02/15-01-28-06)

The members of this committee are as follows:
C. Twelve (12) voting members, including a chair and two (2) vice chairs.
D. Non-voting members include a Board ex officio member and coordinating officer.

2.418.002.2 Qualifications

J.D. Membership should include broad representation from the HVAC&R industry. No one interest group should dominate the membership.

K.E. A majority of the committee members should have experience as users of continuing education courses or developers or providers of continuing education products.

L.F. Members of the committee are prohibited from working as course development contractors during their tenure on the committee (05-02-06-02).

2.418.002.3 Term of Service

The term of service for voting members is intended to be three (3) years.

2.418.003 OPERATION

2.418.003.1 General Requirements

G.D. This committee is responsible for having the subject matter and details for all ASHRAE course and training material reviewed and appraised by relevant Technical Committee representatives and/or other technical resources. (85-06-27-28/88-02-04-19/00-06-28-07)

H.E. This committee is responsible for defining the direction and content of the educational and training portfolio, marketing and creating awareness, assessment and evaluation, review cost and profit of courses and other items under its jurisdiction.

is committee will provide a mechanism to formally recognize participants for their successful completion of training and educational programs.

2.418.004 STRATEGIC PLAN (09-06-21-12C)

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
2.419.001 SCOPE AND PURPOSE

This committee identifies the technical information needs of the HVAC&R industry not met through the ASHRAE Handbook series, ASHRAE's or Research Journal, standards, or guidelines, or user's manuals and oversees editorial policies and delivery of products to the marketplace. This committee also determines the best paper published in the volume year of ASHRAE Journal preceding the ASHRAE Winter Conference.

2.419.002 MEMBERSHIP

2.419.002.1 Composition

The members of this committee shall be as follows:

A. Twelve (12) voting members, including a chair and a vice chair. (16-06-29-20)

B. Non-voting members include a Board ex officio member and coordinating officer.

2.419.002.2 Qualifications

A. All members of the committee shall hold the grade of Associate Member or higher in the Society.

B. Members should have an awareness of the current technical information needs of various segments of the HVAC&R industry.

C. Membership should include broad representation from the HVAC&R industry including the academic, design, construction, facility operations and manufacturing communities.

D. At least three members should have recent experience with the production or writing of technical publications or periodicals.

2.419.002.3 Terms of Service

The term of service for voting members is intended to be three (3) years subject to ROB 3.300 Election and Appointment Procedures.

2.419.003 OPERATION (example actions are listed)

2.419.003.1 General Requirements

A. This committee shall oversee the editorial policies of ASHRAE's Special Publications, ASHRAE Transactions and other conference proceedings, ASHRAE's magazines (such as the ASHRAE Journal
and High Performing Buildings, and ASHRAE Insights, and ASHRAE’s electronic newsletters. The committee shall be subject to these conditions:

1. The data recommended for publication shall tend toward the professional education of the individual engineer;
2. Such data shall be free from commercial bias;
3. Such data shall tend to advance for the public benefit the arts and sciences relating to heating, refrigeration, air conditioning, and ventilation and the allied arts and sciences. (67-06-25/82-06-30-25/86-06-22-18M)

B. ASHRAE shall produce “Special Publications” that shall be defined as all technical publications in print format (except for the ASHRAE Handbook series; standards, guidelines, and user’s manuals; ASHRAE’s research journal, and ASHRAE’s magazines), such as non-series books (including books resulting from ASHRAE Research Projects and Special Projects), books in the Advanced Energy Design Guide series and the ASHRAE Datacom Series, charts, and tools, as well as all technical publications in machine-readable format, such as audio and visual presentations, software, databases, apps, and online resources. This committee shall guide and assist the publishing staff with respect to Special Publications.

C. The objective of ASHRAE Transactions shall be to serve as the archival publication of unsolicited research papers and Society-sponsored research and discussions in HVAC&R technical areas presented at the ASHRAE Annual and Winter Conferences as well as of Society business such as council and committee membership and award recognition. The objective of proceedings of ASHRAE-sponsored conferences and ASHRAE cosponsored conferences shall be to serve as the archival publications of the unsolicited research papers presented at these conferences.

C.D. The objective of the ASHRAE Journal shall be to maintain and enhance its leadership role in communication of heating, ventilating, air-conditioning and refrigerating information to and from the profession, industry, and related interests. Through its editorial and advertising content, (ROB 520-144-005). Editorial and advertising content of ASHRAE Journal shall be directed toward the professional education of persons engaged in industries related to heating, refrigeration, air conditioning and ventilation. (86-06-22-18K) The objective of High Performing Buildings shall be to focus on practices and technologies to promote better buildings and offer practical solutions. Articles will include when available measured performance data and lessons learned through the design, construction and operation of today’s best-performing buildings.

E. The objective of ASHRAE’s electronic newsletters Insights shall be to communicate news to various audiences of ASHRAE eSociety, distributed to members only, activity, including news of members, chapters, regions, Society committees, and International Associates. (ROB 520-144-007). Editorial content of Insights will communicate news of Society activity, including news of members, chapters, regions, Society committees and International Associates. (86-06-22-18L) ASHRAE Journal Newsletter, distributed to members only, connects news of industry trends with articles from the journal’s archive of peer-reviewed content. ASHRAE HVAC&R Industry News curates the latest trends and announcements from the industry to a large readership of members and non-members. HPB Newsletter combines online-first versions of HPB print articles with links to external articles.
related to energy efficiency, resiliency and sustainability for a diverse audience of ASHRAE
engineers, architects, facilities managers and building owners.

D. In addition to the Handbook, standards and guidelines, research journal, ASHRAE Journal, and
Insights, ASHRAE shall produce technical publications. This group of technical publications shall be
referred to as Special Publications and shall be defined as all technical publications including non-
print formats, such as machine-readable items, and audio and visual presentations, software, and
apps, except for the ASHRAE Handbook, standards and guidelines, research journal, ASHRAE
Journal, and Insights. (ROB 520-164-004)

E. Papers and discussions presented at ASHRAE meetings conferences (with the exception of
workshop forum discussions unless participant permission is given), ASHRAE cosponsored
conferences/meetings, and ASHRAE-sponsored conferences may be published in the Journal in original
text or condensed form. (86-06-22-18K)

G. When important issues are submitted to the membership by the Board of Directors for
consideration through use of the Journal, both supporting and opposing views will be presented
whenever possible. (86-06-22-18K)

H. The Journal operation shall receive full cost recovery from projects and advertisements carried
for other Society committees and/or councils. (87-07-02-41-001)

I. ASHRAE shall retain a contributing editor for ASHRAE Journal. (88-05-21-38)

2.419.003.2 Licensing and Reprints

A. Permission or license is to be granted to individuals, organizations, or companies to reproduce
portions of or a complete copy of Preprints/Transactions paper or ASHRAE Journal article, provided
that
1. An “Agreement for Permission to Publish” has been signed by all authors of the preprint/paper in
question. (For those published in 1978 and later only.)
2. Appropriate credit as specified by the Society is included in the republication.
3. An appropriate disclaimer as specified by the Society is included in the republication.
4. The use of the preprint/paper does not imply commercial endorsement by the Society.
5. Copies of the preprint/paper are not sold for profit by the requesting individual, organization or
company. Reprints of individual Preprints/Transactions papers or Journal articles will be made
available to individuals, organizations or companies, upon request and receipt of payment, in
quantities of 100 or more (multiples of 100) at cost plus an overhead mark-up. Duplicate film

Permissions
negatives of individual articles or material published in ASHRAE Journal will be made available to
individuals, organizations, or companies, at cost plus overhead mark-up.

B. Permission or license is to be granted to individuals or companies to reproduce psychrometric
charts, provided
1. The reproduction clearly indicates the chart as being the ASHRAE Psychrometric Chart, and that
no alterations are made to the Chart.
2. A royalty fee of 20 percent is paid to ASHRAE when charts are printed by others, in forms similar
to those offered for sale by ASHRAE. The royalty fee is to be calculated on the basis of the current
list price for similar form and quantity. No permission or license is to be granted to reproduce charts
if the requesting organization intends to sell copies for profit. (79-06-28-48)

2.419.003.3 Honorarium
Authors of published feature articles in ASHRAE Journal shall be given a credit of $100 to apply to the
purchase of ASHRAE publications. (93-01-27-44)

2.419.003.4 Editorial Content
A. Editorial content of Insights will communicate news of Society activity, including news of members,
chapters, regions, Society committees and International Associates. (86-06-22-18L)
B. A summary of major actions taken by the Society’s Board of Directors will be published in Insights.
(86-06-22-18L)
C. When important issues are submitted to the membership by the Board of Directors for
consideration through use of Insights, both supporting and opposing views will be presented
whenever possible. (86-06-22-18L)
D. Within this committee policy guidelines, the overall planning of editorial content for the ASHRAE
Journal and ASHRAE Insights is the responsibility of the Editor. The implementation of the overall
plan for specific issue editorial content is the responsibility of the Editor and his or her respective
publication staffs.

2.419.003.5 Special Publications Approval Procedure
A. Special Publications approval procedure is intended to assure that data on the fiscal impact are
available to the Publishing and Education Council during consideration of any request for approval
of any special publication. The procedure does not apply to the Preprints or Standards. Although
intended for use with publications offered for sale by ASHRAE, it also could apply to free
publications. The procedure is as follows:
1. Before recommending a proposed publication for Publishing and Education Council approval,
the committee sponsoring the publication will obtain from its staff liaison or the Editor of
Special Publications a Publications Request Form.
2. The completed form is to be returned to the Editor of Special Publications, who will coordinate a staff analysis of the publication, and submit recommendations to this committee.

3. This committee will review the recommendations and supporting data, and report to the Publishing and Education Council, which will approve, reject, or defer the proposed publication. (86-01-22-29/88-02-04-63C)

2.419.003.6 Transactions

A. ASHRAE Transactions shall be prepared in the following manner. Each yearly volume to be divided into two parts, and available for distribution to the membership ordering copies not later than four months after each Society Meeting. (65-07-04-41)

B. ASHRAE Transactions shall include technical articles and accompanying discussions in complete form. Appropriate comments received within the time schedule for an issue of ASHRAE Transactions shall be included in that issue. (64-01-29-16/74-02-02-21)

C. Symposium papers shall be included in ASHRAE Transactions. (74-02-02-19)

D. The BOD authorizes complimentary copies of ASHRAE Transactions and symposium bulletins to be sent to the following agencies:
   1. Engineering Index
   2. Chemical Abstracts
   3. Current Contents - Engineering and Technology
   4. Applied Sciences and Technology Index
   5. Gas Abstracts
   6. National Institute of Standards and Technology

2.419.003.7 Disclaimers

The following publications disclaimer is approved by the BOD, and will be recommended to organizations that use ASHRAE Standards as a basis for related publications. The disclaimer states “This document is based on ASHRAE Standard_____; however, the sponsors of this document are responsible for the manner in which the standard is applied.” (78-02-02-51)

2.419.003.7 Operational Data

A. An index of each year’s articles, symposia, etc., in the same format used for the 1959-72 Composite Index shall be prepared and published annually. (It is recommended that the first of these annual indices cover both 1973 and 1974, and then one each year thereafter. It is understood that the tape prepared for each year would be applicable for printing subsequent Composite Indices at intervals as may be deemed desirable or required.) (74-02-07-50)

B. Further updating of the Composite Index shall become a staff operation, with administrative control by the Publishing and Education Council. (74-02-07-49)
2.419.0045 STRATEGIC PLAN

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee's assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee's constituents prior to the Annual Meeting.
Certification Committee Manual of Procedures

1. INTRODUCTION
   1.1 The Rules of the Board for the Certification Committee defines its authority, organization, and general responsibilities. The Manual of Procedures (MOP) describes the operational rules and interpretation of policy that the Certification Committee must operate under, procedures followed in carrying out the general responsibilities of the committee as prescribed in its Board-Approved Rules.

   1.2 The MOP provides a description of some, but not all, of the duties and responsibilities of the Certification Committee Members, Chair, and Vice Chairs, members, and staff liaison.

B. GENERAL RESPONSIBILITIES OF THE CERTIFICATION COMMITTEE - RESPONSIBILITIES

2. Part 1 Responsibilities – Develop ASHRAE Certification Programs
   2.1 Develop programs that position ASHRAE as the recognized source of certification for the HVAC&R industry.
   2.2 Conduct market research to determine the need and demand for proposed certification programs. Evaluate the potential for success.
   2.3 Develop and implement certification remediation programs for those persons pursuing and enhancing careers related to the HVAC&R industry.
   2.4 Determine the need for external expertise and select the appropriate provider.
   2.5 Make recommendations for new certification programs.
   2.6 Develop certification programs in accordance with ISO/IEC 17024: Conformity assessment – General requirements for bodies operating certification of persons.
   2.7 Establish the eligibility requirements for certification, including examination requirements, and recertification.
   2.8 Develop application fee schedules.
Part 2 Responsibilities – Maintain ASHRAE Certification Programs

B.2.1 Manage certification programs in accordance with the ISO/IEC 17024 – General requirements for bodies operating certification of persons.

B.2.2 Assume responsibility for the decision on certification.

B.2.3 Review the management system annually in order to ensure the requirements of ISO/IEC 17024 – General requirements for bodies operating certification of persons are fulfilled and that the management system is effectively implemented and maintained.

B.2.4 Monitor the effectiveness of programs after implementation, including certification and recertification application rates, examination pass rates, and item and test analysis reports.

B.2.5 Maintain up-to-date examination security risk management policies and procedures.

B.2.6 Conduct annual audit and management system review.

B.2.7 Establish examination development work plan and schedule.

B.2.8 Maintain records of applicants for certification and recertification in perpetuity.

Part 3 Responsibilities – Monitor and Evaluate the Effectiveness of ASHRAE Certification Programs

B.3.1 Evaluate the continued need and demand for implemented certification programs.

B.3.2 Develop and apply criteria for sunsetting certification programs and make related recommendations.

2.2 Develop and provide the products that position ASHRAE as a recognized source of credentialing for the HVAC&R industry.

2.3 Monitor the effectiveness of programs after implementation.

2.4 Maintain an operations plan for the CC.

2.5 This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council at a time determined by the Planning Committee. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting. [Referenced in the ROB, so not needed here.]

2.61.1 Collaborate with other committees — such as the Professional Development Committee, the eLearning subcommittee of the Publications & Education Council, and the Publications Committee — to integrate courses and other resources into the development of ASHRAE certification.
Part 4 – Responsibilities – Governance

B.4.1 Advocate for Certification Committee composition to reflect the strategic needs of ASHRAE certification programs.
B.4.2 Assess Certification Committee performance
B.4.3 Develop Management by Objectives (MBOs)
B.4.4 Monitor ASHRAE Certification budget to ensure MBO completion and strategic needs.
B.4.5 Attend all board meetings, except in the event of exceptional circumstances. Exercise reasonable care when making decisions.
B.4.6 Maintain a formalized new member onboarding process, to ensure all new members receive relevant and consistent information on their governance responsibilities.
B.4.7 Act in the best interests of ASHRAE when making decisions affecting the organization. Refrain from using information obtained as a Committee member for personal gain.
B.4.8 Manage potential and actual conflict of interests in order to ensure impartiality in all certification activities.
B.4.9 Ensure the confidentiality of records.
B.4.10 Review the Certification Rules of the Board (ROB) and Manual of Procedures (MOP) annually to ensure their continued appropriateness.
B.4.11 Ensure staff liaison input in Committee meeting deliberation.
B.4.12 Maintain a current written job description outlining the responsibilities of Certification Committee members.
B.4.13 Recommend optimal Certification Committee size based on its responsibilities and need for diversity.

C. CERTIFICATION COMMITTEE – CHAIR & VICE CHAIRS

3. APPOINTMENT OF SUBCOMMITTEES

Part 1 Duties of the Chair

C.1.1 Ensure Certification Committee Rules of the Board (ROB) and Manual of Procedures (MOP) requirements are upheld in good faith.
C.1.2 Lead the Committee in achieving Management by Objectives (MBOs).
C.1.3 Maintain open and consistent communication with the Certification Committee staff liaison to ensure an effective working relationship and manage ongoing issues.
C.1.4 Develop Committee meeting agendas and preside over meetings
C.1.5 Approve meeting minutes

3.1 C.1.6 The Chair shall establish Ad Hoc committees/subcommittees, member terms to be determined by the chair not to exceed three one (13) years, to accomplish the mission of the Committee MBOs.
3.2 Ad hoc subcommittees can be formed at the discretion of the Chair.

3.3 Responsibilities of subcommittees shall be delineated by the Chair of the CC.

3.4 If a subcommittee is established as a standing subcommittee, that subcommittee chair shall recommend appropriate responsibilities for subcommittee members for inclusion in the Reference Manual of the CC.

C.1.7 Recommend candidates to serve as Exam Subcommittee chairs, for ratification by the Certification Committee.

Part 2 Duties of the Accreditation and Marketing Vice Chairs

C.2.1 The Vice Chair for Accreditation shall ensure certification programs are maintained in accordance with ISO/IEC 17024 Conformity assessment – General requirements for bodies operating certification of persons.

C.2.2 The Vice Chair for Marketing shall inform ASHRAE marketing efforts.

4. RESPONSIBILITIES OF THE CHAIR

4.1 Preside over meetings of the CC.

4.2 Prepare reports for CC’s Council as required.

C.2.3 In conjunction with the staff liaison, prepare reports on program success, and fiscal matters for distribution to the CC and its Council at each meeting.

D. BUDGET

D.1.1 The Certification Committee’s budget may include travel or transportation costs to bring non-ASHRAE members to assist with the Certification Committee or its subcommittees and related activities.

D.1.2 The Certification Committee’s budget may include travel or transportation costs for Committee or subcommittee members who participate in activities that are unique and extraordinary to typical Committee activity.
MANUAL OF PROCEDURES

for

ELECTRONIC COMMUNICATIONS COMMITTEE

The Electronic Communications Committee (ECCC) is a General Standing Committee of the Society and operates under the direction of the Board of Directors and Publishing and Education Members Council. The Rules of the Board (ROB) for the ECCC is the constitution of the committee. Proposed changes to the ROB and its appendices must be approved by the Board of Directors.

This Manual of Procedures (MOP) is a supplement to the ROB that describes the methods and procedures by which ECCC accomplishes the duties and responsibilities assigned to it. The MOP is an internal document of the committee for its own guidance. The MOP, and revision thereto, following approval by the committee, shall be submitted to Publishing and Education Members Council or designated council subcommittee for approval. (ROB 2.400.005)

Proposed ECCC MOP and ROB changes shall normally only be presented to Publishing Members Council for approval once a year for consideration at their full meeting. Proposed changes that ECCC believes require more immediate attention shall first be presented to the chair of Publishing Members Council for permission to submit to Publishing and Education Members Council.
TABLE OF CONTENTS

SECTION A – ELECTRONIC COMMUNICATIONS COMMITTEE (MCC) – GENERAL
Part 1 Responsibilities/Duties
Part 2 Membership
Part 3 Meetings
Part 4 Operations

SECTION B – CHAIR AND VICE CHAIR
Part 1 Selection
Part 2 Responsibilities of the Chair
Part 3 Responsibilities of the Vice Chair
Part 4 Responsibilities of the ASHRAE Staff Liaison
Part 5 Responsibilities of ECCCC Members

SECTION C – SUBCOMMITTEES

SECTION D – REVISIONS TO RULES AND PROCEDURES
### TABLE OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAR</td>
<td>Board-Approved Rules</td>
</tr>
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<td>BOD</td>
<td>Board of Directors</td>
</tr>
<tr>
<td>EC</td>
<td>Electronic communications</td>
</tr>
<tr>
<td>ECCCC</td>
<td>Electronic Communications Committee</td>
</tr>
<tr>
<td>DAL</td>
<td>Director-at-Large</td>
</tr>
<tr>
<td>MBO</td>
<td>Management By Objectives</td>
</tr>
<tr>
<td>MOP</td>
<td>Manual of Procedures</td>
</tr>
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<td>PubEd C</td>
<td>Publishing and Education</td>
</tr>
<tr>
<td>Members</td>
<td>Council ROB Rule(s) of the Board of Directors</td>
</tr>
<tr>
<td>RRO</td>
<td>Robert's Rules of Order</td>
</tr>
<tr>
<td>SBL</td>
<td>Society's Bylaw(s)</td>
</tr>
</tbody>
</table>
SECTION A – ELECTRONIC COMMUNICATIONS COMMITTEE (ECCCC) - GENERAL

Part 1 Responsibilities/Duties

A.1.1. Assist the Councils with defining, budgeting and prioritizing requests for new electronic communications services. The Councils manage electronic communications development as any other resource. The ECC reviews proposals for adequate definition, justification of need, technical feasibility, consistency with related EC functions, and conformance with Society policies.

A.1.2. Identify the electronic communication needs of the membership, and staff, recommend and maintain policies, and ensure that the implementation of information technologies meets the objectives and needs of the Society. [ROB 2.405.001]

A.1.3. The ECCCC is not responsible for developing the content that is distributed through the website or through other EC functions. [ROB 2.405.003.4]

A.1.4. Work with staff to oversee organization, usability, and quality control of the website, and helps staff define and prioritize needed improvements.

A.1.5. Recommend and maintain policy and procedures for managing ASHRAE’s electronic communication (EC) infrastructure. [ROB 2.405.003.4]

A.1.6. Develop and maintain a continually evolving vision for the future of ASHRAE electronic communications.

A.1.7. ECCCC shall maintain and keep current a Reference Manual describing the other procedures followed by ECCCC that are not covered in the MOP. Changes to the Reference Manual may be approved by a majority of ECCCC voting members.

Part 2 Membership

A.2.1 The Electronic Communications Committee (ECCCC) shall consist of the number of voting members as authorized in ROB 2.405.002.1.

A.2.2 ECCCC membership also includes two non-voting ex-officio members: a member of the ASHRAE Board of Directors (BOD) and a Coordinating Officer. [ROB 2.405.002.1]

Part 3 Meetings

A.3.1 The ECCCC is authorized to meet two (2) three (3) times per year: at the Annual and Winter Meetings of the Society and at Technology Weekend in the fall. At the discretion of the ECCCC Chair, the ECCCC may elect to meet more often. ECCCC meetings other than at Society Annual and Winter Meetings may be held via teleconference and or Internet, at the discretion of the ECCCC chair.

A.3.2 Notice of meetings shall be given to all ECCCC members at least 10 days in advance. Notice will be given electronically by e-mail.
A.3.3 A quorum shall consist of a majority of the ECCCC, present in person for face-to-face meetings or by telephone or Web for electronic meetings/teleconference.

A.3.4 The following Ex-Officio members of the ECCCC may participate in the discussions but are not eligible to vote:
   - ASHRAE Manager of Electronic Communications and Applications
   - CC Staff Liaison
   - Board Ex-Officio
   - Coordinating Officer

A.3.5 Meetings are open to all members of the ECCCC, all Society members, all registered guests at scheduled Society meetings, and those invited by the Chair.

Part 4 Operations

A.4.1 Any member of ECCCC is eligible to introduce motions or items for consideration.

A.4.2 All non-fiscal matters shall be decided by a majority of those voting. Approval of fiscal matters requires a two-thirds majority and a majority of the voting members. For letter or e-mail ballots, all committee members are considered present.

A.4.3 All meetings shall be conducted according to Parliamentary Procedure as specified in Robert’s Rules of Order (RRO).

SECTION B – CHAIR, AND VICE CHAIRS AND MEMBERS

Part 1 Selection

B.1.1 ECCCC Members are appointed annually by the President-elect of the Society to serve for one year commencing at the close of the next Annual Meeting of the Society. The intention, however, is for ECCCC members to serve three (3) years on ECCCC. (ROB 2.405.002.3)

B.1.2 The Chair and one (1) Vice Chair of the ECCCC are appointed by the President-Elect of the Society from the current membership of the ECCCC to serve one-year terms commencing at the close of the next Annual Meeting of the Society.

Part 2 Responsibilities of the Chair

B.2.1 Preside over meetings of the ECCCC.

B.2.2 Establish standing and special ad hoc subcommittees as may be required. Assign a chair and members to the subcommittees from the committee membership.

B.2.3 Delineate responsibilities and duties of the subcommittees established.

B.2.4 Assign liaisons to other standing committees and councils as appropriate.
B.2.5 Prepare reports for the Publishing and Education Members Council as required.

B.2.6 In conjunction with the ASHRAE Manager of Electronic Communications and Applications CC Staff Liaison, prepare meeting agendas and minutes.

Part 3 Responsibilities of the Vice Chair

B.3.1 Preside over committee meetings in the absence of the Chair, and assist the Chair with preparation of the agenda and supporting documentation.

Part 4 Responsibilities of the ECCCC Staff Liaison

B.4.1 Maintain all official reports, correspondence, and documentation of ECCCC actions.

B.4.2 Assist the Chair with preparation of the agenda and supporting documentation for ECCCC meetings, and provide this information to the committee at least two weeks prior to the meeting.

B.4.3 Coordinate with other ASHRAE staff as needed.

B.4.4 Implement actions approved by the ECCCC to further the goals and objectives of the committee.

Part 5 Responsibilities of All Committee Members

B.5.1 Fully participate in all assigned subcommittees and complete assignments by the designated time.

SECTION C – SUBCOMMITTEES

C.1. Standing Subcommittees of ECCCC are determined by the Chair. Their membership and duties shall be defined in the ECCCC Reference Manual.

C.2. Ad hoc subcommittees may be appointed by the Chair of the Committee.

C.3. The Chair shall appoint the members of each subcommittee. Subcommittee members should be members of the Committee, but the Chair may appoint additional subcommittee members who are not members of ECCCC when there is a need for members who have experience in areas that are of immediate importance to ECCCC.

C.4. Subcommittee members are appointed for the Society year. If a member’s term of service on the Committee continues into the next Society year, he/she may be reappointed to the same subcommittee or be appointed to a different subcommittee by the incoming Chair.

SECTION D - REVISIONS TO RULES AND PROCEDURES
D.1. Proposed changes to Rules of the Board (ROBs) may be submitted by committees, councils and Board members. Changes proposed by a committee shall be submitted through the body to which it reports; councils and Board members may submit proposed changes directly to the Board of Directors.

D.2. Revisions to this Manual of Procedures must be approved by the Publishing and Educational Council (PubEd Council) or designated council subcommittee.

D.3. The procedures to propose a change to an existing ROB or to the ECCC MOP are given in the ECCC Reference Manual.

D.4. Proposed ECCC MOP changes may be presented to the Members PubEd Council for approval for consideration at any time during the year. However, changes will be reviewed during the annual and winter meetings. Proposed changes that ECCC believes require more immediate attention shall first be presented to the chair of the PubEd Members Council for permission to submit to Members Council.

D.5. Proposed ECCC ROB changes may be presented to Functional at any time during the year. However, changes will be reviewed during the annual and winter meetings.
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
</tr>
<tr>
<td>2</td>
<td>Scope and Purpose</td>
</tr>
<tr>
<td>3</td>
<td>General Committee Goals</td>
</tr>
<tr>
<td>4</td>
<td>Subcommittees</td>
</tr>
<tr>
<td>5</td>
<td>Financial</td>
</tr>
<tr>
<td>6</td>
<td>Membership</td>
</tr>
<tr>
<td>7</td>
<td>Responsibilities of the Chair</td>
</tr>
<tr>
<td>8</td>
<td>Responsibilities of the Vice Chair</td>
</tr>
<tr>
<td>9</td>
<td>Responsibilities of Committee Members</td>
</tr>
<tr>
<td>10</td>
<td>Responsibilities of Consultants</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

The Manual of Procedures (MOP) of a Standing Committee is a document developed within the committee to describe the methods and procedures by which the committee accomplishes the duties and responsibilities assigned to it. The MOP is an internal document of the committee for its own guidance. The MOP requires approval of the committee and the body to which it reports. Appendices are a part of the MOP and therefore require approval by the reporting body.

Abbreviations:
MOP Manual of Procedures
BOD Board of Directors
ROB Rules of the Board
HVAC&R Heating, Ventilating Air-conditioning & Refrigeration
PEC Publishing & Education Council

2. SCOPE AND PURPOSE

The Historical Committee shall encourage and carry on historical research and provide support to history-related activities of the Society.

3. GENERAL COMMITTEE GOALS

3.1 To sponsor, encourage and conduct research into the history of advances of the arts and sciences of HVAC&R.

3.2 To conduct historical symposiums, seminars, etc. and sponsor historical displays at Society meetings.

3.3 To encourage authorship and publication of articles of a historical nature.

3.4 Locate and identify items of historical significance and determine if such items may be moved to more convenient and available locations in each region or chapter.

3.5 Encourage regional and chapter historians to gather information and artifacts to be located in a convenient and available location in each region or chapter.

3.6 Maintain a repository and catalog of literature of historical significance.

3.7 To work in close cooperation with the PEC Products Subcommittee to accomplish Society strategic plan goals and objectives.

3.8 To maintain a MOP that describes the committee’s overall methods and procedures of operation.
3.08  To solicit nominees for the Lou Flagg Award, evaluate their historical presentations to determine the most outstanding for the previous year and to forward the name of the recommended award recipient to the Honors and Awards Committee at the winter meeting.

3.10  To administer and review the ASHRAE HVAC&R Industry Milestone Award Plaque guidelines, and when an ASHRAE Sponsoring Entity nominates a ASHRAE HVAC&R Industry Milestone Award Plaque be awarded for a specific eligible site, process or important HVAC&R industry milestone to evaluate the historical presentations to determine the validity of the nomination for the ASHRAE HVAC&R Industry Milestone Award Plaque and to forward the name of the recommended award recipient to the Products Subcommittee and Board of Directors for their approval at the winter meeting.

3.110  This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council Products Subcommittee at a time determined by the Planning Committee. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council Products Subcommittee all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.

4. SUBCOMMITTEES

4.1  The chair of the committee may form subcommittees to conduct the business of the committee in a practical and efficient manner. As conditions change, existing subcommittees may be dissolved and others created.

4.2  The chair shall appoint various committee members to subcommittees.

5. FINANCIAL

5.1  The chair with the assistance of the staff liaison, shall review the committee’s budget and fiscal plan each year.

6. MEMBERSHIP

6.1  Membership of the committee shall consist of nine voting members. One of the nine shall be appointed as chair and one as vice chair.
6.2 The Regional Historian from each ASHRAE region is assigned as a non-voting corresponding member of the committee.

6.3 A Board Ex-Officio and Coordinating Officer are also assigned to the committee.

QUALIFICATIONS

6.4 It is recommended that at least one committee member be from outside the United States.

TERM OF SERVICE

6.5 Service on this committee is intended to be for a three year period. Appointments are made, however, each year by the President-Elect for the administrative year covered by that term.

6.6 The chair of the committee shall be a non-voting member of the PEC Products Subcommittee.

7. RESPONSIBILITIES OF THE CHAIR

7.1 Set objectives for the committee prior to each Society year. A status report of the objectives will be included in the committee's report to the PEC Products Subcommittee at the Winter and Annual Meetings and a copy of the report will be sent to the assistant to the BOD at ASHRAE Headquarters.

7.2 Prepare the agenda with the assistance of the staff liaison prior to each committee meeting.

7.3 Conduct each committee meeting, appoint subcommittees to accomplish the committee objectives for the year and assign tasks to committee members.

7.4 Write a report of committee activities, with the assistance of the staff liaison, at the conclusion of each committee meeting for submission to the PEC Products Subcommittee.

7.5 Assign experienced committee members to serve as mentors for incoming committee members.

8. RESPONSIBILITIES OF THE VICE CHAIR

8.1 Assume responsibilities of the chair in his/her absence.
8.2 Serve as chair or as a member of subcommittees and be responsible for completion of other tasks as assigned by chair.

8.3 Prepare for the assumption of the position of chair prior to turnover at the Annual Meeting.

9. RESPONSIBILITIES OF COMMITTEE MEMBERS

9.1 Attend Winter and Annual Meetings of the Society.

9.2 Serve as chair of an assigned subcommittee.

9.3 Serve as a member of one or more assigned subcommittees and take responsibility for the completion of other tasks as assigned by chair.

10. RESPONSIBILITIES OF CONSULTANTS

10.1 Attend Winter and Annual Meetings of the Society.

10.2 Serve as a member of one or more subcommittees and take responsibility for completion of other tasks as assigned by chair.

10.3 Provide input or establish programs for the committee in the area of expertise for which the consultant has been appointed.
Research Journal Subcommittee
Report to Publishing and Education Council (PEC)
Meeting of June 25, 2019

2018-2019 Subcommittee Members: Julia Keen, Chair; Farooq Mehboob (absent); Walid Chakroun; Charlie Culp; Reinhard Radermacher, Editor; Mark Owen, staff liaison
Guests: Mary Baugher, Lauren Ramsdell, Jeff Spitler, Bailey Young (Taylor & Francis)

Action Items

None.

Information Items

1. Dr. Radermacher will retire as Editor-in-Chief (EIC) of STBE as of June 30 and was thanked by the chair and the subcommittee for his many years of service to ASHRAE and the growth of the journal during his tenure as EIC. Dr. Jeff Spitler will take on the EIC role as of July 1.

2. Bailey Young of publishing partner Taylor & Francis gave the subcommittee a detailed publisher’s report highlighting the success of Open Access papers, topical issues and improvement in the submission to publication process. The report states that Science & Technology for the Built Environment received 48,907 article downloads in 2018, which is 16% higher than downloads received in 2017. From January-June 2019, there have been 20,326 article downloads, which is 28% higher than the same period in 2018.

3. The 2018 Impact Factor (IF) for Science and Technology for the Built Environment (STBE) is tracking to be similar to last year’s (1.183). [Editor’s note: the new IF (1.199) was released following this meeting. New rankings are 43/60 in the Thermodynamics JCR category, 42/63 in Construction & Building Technology, and 90/129 in Mechanical Engineering.]

4. Dr. Radermacher reports an increase in paper submissions, and notes that associate editors are also contributing papers, some being highly cited. Papers published annually have grown from 37 in 2006 to an average of 102 each of the last four years.

Respectfully submitted,
Julia Keen, Chair
Research Journal Subcommittee
17 June 2019
JK: jh/mso
ASHRAE Science and Technology for the Built Environment

2019-2020 Issue Lineups
Papers Published
Accept to Reject Ratio and Editor User Report
STBE Manuscripts Status Report
Papers Accepted by Region

ASHRAE Annual Conference
June 2019
Kansas City, Missouri
<table>
<thead>
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<td>General Issue</td>
<td>Reinhard Radermacher</td>
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<td>COBEE Topical Issue</td>
<td>Xiangdong Li</td>
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<td>Clima 2019 Topical Issue</td>
<td>Ioan Silviu Dobosi</td>
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<td>March 2020</td>
<td>Flammable Refrigerants Safety</td>
<td>Peter Sunderland and Greg Linteris</td>
<td>8/15/2019</td>
<td>12/15/2019</td>
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<td>12/15/2019</td>
<td>4/15/2020</td>
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<td>General Issue</td>
<td>Jeff Spitter</td>
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<td>September 2020</td>
<td>IBPSA 2019 Topical Issue</td>
<td>Andreas Gasparelli and Vincenzo Corrado</td>
<td>2/15/2020</td>
<td>6/15/2020</td>
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<td>October 2020</td>
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## Manuscript Task Status Report STBE
### June 1, 2018 to June 1, 2019

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**Radermacher, R. as MP** 448 62  
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*Items in RED are printed issues containing four volumes each.*  
*Items in GREEN are estimates.*
Papers Accepted By Region

- Europe: 15%
- North America: 38%
- Asia: 45%
- Oceania: 1%
- Africa: 1%

Legend:
- Europe
- North America
- Asia
- Oceania
- Africa
Science & Technology for the Built Environment

Confidential Publishing Report
June 2019
CONTENTS

HIGHLIGHTS FOR *SCIENCE & TECHNOLOGY FOR THE BUILT ENVIRONMENT* 3

1. GLOBAL ACCESSIBILITY 3
2. CITATION ANALYSIS 8
3. ALTMETRICS 13
4. MARKETING 15
5. PRODUCTION 21
6. SUBMISSIONS & PEER REVIEW 23
7. AUTHOR SURVEY 25
8. RESOURCES 27
9. OPEN ACCESS 27
10. DEVELOPMENT INITIATIVES 27
11. OUR TEAM 28
HIGHLIGHTS FOR SCIENCE & TECHNOLOGY FOR THE BUILT ENVIRONMENT

- Science & Technology for the Built Environment received 48,907 article downloads in 2018, which is 16% higher than downloads received in 2017.
- From January-June 2019, there have been 20,326 article downloads, which is 28% higher than the same period in 2018.
- The most downloaded article is ‘Traffic noise level predictions for buildings with windows opened for natural ventilation in urban environments’ by Moon Keun Kim, Christopher Barber, and Jelena Srebric, with 1,590 downloads.
- The journal’s 2017 Impact Factor is 1.183, ranking 37/59 in the Theromodynamics JCR category, 38/62 in Construction & Building Technology, and 87/128 in Mechanical Engineering.

1. GLOBAL ACCESSIBILITY

Science & Technology for the Built Environment is accessible to readers via direct subscriptions, online-only sales packages with institutions and as part of our Science & Technology Library.

1.1. Circulation

![Journal Circulation - Number of Institutions with Access Via Subscription, Sales Deal or Subject Collection](chart)

1.2. EBSCO Usage

![Journal Circulation - Number of Libraries Using via EBSCO](chart)
### 1.3. Article Downloads

Article downloads have increased by 16% from 2017 to 2018. There were 48,907 article downloads in 2018. From January-June 2019, there have been 20,326 article downloads, which is 28% higher than the same period in 2018.

### 1.4. Article Downloads by Region June 2018-2019 YTD

- **North America**: 35%
- **Asia Pacific**: 41%
- **Europe**: 15%
- **Latin America**: 3%
- **Australasia**: 3%
- **Middle East**: 2%
- **Africa**: 1%

Full Text Downloads via Standard Platforms for *Science & Technology For The Built Environment* by Quarter

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<th>Full Text Downloads</th>
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1.5. Top 10 Articles Downloaded June 2018-2019 YTD

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<th>Vol (Iss.), Year</th>
<th>Authors</th>
<th>Title</th>
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<tr>
<td>23 (5), 2017</td>
<td>Moon Keun Kim, Christopher Barber, Jelena Srebric</td>
<td>Traffic noise level predictions for buildings with windows opened for natural ventilation in urban environments</td>
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<td>23 (6), 2017</td>
<td>Daniel Bacellar, Vikrant Aute, Zhiwei Huang, Reinhard Rademacher</td>
<td>Design optimization and validation of high-performance heat exchangers using approximation assisted optimization and additive manufacturing</td>
<td>1,324</td>
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<tr>
<td>24 (10), 2018</td>
<td>Omer Sarfraz &amp; Christian K. Bach</td>
<td>Equipment power consumption and load factor profiles for buildings’ energy simulation (ASHRAE 1742-RP)</td>
<td>910</td>
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<tr>
<td>23 (6), 2017</td>
<td>Lorenzo Cremaschi, Saeed Moghaddam</td>
<td>Recent advances on heat and mass transfer in refrigeration and air-conditioning systems</td>
<td>875</td>
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<tr>
<td>22 (3), 2016</td>
<td>Roger Westerholm, Ioannis Sadiktsis, Ulf Johansson, Ulf Rannug, Gertrud Nilsson</td>
<td>Removal of polycyclic aromatic hydrocarbons and genotoxic compounds in urban air using air filter materials for mechanical ventilation in buildings</td>
<td>849</td>
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<td>24 (6), 2018</td>
<td>Anna Heebøll, Pawel Wargocki, Jørn Toftum</td>
<td>Window and door opening behavior, carbon dioxide concentration, temperature, and energy use during the heating season in classrooms with different ventilation retrofits—ASHRAE RP1624</td>
<td>712</td>
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<td>22 (3), 2018</td>
<td>Malcolm Cook, Tristan Gerrish, Kirti Ruikar</td>
<td>BIM for the management of building services information during building design and use</td>
<td>670</td>
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<td>22 (7), 2016</td>
<td>Wim Zeiler, Kristian Gvozdenovic, Kevin de Bont, Wim Maassen</td>
<td>Toward cost-effective nearly zero energy buildings: The Dutch Situation</td>
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<td>23 (1), 2017</td>
<td>Pradeep Shinde, Cheng-Xian Lin</td>
<td>A heat transfer and friction factor correlation for low air-side Reynolds number applications of compact heat exchangers (1535-RP)</td>
<td>602</td>
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1.6. Top Downloaded Issues, 2018

Downloads by 2018 Issue Between Jan 2018-June 2019

**Issue 2 was the issue featuring Selected Papers from IAQ 2016—Defining Indoor Quality: Policy, Standards, and Best Practices, Co-Organized by ASHRAE and AIVC.**

**Issue 5 was the topical issue on Building Simulation.**
### 1.7. Top Downloaded Papers for 24(2), 2018


<table>
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<th>Vol (iss.), Year</th>
<th>Author(s)</th>
<th>Title</th>
<th>No.</th>
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<tbody>
<tr>
<td>24(2), 2018</td>
<td>William P. Bahnfleth, Chandra Sekhar</td>
<td>IAQ 2016: Defining indoor air quality: Policy, standards and best practices</td>
<td>1,162</td>
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<tr>
<td>24(2), 2018</td>
<td>Adams Rackes, Tom Ben-David, Michael S. Waring</td>
<td>Sensor networks for routine indoor air quality monitoring in buildings: Impacts of placement, accuracy, and number of sensors</td>
<td>175</td>
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<tr>
<td>24(2), 2018</td>
<td>Lisa Ng, Dustin Poppendieck, W. Stuart Dols, Steven J. Emmerich</td>
<td>Evaluating indoor air quality and energy impacts of ventilation in a net-zero energy house using a coupled model</td>
<td>122</td>
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</table>

### 1.8. Top Downloaded Papers for 24(5), 2018

*Top papers from the topical Issue: Building Simulation, downloaded between Jan 2018-June 2019.*

<table>
<thead>
<tr>
<th>Vol (iss.), Year</th>
<th>Author(s)</th>
<th>Title</th>
<th>No.</th>
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<tbody>
<tr>
<td>24(5), 2018</td>
<td>Andrea Gasparella, Vincenzo Corrado</td>
<td>Building simulation</td>
<td>267</td>
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<tr>
<td>24(5), 2018</td>
<td>Anna Maria Atzeri, Andrea Gasparella, Francesca Cappelletti, Athanasios Tzempelikos</td>
<td>Comfort and energy performance analysis of different glazing systems coupled with three shading control strategies</td>
<td>167</td>
</tr>
<tr>
<td>24(5), 2018</td>
<td>Iason Konstantzos, Michael Kim, Athanasios Tzempelikos</td>
<td>An integrated method and web tool to assess visual environment in spaces with window shades</td>
<td>164</td>
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</table>
1.9. Issues by Downloads, 2019 YTD

**Issue 5 was the issue featuring COBEE Conference papers.**

1.10. Top Downloaded Papers for 25(5), 2019

Top papers from the topical issue: COBEE Conference papers, downloaded between Jan 2019-June 2019

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<tr>
<td>25 (5), 2019</td>
<td>Jiyuan Tu, Xiangdong Li</td>
<td>Heat exchangers in the built environment</td>
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<td>25 (5), 2019</td>
<td>Ryozo Ooka, Wonjun Choi, Doyun Lee, Shinataro Ikeda</td>
<td>Artificial neural network prediction models of stratified thermal energy storage system and borehole heat exchanger for model predictive control</td>
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<td>25 (5), 2019</td>
<td>Yuting He, Jiang He, Yigang Li</td>
<td>Development of a sun-shading louver unit with evaporative cooling effect</td>
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1.11. Top Institutions by Downloads June 2018-2019 YTD

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<td>National Science and Technology Digital Library (NSTL)</td>
<td>China</td>
<td>8,879</td>
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<tr>
<td>Canadian Research Knowledge Network (CRKN)*</td>
<td>Canada</td>
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<tr>
<td>JISC Collections</td>
<td>United Kingdom</td>
<td>2,312</td>
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<tr>
<td>Council of Australian University Librarians (CAUL)</td>
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<td>Big Ten Academic Alliance</td>
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<td>Tongji University</td>
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<td>Huazhong University of Science &amp; Technology</td>
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<td>Justice Secretariat Office</td>
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<td>California Digital Library (CDL)</td>
<td>United States</td>
<td>669</td>
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</tbody>
</table>

* CRKN is a partnership of 75 Canadian universities.

2. CITATION ANALYSIS

*The 2018 Impact factor is forthcoming and will be released by the end of June.

2.1. Impact Factor 2014 – 2017

![Impact Factor 2014 to 2017 graph]

The 2017 Impact Factor was released in June 2018. The IF is calculated as follows:

\[
\text{Citations received in IF year to articles published in two preceding years} = \frac{256}{208} = 1.183
\]

The 2017 IF counted all citations received in 2017 to articles published in the previous two years (2016 = 107 and 2015 = 139). The sum (256) was then divided by the total number of source items published in those two years: 208 (2016 = 100 and 2015 = 108).
2.2. Current Impact Factor and Ranking

<table>
<thead>
<tr>
<th>2017 Impact Factor</th>
<th>2017 5-year Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.183</td>
<td>1.065</td>
</tr>
</tbody>
</table>

Ranking 37/59 Thermodynamics Ranking 41/58 Thermodynamics

Ranking 38/62 Construction & Building Technology Ranking 38/61 Construction & Building Technology

Ranking 87/128 Mechanical Engineering Ranking 90/127 Mechanical Engineering

2.3. Top Cited Articles for Current Impact Factor

<table>
<thead>
<tr>
<th>Vol (iss.), Year</th>
<th>Author</th>
<th>Title</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 (7), 2015</td>
<td>Lin, Xiaojie; Lee, Hoseong; Hwang, Yunho; Radermacher, Reinhard</td>
<td>A review of recent development in variable refrigerant flow systems</td>
<td>11</td>
</tr>
<tr>
<td>22 (5), 2016</td>
<td>Trevizoli, Paulo V.; Christiaanse, Theodor V.; Govindappa, Premakumara; Niknia, Iman; Teyber, Reed; Barbosa, Jader R.; Rowe, Andrew</td>
<td>Magnetic heat pumps: An overview of design principles and challenges</td>
<td>10</td>
</tr>
<tr>
<td>21 (6), 2015</td>
<td>Dong, Bing; Li, Zhaoxuan; McFadden, Gaelen</td>
<td>An investigation on energy-related occupancy behavior for low-income residential buildings</td>
<td>8</td>
</tr>
<tr>
<td>21 (6), 2015</td>
<td>Masy, Gabrielle; Georges, Emeline; Verhelst, Clara; Lemort, Vincent; Andre, Philippe</td>
<td>Smart grid energy flexible buildings through the use of heat pumps and building thermal mass as energy storage in the Belgian context</td>
<td>8</td>
</tr>
<tr>
<td>22 (5), 2016</td>
<td>Schmidt, Marvin; Kirsch, Susanne-Marie; Seelecke, Stefan; Schuetze, Andreas</td>
<td>Elastocaloric cooling: From fundamental thermodynamics to solid state air conditioning</td>
<td>6</td>
</tr>
</tbody>
</table>
2.4. Article Citations

The chart above shows the distribution of published source items by the number of citations received in the IF year. The 2016 column, for example, shows the distribution of items published in 2014 and 2015 by the number of citations received in 2016. This gives a rough breakdown of the data behind the 2016 IF, which is based on citations in 2016 to items published in 2014 and 2015.

The article level data in this report comes from Web of Science (WoS), as there is no article level data in the Journal Citation Reports (JCR) where the official IFs are published. Though both WoS and the JCR are produced by Clarivate Analytics, the data collection methods used for the two sources are slightly different, and as such the data do not match exactly. IFs calculated using WoS data are given for reference.

2.5. Regions Citing Science & Technology for the Built Environment
2.6. Journals Citing Science & Technology for the Built Environment

The top 5 journals citing Science & Technology for the Built Environment for the 2017 IF are as follows:

- *Energy and Buildings*, 8.8%
- *Applied Thermal Engineering*, 8.4%
- *Building and Environment*, 6.0%
- *Applied Energy*, 5.2%

The 2017 self-citation rate is 8.8%.

**Self citation rate decreased by 4.2% from 2017.**

2.7. Top Cited Keywords in Science & Technology for the Built Environment, 2018

<table>
<thead>
<tr>
<th>Keywords</th>
<th>Number of Articles</th>
<th>Number of Cites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance*</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Simulation*</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Energy</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Buildings*</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>System*</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Model*</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Optimization*</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Flow</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Design*</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Impact</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

**Overlap with the top cited keywords for the field of HVAC.**

2.8. Top Cited Keywords for HVAC, 2018

<table>
<thead>
<tr>
<th>Keywords</th>
<th>Number of Articles</th>
<th>Number of Cites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>94</td>
<td>193</td>
</tr>
<tr>
<td>Buildings</td>
<td>63</td>
<td>130</td>
</tr>
<tr>
<td>Model</td>
<td>54</td>
<td>128</td>
</tr>
<tr>
<td>Consumption</td>
<td>52</td>
<td>124</td>
</tr>
<tr>
<td>System</td>
<td>46</td>
<td>117</td>
</tr>
<tr>
<td>Design</td>
<td>43</td>
<td>111</td>
</tr>
<tr>
<td>Optimization</td>
<td>53</td>
<td>105</td>
</tr>
<tr>
<td>Thermal Comfort</td>
<td>34</td>
<td>104</td>
</tr>
<tr>
<td>Simulation</td>
<td>51</td>
<td>100</td>
</tr>
<tr>
<td>HVAC Systems</td>
<td>48</td>
<td>91</td>
</tr>
</tbody>
</table>
2.9. **Top Research Topics in Science and Technology for the Built Environment**

Most researched topics for 2018-2019, Open Access

2.10. **Most Researched Topics in HVAC**

Most researched topics for 2018-2019, Open Access

There is some overlap between the most researched topics in the journal and in the field of HVAC. For instance, thermal comfort is a prominent research topic in the journal for paid or open access research. This is a good indicator of what’s happening in the field and what topics we can focus on to draw in citations.
3. ALTMETRICS

3.1. Top Altmetric Scores

An Altmetric score is a high-level measure of the quality and quantity of online attention that an individual article has received. The score is based on relevant mentions from social media sites, newspapers, policy documents, blogs, Wikipedia, and many other sources.

According to Altmetric, “The score is derived from an automated algorithm, and represents a weighted count of the amount of attention we've picked up for a research output. Why is it weighted? To reflect the relative reach of Each type of source. It's easy to imagine that the average newspaper story is more likely to bring attention to the research output than the average tweet. This is reflected in the default weightings.”

For further information about Altmetric scores, please visit: https://help.altmetric.com/support/solutions/articles/6000060969-how-is-the-altmetric-score-calculated-.
The table below lists the top Altmetric-scoring articles in the last year:

<table>
<thead>
<tr>
<th>Altmetric Score</th>
<th>Article Title</th>
<th>Author</th>
<th>Vol (iss.), Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Experimental validation of the age-of-the-air CFD analysis: A case study</td>
<td>Experimental validation of the age-of-the-air CFD analysis: A case study</td>
<td>24(9), 2018</td>
</tr>
<tr>
<td>6</td>
<td>Saturated R134a flow boiling inside a 4.3 mm inner diameter microfin tube</td>
<td>Giovanni A. Longo, Simone Mancin, Giulia Righetti, Claudio Zilio, Luca Doretti</td>
<td>23(6), 2017 <strong>Special Issue</strong></td>
</tr>
<tr>
<td>4</td>
<td>A review on in-tube two-phase heat transfer of hydro-fluoro-olefines refrigerants</td>
<td>Giulia Righetti, Claudio Zilio, Simone Mancin, Giovanni A. Longo</td>
<td>22(8), 2016 <strong>Special Issue</strong></td>
</tr>
<tr>
<td>2</td>
<td>Design optimization and validation of high-performance heat exchangers using approximation assisted optimization and additive manufacturing</td>
<td>Daniel Bacellar, Vikrant Aute, Zhiwei Huang, Reinhard Radermacher</td>
<td>23(6), 2017 <strong>Special Issue</strong></td>
</tr>
<tr>
<td>2</td>
<td>Accurate prediction of work and coefficient of performance of elastocaloric materials with phase transformation kinetics</td>
<td>Suxin Qian, Lifen Yuan, Huilong Hou, Ichiro Takeuchi</td>
<td>24(6), 2018</td>
</tr>
<tr>
<td>1</td>
<td>Adaptation of fan motor and VFD efficiency correlations using Bayesian inference</td>
<td>Lisa Rivalin, Marco Pritoni, Pascal Stabat, Dominique Marchio</td>
<td>Latest Articles; Published online May 2019</td>
</tr>
<tr>
<td>1</td>
<td>Window and door opening behavior, carbon dioxide concentration, temperature, and energy use during the heating season in classrooms with different ventilation retrofits—ASHRAE RP1624</td>
<td>Anna Heebøll, Pawel Wargocki, Jørn Toftum</td>
<td>24(6), 2018</td>
</tr>
<tr>
<td>1</td>
<td>Adaptation of fan motor and VFD efficiency correlations using Bayesian inference</td>
<td>Lisa Rivalin, Marco Pritoni, Pascal Stabat, Dominique Marchio</td>
<td>Latest Articles; Published online May 2019</td>
</tr>
<tr>
<td>1</td>
<td>Window and door opening behavior, carbon dioxide concentration, temperature, and energy use during the heating season in classrooms with different ventilation retrofits—ASHRAE RP1624</td>
<td>Anna Heebøll, Pawel Wargocki, Jørn Toftum</td>
<td>24(6), 2018</td>
</tr>
<tr>
<td>1</td>
<td>Fouling and its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)</td>
<td>Mehdi Mehrabi, David Yuill</td>
<td>Latest Articles; Published online June 2019</td>
</tr>
</tbody>
</table>
4. MARKETING

4.1. Your marketing teams

Taylor & Francis’ global marketing strategy is underpinned by multiple specialist teams dedicated to diverse key customer groups. This ensures that *Science & Technology for the Built Environment* is supported and guided by people with the experience and expertise to benefit you, including:

- **Societies & Editors** – raising the profile of your journal or society in line with your objectives.
- **Authors & Researchers** – attracting high quality submissions to all journals, including Open Access, and retaining authors through post-publication support.
- **Libraries & Institutions** – growing journal circulation through targeted institutional marketing activity.
- **Corporate & Commercial** – identifying revenue generating opportunities and partnerships with non-academic institutions such as government organisations and pharma companies.
- **Network Marketing** – developing and implementing automated email and digital campaigns through our CRM system.
- **Content & Communications** – delivering content marketing, press, PR, and social media strategy.
- **Web & E-marketing** – implementing best practice through our digital platforms including tandfonline.com.

4.2. Promotion of Science & Technology for the Built Environment

We have promoted *Science and Technology for the Built Environment* via the following:

**Reaching Readers emails**

*Science & Technology for the Built Environment* benefits from highly-targeted promotion focused on article-level marketing that leverages the web of connections attached to every published article such as colleagues, reviewers, funders, cited authors, and hundreds more.

Once new articles are published in the journal, they are included in our Reaching Readers email service – a bi-weekly email that is sent to researchers within our network, and contains content based on their subject interest. These campaigns are designed to deliver reach, readership and potential citations as relevant articles are presented weekly to interested readers and the recipient doesn’t need to be signed up to the journal to learn about new articles, just registered with Taylor & Francis with an interest in the subject area.
The below articles have been promoted in our bi-weekly Reaching Readers emails. In total, 48 articles have been promoted this way since January 2018.

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Article Title</th>
<th>Contact Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>30</td>
<td>Experimental investigation for performance enhancement of a Vapour Compression Refrigeration System by employing several types of water cooled condenser</td>
<td>4,601</td>
</tr>
<tr>
<td>January</td>
<td>30</td>
<td>IAQ 2016: Defining Indoor Air Quality: Policy, Standards and Best Practices</td>
<td>5,461</td>
</tr>
<tr>
<td>January</td>
<td>30</td>
<td>Modifications to ASHRAE’s sizing method for vertical ground heat exchangers</td>
<td>4,034</td>
</tr>
<tr>
<td>February</td>
<td>14</td>
<td>Measured moisture accumulation in aircraft walls during simulated commercial flights</td>
<td>4,994</td>
</tr>
<tr>
<td>March</td>
<td>6</td>
<td>An integrated method and web tool to assess visual environment in spaces with window shades</td>
<td>3,907</td>
</tr>
<tr>
<td>March</td>
<td>20</td>
<td>A numerical and experimental study of a simple model-based predictive control strategy in a perimeter zone with phase change material</td>
<td>2,042</td>
</tr>
<tr>
<td>March</td>
<td>20</td>
<td>Bio-based and recycled-waste materials in buildings: A study of energy performance of hemp-lime concrete and recycled-PET facades for office facilities in France and Italy</td>
<td>3,941</td>
</tr>
<tr>
<td>March</td>
<td>20</td>
<td>Modeling Horizontal Storage Tanks With Encapsulated Phase Change Materials for Building Performance Simulation</td>
<td>2,453</td>
</tr>
<tr>
<td>March</td>
<td>20</td>
<td>Prediction of the Particles Collection and Pressure-drop Characteristics across Fibrous Media</td>
<td>3,157</td>
</tr>
<tr>
<td>March</td>
<td>29</td>
<td>Modeling, Case Studies, and Optimization Methods for Building Energy Systems</td>
<td>13,797</td>
</tr>
<tr>
<td>April</td>
<td>24</td>
<td>CFD Modeling of Flammable Refrigerant Leaks inside Machine Rooms- Emergency Ventilation Rate for Different Size Chillers</td>
<td>4,048</td>
</tr>
<tr>
<td>April</td>
<td>24</td>
<td>Coordinate Control of Air Movement for Optimal Thermal Comfort</td>
<td>2,187</td>
</tr>
<tr>
<td>April</td>
<td>24</td>
<td>Energy-optimized vs. cost-optimized design of high-performing dwellings: the case of multi-family buildings</td>
<td>2,848</td>
</tr>
<tr>
<td>April</td>
<td>24</td>
<td>Event-driven optimal control of central air-conditioning systems: event-space establishment</td>
<td>1,579</td>
</tr>
<tr>
<td>April</td>
<td>24</td>
<td>Stochastic multicriteria evaluation of district heating systems considering the uncertainties</td>
<td>3,370</td>
</tr>
<tr>
<td>May</td>
<td>15</td>
<td>A novel evaporative cooling tower constructed from an inflatable fabric duct</td>
<td>2,965</td>
</tr>
<tr>
<td>May</td>
<td>15</td>
<td>Characterization of Liquid Refrigerant R-123 Flow Emerging from a Flooded Evaporator Tube Bundle</td>
<td>3,425</td>
</tr>
<tr>
<td>May</td>
<td>29</td>
<td>Evaluation of Regression and Neural Network Models for Solar Forecasting Over Different Short-Term Horizons</td>
<td>2,361</td>
</tr>
<tr>
<td>May</td>
<td>29</td>
<td>Impact of structural configuration on the thermal performance of a PCM hollow block wall</td>
<td>3,753</td>
</tr>
<tr>
<td>May</td>
<td>29</td>
<td>Performance assessment of variable frequency drives in heating, ventilation and air-conditioning systems</td>
<td>2,872</td>
</tr>
<tr>
<td>May</td>
<td>29</td>
<td>Study of the HVAC System Photodegradation Caused by the Low Level UVC Light Irradiance For Coil Maintenance and Air Stream Disinfection</td>
<td>3,372</td>
</tr>
<tr>
<td>June</td>
<td>12</td>
<td>Efficiency Degradation Detection For Vfd-Motor-Pump Systems</td>
<td>7,058</td>
</tr>
<tr>
<td>October</td>
<td>18</td>
<td>Development and application of a dynamic model for a solar assisted liquid desiccant air conditioning system</td>
<td>1,016</td>
</tr>
<tr>
<td>October</td>
<td>18</td>
<td>Feasibility analysis of the hybrid dehumidifier--air conditioner technology for small-scale household applications in the tropics</td>
<td>1,011</td>
</tr>
<tr>
<td>November</td>
<td>13</td>
<td>A multi-occupants’ comfort-driven and energy-efficient control strategy of VAV system based on learned thermal comfort profiles</td>
<td>560</td>
</tr>
<tr>
<td>November</td>
<td>13</td>
<td>Equipment power consumption and load factor profiles for buildings’ energy simulation (ASHRAE 1742-RP)</td>
<td>456</td>
</tr>
<tr>
<td>November</td>
<td>13</td>
<td>Improved model for calculation of evaporation from water pools</td>
<td>654</td>
</tr>
<tr>
<td>November</td>
<td>13</td>
<td>Improving system efficiency for a variable-capacity/variable-blower-speed residential heat-pump system with multizone ductwork</td>
<td>1,182</td>
</tr>
<tr>
<td>November</td>
<td>13</td>
<td>Performance investigation of nanostructured composite surfaces for use in adsorption cooling systems with a mass recovery cycle</td>
<td>791</td>
</tr>
<tr>
<td>November</td>
<td>27</td>
<td>Indoor thermal environment and air distribution in a floor-ceiling heating room with mixing or displacement ventilation</td>
<td>299</td>
</tr>
<tr>
<td>November</td>
<td>27</td>
<td>Machine learning vs. hybrid machine learning model for optimal operation of a chiller</td>
<td>652</td>
</tr>
<tr>
<td>November</td>
<td>27</td>
<td>Sizing charts of helical capillary tubes used in refrigeration and air conditioning</td>
<td>538</td>
</tr>
<tr>
<td>November</td>
<td>27</td>
<td>Supermarket system characteristics and operating faults (RP-1615)</td>
<td>996</td>
</tr>
<tr>
<td>November</td>
<td>27</td>
<td>Switch loss of a frost-free refrigerator-freezer with parallel dual-evaporator refrigeration system and its mitigation</td>
<td>776</td>
</tr>
<tr>
<td>January</td>
<td>8</td>
<td>Investigating the influence of different speeds and directions of winds on the performance of split air conditioning systems</td>
<td>1,340</td>
</tr>
<tr>
<td>January</td>
<td>8</td>
<td>Virtual measurement of the air properties in air-handling units (AHUs) or virtual re-calibration of sensors</td>
<td>1,207</td>
</tr>
<tr>
<td>January</td>
<td>23</td>
<td>A numerical analysis and optimization of the dynamic performance of a multipurpose solar thermal system for residential applications</td>
<td>997</td>
</tr>
<tr>
<td>January</td>
<td>23</td>
<td>An energy-saving retrofit baseline determination method for large-scale building based on investigation data</td>
<td>522</td>
</tr>
</tbody>
</table>
January 23 Application of absorption heat pump and direct-contact total heat exchanger to advanced-recovery flue-gas waste heat for gas boiler 888
January 23 Design, implementation, and control of building pressurization to protect occupants from arbitrarily hazardous environments 773
January 23 Empirical investigation of regression models for predicting system behavior in air handling units 685
February 5 An approach of calculation and analysis of pulsating flow rate of single-sided ventilation due to unsteady wind pressure 30
February 5 An optimized ANN for the performance prediction of an automotive air conditioning system 23
February 5 Determine the absolute roughness of phenolic duct (RP-1764) 1,004
February 5 Development of control quality factor for HVAC control loop performance assessment I—Methodology (ASHRAE RP-1587) 32
February 5 Experimental application of classification learning to generate simplified model predictive controls for a shared office heating system 31
February 5 The training and practice of Crew Resource Management. Recommendations from an inductive, in vivo study of the flight deck. 25
February 5 Does size matter? Spacious car cockpits may increase the probability of parking violations 29

These emails provide further targeted article promotion reach to relevant readers in addition to those who receive regular email table of contents alerts.

**New content alerts**

In addition, your readers can visit the journal homepage on [www.tandfonline.com](http://www.tandfonline.com) and click on the “New Content Alerts” button to receive alerts whenever new content is published. *Science & Technology for the Built Environment* currently has 225 eTOC subscribers.

Signing up for eTOC alerts is easy, and by doing so ensures that contacts receive a notification of the online publication of new articles in the journal as soon as they are available. To sign up, visit the journal homepage on [www.tandfonline.com](http://www.tandfonline.com) and click on the “New Content Alerts” button.

**Conferences**

Throughout the year, *Science & Technology for the Built Environment* promotional materials are displayed at relevant conferences, including:

- Association Science Teacher Education
- Asian Conference on Intelligent Information and Database Systems
- European Political Science Association
- Materials Science & Technology

We are increasingly moving to digital-first conferences so during 2019 you’ll see your journal(s) promoted at conferences electronically on iPads and display screens as well as via social media rather than in printed copies or flyers.

**Social Media**

*Science & Technology for the Built Environment* is promoted through posts, news updates, and features on Twitter and Facebook. We use social media to promote conferences and conference themes/sessions, key speakers, call for papers, call for editors, news, award winning articles and article collections.
The following images show examples of posts that we have sent out about Science & Technology for the Built Environment, including:

Social Media for Editors
We always encourage editors and members of the editorial board to engage with their content on social media and we have a wealth of resources available to support you. For example, we have a social media guide for editors available on our editor resources site: [http://bit.ly/ER-SocialMedia](http://bit.ly/ER-SocialMedia)


#TFGoSocial | How can your journal use social media?

Welcome to #TFGoSocial - our Twitter interview all about how academic journals can make the most of social media. Starring: Altmetric founder Euan Adie, social media editors from a range of T&F journals, and our resident digital marketing expert.

1.3 Marketing for Authors

Author Anniversary Emails
In addition, once an author has published in Science & Technology for the Built Environment and if they have opted in for marketing, they will be sent an email on publication and at 6 and 12 months after the publication of their paper.

Author anniversary emails have an average open rate of 33% and a click through rate of 23%, considerably higher than industry averages. For 6-month impact alerts, almost 50% of researchers who open these emails are clicking on the embedded social media links, showing recipients are sharing their article on social platforms because of these alerts. In 2018 only 15 people unsubscribed from over 67,400 emails sent, confirming that what they’re receiving is meeting their needs.

To encourage more authors to receive these alerts, please encourage them to check their marketing subscription status at:


*Current media & publishing industry open rate is 21.92% [https://mailchimp.com/resources/email-marketing-benchmarks/](https://mailchimp.com/resources/email-marketing-benchmarks/)
1.4  Staying updated throughout the year

Editor Resources
Visit our Editor Resources website to gain insights and support to help you maximize journal impact and connect with the editor community:

- Discover the latest policies and guidelines.
- Develop your skills in six key areas with advice from the experts.
- Connect with your editor community, both online and in person.

You can also sign up to our Insights newsletter.

We also welcome your collaboration and suggestions. Please get in touch if there are specific events or content you would like us to promote.

Author Services
Visit our Author Services site for support & tips on writing, choosing a journal, peer review, making an impact & more.
Editing Services

Our Editing Services site offers a full range of pre-submission manuscript preparation services to help maximize the impact of research and improve the quality of manuscripts. You can use our site, including English language editing, translation with editing, manuscript formatting, plagiarism check, and technical review. We take care of tidying up manuscripts so others can devote time to their research.

Publishing Partnership Program

The Publishing Partnership Program is a bi-monthly email campaign designed for journal editors and society leaders. By signing up to receive this communication, you will receive:

- A personalized newsletter-style email where you can see all your journal performance metrics in one succinct place.
- Regular communication about the company-wide initiatives we’re driving, allowing you to be immersed and involved with these from the start.
- The latest information about new Taylor & Francis services and initiatives, upcoming events, and news relevant to your journals’ subject area.

This program has successfully been sent to over 200 of our partners and is continually being developed to ensure that it delivers the most relevant information to support your publications. To sign up to the Publishing Partnership Program, please register here: http://bit.ly/tandf_ppp
5. PRODUCTION

5.1. Published Content in 2018

In 2018, a total of 106 manuscripts have been published. By article, these were:

<table>
<thead>
<tr>
<th>Manuscript Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>96</td>
</tr>
<tr>
<td>Editorials</td>
<td>9</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
</tr>
<tr>
<td>Total published</td>
<td>106</td>
</tr>
</tbody>
</table>

We published 8 articles Open Access in 2018. A sample of the most recently published are:
- Equipment power consumption and load factor profiles for buildings’ energy simulation (ASHRAE 1742-RP), by Sarfraz and Bach
- Supermarket system characteristics and operating faults (RP-1615), by Behfar, Yuill, and Yu
- Accurate prediction of work and coefficient of performance of elastocaloric materials with phase transformation kinetics, by Qian, Yuan, Hou, and Takeuchi

5.2. Production Schedule 2019

<table>
<thead>
<tr>
<th>Volume</th>
<th>Issue</th>
<th>Online Publication Date</th>
<th>Print Publication Date</th>
<th>Budgeted Pages</th>
<th>Actual Pages</th>
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<tr>
<td>25</td>
<td>1</td>
<td>14 Feb 2019</td>
<td>152</td>
<td>111</td>
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<tr>
<td>25</td>
<td>2</td>
<td>19 Mar 2019</td>
<td>152</td>
<td>134</td>
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<tr>
<td>25</td>
<td>3</td>
<td>19 Mar 2019</td>
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<td>25</td>
<td>4</td>
<td>23 Apr 2019</td>
<td>152</td>
<td>141</td>
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<td>25</td>
<td>5</td>
<td>29 May 2019</td>
<td>152</td>
<td>161</td>
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<td>25</td>
<td>6</td>
<td>26 Jun 2019</td>
<td>152</td>
<td>680</td>
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<tr>
<td>25</td>
<td>7</td>
<td>1 Aug 2019</td>
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<tr>
<td>25</td>
<td>9</td>
<td>1 Oct 2019</td>
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<td>25</td>
<td>10</td>
<td>4 Nov 2019</td>
<td>152</td>
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<td></td>
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<tr>
<td>25</td>
<td>6-10</td>
<td>5 Dec 2019</td>
<td>760</td>
<td>117</td>
<td></td>
</tr>
</tbody>
</table>

**Issue 5 is a topical issue.

The current backlog of content:
- 31 articles.
- The current backlog contains enough article content to publish until the November issue. This means new content accepted now will wait 12 months for publication in print.
- Oldest accepted article is from 11-Feb-2019.
5.3. Speed of publication

* median weeks from submission to Central Article Tracking System (CATS) to online publication.

5.4. Production Notes

- The line ups for issues 6 and 7 are now finalised. Issue 6 will start issue production soon and estimated online publication is by next week.
- The print issue 25 1-5 is now in production. Estimated print publication is by next week.
6. SUBMISSIONS & PEER REVIEW

6.1. Submission Trends

Original submissions received by year:

![Bar chart showing submission trends by year](chart.png)

6.2. Geography of Submissions

Top submitting countries ordered by 2018 original submissions:

![Bar chart showing geography of submissions](chart.png)
6.3. Time from Submission to First Decision in 2018

![Chart showing the time from submission to first decision in 2018.](chart1)

6.4. Final Manuscript Decisions

![Bar chart showing the percentage of papers accepted and rejected in 2018 and 2019 YTD.](chart2)

- **Accept**
- **Reject**

- **Percentage of Papers**
  - 2018: Accept 43% (57%), Reject 57% (47%)
  - 2019 YTD: Accept 53% (53%), Reject 47% (47%)
7. AUTHOR SURVEY

All accepted authors are asked to complete our Author Survey once their article has been published. Below is a summary of the feedback we have received about Science & Technology for the Built Environment. Overall, this journal has received 156 responses since this survey launched in 2009.

7.1. Overall Satisfaction

Scale: 1 (totally dissatisfied) to 10 (totally satisfied)

There have been 20 responses from January 2019-June 2019 thus far, with 75% rating overall satisfaction at an 8 or above.

7.2. Satisfaction with the Refereeing Process

There have been 18 responses from January 2019-June 2019 thus far, with 50% rating overall satisfaction at an 8 or above.
7.3. Satisfaction with Speed of Publication

There have been 19 responses from January 2019-June 2019 thus far, with 31\% rating overall satisfaction at an 8 or above.
8. RESOURCES

Guidance and support on a range of topics. Keep up to date with the latest developments through visiting the website. http://editorresources.taylorandfrancisgroup.com/

Twitter: @TandFEditors

Support, updates, tips and talking points from Taylor & Francis’ Author Services and Editor Resources websites straight to your inbox.
Sign up at: http://tandf.msgfocus.com/k/Tandf/insights

News, support and guidance for researchers publishing in Taylor & Francis journals. http://authorservices.taylorandfrancis.com

Support and news for Librarians can be found at https://librarianresources.taylorandfrancis.com/

9. OPEN ACCESS

Open Access (OA) means making content permanently freely available online to read. Further information can be found at the following links:
http://editorresources.taylorandfrancisgroup.com/open-access-for-editors/
http://authorservices.taylorandfrancis.com/publishing-open-access-with-taylor-francis/

To sign up to our Open Access Bulletin, visit: http://eupdates.msgfocus.com/k/Tandf-Eupdates/openaccess

10. DEVELOPMENT INITIATIVES

Taylor & Francis Group is committed to the widest distribution of its journals to non-profit institutions in developing countries.

Further information can be found at: http://taylorandfrancis.com/about/corporate-responsibility/development-initiatives
# 11. OUR TEAM

## 11.1. Editorial

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Portfolio Head</td>
<td>Alexa Flood</td>
<td><a href="mailto:Alexa.Flood@taylorandfrancis.com">Alexa.Flood@taylorandfrancis.com</a></td>
</tr>
<tr>
<td>Portfolio Manager</td>
<td>Bailey Young</td>
<td><a href="mailto:Bailey.Young@taylorandfrancis.com">Bailey.Young@taylorandfrancis.com</a></td>
</tr>
</tbody>
</table>

## 11.2. Production

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Editor</td>
<td>Saturn Armario</td>
<td><a href="mailto:UHVC-Production@journals.taylorandfrancis.com">UHVC-Production@journals.taylorandfrancis.com</a></td>
</tr>
<tr>
<td>Online Submissions Coordinator</td>
<td>Jenea Lomas</td>
<td><a href="mailto:UHVC-implementations@journals.taylorandfrancis.com">UHVC-implementations@journals.taylorandfrancis.com</a></td>
</tr>
</tbody>
</table>
Certification Committee
Report to Publishing and Education Council (PEC)
ASHRAE 2019 Annual Conference / Kansas City, MO

Items Requiring Council Attention

None.

Information Items

1. Certified HVAC Designer (CHD)

   Application opened March 1, 2019 for the Certified HVAC Designer (CHD) program. Computer-based testing opened worldwide on June 3, 2019.

2. Increased Certification Application Rate YTD vs. LYTD

   Through May 31, 2019, ASHRAE has received 10.5% more certification applications (378) over the previous SYTD (342).

3. ANSI Year 4 Annual Surveillance

   ANSI completed its Year 4 Annual Surveillance of accredited programs with the recommendation that ASHRAE continues to fulfill all components of the 17024 accreditation standard, and citing only one opportunity for improvement.

4. Marketing

   Certification has partnered with Marketing recently on executing the following initiatives to raise awareness and communicate value:
   • Certification House Ad (Attachment A)
   • BEAP & CHD Videos
   • Drip Email Campaign for each program
5. Exam Development

Ongoing exam development activities planned for 2019-20 will help ensure the continued relevancy and validity of ASHRAE’s certification programs:

- CHD: Exam passing score to be finalized in August-September.
- HBDP: New form to launch in November.
- HFDP: New form to launch in November.

6. 2019-22 Exam Subcommittee Members

Approved slate of nominees and alternates for six Exam Subcommittees for the 2019-22 term, developed from a pool of 60 nominations.

7. 2018-19 MBOs (Attachment B)

8. 2019-20 MBOs- Draft (Attachment C)

Respectfully submitted,
Mike Fullerton
Certification Committee, Chair
06/25/2019
Attachment A
Certification Committee Report to PEC

Certification House Ad

✓ Validation
✓ Recognition
✓ Pride

NEW! Certified HVAC Designer (CHD)
- System Design
- Design Calculations
- Coordination

Advance Your Career Today!
# Certification Committee MBOs Society Year: 2018-2019

**Chair:** Mike Fullerton, HFDP  
**Date:** June 25, 2019

<table>
<thead>
<tr>
<th>Objective</th>
<th>SP 2014¹</th>
<th>Completion Date</th>
<th>Fiscal Impact</th>
<th>Responsible Party</th>
<th>Status</th>
<th>Comment</th>
</tr>
</thead>
</table>
| 1. Attain 80% recertification rate for the 2018 renewal class, exceeding the industry average of 76%. | 1B, 3D, 4B | 3/31/2019       | Currently budgeted. | Chair, Certification Committee, Staff                 | Completed    | 78% recertification rate attained for non-DOE-aligned programs, exceeding the industry average for three-year programs.  
The DOE-aligned programs, the BEAP and CPMP, experienced a 38% recertification rate. 2018 is the second year CPMPs had to renew as BCxPs, a process which requires an exam, and the first year BEAPs had to renew under updated BBWG requirements. |
<p>| 2. Grow the number of certification applications by 10% over 2015-16 total of 500, a record high. | 1B, 2C, 3C, 4A, 4B | 6/30/2019       | None, Staff Time      | Chair, Certification Committee, HVAC Designer Exam Subcommittee, Staff | In progress. | Through May 31, 2019, ASHRAE has received 10.5% more applications (378) over the previous SYTD (342). Application opened March 1, 2019 for the Certified HVAC Designer (CHD) program. Computer-based testing opened worldwide on June 3, 2019. |
| 3. Enhance relevancy of ASHRAE certification to                          | 1B, 4A   | 6/30/2019       | Volunteer and Staff Time | Chair, Certification Committee, Staff                 | Completed    | Launched new HVAC Designer (CHD) certification on March |
| <strong>ASHRAE members and the industry in general.</strong> | HVAC Designer Exam Subcommittee, Staff | 1, 2019, in response to 2016 Industry Need survey results which indicated both need and demand by both employers and practitioners. |
| 4.1 Manage certification programs against the ANSI/ISO/IEC 17024 accreditation standard. | 2C, 4B | 6/30/2019 | Chair, Certification Committee, Staff | ANSI completed its Year 4 Annual Surveillance of accredited programs with the recommendation that ASHRAE continues to fulfill all components of the 17024 accreditation standard and citing only one opportunity for improvement. |
| 4.2. Launch new HBDP and HFDP exam forms updated per revised exam Detailed Content Outlines. | 1B, 4A | 1/30/2019 | Currently budgeted. | Chair, Certification Committee, HVAC Designer Exam Subcommittee, Staff | In progress | New exam items are being pre-tested. Additional exposures are needed, so new forms likely to launch Oct.1 |
| 4.3. Recruit 2019-22 class of Exam Subcommittee members. | 1B, 2C, 4A | 6/30/2019 | Chair, Certification Committee, Nominations Task Force, Staff | Complet ed. |
| 5. Launch new HVAC Designer certification. | 1B, 2C, 4A, 4B | 6/30/2019 | Currently budgeted. | Chair, Certification Committee, HVAC Designer Exam Subcommittee, Staff | Complet ed. |
| 6. Develop a procedure to monitor the effectiveness of current certification programs. | 1B, 4A | 1/31/2019 | None. | Chair, Certification Committee, Staff | Complet ed. |</p>
<table>
<thead>
<tr>
<th>Task</th>
<th>Priority</th>
<th>Date</th>
<th>Steps</th>
<th>Owner(s)</th>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Evaluate the benefit of instituting an “-INT” option for certification candidates “in training,” and develop possible framework for instituting.</td>
<td>1B, 4A</td>
<td>9/30/2018</td>
<td>To be determined.</td>
<td>Chair, Certification Committee, Staff</td>
<td>Complet ed.</td>
<td>Task Force recommended not to pursue this option, and Certification Committee agreed.</td>
</tr>
<tr>
<td>8. Research alternative exam delivery modes.</td>
<td>2A</td>
<td>6/30/2019</td>
<td>To be determined.</td>
<td>Chair, Certification Committee, Staff</td>
<td>Complet ed.</td>
<td>Live Remote Proctoring may be an option, depending on demand and cost.</td>
</tr>
<tr>
<td>9. Evaluate the certification and recertification application fee schedule for any possible updates in the January 2019 meeting.</td>
<td>1B, 2C, 4B</td>
<td>1/12/19</td>
<td>None. Possible 2019-20 revenue increase.</td>
<td>Chair, Certification Committee, Staff</td>
<td>Complet ed.</td>
<td>The Certification Committee agreed to maintain the current fee schedule one additional year through June 30, 2020.</td>
</tr>
<tr>
<td>10. Assist PEC in compiling a list of the Council’s value to ASHRAE members and society based on committee focus.</td>
<td>1B, 2A</td>
<td>6/30/2019</td>
<td>Volunteer and Staff Time</td>
<td>PEC, Certification Committee, Staff.</td>
<td>Complet ed.</td>
<td>PEC MBO.</td>
</tr>
<tr>
<td>11. Assist PEC with alignment of Council and Committee guiding documents (MOP/ROB/Reference Manual) to reflect value and restructure.</td>
<td>2A</td>
<td>6/30/2019</td>
<td>Volunteer and Staff Time</td>
<td>PEC, Certification Committee, Staff.</td>
<td>Complet ed.</td>
<td>PEC MBO. Certification Committee to vote on proposed MOP and ROB revisions in June 22 meeting.</td>
</tr>
<tr>
<td>12. Coordinate with PEC on budget analysis to identify areas with potential for growth and prioritize potential areas of reduction.</td>
<td>4A, 2A</td>
<td>6/30/2019</td>
<td>Volunteer and Staff Time</td>
<td>PEC, Certification Committee, Staff.</td>
<td>Complet ed.</td>
<td>PEC MBO. Certification MBO #6 will assist with this MBO. Decision made in 12/5/2018 meeting to conduct this evaluation annually.</td>
</tr>
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Recommendations for Strategic Planning:
**Attachment C**  
**Certification Committee Report to PEC**

**Certification Committee MBOs Society Year: 2019-2020**

**Chair:** Mark Bettin, OPMP  
**Date:** July 1, 2019

<table>
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<tr>
<th>Objective</th>
<th>SP 2019-24¹</th>
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<th>Fiscal Impact</th>
<th>Responsible Party</th>
<th>Status</th>
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<tbody>
<tr>
<td>1. Attain 80% recertification rate for the 2019 renewal class, exceeding the industry average of 76%.</td>
<td>3/31/2020</td>
<td>Currently budgeted.</td>
<td>Chair, Certification Committee, Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Grow the number of certification applications by 10% over 2015-16 total of 500, a record high.</td>
<td>6/30/2020</td>
<td>None, Staff Time</td>
<td>Chair, Certification Committee, HVAC Designer Exam Subcommittee, Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Enhance relevancy of ASHRAE certification to ASHRAE members and the industry in general.</td>
<td>6/30/2020</td>
<td>Volunteer and Staff Time</td>
<td>Chair, Certification Committee, HVAC Designer Exam Subcommittee, Staff</td>
<td></td>
<td>Launched examination for new HVAC Designer (CHD) certification on June 3, 2019. 2016 Industry Need survey results indicated both need and demand by both employers and practitioners.</td>
<td></td>
</tr>
<tr>
<td>4.1 Manage certification programs against the ANSI/ISO/IEC 17024 accreditation standard.</td>
<td>6/30/2020</td>
<td>Currently budgeted.</td>
<td>Chair, Certification Committee, Staff</td>
<td></td>
<td>BCxP, BEAP, BEMP and HBDP are accredited.</td>
<td></td>
</tr>
<tr>
<td>4.2. Launch new HBDP and HFDP exam forms updated per revised exam Detailed Content Outlines.</td>
<td>11/1/2019</td>
<td>Currently budgeted.</td>
<td>Chair, Certification Committee, HVAC Designer Exam Subcommittee, Staff</td>
<td></td>
<td>New exam items are being pre-tested. Additional exposures are needed, so new forms likely to launch Nov.1, 2019.</td>
<td></td>
</tr>
<tr>
<td>4.3. Recruit 2020-23 class of Exam Subcommittee members.</td>
<td>6/30/2020</td>
<td></td>
<td>Chair, Certification Committee, Nominations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Force, Staff</td>
<td>9/30/2019</td>
<td>Chair, Certification Committee, Staff</td>
<td>Task Force to incorporate new Strategic Plan and Committee self-assessment.</td>
<td></td>
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<td>-------------------------------------------------------------------------</td>
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<td></td>
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<tr>
<td>5. Monitor the effectiveness of current certification programs.</td>
<td>None.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Finalize 2019-20 MBOs.</td>
<td>To be determined.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Evaluate Live Remote Proctoring as an alternative exam delivery mode.</td>
<td>To be determined.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Evaluate the certification and recertification application fee schedule for any possible updates in the January, 2020 meeting.</td>
<td>None. Possible 2020-21 revenue increase.</td>
<td></td>
<td>The Certification Committee agreed to maintain the current fee schedule one additional year through June 30, 2020.</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Recommendations for Strategic Planning:**
Electronic Communications Committee (ECC)  
Report to Publishing and Education Council (PEC)  
ASHRAE 2019/ Annual Conference / Kansas City, MO

**Items Requiring Council Attention**

None.

**Information Items**

1. ECC’s electronic collaboration tools subcommittee plans to ensure Basecamps are set up for all Chapters and Regions with Clientsides enabled, with a goal of having Basecamps set up prior to CRCs. The subcommittee plans to schedule training in several sessions based on time zone. The training will focus on use of the Clientside.

2. The electronic collaboration tools subcommittee discussed the need for folders and files to be maintained, cleaned-up and/or archived in Basecamp as well as Basecamp standardization in terms of where items are stored across Basecamps.

3. The social media subcommittee is reviewing methods to increase social media presence of ASHRAE Regions on Society’s social media channels.

4. The websites subcommittee shared progress on a survey it will be sending to chapter leaders involved with ECC-style positions, chapter presidents and DRCs as part of work the subcommittee is doing to create website templates in answer to Region I (Granite State Chapter) Motion 25 (11/8/2018) and Membership Promotion Committee – Motion 10 (01/15/2019).

5. The committee discussed further the motion, Membership Promotion Committee – Motion 9 (01/15/2019): That the Electronic Communications Committee research the feasibility and capabilities of expanding the ASHRAE 365 App by January 2020 to allow chapters, regions and Society to distribute information to members. The committee had previously responded to the motion that it would take on the research requested.
6. ECC notes increased communication with Region Electronic Communications Chairs (RECC) as evidenced by participation of RECCs on conference calls and in attendance as guests at the annual meeting.

7. 2018–2019 MBOs can be seen in Attachment A.

8. 2019-2020 MBOs can be seen in Attachment B.

Respectfully submitted,

Megan Tosh
Electronic Communications Committee, Chair
06/23/2019
MT: jmr
## Electronic Communications Committee

**MBOs for Society Year 2018–19**

**Chair:** Megan Tosh  
**Date:** 23 June 2018

<table>
<thead>
<tr>
<th>Objective</th>
<th>Compl. by</th>
<th>Fiscal Impact</th>
<th>Resp. Party</th>
<th>Comment/Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support ASHRAE staff to promote their social media goals for the 2018-2019 year.</td>
<td>6/30/19</td>
<td>None</td>
<td>SM</td>
<td>Ongoing. Complete for 2018-19</td>
</tr>
<tr>
<td>Put together a training presentation on how to use the (new) Clientside of Basecamp for regions, chapters, standing committees, and TCs</td>
<td>12/31/18</td>
<td>None</td>
<td>ECT</td>
<td>Complete.</td>
</tr>
<tr>
<td>Improve committee communication with RECC’s and increase RECC participation.</td>
<td>6/15/19</td>
<td>None</td>
<td>ST</td>
<td>Complete.</td>
</tr>
<tr>
<td>Improve committee communication with Chapter ECC’s by providing ECC updates annually.</td>
<td>6/30/19</td>
<td>None</td>
<td>ST</td>
<td>Improved, further room for improvement.</td>
</tr>
<tr>
<td>Evaluate how social media platforms can be used by members to serve the membership</td>
<td>6/30/19</td>
<td>None</td>
<td>SM</td>
<td>Continuing.</td>
</tr>
<tr>
<td>Establish recognition for volunteers doing great ECC work at the Chapter &amp; Regional levels</td>
<td>6/30/19</td>
<td>None</td>
<td>Web, SM</td>
<td>Complete.</td>
</tr>
<tr>
<td>Evaluate the RECC and Chapter ECC role at CRC</td>
<td>6/30/19</td>
<td>None</td>
<td>ST</td>
<td>On hold due to larger conversations on role of ECC / how it fits into the Society. (Perhaps resume once ECC moves over to MC.)</td>
</tr>
</tbody>
</table>

**WS / Web** = Website Subcommittee,  
**ECT** = Electronic Collaboration Tools Subcommittee,  
**SMS** = Social Media Subcommittee,  
**ST** = Strategic Planning Subcommittee
# Electronic Communications Committee

**Draft MBOs for Society Year 2019–2020**

**Chair:** Gerardo Alfonso  
**Date:** 22 June 2019

<table>
<thead>
<tr>
<th>Objective</th>
<th>Compl. by</th>
<th>Fiscal Impact</th>
<th>Resp. Party</th>
<th>Comment/Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support ASHRAE staff to promote a smooth transition from PEC to MC for the 2019-2020 year.</td>
<td>6/30/20</td>
<td>None</td>
<td>ST, All</td>
<td></td>
</tr>
<tr>
<td>Improve committee communication with Chapter ECC’s by providing (2) ECC updates annually.</td>
<td>6/30/20</td>
<td>None</td>
<td>ST</td>
<td></td>
</tr>
<tr>
<td>Improve committee communication with RECC’s and increase RECC participation.</td>
<td>6/30/20</td>
<td>None</td>
<td>ST</td>
<td></td>
</tr>
<tr>
<td>Update content for ASHRAE membership: Best practices for Chapter Websites.</td>
<td>6/30/20</td>
<td>None</td>
<td>Web</td>
<td></td>
</tr>
<tr>
<td>Evaluate / choose new website templates for chapters.</td>
<td>6/30/20</td>
<td>None</td>
<td>Web</td>
<td></td>
</tr>
<tr>
<td>Update the formal presentation for CRC training of chapter ECC chairs.</td>
<td>6/30/20</td>
<td>None</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td>Update presentation for ASHRAE Membership: how to use Basecamp for chapters.</td>
<td>6/30/20</td>
<td>None</td>
<td>ECT</td>
<td></td>
</tr>
<tr>
<td>Improve usability of Basecamp for Councils and Committees.</td>
<td>6/30/20</td>
<td>None</td>
<td>ECT</td>
<td></td>
</tr>
<tr>
<td>Evaluate the RECC and Chapter ECC role at CRC</td>
<td>6/30/20</td>
<td>None</td>
<td>ST</td>
<td></td>
</tr>
<tr>
<td>Create content for ASHRAE membership: Best practices for SM Chapters.</td>
<td>6/30/20</td>
<td>None</td>
<td>SM</td>
<td></td>
</tr>
<tr>
<td>Support ASHRAE staff to promote their social media goals for the 2019-2020 year.</td>
<td>6/30/20</td>
<td>None</td>
<td>SM</td>
<td></td>
</tr>
</tbody>
</table>

**WS / Web** = Website Subcommittee, **ECT** = Electronic Collaboration Tools Subcommittee,  
**SMS** = Social Media Subcommittee, **ST** = Strategic Planning Subcommittee
Handbook Committee Report to
Publishing and Education Council (PEC)
Meeting of June 25, 2019

Action Items

None.

Information Items

1. The committee approved revisions to its ROB and forwarded these to PEC's Fiscal subcommittee for approval. Revisions to the MOP and Reference Manual are not proposed at this time, but are planned for the near future once the PEC and TC restructuring efforts are finalized.

2. ASHRAE Handbook Online now has 15,756 active subscribers, and income generated is on track to exceed $100,000 for FY 2018-19 ($95,861 as of end of May, with anticipated revenue from June being about $7-8k). Two new spreadsheets were added with the 2019 Handbook Online update, and out-of-sequence updates are planned for two chapters during the second half of 2019.

3. The committee approved TC 6.5's plan to consolidate their radiant heating and cooling chapters (currently Chapter 6 in HVAC Systems and Equipment, and Chapter 54 in HVAC Applications) into one Applications chapter.

4. The status of 2018-2019 MBOs is shown in Attachment A.

Respectfully submitted,

Don Fenton, Chair
Handbook Committee
23 June 2019
DF: hek
<table>
<thead>
<tr>
<th>Objective</th>
<th>Compl Date</th>
<th>Fiscal Impact</th>
<th>Responsible Party</th>
<th>Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Master spreadsheet for all chapters in all volumes.</td>
<td>Jan-19</td>
<td>None</td>
<td>Staff, chair, and vice chair</td>
<td>Done</td>
<td>This would aid liaisons and staff in tracking chapters as reviewed, revised, and submitted avoiding confusion. Consider use of the HB portal for this purpose.</td>
</tr>
<tr>
<td>2. Improve connections with countries other than US and Canada regarding input to HB chapters.</td>
<td>Jun-19</td>
<td>None</td>
<td>Chair, staff</td>
<td>Done</td>
<td>Different regions of the world have unique climates and thus unique HVAC&amp;R requirements which should be better addressed by the HB's. Don sent letter (via Vicki Grant) inviting comment on HB.</td>
</tr>
<tr>
<td>3. Re-examine promotion of on-line version of HB's</td>
<td>Jun-19</td>
<td>None</td>
<td>Electronic media, staff</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>4. Provide all HB committee members with access to all chapters.</td>
<td>Jan-19</td>
<td>None</td>
<td>Staff</td>
<td>Done</td>
<td>All liaisons should have convenient access to all HB chapters in order to facilitate exchange with TCs.</td>
</tr>
<tr>
<td>5. Continue 10% HB volume improvement goal.</td>
<td>Jun-19</td>
<td>None</td>
<td>HB volume chairs</td>
<td>Done for 2019 volume/ongoing for future volumes</td>
<td>Apply results of chapter changes, revisions, and re-writes from overall spreadsheet as measure. Note that 2019 volume had unprecedented 20% growth and high revision rate.</td>
</tr>
<tr>
<td>6. Encourage development of HB &quot;extras&quot; and out of sequence updates.</td>
<td>Jun-19</td>
<td>None</td>
<td>Electronic media, liaisons, volume chairs, staff</td>
<td>Done for 2019 volume/ongoing for future volumes</td>
<td>This would improve the usefulness of the HB's.</td>
</tr>
<tr>
<td>7. Develop and implement ideas that encourage TC's to submit chapters either on time or early.</td>
<td>Jun-19</td>
<td>None</td>
<td>Liaisons, chair, vice chair</td>
<td>Ongoing</td>
<td>Staff can only handle a limited number chapters submitted late. HB's would improve with earlier submissions.</td>
</tr>
<tr>
<td>8. Improve HB chapter review form.</td>
<td>Jun-19</td>
<td>None</td>
<td>Functional</td>
<td>Done</td>
<td>The presently used chapter &quot;checklist&quot; should be improved so that better information is provided guiding HB chapter changes and revision.</td>
</tr>
<tr>
<td>9. Improve peer training of incoming volume subcommittee chairs.</td>
<td>Jun-19</td>
<td>None</td>
<td>Functional</td>
<td>Done/ongoing for future</td>
<td>The knowledge and experience gained by the outgoing volume subcommittee chair is passed on to the incoming volume subcommittee chair.</td>
</tr>
<tr>
<td>10. Improve ASHRAE's recognition of contributors to the HB volumes.</td>
<td>Jun-19</td>
<td>Negligible</td>
<td>Chair, staff</td>
<td>Ongoing</td>
<td>ASHRAE recognition of HB chapter author contributions should occur at ASHRAE meetings. Ideas include meeting ribbons or stickers for name badge, etc.</td>
</tr>
</tbody>
</table>
Information Items

1. Historical Committee reviewed and unanimously approved the ROB which has been revised for the organizational changes to the committee structure. This restructure will result in a cost savings of about $3,000, because of the reduction in voting members from nine to seven.

2. Historical Committee reviewed and unanimously approved the MOP which has been revised for the organizational changes to the committee structure.

3. Historical Committee discussed ways to continue to provide guidance to region and chapter historians, even though there is no longer an official connection. The committee believes it to be important during this transitional period to insure continuity and above all to serve the members as well as Society.

4. Historical Committee reviewed the Chapter and Historians Guide to make sure it would be consistent with the committee’s restructure, but still be a valid and valuable tool to share with chapter and region historians.

5. Historical Committee heard an update on the progress of all projects for 125th anniversary.

6. Historical Committee heard a request from a visitor regarding who to approach for advice to put together a historical display during their (ASME) chapter hundred-year anniversary. The visitor was also an ASHRAE member.

7. Historical Committee reviewed a report on the status of PAOE points on the part of chapters by regions and discussed potential changes to PAOE to propose for the next fiscal year (2020-21).

8. Historical Committee addressed concerns from a new member regarding who should keep and preserve chapter historical records and artifacts. They advised that Society could not be responsible for storing chapter historical items.

9. The committee 2018-2019 MBOs were updated and shown in Attachment A.

Respectfully submitted,
Bruce Flaniken, Chair Historical Committee
06/23/2019
BF: ess
## Objective

<table>
<thead>
<tr>
<th>Objective</th>
<th>SP Goal</th>
<th>Completion Date</th>
<th>Fiscal Impact</th>
<th>Delegated to</th>
<th>Status</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEC MBO 1 Not Assigned to Historical</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PEC MBO 2 Compile a list of the Council's value to ASHRAE members and society based on committee focus.</td>
<td>1</td>
<td>Winter 2019 Atlanta</td>
<td>None</td>
<td>Historical Committee</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td>PEC MBO 3 Alignment of Council and Committee guiding documents (MOP/ROB/Manual) to reflect value &amp; restructure.</td>
<td>1</td>
<td>Winter 2019 Atlanta</td>
<td>None</td>
<td>Historical Committee</td>
<td>Completed</td>
<td></td>
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<tr>
<td>PEC MBO 4 Not Assigned to Historical</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>PEC MBO 5 Conduct a budget analysis to identify areas with potential for growth &amp; prioritize potential areas of reduction.</td>
<td>1</td>
<td>Winter 2019 Atlanta</td>
<td>None</td>
<td>Historical Committee</td>
<td>Completed</td>
<td>Continue on-line participation of non-voting members (RVCs) at Committee meetings. Propose the extension of the on-line participation of Chapter Historians to Regional RCMCR.</td>
</tr>
<tr>
<td>IC MBO 1 Develop proposals to improve the opportunities for Regional Historians to participate in Historical Committee activities.</td>
<td>1</td>
<td>Winter 2019 Atlanta</td>
<td>None</td>
<td>RVC Guideline sub committee</td>
<td>This has been changed by the Reorg of PEC</td>
<td></td>
</tr>
<tr>
<td>IC MBO 2 Develop PAOE Recommended Changes to 2019-2020 PAOE</td>
<td>1</td>
<td>Winter Atlanta 2019</td>
<td>none</td>
<td>Completed</td>
<td>To get ahead of the PAOE Committee Cycle with proposal for the following year's PAOE Letter in Summer 2019.</td>
<td></td>
</tr>
<tr>
<td>IC MBO 3 History VC PAOE Update Summary Report at Annual &amp; Winter Meetings to include copy similar to 2017-18 Annual meeting VC</td>
<td>1</td>
<td>Winter Atlanta 2019</td>
<td>None</td>
<td>VC Report</td>
<td>Completed</td>
<td>To encourage RVCs to target the below PAR performing Chapters in their Region based on the previous years History PAOE Summary.</td>
</tr>
<tr>
<td>IC MBO 4 Encourage Chapter Historians who don't Attend their Regional CRC for Chapter Historian Training by their History RVC and the Regional RCMR that they report to</td>
<td>1</td>
<td>Ongoing</td>
<td>minor</td>
<td>RVC Guideline sub committee</td>
<td>This has been changed by the Reorg of PEC</td>
<td>Recommendations to Regional RCMRs: Update the Chapter Historians Training PowerPoint. 1) Propose the extension of the on-line participation of Chapter Historians at Regional CRC to Regional level. 2) Propose revision of RVC Assigns PAOE points to add attendance at on-line Chapter Historian Training at CRC. Add points for submittal of a completed MBO with phone discussion with Regional RCMR prior to July 30, fiscal year.</td>
</tr>
<tr>
<td>IC MBO 5 Assist in publicizing 125th Anniversary. Develop information of historical interest that can be presented at Society &amp; Regional Meetings</td>
<td>1</td>
<td>Ongoing</td>
<td>Major</td>
<td>125th Anniversary Celebration sub committee</td>
<td>Ongoing project</td>
<td>Continue 125th Seminar and Historical Articles Promotions with PEC to support the 125th anniversary and demonstrate to members the strength in depth of our Society.</td>
</tr>
<tr>
<td>IC MBO 6 Develop proposal for publication s to celebrate 125th Anniversary</td>
<td>1</td>
<td>Winter Meeting Atlanta 2019</td>
<td>To Be Advised</td>
<td>Historical Committee</td>
<td>Ongoing project</td>
<td>Continue working on and supporting 125th Publications for to PEC. Currently working with Staff overall schedule and requirements for other projects.</td>
</tr>
<tr>
<td>IC MBO 7 Foster collaboration with other international societies to improve our historical research and support history-related activities of the Society</td>
<td>4</td>
<td>Ongoing</td>
<td>None</td>
<td>Historical Committee</td>
<td>Completed; Have made contacts with LMC and COF Chairs</td>
<td>Continue work on collaboration HC has links with similar groups in CIBSE and AICARR - opportunity to pursue to work w/similar committees in CEN, International Institute of Ammonia Refrigeration (IIAR), International Institute of Refrigeration (IIR), &amp; Global Cold Chain Alliance (GCCA).</td>
</tr>
<tr>
<td>IC MBO 8 Encourage younger members of ASHRAE to have interest in history-related activities of the Society</td>
<td>2</td>
<td>Ongoing</td>
<td>None</td>
<td>Historical Committee</td>
<td>Completed</td>
<td>Continue YEA PAOE Support in History Proposed to keep the PAOE line item &quot;For a local Chapter Historical activity performed by an actively engaged YEA member&quot;.</td>
</tr>
<tr>
<td>IC MBO 9 Leadership Recall Arrange for videos at Annual meeting 2019</td>
<td>2</td>
<td>Ongoing</td>
<td>$1,000 Budgeted</td>
<td>Historical Committee</td>
<td>Completed</td>
<td>Arrange two Presidential interviews. Review other potential interviewees</td>
</tr>
<tr>
<td>IC MBO 10 Digitize Archived Journals + Transactions</td>
<td>3</td>
<td>Ongoing</td>
<td>Major</td>
<td>Historical Committee/PEC</td>
<td>Work in Progress &amp; Ongoing</td>
<td>Continue Archive Digitized Journal and Transaction w/Searchable indexes now available; Encourage digitization of all Society Journals and Handbooks</td>
</tr>
<tr>
<td>HC MBO 11 Incorporate a Women in Engineering component to the 125 Year ASHRAE Anniversary celebration</td>
<td>1</td>
<td>Ongoing</td>
<td>None</td>
<td>Historical Committee</td>
<td>Completed</td>
<td>Continue WIA PAOE Support in History Proposing to keep the PAOE line item “For a local Chapter Historical activity performed by an actively engaged “Woman in ASHRAE (WIA)” member”</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Jan 12–16, 2019 – Atlanta, GA</td>
<td>Completed</td>
<td></td>
<td></td>
<td>Completed</td>
<td>Jun 22–26, 2019 – Kansas City, MO</td>
<td></td>
</tr>
</tbody>
</table>
Professional Development Committee
Report to Publishing and Education Council
ASHRAE 2019 Annual Conference – Kansas City

Motions

None.

Information Items

1. The committee is working to review all existing courses, establish guidelines for future reviews and develop criteria for new course instructors.

2. The committee agreed to seek ways to package higher-level training in a format that can be used as a certification exam-prep resource.

3. Five (5) new courses were presented in Kansas City. The new Guideline 36 course drew the highest number of registrants.

4. The committee approved a proposed slate of courses for the 2019 Fall Online Course Series; one new 3-hour course combining Guideline 0 and Standard 202; and the first one-hour course, an overview of the new IgCC with a primary focus on HVAC.

5. Professional Development Committee 2018-2019 (Attachment A) and draft 2019-2020 MBOs (Attachment B) are attached.

Respectfully submitted,
Charlie Henck, Professional Development Committee Chair
June 24, 2019
<table>
<thead>
<tr>
<th>Objective</th>
<th>SP</th>
<th>Completed by</th>
<th>Fiscal Impact</th>
<th>Responsible Party</th>
<th>Comment/Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop a 5-year plan on developing young engineer training products</td>
<td>1C</td>
<td>June 2019</td>
<td>None</td>
<td>Planning Subcommittee</td>
<td>Complete</td>
</tr>
<tr>
<td>that can reach a wider audience than just our design class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Develop topics and RFPs for an additional (3) practical applications</td>
<td>3D</td>
<td>January 2019</td>
<td>None</td>
<td>Planning Subcommittee</td>
<td>Complete</td>
</tr>
<tr>
<td>courses to ‘fill the gaps’ in our current offerings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Review all SDLs and issue RFPs for the ones that need updating.</td>
<td></td>
<td>June 2019</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Complete/Continuous</td>
</tr>
<tr>
<td>4. Review all existing courses and sunset those that have not been used</td>
<td></td>
<td>June 2019</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Complete</td>
</tr>
<tr>
<td>in 5 years or recommend updates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Establish guidelines for liaison</td>
<td></td>
<td>June 2019</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Complete</td>
</tr>
<tr>
<td>6. Every course reviewed by PDC Liaison prior to presentation—Quality</td>
<td></td>
<td>January 2019</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Complete/Continuous</td>
</tr>
<tr>
<td>check</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Improve marketing of courses/branding. Work with ASHRAE marketing for</td>
<td></td>
<td>January 2019</td>
<td>TBD</td>
<td>Planning Subcommittee</td>
<td>Continuous</td>
</tr>
<tr>
<td>improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional Recommendations for Strategic Planning:** None at this time
### Professional Development Committee

**MBOs for Society Year 2019-2020**

**Chair:** Charlie Henck  
**Date:** June 24, 2019

<table>
<thead>
<tr>
<th>Objective</th>
<th>SP</th>
<th>Complete by</th>
<th>Fiscal Impact</th>
<th>Responsible Party</th>
<th>Comment/Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Review new strategic plan for items that apply to PDC and develop a plan to implement.</td>
<td></td>
<td>Jun-20</td>
<td>None</td>
<td>Planning Subcommittee</td>
<td></td>
</tr>
<tr>
<td>2. Develop topics and RFPs for an additional (3) practical applications courses to ‘fill the gaps’ in our current offerings for developing young engineers.</td>
<td></td>
<td>Jan-20</td>
<td>None</td>
<td>Planning Subcommittee</td>
<td></td>
</tr>
<tr>
<td>3. Review all SDLs and issue RFPs for the ones that need updating.</td>
<td></td>
<td>Jun-20</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Review by Jan Issue RFP by June</td>
</tr>
<tr>
<td>4. Review all existing courses and sunset those that have not been used in 5 years or recommend updates</td>
<td></td>
<td>Jun-20</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Continuous</td>
</tr>
<tr>
<td>6. Every course reviewed by PDC Liaison prior to presentation–Quality check</td>
<td></td>
<td>Jun-20</td>
<td>None</td>
<td>Operations Subcommittee</td>
<td>Continuous</td>
</tr>
<tr>
<td>7. Improve marketing of courses/branding. Work with ASHRAE marketing for improvement</td>
<td></td>
<td>Jun-20</td>
<td>TBD</td>
<td>Planning Subcommittee</td>
<td>Continuous</td>
</tr>
</tbody>
</table>

**Additional Recommendations for Strategic Planning:** None at this time
Publications Committee Report to
Publishing and Education Council
Meeting of June 25, 2019

Action Items

None.

Information Items

1. Publications Committee will participate in a guinea pig project with RAC wherein those submitting a proposal to receive RAC funding specifically earmarked for a publication as a deliverable will go through submission and approval procedures with RAC and Publications Committee.

2. The committee supports the proposed ASHRAE Design Guide for Air Curtains.

3. The committee will discuss the revised MOP on a conference call in August.

4. All MBOs from the 2018-2019 Society year have been completed (Attachment A).

5. MBOs for the 2019-2020 Society year will be supplied to PEC in July.

Respectfully submitted,

José Correa, Chair
Publications Committee
23 June 2019
**Publications Committee**  
MBOs for Society Year 2018-2019  
**Chair:** Jose Correa  
**Date:** 19 Aug 2018

**SP 2014** = Strategic Plan 2014 Initiative addressed by objective

<table>
<thead>
<tr>
<th>Objective</th>
<th>SP 2014</th>
<th>Compl. by</th>
<th>Fiscal Impact</th>
<th>Resp. Party*</th>
<th>Comment/Status</th>
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<tbody>
<tr>
<td>Create a guide of liaison with TAC sections</td>
<td>6/19</td>
<td>None</td>
<td>Aguilo, Murthy</td>
<td></td>
<td>To improve communication with TAC/TCs and prepare liaisons TC/Section breakfasts. Ensuring mandatory attendance. Identify publications needing revision.</td>
</tr>
<tr>
<td>Continue conducting and monitoring mentoring program for new members.</td>
<td>2</td>
<td>6/19</td>
<td>None</td>
<td>Chee</td>
<td>Mentor all new members, make sure they are on track and help them to achieve what they commit to.</td>
</tr>
<tr>
<td>Continue facilitating ASHRAE Journal articles comment and judging.</td>
<td>2</td>
<td>6/19</td>
<td>None</td>
<td>Vallort</td>
<td>Improve current matrix to select Article of the Year and follow up on member’s ASHRAE Journal monthly review.</td>
</tr>
</tbody>
</table>

**Additional Recommendations for Strategic Planning:**  
None.
REPORT ON
ASHRAE GLOBAL TRAINING CENTRE (S)

June 2019

On behalf of the
Global Training Centre Adhoc

Farooq Mehboob
Society Vice President 18-19
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 BACKGROUND</td>
<td>1</td>
</tr>
<tr>
<td>2.0 THE PEC ADHOC</td>
<td>1</td>
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<tr>
<td>3.0 GTC ACTIVITIES TO DATE</td>
<td>2</td>
</tr>
<tr>
<td>4.0 FINANCIALS</td>
<td>3</td>
</tr>
<tr>
<td>5.0 CONCLUSIONS</td>
<td>4</td>
</tr>
<tr>
<td>6.0 RECOMMENDATIONS</td>
<td>5</td>
</tr>
</tbody>
</table>
1.0 BACKGROUND

GTC Dubai was set up based on the BOD approval of MCI recommendations to start the Center in 2016-2017.

The instructors were appointed by PEC and included the PEC Chair.

The courses were selected by the Instructors who “Customized” the courses.

The Instructors were paid for customizing the courses and their remuneration fixed @ 15% less than the US rates on the assumption that Dubai living costs are 15% less than the US. Except for one instructor the others are not resident in Dubai.

The GTC consists of an office approx. 100 sq.ft. and one employee.

Courses are held at Hotels and other facilities.

The business model for the Global Training Center for Building Excellence is based on the following concepts:

- ASHRAE will customize training for the market.
- ASHRAE will sell course registrations to individuals and to groups.
- ASHRAE will communicate benefits of training to its membership base in the Gulf and surrounding regions.
- ASHRAE will reach out to governments and firms engaged in building construction and operation to promote group training opportunities.
- ASHRAE commits to a three year investment in the training center to build market demand, create market awareness and build a customer base.

2.0 THE PEC ADHOC

The Adhoc is charged with:

i) Determining what information is needed for PEC / BOD oversight of the operation.

ii) Establishing success metrics against stated objectives of this operation.

iii) Provide direction in programming and reporting.
### 3.0 GTC ACTIVITIES TO DATE

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Courses</th>
<th>No. of times Course Held</th>
<th>Dates</th>
<th>Attendees</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Commercial Building Energy Audits (MENA)</td>
<td>02</td>
<td>01-Apr-2018 26-Mar-2019</td>
<td>45</td>
<td>Hassan Y.</td>
</tr>
<tr>
<td>4.</td>
<td>Commissioning Process in New &amp; Existing Buildings (MENA)</td>
<td>–</td>
<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>5.</td>
<td>High Performing Healthcare Facilities, Design Considerations &amp; Applications (MENA)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>7.</td>
<td>Understanding Standard 189.1-2014 for High-Performance Green Buildings (MENA)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>9.</td>
<td>Air-to-Air Heat Recovery Fundamentals &amp; Applications (MENA)</td>
<td>–</td>
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<td>10.</td>
<td>The Future of Refrigerants: Challenges &amp; Opportunities</td>
<td>01</td>
<td>09-May-2018</td>
<td>46</td>
<td>Karim A., Omar A.</td>
</tr>
<tr>
<td>12.</td>
<td>HVACR Refrigerants</td>
<td>01</td>
<td>27-Nov-2018</td>
<td>57</td>
<td>Big 5 Expo</td>
</tr>
<tr>
<td>14.</td>
<td>District Cooling for Designers &amp; Owners</td>
<td>01</td>
<td>17-Apr-2019</td>
<td>130</td>
<td>Empower Sponsorship</td>
</tr>
</tbody>
</table>
4.0  FINANCIALS (FISCAL YEAR JULY 2017 – JUNE 30, 2018)

INCOME FROM COURSES:

<table>
<thead>
<tr>
<th>Year</th>
<th>Courses</th>
<th>Income ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>HVAC Design: Level I – Essentials (MENA)</td>
<td>15,306.00</td>
</tr>
<tr>
<td>2017</td>
<td>Variable Refrigerant Flow Systems</td>
<td>4,081.00</td>
</tr>
<tr>
<td>2018</td>
<td>HVAC Design: Level I – Essentials (MENA)</td>
<td>22,276.50</td>
</tr>
<tr>
<td>2018</td>
<td>Commercial Building Energy Audits</td>
<td>3,779.28</td>
</tr>
<tr>
<td>2018</td>
<td>HVAC Design: Level I – Essentials (MENA)</td>
<td>11,410.00</td>
</tr>
<tr>
<td>2018</td>
<td>The Future of Refrigerants: Challenges &amp; Opportunities (MENA)</td>
<td>13,975.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>95,473.78</td>
</tr>
</tbody>
</table>

EXPENSES:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion</td>
<td>10,300</td>
</tr>
<tr>
<td>Meetings &amp; Seminars</td>
<td>46,700</td>
</tr>
<tr>
<td>Travel Staff</td>
<td>12,100</td>
</tr>
<tr>
<td>Rental Storage Space &amp; Real Estate</td>
<td>1,700</td>
</tr>
<tr>
<td>Course Supplies Education</td>
<td>400</td>
</tr>
<tr>
<td>Stationery/Broch/Forms/Other</td>
<td>2,400</td>
</tr>
<tr>
<td>Postage</td>
<td>900</td>
</tr>
<tr>
<td>Development Costs</td>
<td>18,700</td>
</tr>
<tr>
<td>Outside Services-Other Services</td>
<td>45,700</td>
</tr>
<tr>
<td>Credit Card Charges</td>
<td>1,800</td>
</tr>
<tr>
<td>Total</td>
<td>140,700</td>
</tr>
</tbody>
</table>

If the grant of $ 40,000 from the Foundation is not considered there is a loss of $ 43,227. Atlanta and Steve’s time are not included in expenses.

For the period July 1 through November 30, 2018 summarized income and expenses are as follows:

<table>
<thead>
<tr>
<th>Income</th>
<th>– $ 53,279</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenses</td>
<td>– $ 47,000</td>
</tr>
</tbody>
</table>
5.0 CONCLUSIONS

A review of the operation leads to the following conclusions:

i) By far the most in demand course is HVAC Design Essentials Level-I repeated eleven times, followed by Standard 90.1, repeated 5 times and Standard 62.1 repeated 4 times.

ii) Courses on which there has been no demand are, Commissioning Process in New and Existing buildings, High performing Health Care Facilities, understanding standard 189.1, & Air to Air Heat Process. Out of the 13 courses developed solar and customized 3 have had no market response in 2 years of operation.

iii) Out of the 29 courses held:

   13 were held in Dubai by GTC
   1 was held in Pakistan
   1 was held in Qatar
   12 were held in Saudi Arabia
   2 were held in South Africa

   There has been strong support from RAL DRC Ahmad Alaa in arranging courses in Saudi Arabia, Pakistan and ongoing discussions for Egypt.

iv) The pricing for the courses which is a key factor in the success of GTC varied as follows:

   – HVAC Design Essentials Level-I – $ 695, $ 856, $ 543, $ 705, $ 495, $ 390
   – Standard 90.1 – $ 199, $ 259, $ 120
   – Standard 62.1 – $ 130, $ 120

v) Instructor Fees amounted to $ 61,324 out of the Total Program Fees of $ 148,752 or 41.2%.

   Room Rentals amounted to $ 59,400 or 39.9%.

   Clearly these costs are unsustainable going forward.

vi) Ayah who runs the GTC under Steve does an excellent job however a single person cannot accomplish all that is needed in terms of calling on companies and promoting the centre. More volunteer and staff support is required.

vii) The GTC has had limited success in achieving the objectives for which it was created. The HVAC Design Level-I course which was held eleven times has always been available and held many times prior to the founding of the GTC.

viii) Way Forward:

   Going forward the outlook is improving with a forecast income of $ 98,200 in the period ending April 30, 2019.
6.0 **RECOMMENDATIONS**

Key issues which needed to be addressed are summarized below:

i) Involving Regions in actively pursuing opportunities thru chapters and regional associations.

ii) Researching the market as to what courses are expected to be in demand. Customizing courses for corporate entities may be considered.

iii) The appointment of instructors should be carried out systematically much like CTTC’s process of appointing DL’s. Efforts should be made to use Dubai based instructors to cut travel costs.

iv) Wherever possible courses to be held at locations where there is no room rental. Partnering with universities in Dubai is a way to do this.

v) Instructor Fees and Development Costs should be carefully reviewed. Using Dubai based University professors as instructors should be considered.

vi) Sales calls and Government Contacts should be aggressively pursued with volunteer support. ASHRAE should consider additional supporting staff for Ayah.

These issues were discussed by the Adhoc during a Conference Call on May 16, 2019.

Steve Comstock drafted the Policy & Guidelines for Training Centers, these were reviewed, edited and finalized. They are attached to this report as Attachment A to this report.

These Guidelines are not EMEA specific and can be applied wherever a Training Centre is setup.

The Guidelines include the process for setting up Training Centres, operation responsibility, Volunteer Oversight, Budgeting, instructor selection, review and compensation, Fees and Sales Channels, Course Locations, Costs & Selection as well as business development and metrics.

It is recommended that PEC formally adopt the guidelines.

Respectfully submitted.

Faroog Mehboob
Vice Chair PEC
2018-2019
OPERATING POLICIES AND GUIDELINES
ASHRAE TRAINING CENTERS

17 June 2019

1. Philosophy

1.1. ASHRAE Training Centres rest upon a philosophy of engaging members in geographic markets to increase the value of ASHRAE membership through delivery of training that meets the needs of the specific market, is available at affordable pricing in the market, and which expands awareness of ASHRAE among non-member professionals in the market.

1.2. ASHRAE Training Centres, alongside the delivery of training, can bring visibility to the works of ASHRAE, extending ASHRAE influence to a broad range of professionals, companies, governments, and allied associations. Training Centres are also assets for ASHRAE’s cooperative efforts with inter-governmental bodies, such as UNEP, in outreach to technical communities in developing countries.

1.3. The packaging of training, content of training, sale of training, and pricing of training is determined by each respective Training Centre based upon the needs of the market in accordance with the approved budget, policies and guidelines in this document, and consistency with ASHRAE’s brand promise of technical accuracy and credibility.

2. Establishment

2.1. Establishing an ASHRAE Training Centre requires approval of the Board of Directors based upon the recommendation of the Publishing and Education Council.

2.2. In making a recommendation to the Board of Directors to establish a Training Centre, the Publishing and Education Council will first confer with the respective ASHRAE Director and Regional Chair (or chairs if the market extends to more than one region) to ensure local perspective guides development of the recommendation.

2.3. Recommendations to establish a Training Centre will consider the need for market-specific products, market demand, staffing requirements, instructor interest, and volunteer availability to customize content for the specific market. The recommendations shall include a business plan for consideration by the Board of Directors.
3. Operation

3.1. ASHRAE Training Centres operate following policies and guidelines outlined in the document.

3.2. Responsibility for the operation, staffing and performance of each ASHRAE Training Centre shall be the responsibility of the Business Development Manager reporting to the Society’s Executive Vice President, and in coordination with the Director of Publishing and Education and the Society’s professional development staff.

3.3. Each Training Centre will be headed a Training Centre Manager responsible for promotion, sales, scheduling, and training deployment. The manager reports to the Business Development Manager EMEA. (Note: With ASHRAE being a US registered company, it might be beneficial to provide staffing support under contact rather than as salaried employees; reporting paths remain the same.)

3.4. Staffing support in an office can be increased in accordance with ASHRAE staffing policies and allowance in the operating budget for each respective centre.

3.5. Each Training Centre shall have a volunteer oversight committee appointed by Publishing and Education Council Chair consisting of the Director & Regional Chair(s) of the Region(s) in which the centre operates, Business Development Manager, Training Centre Manager and one or more volunteers from Publishing and Education Council. The oversight committee will report to the Publishing and Education Council at each Society meeting.

4. Fiscal Performance

4.1. The annual budgets for each Training Centre will be prepared by the Business Development Manager in consultation with each Training Centre Manager, for submission to the Director of Publications and Education for approval by and inclusion in the Publishing Council Budget during the normal ASHRAE budget development timeline.

5. Instructor Selection and Review

5.1. Training Centres respond to market demand and result from negotiated sales efforts. The selection and assignment of instructors for each Training Centre must recognize that flexibility is required to enable ASHRAE to deliver training at the speed of business and to meet market demand.

5.2. Instructors will be selected based on their technical knowledge, skill as an instructor, appeal in attracting registrants, knowledge of market applications and standards, and availability. Instructor selection is to be a balance between specific field knowledge and ability to instruct on a range of topics which enables ASHRAE to reduce cost when satisfying bundled-training opportunities.

5.3. The number of instructors approved to present courses at each Training Centre is dependent upon the demand for courses scheduled by each respective centre or under consideration for scheduling.

5.4. Persons to serve as instructors may be suggested by any member to the manager of each respective Training Centre.
5.5. To serve as a Training Centre instructor, each candidate will complete an Instructor Profile which collects information related to technical experience and marketability.

5.6. Instructors will be selected upon the recommendation of the respective Training Centre Manager by the Business Development Manager. Appointment and instructor compensation and duration of appointment is subject to the approval of the Volunteer Oversight Committee and the chair of the Publishing and Education Council.

5.7. Instructors identified for one Training Centre may be assigned instruction organized by another centre if their expertise and expertise is relevant to the other market.

5.8. Training Centres may schedule US and Canadian instructors to instruct with or without instructors from the market, depending on customer preference, demand in the market for a US/Canadian instructor, the ability to accommodate them within the budget for a scheduled training, and the need to train instructors from the market.

5.9. Attendee evaluation forms will be used with each scheduled training. Tabulated results will be shared with the respective instructor and will be taken into account when reappointing instructors.

6. Fees and Sales Channels

6.1. Multiple sales channels may be among the sales channels employed at a Training Centre.

6.1.1. Direct sales-- Scheduled training at a centre
6.1.2. Company Sponsored -- Scheduled training offered with company sponsorship open to public
6.1.3. In-Company training – Reserved training for company employees and clients
6.1.4. Distributor Sales – Training packaged through private firm or organisation for resale
6.1.5. Chapter Training – Training delivered by chapters
6.1.6. Partnered Training – Training offered in cooperation with another organization
6.1.7. Intergovernmental Outreach – Training or other support provided through grants

6.2. A general principle for all markets is that Training Centres will not offer registration fee pricing that cannot cover the respective cost for that development and delivery of that training.

6.3. Registration fees to be charged by each Training Centre are established by staff with consideration given within each market to direct cost of delivering training, indirect costs for delivering training, and recovery of investment for development of training in the market. Fees are also subject to competitive landscape, presence or absence of drivers for demand, purchasing power within each market, and fee structures in place in other Training Centres and in the US and Canada. These factors will lead to pricing structures that while desired to be consistent in different markets will necessarily reflect market differences.
6.4. Pricing offered through each sales channel will be at the discretion of the manager of the respective Training Centre and the Business Development Manager taking account of volume, the above factors and number of courses to be scheduled, anticipated attendance, ASHRAE cost to deliver training, value to ASHRAE in terms of promotion of standards, and location.

7. Course Locations and Costs

7.1. Considerations for course location include, dependent upon the type of course scheduled: Productive learning environment, catering or restaurant availability, audio visual services, convenience for attendees, nearby hotel for instructors, cost.

7.2. Courses may be located at hotels, universities, company facilities, with an emphasis on choosing a location that provides the greatest value, while ensuring satisfactory attendee experiences and considering the staffing time required for deployment.

7.3. Scheduling of courses, course agendas, and catering will be based on expectations of attendees from the market being served.

8. Course Selection

8.1. Course inventory for each Training Centre needs to be responsive to customer demand. This can require modification and customization. Courses in inventory must also be able to be delivered quickly and consistently so that ASHRAE can operate at the speed of business.

8.2. Course inventory will be developed based on demand as identified by potential customers, instructors, regional director, and chapter and regional volunteers and as consolidated by the respective Training Centre manager.

8.3. Courses can be included in the inventory with content developed for the US/Canadian market or based upon feedback from potential customers, instructors, regional director and chapter and regional volunteers customized for the respective market.

8.4. Courses can be developed that are specific to the market of each Training Centre if there is adequate demand.

8.5. If market customization is required, it will be done by voluntary effort from instructors or others either at one time or under a continuous development process. If market customization cannot be done voluntarily, funding from the respective centre’s budget can be used upon recommendation of the Business Development Manager with the approval of the chair of the Publishing and Education Council.

8.6. Centre managers, Business Development Manager, Director of Publishing and Education Council, respective Volunteer Oversight Committee, and Publishing and Education Council chair will review scheduling of course inventory annually to proactively modify course inventory as needed.
9. Business Development

9.1. Each Training Centre Manager shall maintain a list of prospects for each of sales channels within their market. List will be used in regular communication including personal outreach will be employed with each of the prospect lists, recognizing purchasing traditions within the given market.

9.2. The Business Development Manager will work with each Training Centre manager to identify value propositions that resonate in each market and employ sales and communication techniques that are proven to be most effective in each region.

9.3. In addition to ASHRAE Media, Training Centre managers will use other communication channels through promotion budgets included in the annual budget for each Training Centre.

10. Metrics

10.1. A quarterly report for each Training Centre will be prepared showing scheduling of training during the period with date of course presentation, name of course presented, instructors, location, sales channel, total attendees, total revenue, total cost, net, and comments. In a format approved by the Publishing and Education Council Chair.

10.2. On a semi-annual basis combined tabulation of instructor evaluations from the previous 6 months will be shared by the Business Development Manager with the chair of the Publishing and Education Council and Volunteer Oversight Committee. This tabulation is to be held in confidence.
<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>RESPONSIBILITY</th>
<th>STATUS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete and vote on the PEC restructure proposal.</td>
<td>Certification</td>
<td>Complete</td>
<td>Committees voted in support. Ready for motion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ECC</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Handbook</td>
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<tr>
<td></td>
<td></td>
<td>Historical</td>
<td></td>
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<td>PDC</td>
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<td></td>
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<td>Functional Publications</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fiscal eLearning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Journal Advert.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research Journal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ad-hoc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEC Chair V</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEC Chair Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Compile a list of of the Council's value to ASHRAE members and society based on committee focus.</td>
<td></td>
<td>On going</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Alignment of Council and Committee guiding documents (MOP/ROB/Reference Manual) to reflect value and restructure.</td>
<td></td>
<td>On going</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Support efforts and establish measures for monitoring global outreach and business development through the Global Training Center (Dubai) and the Brussels Office.</td>
<td></td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Conduct a budget analysis to identify areas with potential for growth and prioritize potential areas of reduction.</td>
<td></td>
<td>Complete</td>
<td>Submitted to Finance.</td>
</tr>
</tbody>
</table>
PEC Restructuring
June 2019
Ad Hoc Members:
Julia Keen (Chair)
Dan Dettmers
Charlie Henck
Jin Jin Huang
Restructuring Goals

• Reshape the role of PEC and its subcommittees’ functions
• Efficient use of volunteer and staff time
• More effectively use volunteer talent and knowledge to provide direction on all publication and education member products
• Improve communication and planning between all things publication and education related
• Build in an evaluation process of committee progress on Council and Society Strategic Plan
• Organize in a logical manner all ASHRAE PEC responsibilities
  • Staff transition
  • New responsibilities as ASHRAE evolves and adds services
Existing Committee Structure

Not addressed: training centers, external education, university courses, etc.

PEC

VP1 (Chair), VP2 (Vice Chair), (5) Past Committee Members, (5) ExO, (2) At-Large  [13*]

Certifications: Chair, Vice Chairs, & Members, ExO1 [12]
Handbook: Chair, Vice Chair, & Members, ExO2 [25]
Professional Development: Chair, Vice Chairs, & Members, ExO3 [12]
Publications: Chair, Vice Chair, & Members, ExO4 [12]
Historical: Chair, Vice Chair, & Members, ExO5 [9]
Research Journal Subcommittee: Editor, Appointed members [3]

Appointments*
(2) VPs
(5) ExOs
(80) Members

*ECC not included in count
Revised Proposed Committee Structure

PEC

- VP1 (Chair), VP2 (Vice Chair), (5) Committee Chairs, (5) ExOs, (4) Past Committee Members [16]
- VP1 (Chair), VP2 (Vice Chair), (5) Committee Chairs, (5) ExOs, (4) Past Committee Members [16]

Fiscal Subcommittee

- 5 Comm. Chairs, 5 Comm. Member Rep., VP1, 2 Past Comm. Members, 3 ExOs [15]

Planning Subcommittee


Products Subcommittee

- 3 Past Comm. Members, Chair & Vice Chair of Committees, 3 ExOs [13]

Professional Development Subcommittee

- 2 Past Comm. Members, Chair & Vice Chair of Committees, 2 ExOs [12]

- Chair, Vice Chair, & Members, ExO1 [25]

- Chair, Vice Chair, & Members, ExO2 [12]

- Chair, Vice Chair, & Members, ExO3 [7]

- ExO2 (serves as chair), Appointed Members [3]

- ECC relocated to Members Council

- Chair, Vice Chairs, & Members, ExO4 [12]

- Chair, Vice Chairs, & Members, ExO5 [12]

- Appointments
  - (2) VPs
  - (5) ExOs
  - (75) Members

Handbook

- Chair, Vice Chair, & Members, ExO1 [25]

- Chair, Vice Chair, & Members, ExO2 [12]

- Chair, Vice Chair, & Members, ExO3 [7]

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- ECC relocated to Members Council

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- Chair, Vice Chairs, & Members, ExO5 [12]

- Appointments
  - (2) VPs
  - (5) ExOs
  - (75) Members

Publications

- Chair, Vice Chair, & Members, ExO1 [25]

- Chair, Vice Chair, & Members, ExO2 [12]

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- Chair, Vice Chairs, & Members, ExO5 [12]

- Appointments
  - (2) VPs
  - (5) ExOs
  - (75) Members

Historical

- Chair, Vice Chair, & Members, ExO1 [25]

- Chair, Vice Chair, & Members, ExO2 [12]

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- Appointments
  - (2) VPs
  - (5) ExOs
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Research Journal

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- Appointments
  - (2) VPs
  - (5) ExOs
  - (75) Members

Certification

- Chair, Vice Chair, & Members, ExO1 [25]

- Chair, Vice Chair, & Members, ExO2 [12]

- Chair, Vice Chair, & Members, ExO3 [7]

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- Chair, Vice Chairs, & Members, ExO4 [12]

- Chair, Vice Chairs, & Members, ExO5 [12]

- Appointments
  - (2) VPs
  - (5) ExOs
  - (75) Members

Training & Education
# PEC (Monitor and Planning)

## Planning
- Set strategic direction
- Develop MBOs
- Prioritize resource allocations
- Ensure alignment with Society Strategic Plan
- Identify future PEC leadership
- Maintain MOP & ROB of PEC
- Assist with committees’ MOP & ROB
- Act as a resource for rule interpretation
- Assist w/ motions
- Review MBO progress
- Recommend action when goals are not met
- Evaluate & document progress toward Society Strategic Planning goals

## Fiscal
- Manage budget
  - Monitor Revenue and Expenses
  - Review for potential efficiencies
  - Provide data to help drive decisions
- Advertising
  - Recognize advertising opportunities
  - Evaluate advertising and sales yield and potential
- Job board
- Supplier Directory
- Supplier Webinars
# Products

(Monitor, Planning, Review of Bookstore and Portals & Point of contact for other society pubs)

<table>
<thead>
<tr>
<th>Handbook</th>
<th>Publications</th>
<th>Historical</th>
<th>Research Journal Subcommittee</th>
</tr>
</thead>
</table>
| - Manage the development and revision of Handbook content  
- Provide effective means for content delivery  
- Assist TC’s to identify new content developers (authors) | - Books  
- AEDGs  
- Charts/Tools  
- ASHRAE Transactions  
- Proceedings  
- ASHRAE Journal  
- HPB Magazine  
- ASHRAE Insights and eSociety  
- Electronic Pubs - Apps/Data Bases/Software | - Archives (including Library)  
- Content Support/Development (research, sessions, papers, books, etc.)  
- Landmarks  
- Anniversary/Special Event Projects | - S&T for the Built Environment |
| Professional Development  
(Monitor and Planning) |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Training and Education</strong></td>
</tr>
<tr>
<td>• E-learning</td>
</tr>
<tr>
<td>• Certificates</td>
</tr>
<tr>
<td>• Instructor Led Courses</td>
</tr>
<tr>
<td>• Self-Directed Learning</td>
</tr>
<tr>
<td>• In-Company Courses</td>
</tr>
<tr>
<td>• Chapter Resources</td>
</tr>
<tr>
<td>• Develop strategy for the evaluation of existing and need for additional training centers</td>
</tr>
<tr>
<td>• Assist in the review of training centers – effectiveness and financial impact</td>
</tr>
<tr>
<td>• Assist in identification of courses for each training center</td>
</tr>
<tr>
<td>• University Course(s)</td>
</tr>
<tr>
<td>• ASHRAE Career Enhancement Curriculum Program</td>
</tr>
<tr>
<td><strong>Certification</strong></td>
</tr>
<tr>
<td>• Maintain existing certifications and development of new</td>
</tr>
<tr>
<td>• Evaluate market demand</td>
</tr>
<tr>
<td>• Develop strategy for evaluation</td>
</tr>
</tbody>
</table>
Implementation Time Line

Society Year 2018 – 2019

- Winter Conference
  - Atlanta

- Present Structure
  - Discuss ROBs & MOPs

Society Year 2019 – 2020

- Annual Conference
  - Kansas City

- Vote on:
  - PEC Motion to BOD
  - ROB/MOP (PEC/Committees)

- SRC Review

- August BOD Meeting

- Winter Orlando

- Nomination Process & Election

- Implement PEC Restructure

- Annual Conference
  - Austin
Deadlines and Deliverables

• Monday, June 24 - PEC Functional Subcommittee vote on:
  • Changes to PEC MOP and ROB and, if approved, forwarded to PEC
  • Changes to Committee ROBs and, if approved, forwarded to PEC

• Tuesday, June 25 - PEC vote on:
  • Changes to PEC MOP and ROB and, if approved, forward to SRC and BOD
  • Changes to Committee ROBs and, if approved, forwarded to SRC and BOD

• Tuesday, June 25 - SRC vote on MOP changes

• Tuesday, June 25 - SRC vote to recommend changes to the ROBs to the BOD

• Wednesday, June 26 - BOD vote on ROB changes

• January 2020 –
  • Changes to committee MOPs & Reference Manuals approved by committee
  • Committees submit to PEC Functional Subcommittee for approval
  • If, approved, Functional Subcommittee forwards to PEC for approval
### TABLE OF CONTENTS

Section 1: Introduction ...................................................................................................................... page 3
Section 2: General Responsibilities of the Council ............................................................................ page 3
Section 3: Appointment of Subcommittees ..................................................................................... page 4
Section 4: Responsibilities of Council Standing Committees and Subcommittees ......................... page 4
Section 5: Responsibilities of the Chair ............................................................................................. page 6
Section 6: Responsibilities of the Vice Chair ..................................................................................... page 6
Section 7: Responsibilities of the Directors ....................................................................................... page 6
Section 8: Responsibilities of Voting Members ........................................................................ page 7
Section 9: Responsibilities of Non-Voting Members ................................................................ page 8
Section 10: Responsibilities of Publishing & Education Director .................................................. page 8
Section 11: Responsibilities of All Council Members ..................................................................... page 8
Section 12: Fiscal Planning ............................................................................................................ page 8
Section 13: Motions ...................................................................................................................... page 9
Section 14: Meetings .................................................................................................................... page 9

### TABLE OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD</td>
<td>Board of Directors</td>
</tr>
<tr>
<td>ExCom</td>
<td>Executive Committee</td>
</tr>
<tr>
<td>ExO</td>
<td>Ex Officio</td>
</tr>
<tr>
<td>HVAC&amp;R</td>
<td>Heating, ventilation, air conditioning, and refrigeration</td>
</tr>
<tr>
<td>MOP</td>
<td>Manual of Procedures</td>
</tr>
<tr>
<td>PEC</td>
<td>Publishing &amp; Education Council</td>
</tr>
<tr>
<td>ROB</td>
<td>Rule of Board</td>
</tr>
<tr>
<td>MBO</td>
<td>Management by objectives</td>
</tr>
</tbody>
</table>
1. **INTRODUCTION**

1.1. The MOP is an internal document of PEC. It is subject to change from time to time as needed due to changes in the Society.

1.2. The MOP provides a description of some, but not all, of the duties and responsibilities of the Council Members, Chair, Vice Chair, and Directors.

2. **GENERAL RESPONSIBILITIES OF THE COUNCIL**

2.1. Refer the following types of action to the BOD for action:
   - Approval of policy statements
   - Change fiscal limits
   - Change existing ASHRAE policy
   - Approval of projects exceeding the authority of the Council

2.2. Act as a communications link between BOD and committees.

   2.2.1. **BOD to PEC**
   - PEC Chair designates one or more Directors to work with staff to distribute key BOD actions to PEC members immediately following preparation of the BOD minutes.
   - Communicating BOD actions to standing committees remains the responsibility of the BOD ExO.

   2.2.2. **PEC to BOD**
   - PEC will report in writing to the BOD all principal motions immediately after each PEC meeting. At the Winter and Annual Conferences the written reports shall be distributed to the BOD in time for its meeting.
   - PEC reports and actions shall include summary support information provided to it by its standing committees.

   2.2.3. **Committees to Council**
   - The Products Subcommittee, Professional Development Subcommittee, Planning Subcommittee and Fiscal Subcommittee shall hold meetings outside of the regular PEC meetings. Subcommittee reports shall be provided to PEC in writing prior to its meeting. The report must include all principle motions as well as summary information regarding the actions of the subcommittee and supporting information.
   - Minutes of standing committees under the Products Subcommittee shall be distributed to all members of the Fiscal Subcommittee.
   - Minutes of standing committees under the Professional Development Subcommittee shall be distributed to all members of the Fiscal Subcommittee.
- Minutes of the Fiscal and Planning Subcommittees shall be distributed to all members of PEC.
- The Products Subcommittee shall prepare a combined committee report of its reporting committees (Publications, Handbook, Historical). This report shall be provided in writing prior to regular PEC meetings, and include all principle motions requiring PEC action, and supporting information.
- The Professional Development Subcommittee shall prepare a combined committee report of its reporting committees (Certification, Training and Education). This report shall be provided in writing prior to regular PEC meetings, and include all principle motions requiring PEC action, and supporting information.

2.2.4. Council to Council
- Actions of PEC for which parallel or supporting action is required by another council shall be communicated in writing to that council chair for inclusion in the meeting agenda of the other Council. Where an oral presentation is necessary, the PEC chair will arrange for an appearance of a PEC member wishing to report.
- Minutes of all PEC meetings shall be sent to all Council chairs and vice chairs.

3. **ESTABLISHMENT OF SUBCOMMITTEES**

3.1. The PEC chair shall establish subcommittees deemed appropriate and make appointments from PEC members. Such subcommittees can be standing or ad hoc at the discretion of the chair.

3.2. Responsibilities of subcommittees shall be delineated by the PEC chair at the time of establishment.

3.3. If a subcommittee is established as a standing subcommittee, the PEC chair or that subcommittee chair shall recommend appropriate responsibilities to PEC for inclusion in section 4 of the PEC MOP.

4. **RESPONSIBILITIES OF COUNCIL STANDING COMMITTEES AND SUBCOMMITTEES**

4.1. Fiscal Subcommittee

4.1.1. The subcommittee consists of
- One VP member designated as subcommittee chair by PEC chair
- Five committee Chairs, five committee members from the standing committees, one Vice President, two past committee members, and three ExOs.

4.1.2. The subcommittee shall assist the PEC Director in managing the budget, providing data to help drive decisions and manage advertising activities.

4.1.3. The subcommittee shall assist the PEC Director in preparation of the budget and four-year plan. The subcommittee shall evaluate budgets to determine compatibility with the aims and policies of PEC and Society.

4.2. Planning Subcommittee
4.2.1. The subcommittee consists of
- One VP member designated as subcommittee chair by the PEC chair
- Five committee Vice Chairs, five committee members from the standing committees, one Vice President, three past committee members, and two ExOs.

4.2.2. The subcommittee shall set strategic direction, develop MBOs, prioritize resource allocations, ensure alignment with Society Strategic Plan, identify future PEC leadership, maintain MOP and ROB of PEC, assist with committees’ MOP and ROB, act as a resource for rule interpretation, assist with motions, review MBO progress, recommend action when goals are not met, and evaluate and document progress toward Society Strategic Planning goals.

4.2.3. The subcommittee shall review the status of all strategic plan objectives assigned to PEC and recommend action.

4.3. Products Subcommittee

4.3.1. The subcommittee consists of
- Three past committee members
- Chair and Vice Chair of Handbook, Publications, and Historical standing committees. (Committees with more than one Vice chair, only one is to be designated. No more than two members from each committee are to serve on the subcommittee.)
- Three ExOs of Handbook, Publications, and Historical standing committees

4.3.2. The subcommittee shall monitor the progress and activities of the Handbook, Publications, and Historical standing committees and report to PEC.

4.3.3. The subcommittee’s chair and vice-chair shall be determined by vote of the subcommittee.

4.4 Professional Development Subcommittee

4.4.1 The subcommittee consists of
- Two past committee members
- Chair and Vice Chair of Certification and Training and Education standing committees. (Committees with more than one Vice chair, only one is to be designated. No more than two members from each committee are to serve on the subcommittee.)
- Two ExOs of Certification and Training and Education standing committees

4.4.2 The subcommittee shall monitor the progress and activities of the Training and Education and Certification standing committees and report to PEC.

4.4.3 The subcommittee’s chair and vice-chair shall be determined by vote of the subcommittee.

4.5 Research Journal Subcommittee
4.5.1 The Research Journal Subcommittee reports to the Product Subcommittee.

4.5.2 The subcommittee consists of:
- ExO of Publications Committee
- Two ASHRAE Fellows selected according to 4.5.1.2
- *Science and Technology for the Built Environment* editor (ex-officio member)
- Director of PEC (staff liaison)

4.5.2.1 ExO shall serve as chair of the subcommittee.

4.5.2.2 The two ASHRAE Fellows serving on the subcommittee shall be appointed by the PEC chair, serving staggered two-year terms. They shall be selected based upon having achieved prominence in the field or as researchers in the sciences of HVAC&R and shall have extensive lists of published research works to their credit. The Director of PEC shall prepare annually a list of candidates meeting the qualifications for appointment.

4.5.3 The subcommittee has the following responsibilities:
- Appoint the editor of the Research Journal acting upon recommendations and suggestions made by the Director of PEC.
- Confirm the recommendations of the editor for persons to serve as associate editors.
- Recommend approval of the annual budget and four-year plan.
- Submit a report to the Products Committee before their meeting at the Winter Annual Conference.

4.5.3.1 ASHRAE *Science and Technology for the Built Environment* Research Best Paper Award
- To solicit nominations
- To determine the most outstanding paper published in the volume year of *Science and Technology for the Built Environment* preceding the ASHRAE Winter Meeting

To forward the name of the recommended award recipient to the Honors & Awards Committee at the Winter Conference for awarding at the Annual Conference.

5. **RESPONSIBILITIES OF THE CHAIR**

5.1. Preside over meetings of the PEC.

5.2. Prepare meeting agendas, check meeting minutes, and prepare or approve designated reports to the BOD.

5.3. Establish standing and special ad hoc subcommittees as may be required and assign chair and members to these subcommittees.

5.4. Delineate responsibilities and duties of the established subcommittees.
5.5. Serve as the conduit between PEC and the BOD, bringing issues of the BOD to PEC for action and PEC issues requiring BOD action forward.

6. RESPONSIBILITIES OF THE VICE CHAIR

6.1. Preside over PEC meetings in the absence of PEC chair and assist PEC chair with preparation of the agenda and supporting documentation.

6.2. Perform such other duties as may be assigned by PEC chair.

7. RESPONSIBILITIES OF THE DIRECTORS

7.1. Each Director will serve on at least one of the PEC standing committees.

7.2. In the case of absence by PEC chair and vice chair, preside over PEC meeting.

7.3. The Director is an advisor to, and an advocate for, the committees to which they are assigned by the president-elect.

7.3.1. Serves as ExO non-voting member of the committee, its subcommittees and its Excom.

7.3.2. Is invited to attend and participate in all committee, subcommittee and ExCom meetings. Attendance at subcommittee meetings may be counted towards quorum requirements.

7.3.3. Moves committee motions to council and acts as an advocate for the committee in all relevant discussions.

7.3.4. Assists committee in preparation of written motions. (To include answers to: who, what, when, why and how much. If fiscal impact been budgeted by ASHRAE, and if so, in which fiscal year?)

7.3.5. Communicates committee plans to other Director's to allow for intercommittee contribution and cooperation.

7.3.6. Conveys presidential goals to the committees.

7.3.7. Assists committee in preparation of objectives to satisfy committee scope, presidential goals and strategic plans.

7.3.8. Assists committee and staff liaison in the process of monitoring progress toward timely completion of objectives.

7.3.9. Assists committee in the ongoing review of operational guide, MOP, relevant ROB and Strategic Plan objectives.

7.3.10. Suggests changes in assigned scope, function and personnel.
7.3.11. Receives copies of all committee correspondence, including invitations to all committee meetings.

7.3.12. Interprets BOD and PEC actions to the committee.

7.4. At BOD meetings; acts as an advocate for committees to which they are ExO, in all relevant discussions.

8. **RESPONSIBILITIES OF VOTING MEMBERS**

8.1. Fully participate in all assigned subcommittees and complete assignments by the designated time.

8.2. PEC is supplied by the Director of Publications and Education with fiscal reports covering all publications. It is the duty of PEC members to review these reports and act on recommended changes, if needed, to keep publications within budget.

9. **RESPONSIBILITIES OF NON-VOTING MEMBERS**

9.1. Each committee vice chair shall be non-voting members of the council and will act in the absence of the committee chair. (Committees with more than one vice chair, only one is to be designated to serve in this capacity.)

10. **RESPONSIBILITIES OF DIRECTOR OF PUBLICATION & EDUCATION**

10.1. The Director of Publications and Education serves as secretary to PEC. The Director also advises PEC on publishing matters and coordinates the activities of others assigned by the Executive Vice President to support the operations of PEC.

10.2. Along with the Fiscal Subcommittee, prepare and submit to PEC for approval an annual budget covering all publishing activities of PEC.

10.3. Implement and administer on behalf of PEC practices which fulfill the Society's publishing responsibilities, such as copyright protection, reprint permission, translation rights, etc.

10.4. Ensure compliance with ASHRAE policy.

11. **FISCAL PLANNING**

11.1. Reports from Non-PEC Committees

11.1.1. Committees not represented on the council who require publication of material shall submit each year, prior to the Fall meeting of PEC, a report covering their plans for the following fiscal year. The Director of PEC shall notify all Society standing general committees of their need to submit such a report with sufficient time that the information is available to be incorporated in the PEC budget under preparation.

11.2. Preparation of Budget and Budget Projections
11.2.1. Director of PEC prepares, with the assistance of the Fiscal Subcommittee, a proposed budget for the following year and a four-year plan. This tentative budget is forwarded by the Comptroller to the Finance Committee. The Finance Committee includes the PEC budget, as approved or modified, in the overall budget submitted to ExCom of BOD.

11.2.2. The new budget and four-year plan, as approved by ExCom, is transmitted by the Comptroller to PEC and the PEC Director for review and discussion at the Winter Conference.

11.2.3. PEC budget as approved or modified is incorporated by the Comptroller in the overall budget for action by the Finance Committee prior to its submission by the Finance Committee to the BOD at the Annual Conference for approval.

12. MOTIONS

12.1. Motions not involving Society policy or fiscal matters outside PEC’s fiscal plan can be approved by a majority of the voting members in accordance with the voting requirements outlined in the ROB.

12.2. Motions involving Society policy or fiscal matters outside PEC’s fiscal plan can be approved by a 2/3 of the voting members in accordance with the quorum requirements outlined in the ROB but must be submitted to the BOD for final approval.

13. MEETINGS

13.1. Meetings shall be called by the Chair in accordance with schedule outlined in the ROB.

13.2. Incoming members of the council shall be invited and strongly encouraged to attend the meeting of the council immediately preceding their term of office. When requested, they will be reimbursed for transportation costs in accordance with the approved travel reimbursement policy.

13.3. Conduct of meetings shall be governed by the current edition of Roberts Rules of Order.

13.4. Standing committees and subcommittees of the council shall meet separately at least twice a year at the call of their chairs.

13.5. Council Agenda

13.5.1. The secretary of the council (PEC Director) shall prepare under the direction of the chair an agenda including, but not limited to, the following items: call to order; approval of minutes; list of action items assigned by chair at previous meeting; committee reports and recommendations; subcommittee reports; old and new business.

13.5.2. Any member of the council desiring that a subject be placed on the agenda for discussion should notify chair not less than thirty days before such a meeting.
13.5.3. A preliminary agenda shall be circulated to council members by the secretary so as to be in their possession no less that five working days prior to the meeting. The chair may modify the items at any time prior to or during the meeting.
PUBLISHING and EDUCATION COUNCIL

MANUAL OF PROCEDURES

Approved by Publishing and Education Council June 30, 2015
TABLE OF CONTENTS

Section 1: Introduction ...................................................................................................................... page 3
Section 2: General Responsibilities of the Council ............................................................................. page 3
Section 3: Appointment of Subcommittees ..................................................................................... page 4
Section 4: Responsibilities of Standing Council Standing Committees and Subcommittees ........ page 4
Section 5: Responsibilities of the Chair ............................................................................................. page 6
Section 6: Responsibilities of the Vice Chair ..................................................................................... page 6
Section 7: Responsibilities of the Directors ....................................................................................... page 6
Section 8: Responsibilities of Voting Members ........................................................................ page 7
Section 9: Responsibilities of Non-Voting Members ................................................................ page 8
Section 10: Responsibilities of Publishing & Education Director ................................................... page 8
Section 11: Responsibilities of All Council Members ................................................................ page 8
Section 12: Fiscal Planning ............................................................................................................ page 8
Section 13: Motions ...................................................................................................................... page 9
Section 14: Meetings .................................................................................................................... page 9

Appendix A: Guidelines for Publication & Distribution of ASHRAE Position Documents ............ page 10

TABLE OF ACRONYMS

BOD  Board of Directors
ExCom  Executive Committee
ExO  Ex Officio
HVAC&R  Heating, Ventilating, Air-conditioning and Refrigerating
MOP  Manual of Procedures
PEC  Publishing & Education Council
ROB  Rule of Board
MBO  Management by objectives
1. INTRODUCTION

1.1. The MOP is an internal document of PEC. It is subject to change from time to time as needed due to changes in the Society.

1.2. The MOP provides a description of some, but not all, of the duties and responsibilities of the Council Members, Chair, Vice Chair, and Directors.

2. GENERAL RESPONSIBILITIES OF THE COUNCIL

2.1. Refer the following types of action to the BOD for action:
   - Approval of policy statements
   - Change fiscal limits
   - Change existing ASHRAE policy
   - Approval of projects exceeding the authority of the Council

2.2. Act as a communications link between BOD and committees.

   2.2.1. BOD to PEC
   - PEC Chair designates one or more Directors to work with staff to distribute key BOD actions to PEC members immediately following preparation of the BOD minutes.
   - Communicating BOD actions to standing committees remains the responsibility of the BOD ExO.

   2.2.2. PEC to BOD
   - PEC will report in writing to the BOD all principal motions immediately after each PEC meeting. At the Winter and Annual Meetings the written reports shall be distributed to the BOD the-in time for its meeting.
   - PEC reports and actions shall include summary support information provided to it by its standing committees.

   2.2.3. Committees to Council
   - Committee reports at regular PEC meetings shall be in writing, and include all principle motions requiring PEC action, and supporting information.
   - Minutes of each standing committee shall be distributed to all members of PEC.
   - The Products Subcommittee, Professional Development Subcommittee, Planning Subcommittee and Fiscal Subcommittee shall hold meetings outside of the regular PEC meetings. Subcommittee reports shall be provided to PEC in writing prior to its meeting. The report must include all principle motions as well as summary information regarding the actions of the subcommittee and supporting information.
- Minutes of standing committees under the Products Subcommittee shall be distributed to all members of the Fiscal Subcommittee.
- Minutes of standing committees under the Professional Development Subcommittee shall be distributed to all members of the Fiscal Subcommittee.
- Minutes of the Fiscal and Planning Subcommittees shall be distributed to all members of PEC.
- The Products Subcommittee shall prepare a combined committee report of its reporting committees (Publications, Handbook, Historical). This report shall be provided in writing prior to regular PEC meetings, and include all principle motions requiring PEC action, and supporting information.
- The Professional Development Subcommittee shall prepare a combined committee report of its reporting committees (Certification, Training and Education). This report shall be provided in writing prior to regular PEC meetings, and include all principle motions requiring PEC action, and supporting information.

2.2.4. Council to Council
- Actions of PEC for which parallel or supporting action is required by another council shall be communicated in writing to that council chair for inclusion in the meeting agenda of the other Council. Where an oral presentation would be necessary, the PEC chair will arrange for an appearance of a PEC member wishing to report.
- Minutes of all PEC meetings shall be sent to all Council chairs and vice chairs.

3. ESTABLISHMENT OF SUBCOMMITTEES

3.1. The PEC chair shall establish subcommittees, deemed appropriate, and make appointments from PEC members. Such subcommittees can be standing or ad hoc at the discretion of the chair.

3.2. Responsibilities of subcommittees shall be delineated by PEC chair at the time of establishment.

3.3. If a subcommittee is established as a standing subcommittee, the PEC chair or that subcommittee chair shall recommend appropriate responsibilities to PEC for inclusion in Item four section 4 of the PEC MOP.

4. RESPONSIBILITIES OF COUNCIL STANDING SUBCOMMITTEES

4.1. Fiscal Planning Subcommittee

4.1.1. The subcommittee consists of:
- One PEC voting VP member designated as subcommittee chair by PEC chair
- Chairs of all committees and subcommittees reporting to PEC
- Two voting members designated by PEC chair in addition to the chair of the subcommittee
- Five committee Chairs, five committee members from the standing committees, one Vice President, two past committee members, and three ExOs.
4.1.2. The subcommittee shall assist the Publishing & Education PEC Director in strategic planning, review and coordination of marketing activities, managing the budget, providing data to help drive decisions and manage advertising activities.

4.1.3. The subcommittee shall assist the Publishing & Education PEC Director in preparation of the budget and four-year plan. The subcommittee shall evaluate budgets to determine compatibility with the aims and policies of PEC and Society.

4.2. Functional Planning Subcommittee

4.2.1. The subcommittee shall consist of PEC members designated by PEC chair.
- One VP member designated as subcommittee chair by the PEC chair
- Five committee Vice Chairs, five committee members from the standing committees, one Vice President, three past committee members, and two ExOs.

4.2.2. The subcommittee shall continually review the operation of PEC and prepare for submission to PEC any suggested revisions or additions to the ROB, PEC’s MOP and MOPs of standing committees that report to PEC, set strategic direction, develop MBOs, prioritize resource allocations, ensure alignment with Society Strategic Plan, identify future PEC leadership, maintain MOP and ROB of PEC, assist with committees’ MOP and ROB, act as a resource for rule interpretation, assist with motions, review MBO progress, recommend action when goals are not met, and evaluate and document progress toward Society Strategic Planning goals.

4.2.3. The subcommittee shall review the status of all strategic plan objectives assigned to PEC and recommend action.

4.3. Journal Advertising Sales Subcommittee / Products Subcommittee

4.3.1. The subcommittee consists of:
- Three past committee members PEC chair
- Chair and Vice Chair of Handbook, Publications, and Historical standing committees. (Committees with more than one Vice Chair, only one is to be designated. No more than two members from each committee are to serve on the subcommittee.) Fiscal Planning and Functional Planning Subcommittee chairs
- Three ExOs of Handbook, Publications, and Historical standing committees
- Publications Committee chair
- Publisher/Director of Publications & Education

4.3.2. The subcommittee shall review the advertising sales program and make recommendations for advertising policy development, monitor the progress and activities of the Handbook, Publications, and Historical standing committees and report to PEC.

4.3.3. The subcommittee shall annually recommend a ratio of advertising pages to total pages in ASHRAE Journal’s chair and vice-chair shall be determined by vote of the subcommittee.
4.3.4. The subcommittee shall annually recommend the rates for advertising in ASHRAE Journal.

4.4 eLearning Subcommittee Professional Development Subcommittee

4.4.1 The subcommittee consists of:
- PEC chair
- Two past committee members
- PEC vice chair
- Chair and Vice Chair of Certification and Training and Education standing committees. (Committees with more than one Vice chair, only one is to be designated. No more than two members from each committee are to serve on the subcommittee.)
- Professional Development Committee chair
- Two ExOs of Certification and Training and Education standing committees
- Publications chair
- Director appointed by PEC chair
- Consultants appointed by chair as needed.

4.4.2 The subcommittee provides Society oversight of the vendors for eLearning products and services shall monitor the progress and activities of the Training and Education and Certification standing committees and report to PEC.

4.4.3 The subcommittee’s chair and vice chair shall be determined by vote of the subcommittee.

4.5 Research Journal Subcommittee

4.5.1 The Research Journal Subcommittee reports to the Product Subcommittee.

4.5.2 The subcommittee consists of:
- PEC chair
- PEC vice chair
- ExO of Publications Committee
- Two ASHRAE Fellows selected according to 4.5.1.2
- Science and Technology for the Built Environment editor (ex-officio member)
- Director of Publications & Education PEC (staff liaison)

4.5.2.1 PEC chair ExO shall serve as chair of the subcommittee.

4.5.2.2 The two ASHRAE Fellows serving on the subcommittee shall be appointed by the PEC chair, serving staggered two-year terms. They shall be selected based upon having achieved prominence in the field or as researchers in the sciences of HVAC&R and shall have extensive lists of published research works to their credit. The Director of Publications & Education PEC shall prepare annually a list of candidates meeting the qualifications for appointment.

4.5.3 The subcommittee has the following responsibilities:
- Appoint the editor of the Research Journal acting upon recommendations and suggestions made by the Director of Publications & Education PEC.
Publishing & Education Council MOP · lasted approved by PEC · June 30, 2015

- Confirm the recommendations of the editor for persons to serve as associate editors.
- Recommend approval of the annual budget and four-year plan.
- Submit a report to the Products Committee before their meeting at the Winter Annual Conference.

4.5.23.1 ASHRAE Science and Technology for the Built Environment Research Best Paper Award
- To solicit nominations
- To determine the most outstanding paper published in the volume year of Science and Technology for the Built Environment preceding the ASHRAE Winter Meeting
- To forward the name of the recommended award recipient to the Honors & Awards Committee at the Winter Meeting Conference for awarding at the Annual Meeting Conference.

5. RESPONSIBILITIES OF THE CHAIR

5.1. Preside over meetings of the PEC.

5.2. Prepare meeting agendas, check meeting minutes, and prepare or approve designated reports to the BOD.

5.3. Establish standing and special ad hoc subcommittees as may be required and assign chair and members to these subcommittees.

5.4. Delineate responsibilities and duties of the established subcommittees.

5.5. Serve as the conduit between PEC and the BOD, bringing issues of the BOD to PEC for action and PEC issues requiring BOD action forward.

5.6. The Chair shall appoint a liaison to the Society Rules Committee. The chair of the PEC Functional Planning Subcommittee is normally appointed as the Council liaison to the Society Rules Committee.

6. RESPONSIBILITIES OF THE VICE CHAIR

6.1. Preside over PEC meetings in the absence of PEC chair, and assist PEC chair with preparation of the agenda and supporting documentation.

6.2. Perform such other duties as may be assigned by PEC chair.

7. RESPONSIBILITIES OF THE DIRECTORS

7.1. Each Director will serve on at least one of the PEC standing subcommittees.

7.2. In the case of absence by PEC chair and vice chair, preside over PEC meeting.
7.3. The Director is an advisor to, and an advocate for, the committees to which they are assigned by the president-elect.

7.3.1. Serves as ExO non-voting member of the committee, its subcommittees and its Excom.

7.3.2. Is invited to attend and participate in all committee, subcommittee and ExCom meetings. Attendance at subcommittee meetings may be counted towards quorum requirements.

7.3.3. Moves committee motions to council, and acts as an advocate for the committee in all relevant discussions.

7.3.4. Assists committee in preparation of written motions. (To include answers to: who, what, when, why and how much. If fiscal impact been budgeted by ASHRAE, and if so, in which fiscal year?)

7.3.5. Communicates committee plans to other Director's to allow for intercommittee contribution and cooperation.

7.3.6. Conveys presidential goals to the committees.

7.3.7. Assists committee in preparation of “objectives” to satisfy committee scope, presidential goals and strategic plans.

7.3.8. Assists committee and staff liaison in the process of monitoring progress toward timely completion of objectives.

7.3.9. Assists committee in the ongoing review of operational guide, MOP, relevant ROB and Strategic Plan objectives.

7.3.10. Suggests changes in assigned scope, function and personnel.

7.3.11. Receives copies of all committee correspondence, including invitations to all committee meetings.

7.3.12. Interprets BOD and PEC actions to the committee.

7.4. At BOD meetings; acts as an advocate for committees to which they are ExO, in all relevant discussions.

8. RESPONSIBILITIES OF VOTING MEMBERS

8.1. Fully participate in all assigned subcommittees and complete assignments by the designated time.
8.2. PEC is supplied by the Director of Publication and Education with fiscal reports covering all publications. It is the duty of PEC members to review these reports and act on recommended changes, if needed, to keep publications within budget.

9. RESPONSIBILITIES OF NON-VOTING MEMBERS

9.1 Each committee chair shall be non-voting members of the council. Chairs report actions and recommendations of the committee and seeks approval. Each committee chair is responsible for conveying to the committee those actions of PEC which may have an impact on the committee’s activities.

9.2 Each committee vice chair shall be non-voting members of the council and will act in the absence of the committee chair. (Committees with more than one vice chair, only one is to be designated to serve in this capacity.)

10. RESPONSIBILITIES OF DIRECTOR OF PUBLICATION & EDUCATION

10.1. The Director of Publications and Education serves as secretary to PEC. The Director also advises PEC on publishing matters and coordinates the activities of others assigned by the Executive Vice President to support the operations of PEC.

10.2. Along with the Fiscal Planning subcommittee, prepare and submit to PEC for approval an annual budget covering all publishing activities of PEC.

10.3. Implement and administer on behalf of PEC practices which fulfill the Society’s publishing responsibilities, such as copyright protection, reprint permission, translation rights, etc.

10.4. Ensure that compliance with ASHRAE policy is adhered to.

RESPONSIBILITIES OF ALL COUNCIL MEMBERS

Review each issue of ASHRAE Journal. The Journal editor will provide a form each month that outlines the review material needed.

11. FISCAL PLANNING

11.1. Reports from Non-PEC Committees

11.1.1. Committees not represented on the council who require publication of material shall submit each year, prior to the Fall meeting of PEC, a report covering their plans for the following fiscal year. The Director of Publication & Education PEC shall notify all Society standing general committees of their need to submit such a report with sufficient time that the information is available to be incorporated in the PEC budget under preparation.
11.2. Preparation of Budget and Four-Year Plan

11.2.1. Director of Publication & Education PEC prepares, with the assistance of the Fiscal Planning Subcommittee, a proposed budget for the following year and a four-year plan. This tentative budget is forwarded by the Comptroller to the Finance Committee. The Finance Committee includes the PEC budget, as approved or modified, in the overall budget submitted to ExCom of BOD.

11.2.2. The new budget and four-year plan, as approved by ExCom, is transmitted by the Comptroller to PEC and the Publishing & Education PEC Director for review and discussion at the Winter Meeting Conference.

11.2.3. PEC budget as approved or modified is incorporated by the Comptroller in the overall budget for action by the Finance Committee prior to its submission by the Finance Committee to the BOD at the Annual Meeting Conference for approval.

12. MOTIONS

12.1. Motions not involving Society policy or fiscal matters outside PEC’s fiscal plan can be approved by a majority of the voting members in accordance with the voting requirements outlined in the ROB.

12.2. Motions involving Society policy or fiscal matters outside PEC’s fiscal plan can be approved by a 2/3 of the voting members in accordance with the quorum requirements outlined in the ROB but must be submitted to the BOD for final approval.

13. MEETINGS

13.1. Meetings shall be called by the Chair in accordance with schedule outlined in the ROB.

13.2. Incoming members of the council shall be invited and strongly encouraged to attend the meeting of the council immediately preceding their term of office. When requested, they will be reimbursed for transportation costs in accordance with the approved travel reimbursement policy.

13.3. Conduct of meetings shall be governed by the current edition of Roberts Rules of Order.

13.4. Standing committees and subcommittees of the council shall meet separately at least twice a year at the call of their chairs.

13.5. Council Agenda

13.5.1. The secretary of the council (PEC Director of Publication & Education) shall prepare under the direction of the chair an agenda including, but not limited to, the following items: call to order; approval of minutes; list of action items assigned by chair at previous meeting; committee reports and recommendations; subcommittee reports; old and new business.
13.5.2. Any member of the council desiring that a subject be placed on the agenda for discussion should notify chair not less than thirty days before such a meeting.

13.5.3. A preliminary agenda shall be circulated to council members by the secretary so as to be in their possession no less that five working days prior to the meeting. The chair may modify the items at any time prior to or during the meeting.

Appendix A

Guidelines for Publication & Distribution of ASHRAE Position Documents

1. Labor for the editing and publication preparation for Position Documents shall be assigned to Publications & Education Department with that cost assigned to PEC. Costs associated with the printing of Position Documents shall be charged to Public Relations.

2. Single printed copies of Position Documents shall be made available to members on request at no cost. The main inventory will be maintained by the Public Relations Section, but other sections may maintain small inventories to meet their needs. Any staff member may respond to requests. (Note: Initial distribution to cognizant TCs and other Society committees and interested parties will be made by the assistant to the BOD upon Position Document publication.) Staff directors should advise the assistant to the BOD regarding distribution internal to Society.

3. Requests for bulk quantities of Position Documents will be judged on a case-by-case basis by the Publications & Education Director. Typically, there will be no charge for a reasonable number of multiple copies when they are for distribution at an ASHRAE function or at a function or for a purpose which supports ASHRAE activities.

4. When fees are assessed for either bulk distribution or non-member distribution pricing will be on a cost recovery basis.

5. Income from Position Document sales shall be credited to PEC and sales will be administered through normal publication sales channels.

6. At ASHRAE meetings, Position Documents will be displayed in the ASHRAE publications sales area. Attendees will be mailed single copies at no charge upon request.
2.302 PUBLISHING AND EDUCATION COUNCIL

2.302.001 SCOPE AND PURPOSE
This council is responsible for the manufacturing, delivery, and fiscal impact of all ASHRAE publications and professional development products with consideration given to (1) recognized need, (2) potential for sales income, (3) budget constraints, and (4) joint funding agreements. Using established guidelines and procedures, this council shall work with the managing groups of publications at project inception, during execution, and upon completion to ensure a balance of the above considerations is achieved.

2.302.002 MEMBERSHIP
2.302.002.1 The members of this Council are as follows:

A. Chair: A Vice President of the Society
B. Vice-Chair: A Vice President of the Society
C. Voting Members: Chair, Vice Chair, up to four (4) Directors, plus the following positions elected by the Board of Directors:
   a. One past voting member from each of the following committees: Certification, Training and Education, Handbook, and Publications
   b. Current Chair of the following committees: Certification, Training and Education, Handbook, and Publications
D. Non-Voting Members: Vice Chair(s) of each committee reporting to this council.

2.302.003 OPERATIONS
A. The council shall review and recommend changes, when appropriate, to any ASHRAE publications or professional development products.
B. This council is responsible for reviewing, recommending changes, and interpreting the following: Rights and Responsibilities and General Guidelines for Co-Sponsoring Organizations for ASHRAE Public Sessions.
C. This council shall facilitate the communication and planning between all things related to ASHRAE publications and education.

2.302.004 STRATEGIC PLAN
A. This council shall develop procedures for recommending updates to the strategic plan on a continuous basis. The council as a minimum shall at the Annual Conference submit a report to the BOD which includes the current status of each activity which supports the fulfillment of their assignments under the strategic plan. The council shall solicit and report recommendations for changes to the strategic plan as reported by the committees reporting to the council at the Annual Conference.
2.302 PUBLISHING AND EDUCATION COUNCIL

2.302.001 SCOPe AND PURPOSE
This council is responsible for the manufacturing, delivery, and fiscal impact of all ASHRAE publications and professional development products with consideration given to (1) recognized need, (2) potential for sales income, (3) budget constraints, and (4) joint funding agreements. Using established guidelines and procedures, this council shall work with the managing groups of publications at project inception, during execution, and upon completion to ensure a balance of the above considerations is achieved.

2.302.002 MEMBERSHIP

2.302.002.1 The members of this Council are as follows: (08-12-08-01/12-01-25-15/15/07/01/03)
A. Chair: A Vice President of the Society
B. Vice-Chair: A Vice President of the Society
C. Voting Members: Chair, Vice Chair, up to five (5) four (4) Directors, plus the following positions elected by the Board of Directors:
   1a. One past voting member from each of the following committees: Certification, Electronic Communications, Training and Education, Handbook, Professional Development, and Publications.
   2b. Two (2) at-large members—Current Chair of the following committees: Certification, Training and Education, Handbook, and Publications.
D. Non-Voting Members: Chair and Vice Chair(s) of each committee reporting to this council.

2.302.002.2 (05-02-10-23)
At-large members are chosen for their past broad experience and expertise relevant to this council. Recommendations for at-large members should consider maintaining Historical Committee experience on the council.

2.302.003 OPERATIONS
A. The council shall review and recommend changes, when appropriate, to any ASHRAE publications or professional development products.
B. This council is responsible for reviewing, recommending changes, and interpreting the following: Rights and Responsibilities and General Guidelines for Co-Sponsoring Organizations for ASHRAE Public Sessions.
C. This council shall facilitate the communication and planning between all things related to ASHRAE publications and education.

2.302.002 SPECIAL PUBLICATIONS (10-06-30-18)
This council is responsible for the manufacturing, delivery and fiscal impact of all ASHRAE publications and products with consideration given to (a) recognized need; (b) potential for sales income; (c) budget constraints and (d) joint funding agreements. Using established guidelines and procedures, this council shall work with the managing groups of special publications at project inception, during execution, and upon completion to ensure a balance of the above considerations is achieved.

2.302.0034 STRATEGIC PLAN (09-06-21-12C)
A. This council shall develop procedures for recommending updates to the strategic plan on a continuous basis. The council as a minimum shall at the Annual Meeting submit a report to the BOD which includes the current status of each activity which supports the fulfillment of their assignments under the strategic plan. The council shall solicit and report recommendations for
changes to the strategic plan as reported by the committees reporting to the council at the Annual Meeting.

2.302.004 MANUALS AND PROCEDURES
This council is responsible for reviewing, recommending changes and interpreting the following:
Rights and Responsibilities and General Guidelines for Co-Sponsoring Organizations for ASHRAE Public Sessions
Date: April 22, 2019

To: Outgoing Committee Chairs

From: Claire Neme

Subject: Certificates of Appreciation

This year at the 2019 Annual Meeting in Kansas City, MO, your Certificate of Appreciation for service as a committee chair during the 2018-2019 Society year will be presented to you by the council chair at the council meeting or by President Sheila J. Hayter at the Sunday, June 23rd Board of Directors meeting. Certificates presented during the Board meeting will be given early in the meeting which begins at 1:30 pm. This will allow recipients to receive their certificates and leave if they have other meetings to attend.

A list of committees reporting to each council and the Board is shown below. RMCRs from regions IV, V, VI, XII and XIII will also receive a certificate. (Note: if you are continuing for another term as committee chair, your certificate will be presented to you at the end of your term).

If you cannot be present, please contact Claire Neme, cneme@ashrae.org prior to the meeting. You may wish to have someone else accept your certificate for you, or we will mail it to you.

### Committees Reporting to Councils / Board of Directors

<table>
<thead>
<tr>
<th>Members Council</th>
<th>Publishing &amp; Education Council</th>
<th>Technology Council</th>
<th>Board of Directors</th>
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<tr>
<td>Basie A Room Kansas City Marriott West</td>
<td>Basie C Room Kansas City Marriott West</td>
<td>Basie A Room Kansas City Marriott West</td>
<td>Imperial Room Kansas City Marriott East</td>
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<td>Tuesday, June 25, 2019 8:15 a.m. – 12:00 p.m.</td>
<td>Tuesday, June 25, 2019 8:00 a.m. – 12:00 p.m.</td>
<td>Wednesday, June 26, 2019 9:00 a.m. – 2:00 p.m.</td>
<td>Sunday, June 23, 2019 1:30 p.m. – 5:30 p.m.</td>
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<td>Chair: Darryl K. Boyce</td>
<td>Chair: Julia Keen</td>
<td>Chair: Mick Schwedler</td>
<td>President: Sheila J. Hayter</td>
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<td>Chapter Technology Transfer</td>
<td>Certification</td>
<td>Environmental Health</td>
<td>Audit</td>
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<td>Conferences &amp; Expositions</td>
<td>Electronic Communications</td>
<td>Refrigeration</td>
<td>Building Energy Quotient</td>
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<td>Government Affairs</td>
<td>Handbook</td>
<td>Research Administration</td>
<td>Development</td>
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<tr>
<td>Honors and Awards</td>
<td>Historical</td>
<td>Residential Buildings</td>
<td>Finance</td>
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<td>Membership Promotion</td>
<td>Professional Development</td>
<td>Standards</td>
<td>Nominating</td>
</tr>
<tr>
<td>Research Promotion</td>
<td>Publications</td>
<td>Technical Activities</td>
<td>Planning</td>
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<tr>
<td>Student Activities</td>
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<td>President-Elect Advisory</td>
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<td>Young Engineers in ASHRAE</td>
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<td>Society Rules</td>
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<td>RMCRs: Reg. IV, V, VI, XII &amp; XIII</td>
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cc: Joyce Abrams
Vickie Grant
Mark Owen
Julie Harr
Stephanie Reiniche
DD Latham
Recommendations for Board Approval

1. PEC recommends that the BOD approve changes to the section 3.910.006. of the ROB as shown.

3.910.006.3 Special Publications

A. List prices for publications are established by staff to be above unit cost, with consideration given to pricing of similar publications, publishing and marketing costs, demand, budget needs, and the publication’s role in achieving the mission of ASHRAE. The pricing is reviewed for the Publishing and Education Council and changes are recommended as required to maintain the cost/revenue basis.

A. List prices are established in two parts, based on printing and mailing costs, marketing expense, and demand for the publication:

1. Minimum list price is determined approximately by the formula:
   Minimum List Price = (Factor) (Unit Variable Cost) where the Factor is a constant which relates the ratio of total fixed and variable costs established for the Special Publications budget, the average income per sale, and the number of free copies required for distribution. The unit variable cost is equal to the total printing cost divided by the number of copies printed, plus the cost per copy for postage and handling. Because the market and the free distribution requirements are different for many of the special publications, the Factor used varies from 6 to 10 or higher. Staff is given latitude in rounding off values for minimum list prices.

2. Added Value Increment. If a publication is deemed to have a greater demand than normal, an increment is added to the minimum list price to establish the final list price. This increment will not exceed the value of the minimum list price determined by the formula in Section 1.

B. List prices for existing publications are established by staff in preparing the budget for the next fiscal year. List prices for publications approved after the budget is approved by the BOD are established by staff, subject to approval by the chair of the Publishing and Education Council, and will be consistent with pricing of similar recent publications.

C. When a publication is reprinted for inventory replacement, the original list price prevails unless costs escalate beyond original unit cost or unless the market or distribution requirements change. New prices will be consistent with pricing of similar publications.

D. The Director of Finance will provide fiscal records so that income and expenses can be identified for future control and formula revision, as follows:

Income and Variable Costs:
- Transactions
- Preprints
- Reprints
- Standards
- Bulletins
- Other Special Publications

Fixed Costs:
- Publications for Sale
E. The pricing is reviewed annually for the Publishing and Education Council budget meeting and changes are recommended as required to maintain the cost/revenue basis.

F. Complete sets of ASHRAE Standards are available in hard cover ring binders at a price not less than 50 percent of the combined prices for the individual standards in the set, if sold separately.

G. Prices for Psychrometric Charts are established in the following manner:
   1. The lowest published list price corresponds to the unit cost for quantity orders of 1000 single charts, 500 pads of 50 sheets, or 500 laminated charts; with a multiplier of 3.0 (to account for fixed costs) being used to determine the list price.
   2. The Publishing and Education Council adjusts the multiplier as required to assure that the sales price is maintained at competitive levels.
   3. Income from the sale of Psychrometric Charts is considered as income from Other Special Publications.
   4. Overprinting of company name, logo, or other approved material is furnished upon request at an added charge of 10 percent of the price for the desired quantity. Minimum quantities for overprinting are 1000 individual charts, 200 pads, and 500 laminated charts.

(79-06-28-48/83-01-23-16)

Background: Staff was assigned an action item recommend new minimum list price formula for special publications in ROB. Publication list pricing is a market-based business decision-making process governed by factors including costs, demand, budgeting considerations, and foremost—the mission of the organization.

The current procedure shown in the ROBs is quite prescriptive, but it also allows for use of a factor that varies so much (“6 to 10 or higher”) as to render much of the prescribed procedure moot. An allowance is also made in case a publication has “greater demand than normal.” The end result is a list price that has been adjusted by publications staff to succeed in the marketplace. The salient point of the procedure is that the list price is built up to cover all costs and be comparable to that for similar titles from ASHRAE and other publishers.

The staff recommendation is that this section of the ROBs be modified and simplified as follows, to (1) reflect current publishing business practice, and (2) allow publishing business staff appropriate leeway to adjust pricing to market conditions.

(PEC Approved 11-0-0 CNV)

Fiscal Impact: None.

2. PEC recommends that BOD accept changes to the following documents as consent agenda items for approval:

PEC ROB (Attachment A)
Certification Committee ROB (Attachment B)
ECC ROB (Attachment C)
Handbook Committee ROB (Attachment D)
Historical Committee ROB (Attachment E)
PDC ROB (Attachment F)
Publication Committee ROB (Attachment G)

Background: These changes will reflect the reporting and procedural changes that will happen with the new PEC restructure plan to be implemented July 1, 2020. These have been reviewed and approved by SRC during their meeting Tuesday, June 25, 2019.
Fiscal Impact: Positive due to the reduction of committee members on standing committees.

PEC approved a referral for to Excomm to direct staff investigate an electronic means for recording attendance at ASHRAE meetings at Society and grassroots meetings.

Background: ECC brought this motion to Functional Planning Subcommittee. By using an electronic tool instead of paper sign in sheets to track attendance of members and guests during TC meetings, standing committee meetings, at CRC workshops and meetings, and other meetings across Society, Society would be able to gather the information more easily and more importantly, efficiently. It would avoid the loss of paper sign-in sheets and reduce administrative effort required for both volunteers and staff in printing, distributing, scanning, and saving paper sign-in sheets.

A digital record of attendance would greatly simplify the process of gathering data and determining past total attendance for meetings in order to better plan space and timing for future meetings. Digital attendance records would also simplify the administrative work required to determine what meetings a specific member has attended over time, which could be useful for other society activities such as the region nominating committee.

ASHRAE society should lead the way in new technology moving away from paper to electronic. It would also save money in mailing paper and save staff time to gather all the sign in sheets since they would be all uploaded automatically.

Information Items:

3. PEC approved 11-0-0 CNV the final version of the PEC restructure as shown in Attachment H for implementation on July 1, 2020.

4. PEC approved 11-0-0 CNV, effective July 1, 2019, that the Electronic Communications Committee (ECC)’s reporting structure be changed from reporting to PEC to reporting to Members Council.

5. PEC confirmed ASHRAE Units Policy (ROB 1.201.002). The ASHRAE Units Policy is required by the PEC Rule of Board to be reviewed and reconfirmed annually. (Attachment I)

6. PEC adopted the Global Training Center Ad Hoc’s recommendations for operations and policy guidance as show in Attachment K.

7. The UNEP collaboration has resulted in grant funding that has resulted in revenue for PEC. The efforts to fulfill the contract requirements has required that staff time and resources be diverted from other potential revenue opportunities. As a result, PEC did not achieve some of its revenue goals especially in the area of eLearning. When entering into such agreements in the future, it is important that it be recognized that additional staff resources are needed to maintain the anticipated production in all identified areas.
Attachment A
PEC Report to BOD – June 2019 KC

2.302 PUBLISHING AND EDUCATION COUNCIL

2.302.001 SCOPE AND PURPOSE
This council is responsible for the manufacturing, delivery, and fiscal impact of all ASHRAE publications and professional development products with consideration given to (1) recognized need, (2) potential for sales income, (3) budget constraints, and (4) joint funding agreements. Using established guidelines and procedures, this council shall work with the managing groups of publications at project inception, during execution, and upon completion to ensure a balance of the above considerations is achieved.

2.302.0012 MEMBERSHIP

2.302.0012.1 The members of this Council are as follows: (08-12-08-01/12-01-25-15/15/07/01/03)

A. Chair: A Vice President of the Society
B. Vice-Chair: A Vice President of the Society
C. Voting Members: Chair, Vice Chair, up to five (5) four (4) Directors, plus the following positions elected by the Board of Directors:
   1a. One past voting member from each of the following committees: Certification, Electronic Communications, Training and Education, Handbook, Professional Development, and Publications.
   2b. Two (2) at-large members. Current Chair of the following committees: Certification, Training and Education, Handbook, and Publications
D. Non-Voting Members: Chair and Vice Chair(s) of each committee reporting to this council.

2.302.001.2 (05-02-10-23)
At-large members are chosen for their past broad experience and expertise relevant to this council. Recommendations for at-large members should consider maintaining Historical Committee experience on the council.

2.302.003 OPERATIONS

A. The council shall review and recommend changes, when appropriate, to any ASHRAE publications or professional development products.

B. This council is responsible for reviewing, recommending changes, and interpreting the following: Rights and Responsibilities and General Guidelines for Co-Sponsoring Organizations for ASHRAE Public Sessions.

C. This council shall facilitate the communication and planning between all things related to ASHRAE publications and education.

2.302.002 SPECIAL PUBLICATIONS (10-06-30-18)
This council is responsible for the manufacturing, delivery and fiscal impact of all ASHRAE publications and products with consideration given to (a) recognized need; (b) potential for sales income; (c) budget constraints and (d) joint funding agreements. Using established guidelines and procedures, this council shall work with the managing groups of special publications at project inception, during execution, and upon completion to ensure a balance of the above considerations is achieved.

2.302.0034 STRATEGIC PLAN (09-06-21-12C)

A. This council shall develop procedures for recommending updates to the strategic plan on a continuous basis. The council as a minimum shall at the Annual Meeting submit a report to the BOD which includes the current status of each activity which supports the fulfillment of their
assignments under the strategic plan. The council shall solicit and report recommendations for changes to the strategic plan as reported by the committees reporting to the council at the Annual Meeting.

2.302.004 MANUALS AND PROCEDURES
This council is responsible for reviewing, recommending changes and interpreting the following:
Rights and Responsibilities and General Guidelines for Co-Sponsoring Organizations for ASHRAE Public Sessions.
2.429 CERTIFICATION COMMITTEE

2.429.1 SCOPE AND PURPOSE

This committee is responsible for ASHRAE certification of persons, including evaluating and recommending proposals for new programs, and developing, maintaining, monitoring and evaluating certification programs.

2.429.2 MEMBERSHIP

2.429.002.1 Composition

The members of this committee are as follows:

A. Eleven (11) voting members, including a chair and two vice chairs.

B. Non-voting members include a Board ex officio member and coordinating officer

2.429.002.2 Qualifications

A. The chair and vice chairs shall hold the grade of Member or higher in the Society

B. At least two (2) of the voting members shall be current ASHRAE certification holders.

C. Members should have an awareness of the current educational programs available from the Society and the technical information needs of various segments of the HVAC&R industry.

D. Membership should include broad representation from the HVAC&R industry, including the academic, design, construction, facility operations, and manufacturing communities.

2.429.002.3 Term of Service

The term of service for voting members is intended to be three (3) years.

2.429.3 OPERATION

2.429.3.1 General Requirements

A. The committee shall evaluate proposals for new certification programs, including need and market demand.

B. The committee shall develop and maintain certification programs in accordance with ISO/IEC 17024, Conformity assessment – General requirements for bodies operating certification of persons.

C. The committee shall monitor and evaluate the effectiveness of programs after implementation.

2.429.3.2 Budget

The budget of this committee may include travel costs for liaisons to other groups working on certification issues and travel costs to bring members of other societies/groups with needed expertise to meet with this committee. Travel costs (other than normal transportation costs) will be available only for Certification Committee members who have no allegiance to ASHRAE, and who would attend only to assist with this committee and related activities.

2.429.004 STRATEGIC PLAN

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the Professional Development Committee prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the Professional Development Committee all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
2.405 COMMUNICATIONS COMMITTEE

2.405.001 SCOPE AND PURPOSE
The Communications Committee identifies the communication and collaboration and training needs for membership groups, recommends and maintains policies, and ensures that the implementation of information technologies meets the objectives and needs of the Society.

2.405.002 MEMBERSHIP
2.405.002.1 Composition (13-01-30-09)
The members of this committee are as follows
A. Eight (8) voting members including the chair and vice chair, with provision for 2 consultants, as needed.
B. Non-voting members include a Board ex officio member and coordinating officer.

2.405.002.2 Qualifications
A. Membership should include at least one past voting member from each council.
B. A substantial number of the members shall have recent experience with electronic communications technologies.

2.405.002.3 Term of Service
The term of service for voting members is intended to be three (3) years.

2.405.003 OPERATION
2.405.003.1 General Requirements
A. Recommend and maintain policies and guidance and training for managing ASHRAE's communication infrastructure within membership groups.

2.405.003.2 Ensure that communications policies and guidance balance the multiple goals of being in alignment with ASHRAE's Strategic Plan, providing services to members, and assisting volunteers in their service to the Society.
C. Review current membership group activities for conformance with existing policy.
D. Recommend and maintain policies and guidance governing data access, security, and privacy protection for electronic communications.
E. Provide assistance to staff to ensure coordination of electronic databases to ensure that data managed within the Society can be made available as necessary.
F. The committee shall define and maintain a process for evaluating and prioritizing requests for new communications services that can be used by membership groups. The execution of an approved request is a staff function.
This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
HANDBOOK COMMITTEE

2.409.001 SCOPE AND PURPOSE

This Committee identifies HVAC&R technical information needs of members for a series of ASHRAE Handbook volumes that are updated and republished periodically; recommends and maintains policies; and oversees production and delivery of the Handbooks.

2.409.002 MEMBERSHIP

2.409.002.1 Composition

The members of this committee are as follows:

A. Twenty-five (25) voting members including the chair and vice chair.
B. Non-voting members include a Board ex-officio member and coordinating officer.

2.409.002.2 Qualifications

A. The chair, vice chair, and volume subcommittee chairs shall hold the grade of Member or higher.
B. All members of the committee shall be voting members of ASHRAE.
C. Members should have TC handbook subcommittee experience and knowledge of a broad range of technical topics.

2.409.002.3 Term of Service (85-06-26-11/86-06-25-09)

The term of service for the voting members is intended to be four (4) years but may be extended as necessary to allow for publication of the assigned volume.

2.409.003 OPERATION

2.409.003.1 General Requirements

A. In the performance of its functions, this committee shall be subject to the condition that the material published shall tend to advance the professional education of the individual engineer, shall be free from commercial bias, and shall tend to advance the objectives of the Society. (67-06-25-08/87-06-28-19)
B. ASHRAE shall publish and distribute to its members handbooks of current technical information for the HVAC&R industry. The name of the publication shall be the ASHRAE Handbook. (ROB 520-130-004)
C. The Handbook Committee shall continue to make reference to the best technical data available for use in the ASHRAE Handbook, regardless of whether or not the referenced material was developed by ASHRAE. (66-06-29-09)


E. The print edition is established as the official ASHRAE Handbook. (08-06-25-12)

F. The Handbook Committee, in cooperation with the Handbook Editor, shall prepare and maintain the Handbook Authors and Revisers Guide. (05-06-29-13)

G. Handbook volumes shall be published in separate IP and SI editions. (88-20-04-66/89-06-29-26(1))

2.409.004 STRATEGIC PLAN (09-06-21-12C)

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the annual meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
2.410 HISTORICAL COMMITTEE

2.410.001 SCOPE AND PURPOSE
The Historical Committee shall encourage and carry on historical research and provide support to history-related activities of the Society.

2.410.002 MEMBERSHIP

2.410.002.1 Composition
The members of this committee are as follows
A. Seven (7) voting members including the chair and vice chair. (17-02-01-01)
B. Non-voting members include a BOD ex officio member and a coordinating officer. (92-01-29-36C/98-01-16-13/06-06-28-11B/07-01-31-10/07-06-27-20)

2.410.002.2 Qualifications
A. It is recommended that at least one committee member be from outside the United States. (96-02-22-51/01-06-27-22B)

2.410.002.3 Term of Service
The term of service for voting members is intended to be three (3) years.

2.410.003 OPERATION

2.410.003.1 General Requirements
This committee shall sponsor, encourage and conduct research into the history of advances of the arts and sciences of heating, ventilating, air conditioning and refrigeration.

This committee shall conduct historical symposiums, seminars, etc., and sponsor historical displays at Society meetings.

This committee shall encourage authorship and publication of articles of a historical nature.

This committee shall locate and identify items of historical significance and determine if such items may be moved to more convenient locations for display or availability.

Encourage regional and chapter historians to gather information and artifacts to be located in a convenient and available location in each region or chapter. A repository and catalog of literature of historical significance shall be maintained.

This committee shall administer and review all ASHRAE HVAC&R Industry Milestone Plaque Awards guideline and judge the validity of the historical information presented by the ASHRAE Sponsoring Entity about the nominated eligible site, process milestone for the Award Plaque

2.410.004 STRATEGIC PLAN
This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the Products Subcommittee prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the Products Subcommittee all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
TRAINING AND EDUCATION COMMITTEE

2.418.001 SCOPE AND PURPOSE

This committee identifies the educational and training needs of the HVAC&R industry, recommends and maintains policies, sets curriculum, evaluates the effectiveness and monitors the development and delivery of educational products and services.

2.418.002 MEMBERSHIP

2.418.002.1 Composition (02-01-16-24/04-01-28-32/13-06-26-02/15-01-28-06)

The members of this committee are as follows:
A. Twelve (12) voting members, including a chair and two (2) vice chairs.

B. Non-voting members include a Board ex officio member and coordinating officer.

2.418.002.2 Qualifications

A. Membership should include broad representation from the HVAC&R industry. No one interest group should dominate the membership.

B. A majority of the committee members should have experience as users of continuing education courses or developers or providers of continuing education products.

C. Members of the committee are prohibited from working as course development contractors during their tenure on the committee (05-02-06-02).

2.418.002.3 Term of Service

The term of service for voting members is intended to be three (3) years.

2.418.003 OPERATION

2.418.003.1 General Requirements

A. This committee is responsible for having the subject matter and details for all ASHRAE course and training material reviewed and appraised by relevant Technical Committee representatives and/or other technical resources. (85-06-27-28/88-02-04-19/00-06-28-07)
B. This committee is responsible for defining the direction and content of the educational and training portfolio, marketing and creating awareness, assessment and evaluation, review cost and profit of courses and other items under its jurisdiction.

C. This committee will provide a mechanism to formally recognize participants for their successful completion of training and educational programs.

2.418.004 STRATEGIC PLAN (09-06-21-12C)

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual Meeting. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Meeting.
PUBLICATIONS COMMITTEE

2.419.001 SCOPE AND PURPOSE

This committee identifies the technical information needs of the HVAC&R industry not met through the ASHRAE Handbook series, ASHRAE’s research journal, standards, guidelines, or user’s manuals and oversees editorial policies and delivery of products to the marketplace. This committee also determines the best paper published in the volume year of *ASHRAE Journal* preceding the ASHRAE Winter Conference.

2.419.002 MEMBERSHIP

2.419.002.1 Composition

The members of this committee shall be as follows:

A. Twelve (12) voting members, including a chair and a vice chair. (16-06-29-20)

B. Non-voting members include a Board ex officio member and coordinating officer.

2.419.002.2 Qualifications

A. All members of the committee shall hold the grade of Associate Member or higher in the Society.

B. Members should have an awareness of the current technical information needs of various segments of the HVAC&R industry.

C. Membership should include broad representation from the HVAC&R industry including the academic, design, construction, facility operations and manufacturing communities.

D. At least three members should have recent experience with the production or writing of technical publications or periodicals.

2.419.002.3 Terms of Service

The term of service for voting members is intended to be three (3) years.

2.419.003 OPERATION

2.419.003.1 General Requirements

A. This committee shall oversee the editorial policies of ASHRAE’s Special Publications, *ASHRAE Transactions* and other conference proceedings, ASHRAE’s magazines (such as *ASHRAE Journal* and *High Performing Buildings*), and ASHRAE’s electronic newsletters. The committee shall be subject to these conditions:
1. The data recommended for publication shall tend toward the professional education of the individual engineer;
2. Such data shall be free from commercial bias;
3. Such data shall tend to advance for the public benefit the arts and sciences relating to heating, refrigeration, air conditioning, and ventilation and the allied arts and sciences. (67-06-25-08/82-06-30-25/86-06-22-18M)

B. ASHRAE shall produce “Special Publications” that shall be defined as all technical publications in print format (except for the ASHRAE Handbook series; standards, guidelines, and user’s manuals; ASHRAE’s research journal, and ASHRAE’s magazines), such as non-series books (including books resulting from ASHRAE Research Projects and Special Projects), books in the Advanced Energy Design Guide series and the ASHRAE Datacom Series, charts, and tools, as well as all technical publications in machine-readable format, such as audio and visual presentations, software, databases, apps, and online resources.

C. The objective of ASHRAE Transactions shall be to serve as the archival publication of unsolicited research papers and Society-sponsored research and discussions in HVAC&R technical areas presented at the ASHRAE Annual and Winter Conferences as well as of Society business such as council and committee membership and award recognition. The objective of proceedings of ASHRAE-sponsored conferences and ASHRAE cosponsored conferences shall be to serve as the archival publications of the unsolicited research papers presented at these conferences.

D. The objective of ASHRAE Journal shall be to lead in communication of heating, ventilating, air-conditioning and refrigerating information to and from the profession, industry, and related interests. (ROB 520-144-005). Editorial and advertising content of ASHRAE Journal shall be directed toward the professional education of persons engaged in industries related to heating, refrigeration, air conditioning and ventilation. (86-06-22-18K) The objective of High Performing Buildings shall be to focus on practices and technologies to promote better buildings and offer practical solutions. Articles will include when available measured performance data and lessons learned through the design, construction and operation of today’s best-performing buildings.

E. The objective of ASHRAE’s electronic newsletters shall be to communicate news to various audiences. ASHRAE eSociety, distributed to members only, includes news of members, chapters, regions, Society committees, and International Associates. (ROB 520-144-007; 86-06-22-18L) ASHRAE Journal Newsletter, distributed to members only, connects news of industry trends with articles from the journal’s archive of peer-reviewed content. ASHRAE HVAC&R Industry News curates the latest trends and announcements from the industry to a large readership of members and non-members. HPB Newsletter combines online-first versions of HPB print articles with links to external articles related to energy efficiency, resiliency and sustainability for a diverse audience of ASHRAE engineers, architects, facilities managers and building owners.

2.419.004 STRATEGIC PLAN

This committee shall develop procedures for recommending updates to the strategic plan on a continuous basis. As a minimum the committee shall submit a report to the council prior to the Annual...
Conference. The report includes the current status of each activity which supports the fulfillment of the committee’s assignments under the strategic plan. The committee shall report to the council all recommendations for changes to the strategic plan as provided by the committee’s constituents prior to the Annual Conference.
PEC Restructuring
June 2019
Ad Hoc Members:
Julia Keen (Chair)
Dan Dettmers
Charlie Henck
Jin Jin Huang
Restructuring Goals

• Reshape the role of PEC and its subcommittees’ functions
• Efficient use of volunteer and staff time
• More effectively use volunteer talent and knowledge to provide direction on all publication and education member products
• Improve communication and planning between all things publication and education related
• Build in an evaluation process of committee progress on Council and Society Strategic Plan
• Organize in a logical manner all ASHRAE PEC responsibilities
  • Staff transition
  • New responsibilities as ASHRAE evolves and adds services
Existing Committee Structure

Not addressed: training centers, external education, university courses, etc.

PEC

VP1 (Chair), VP2 (Vice Chair), (5) Past Committee Members, (5) ExO, (2) At-Large [13*]

Subcommittees

- Fiscal Planning
- Functional Planning
- Journal Adv. & Sales
- E-learning
- Research Journal

Standing Committees

- Publications
- Certification
- Electronic Communications
- Handbook
- Historical
- Professional Develop.

Appointments*

(2) VPs
(5) ExOs
(80) Members

Certifications: Chair, Vice Chairs, & Members, ExO1 [12]
Handbook: Chair, Vice Chair, & Members, ExO2 [25]
Professional Development: Chair, Vice Chairs, & Members, ExO3 [12]
Publications: Chair, Vice Chair, & Members, ExO4 [12]
Historical: Chair, Vice Chair, & Members, ExO5 [9]
Research Journal Subcommittee: Editor, Appointed members [3]

*ECC not included in count
**Revised Proposed Committee Structure**

PEC

**Fiscal Subcommittee**
- VP1 (Chair), VP2 (Vice Chair), (5) Committee Chairs, (5) ExOs, (4) Past Committee Members [16]
- 5 Comm. Chairs, 5 Comm. Member Rep., VP1, 2 Past Comm. Members, 3 ExOs [15]

**Planning Subcommittee**

**Products Subcommittee**
- 3 Past Comm. Members, Chair & Vice Chair of Committees, 3 ExOs [13]
- Chair, Vice Chair, & Members, ExO1 [25]
- Chair, Vice Chair, & Members, ExO2 [12]
- Chair, Vice Chair, & Members, ExO3 [7]
- ExO2 (serves as chair), Appointed Members [3]

**Professional Development Subcommittee**
- Chair, Vice Chairs, & Members, ExO4 [12]
- Chair, Vice Chairs, & Members, ExO5 [12]

**Research Journal**
- ECC relocated to Members Council

**Handbook**
- Appointments
  - (2) VPs
  - (5) ExOs
  - (75) Members

**Publications**

**Historical**

**Certification**

**Training & Education**
PEC
(Monitor and Planning)

<table>
<thead>
<tr>
<th>Planning</th>
<th>Fiscal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Set strategic direction</td>
<td>• Manage budget</td>
</tr>
<tr>
<td>• Develop MBOs</td>
<td>• Monitor Revenue and Expenses</td>
</tr>
<tr>
<td>• Prioritize resource allocations</td>
<td>• Review for potential efficiencies</td>
</tr>
<tr>
<td>• Ensure alignment with Society Strategic Plan</td>
<td>• Provide data to help drive decisions</td>
</tr>
<tr>
<td>• Identify future PEC leadership</td>
<td>• Advertising</td>
</tr>
<tr>
<td>• Maintain MOP &amp; ROB of PEC</td>
<td>• Recognize advertising opportunities</td>
</tr>
<tr>
<td>• Assist with committees’ MOP &amp; ROB</td>
<td>• Evaluate advertising and sales yield and potential</td>
</tr>
<tr>
<td>• Act as a resource for rule interpretation</td>
<td>• Job board</td>
</tr>
<tr>
<td>• Assist w/ motions</td>
<td>• Supplier Directory</td>
</tr>
<tr>
<td>• Review MBO progress</td>
<td>• Supplier Webinars</td>
</tr>
<tr>
<td>• Recommend action when goals are not met</td>
<td></td>
</tr>
<tr>
<td>• Evaluate &amp; document progress toward Society Strategic Planning goals</td>
<td></td>
</tr>
</tbody>
</table>
# Products
(Monitor, Planning, Review of Bookstore and Portals & Point of contact for other society pubs)

<table>
<thead>
<tr>
<th>Handbook</th>
<th>Publications</th>
<th>Historical</th>
<th>Research Journal Subcommittee</th>
</tr>
</thead>
</table>
| • Manage the development and revision of Handbook content  
• Provide effective means for content delivery  
• Assist TC’s to identify new content developers (authors) | • Books  
• AEDGs  
• Charts/Tools  
• ASHRAE Transactions  
• Proceedings  
• ASHRAE Journal  
• HPB Magazine  
• ASHRAE Insights and eSociety  
• Electronic Pubs - Apps/Data Bases/Software | • Archives (including Library)  
• Content Support/Development (research, sessions, papers, books, etc.)  
• Landmarks  
• Anniversary/Special Event Projects | • S&T for the Built Environment |
Professional Development
(Monitor and Planning)

<table>
<thead>
<tr>
<th>Training and Education</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>• E-learning</td>
<td>• Maintain existing certifications and development of new</td>
</tr>
<tr>
<td>• Certificates</td>
<td>• Evaluate market demand</td>
</tr>
<tr>
<td>• Instructor Led Courses</td>
<td>• Develop strategy for evaluation</td>
</tr>
<tr>
<td>• Self-Directed Learning</td>
<td></td>
</tr>
<tr>
<td>• In-Company Courses</td>
<td></td>
</tr>
<tr>
<td>• Chapter Resources</td>
<td></td>
</tr>
<tr>
<td>• Develop strategy for the evaluation of existing and need for additional training centers</td>
<td></td>
</tr>
<tr>
<td>• Assist in the review of training centers – effectiveness and financial impact</td>
<td></td>
</tr>
<tr>
<td>• Assist in identification of courses for each training center</td>
<td></td>
</tr>
<tr>
<td>• University Course(s)</td>
<td></td>
</tr>
<tr>
<td>• ASHRAE Career Enhancement Curriculum Program</td>
<td></td>
</tr>
</tbody>
</table>
Implementation Time Line

Society Year 2018 – 2019

- Winter Conference
  - Atlanta
- Present Structure
- Discuss ROBs & MOPs
- Standing Committees
- Vote on: Structure ROB MOP
- PEC
- Vote on: Structure ROB MOP (PEC/Committees)
- SRC
- Review

Society Year 2019 – 2020

- Annual Conference
  - Kansas City
- August BOD Meeting
- Winter Orlando
- Nomination Process & Election
- Implement PEC Restructure

Today

- Motion to BOD
- BOD Vote on Motion
Deadlines and Deliverables

• Monday, June 24 - PEC Functional Subcommittee vote on:
  • Changes to PEC MOP and ROB and, if approved, forwarded to PEC
  • Changes to Committee ROBs and, if approved, forwarded to PEC

• Tuesday, June 25 - PEC vote on:
  • Changes to PEC MOP and ROB and, if approved, forward to SRC and BOD
  • Changes to Committee ROBs and, if approved, forwarded to SRC and BOD

• Tuesday, June 25 - SRC vote on MOP changes

• Tuesday, June 25 - SRC vote to recommend changes to the ROBs to the BOD

• Wednesday, June 26 - BOD vote on ROB changes

• January 2020 –
  • Changes to committee MOPs & Reference Manuals approved by committee
  • Committees submit to PEC Functional Subcommittee for approval
  • If, approved, Functional Subcommittee forwards to PEC for approval
The ASHRAE Units Policy is required by the PEC Rule of Board to be reviewed and reconfirmed annually.

Units Policy

1.201.002 Units Policy

The units use or application policy shall include, as a minimum, time-dated directions on the use of SI and I-P in all ASHRAE publications.

1.201.002.1 TC 1.6 shall serve as the authority on SI and I-P usage and application.

1.201.002.2 Research projects; codes, standards, guidelines and addenda thereto; special publications; Insights articles; Journal articles; and Handbooks shall be prepared using the International System of Units (SI) and/or inch-pound units (I-P) in formats approved by the Publishing and Education Council.

1.201.002.3 The Publishing and Education Council shall review annually the approved formats to be used in ASHRAE publications, considering suggestions from members and committees, and shall establish any changes in the approved formats.

1.201.002.4 The Publishing and Education Council shall consider this Units Policy annually and shall recommend to the Board of Directors the formats to be used in ASHRAE publications.

A. The format for ASHRAE publications shall be dual units, except in cases determined by the Publishing and Education Council, where two separate versions are to be published, where one is rational SI and the other is rational I-P. For selected ASHRAE standards and guidelines, the Standards Committee may approve use of SI units only.

B. In dual unit publications, the units used in calculating the work being reported shall be listed first. The alternate system of units should follow in parentheses. Authors shall round off equivalents in the alternate system of units so that they imply the same accuracy as is implied with primary units.

C. Exceptions require the approval of the Director of Publishing and Education.

1.201.002.5 Handbook volumes shall be published in separate SI and I-P editions.

1.201.002.6 Science and Technology for the Built Environment, as ASHRAE’s international research journal, may publish papers in dual units or, in cases where the original research being reported was conducted in SI units, in SI units only.
REPORT ON
ASHRAE GLOBAL TRAINING CENTRE (S)

June 2019

On behalf of the
Global Training Centre Adhoc

Farooq Mehboob
Society Vice President 18-19
TABLE OF CONTENTS

1.0 BACKGROUND 1
2.0 THE PEC ADHOC 1
3.0 GTC ACTIVITIES TO DATE 2
4.0 FINANCIALS 3
5.0 CONCLUSIONS 4
6.0 RECOMMENDATIONS 5
1.0 BACKGROUND

GTC Dubai was set up based on the BOD approval of MCI recommendations to start the Center in 2016-2017.

The instructors were appointed by PEC and included the PEC Chair.

The courses were selected by the Instructors who “Customized” the courses.

The Instructors were paid for customizing the courses and their remuneration fixed @ 15% less than the US rates on the assumption that Dubai living costs are 15% less than the US. Except for one instructor the others are not resident in Dubai.

The GTC consists of an office approx. 100 sq.ft. and one employee.

Courses are held at Hotels and other facilities.

The business model for the Global Training Center for Building Excellence is based on the following concepts:

- ASHRAE will customize training for the market.
- ASHRAE will sell course registrations to individuals and to groups.
- ASHRAE will communicate benefits of training to its membership base in the Gulf and surrounding regions.
- ASHRAE will reach out to governments and firms engaged in building construction and operation to promote group training opportunities.
- ASHRAE commits to a three year investment in the training center to build market demand, create market awareness and build a customer base.

2.0 THE PEC ADHOC

The Adhoc is charged with:

i) Determining what information is needed for PEC / BOD oversight of the operation.

ii) Establishing success metrics against stated objectives of this operation.

iii) Provide direction in programming and reporting.
## GTC ACTIVITIES TO DATE

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Courses</th>
<th>No. of times Course Held</th>
<th>Dates</th>
<th>Attendees</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Commercial Building Energy Audits (MENA)</td>
<td>02</td>
<td>01-Apr-2018 26-Mar-2019</td>
<td>45</td>
<td>Hassan Y.</td>
</tr>
<tr>
<td>4.</td>
<td>Commissioning Process in New &amp; Existing Buildings (MENA)</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5.</td>
<td>High Performing Healthcare Facilities, Design Considerations &amp; Applications (MENA)</td>
<td>–</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10.</td>
<td>The Future of Refrigerants: Challenges &amp; Opportunities</td>
<td>01</td>
<td>09-May-2018</td>
<td>46</td>
<td>Karim A., Omar A.</td>
</tr>
<tr>
<td>12.</td>
<td>HVACR Refrigerants</td>
<td>01</td>
<td>27-Nov-2018</td>
<td>57</td>
<td>Big 5 Expo</td>
</tr>
<tr>
<td>14.</td>
<td>District Cooling for Designers &amp; Owners</td>
<td>01</td>
<td>17-Apr-2019</td>
<td>130</td>
<td>Empower Sponsorship</td>
</tr>
</tbody>
</table>
## INCOME FROM COURSES:

<table>
<thead>
<tr>
<th>Year</th>
<th>Courses</th>
<th>Income ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>HVAC Design: Level I – Essentials (MENA)</td>
<td>15,306.00</td>
</tr>
<tr>
<td>2017</td>
<td>Variable Refrigerant Flow Systems</td>
<td>4,081.00</td>
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<tr>
<td>2018</td>
<td>HVAC Design: Level I – Essentials (MENA)</td>
<td>22,276.50</td>
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<tr>
<td>2018</td>
<td>Commercial Building Energy Audits</td>
<td>3,779.28</td>
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<tr>
<td>2018</td>
<td>HVAC Design: Level I – Essentials (MENA)</td>
<td>11,410.00</td>
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<td>2018</td>
<td>The Future of Refrigerants: Challenges &amp; Opportunities (MENA)</td>
<td>13,975.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>95,473.78</strong></td>
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</table>

## EXPENSES:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion</td>
<td>10,300</td>
</tr>
<tr>
<td>Meetings &amp; Seminars</td>
<td>46,700</td>
</tr>
<tr>
<td>Travel Staff</td>
<td>12,100</td>
</tr>
<tr>
<td>Rental Storage Space &amp; Real Estate</td>
<td>1,700</td>
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<tr>
<td>Course Supplies Education</td>
<td>400</td>
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<tr>
<td>Stationery/Broch/Forms/Other</td>
<td>2,400</td>
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<tr>
<td>Postage</td>
<td>900</td>
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<tr>
<td>Development Costs</td>
<td>18,700</td>
</tr>
<tr>
<td>Outside Services-Other Services</td>
<td>45,700</td>
</tr>
<tr>
<td>Credit Card Charges</td>
<td>1,800</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>140,700</strong></td>
</tr>
</tbody>
</table>

If the grant of $ 40,000 from the Foundation is not considered there is a loss of $ 43,227. Atlanta and Steve’s time are not included in expenses.

For the period July 1 through November 30, 2018 summarized income and expenses are as follows:

Income    –    $ 53,279
Expenses  –    $ 47,000
5.0 CONCLUSIONS

A review of the operation leads to the following conclusions:

i) By far the most in demand course is HVAC Design Essentials Level-I repeated eleven times, followed by Standard 90.1, repeated 5 times and Standard 62.1 repeated 4 times.

ii) Courses on which there has been no demand are, Commissioning Process in New and Existing buildings, High performing Health Care Facilities, understanding standard 189.1, & Air to Air Heat Process, Out of the 13 courses developed solar and customized 3 have had no market response in 2 years of operation.

iii) Out of the 29 courses held:

13 were held in Dubai by GTC
1 was held in Pakistan
1 was held in Qatar
12 were held in Saudi Arabia
2 were held in South Africa

There has been strong support from RAL DRC Ahmad Alaa in arranging courses in Saudi Arabia, Pakistan and ongoing discussions for Egypt.

iv) The pricing for the courses which is a key factor in the success of GTC varied as follows:

   - HVAC Design Essentials Level-I − $ 695, $ 856, $ 543, $ 705, $ 495, $ 390
   - Standard 90.1 − $ 199, $ 259, $ 120
   - Standard 62.1 − $ 130, $ 120

v) Instructor Fees amounted to $ 61,324 out of the Total Program Fees of $ 148,752 or 41.2%.

Room Rentals amounted to $ 59,400 or 39.9%.

Clearly these costs are unsustainable going forward.

vi) Ayah who runs the GTC under Steve does an excellent job however a single person cannot accomplish all that is needed in terms of calling on companies and promoting the centre. More volunteer and staff support is required.

vii) The GTC has had limited success in achieving the objectives for which it was created. The HVAC Design Level-I course which was held eleven times has always been available and held many times prior to the founding of the GTC.

viii) Way Forward:

Going forward the outlook is improving with a forecast income of $ 98,200 in the period ending April 30, 2019.
6.0 RECOMMENDATIONS

Key issues which needed to be addressed are summarized below:

i) Involving Regions in actively pursuing opportunities thru chapters and regional associations.

ii) Researching the market as to what courses are expected to be in demand. Customizing courses for corporate entities may be considered.

iii) The appointment of instructors should be carried out systematically much like CTTC’s process of appointing DL’s. Efforts should be made to use Dubai based instructors to cut travel costs.

iv) Wherever possible courses to be held at locations where there is no room rental. Partnering with universities in Dubai is a way to do this.

v) Instructor Fees and Development Costs should be carefully reviewed. Using Dubai based University professors as instructors should be considered.

vi) Sales calls and Government Contacts should be aggressively pursued with volunteer support. ASHRAE should consider additional supporting staff for Ayah.

These issues were discussed by the Adhoc during a Conference Call on May 16, 2019.

Steve Comstock drafted the Policy & Guidelines for Training Centers, these were reviewed, edited and finalized. They are attached to this report as Attachment A to this report.

These Guidelines are not EMEA specific and can be applied wherever a Training Centre is setup.

The Guidelines include the process for setting up Training Centres, operation responsibility, Volunteer Oversight, Budgeting, instructor selection, review and compensation, Fees and Sales Channels, Course Locations, Costs & Selection as well as business development and metrics.

It is recommended that PEC formally adopt the guidelines.

Respectfully submitted.

Faroq Mehboob
Vice Chair PEC
2018-2019
1. Philosophy

1.1. ASHRAE Training Centres rest upon a philosophy of engaging members in geographic markets to increase the value of ASHRAE membership through delivery of training that meets the needs of the specific market, is available at affordable pricing in the market, and which expands awareness of ASHRAE among non-member professionals in the market.

1.2. ASHRAE Training Centres, alongside the delivery of training, can bring visibility to the works of ASHRAE, extending ASHRAE influence to a broad range of professionals, companies, governments, and allied associations. Training Centres are also assets for ASHRAE’s cooperative efforts with inter-governmental bodies, such as UNEP, in outreach to technical communities in developing countries.

1.3. The packaging of training, content of training, sale of training, and pricing of training is determined by each respective Training Centre based upon the needs of the market in accordance with the approved budget, policies and guidelines in this document, and consistency with ASHRAE’s brand promise of technical accuracy and credibility.

2. Establishment

2.1. Establishing an ASHRAE Training Centre requires approval of the Board of Directors based upon the recommendation of the Publishing and Education Council.

2.2. In making a recommendation to the Board of Directors to establish a Training Centre, the Publishing and Education Council will first confer with the respective ASHRAE Director and Regional Chair (or chairs if the market extends to more than one region) to ensure local perspective guides development of the recommendation.

2.3. Recommendations to establish a Training Centre will consider the need for market-specific products, market demand, staffing requirements, instructor interest, and volunteer availability to customize content for the specific market. The recommendations shall include a business plan for consideration by the Board of Directors.
3. Operation

3.1. ASHRAE Training Centres operate following policies and guidelines outlined in the document.

3.2. Responsibility for the operation, staffing and performance of each ASHRAE Training Centre shall be the responsibility of the Business Development Manager reporting to the Society’s Executive Vice President, and in coordination with the Director of Publishing and Education and the Society’s professional development staff.

3.3. Each Training Centre will be headed a Training Centre Manager responsible for promotion, sales, scheduling, and training deployment. The manager reports to the Business Development Manager EMEA. (Note: With ASHRAE being a US registered company, it might be beneficial to provide staffing support under contact rather than as salaried employees; reporting paths remain the same.)

3.4. Staffing support in an office can be increased in accordance with ASHRAE staffing policies and allowance in the operating budget for each respective centre.

3.5. Each Training Centre shall have a volunteer oversight committee appointed by Publishing and Education Council Chair consisting of the Director & Regional Chair(s) of the Region(s) in which the centre operates, Business Development Manager, Training Centre Manager and one or more volunteers from Publishing and Education Council. The oversight committee will report to the Training and Education Standing Committee at each Society meeting.

4. Fiscal Performance

4.1. The annual budgets for each Training Centre will be prepared by the Business Development Manager in consultation with each Training Centre Manager, for submission to the Director of Publications and Education for approval by and inclusion in the Publishing Council Budget during the normal ASHRAE budget development timeline.

5. Instructor Selection and Review

5.1. Training Centres respond to market demand and result from negotiated sales efforts. The selection and assignment of instructors for each Training Centre must recognize that flexibility is required to enable ASHRAE to deliver training at the speed of business and to meet market demand.

5.2. Instructors will be selected based on their technical knowledge, skill as an instructor, appeal in attracting registrants, knowledge of market applications and standards, and availability. Instructor selection is to be a balance between specific field knowledge and ability to instruct on a range of topics which enables ASHRAE to reduce cost when satisfying bundled-training opportunities.

5.3. The number of instructors approved to present courses at each Training Centre is dependent upon the demand for courses scheduled by each respective centre or under consideration for scheduling.

5.4. Persons to serve as instructors may be suggested by any member to the manager of each respective Training Centre.
5.5. To serve as a Training Centre instructor, each candidate will complete an Instructor Profile which collects information related to technical experience and marketability.

5.6. Instructors will be selected upon the recommendation of the respective Training Centre Manager by the Business Development Manager. Appointment and instructor compensation and duration of appointment is subject to the approval of the Volunteer Oversight Committee and the chair of the Publishing and Education Council.

5.7. Instructors identified for one Training Centre may be assigned instruction organized by another centre if their expertise and expertise is relevant to the other market.

5.8. Training Centres may schedule US and Canadian instructors to instruct with or without instructors from the market, depending on customer preference, demand in the market for a US/Canadian instructor, the ability to accommodate them within the budget for a scheduled training, and the need to train instructors from the market.

5.9. Attendee evaluation forms will be used with each scheduled training. Tabulated results will be shared with the respective instructor and will be taken into account when reappointing instructors.

6. Fees and Sales Channels

6.1. Multiple sales channels may be among the sales channels employed at a Training Centre.

   6.1.1. Direct sales-- Scheduled training at a centre
   6.1.2. Company Sponsored -- Scheduled training offered with company sponsorship open to public
   6.1.3. In-Company training – Reserved training for company employees and clients
   6.1.4. Distributor Sales – Training packaged through private firm or organisation for resale
   6.1.5. Chapter Training – Training delivered by chapters
   6.1.6. Partnered Training – Training offered in cooperation with another organization
   6.1.7. Intergovernmental Outreach – Training or other support provided through grants

6.2. A general principle for all markets is that Training Centres will offer registration fee pricing that covers the respective cost for development and delivery of that training, including direct and indirect costs, overhead and revenue.

6.3. Registration fees to be charged by each Training Centre are established by staff with consideration given within each market to direct cost of delivering training, indirect costs for delivering training, and recovery of investment for development of training in the market. Fees are also subject to competitive landscape, presence or absence of drivers for demand, purchasing power within each market, and fee structures in place in other Training Centres and in the US and Canada. These factors will lead to pricing structures that while desired to be consistent in different markets will necessarily reflect market differences.
6.4. Pricing offered through each sales channel will be at the discretion of the manager of the respective Training Centre and the Business Development Manager taking account of volume, the above factors and number of courses to be scheduled, anticipated attendance, ASHRAE cost to deliver training, value to ASHRAE in terms of promotion of standards, and location.

7. Course Locations and Costs

7.1. Considerations for course location include, dependent upon the type of course scheduled: Productive learning environment, catering or restaurant availability, audio visual services, convenience for attendees, nearby hotel for instructors, cost.

7.2. Courses may be located at hotels, universities, company facilities, with an emphasis on choosing a location that provides the greatest value, while ensuring satisfactory attendee experiences and considering the staffing time required for deployment.

7.3. Scheduling of courses, course agendas, and catering will be based on expectations of attendees from the market being served.

8. Course Selection

8.1. Course inventory for each Training Centre needs to be responsive to customer demand. This can require modification and customization. Courses in inventory must also be able to be delivered quickly and consistently so that ASHRAE can operate at the speed of business.

8.2. Course inventory will be developed based on demand as identified by potential customers, instructors, regional director, and chapter and regional volunteers and as consolidated by the respective Training Centre manager.

8.3. Courses can be included in the inventory with content developed for the US/Canadian market or based upon feedback from potential customers, instructors, regional director and chapter and regional volunteers customized for the respective market.

8.4. Courses can be developed that are specific to the market of each Training Centre if there is adequate demand.

8.5. If market customization is required, it will be done by voluntary effort from instructors or others either at one time or under a continuous development process. If market customization cannot be done voluntarily, funding from the respective centre’s budget can be used upon recommendation of the Business Development Manager with the approval of the chair of the Publishing and Education Council.

8.6. Centre managers, Business Development Manager, Director of Publishing and Education Council, respective Volunteer Oversight Committee, and Publishing and Education Council chair will review scheduling of course inventory annually to proactively modify course inventory as needed.
9. Business Development

9.1. Each Training Centre Manager shall maintain a list of prospects for each of sales channels within their market. List will be used in regular communication including personal outreach will be employed with each of the prospect lists, recognizing purchasing traditions within the given market.

9.2. The Business Development Manager will work with each Training Centre manager to identify value propositions that resonate in each market and employ sales and communication techniques that are proven to be most effective in each region.

9.3. In addition to ASHRAE Media, Training Centre managers will use other communication channels through promotion budgets included in the annual budget for each Training Centre.

10. Metrics

10.1. A quarterly report for each Training Centre will be prepared showing scheduling of training during the period with date of course presentation, name of course presented, instructors, location, sales channel, total attendees, total revenue, total cost, net, and comments. In a format approved by the Publishing and Education Council Chair.

10.2. On a semi-annual basis combined tabulation of instructor evaluations from the previous 6 months will be shared by the Business Development Manager with the chair of the Publishing and Education Council and Volunteer Oversight Committee. This tabulation is to be held in confidence.

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Journal Advertising Sales Subcommittee (Attachment M)

1. ASHRAE Journal’s paid advertising share of market (SOM) increased to 63% of all pages sold during the past 12 months compared to a 62% SOM during June 2017-May 2018. At the same time, a loss of paid pages impacted ASHRAE Journal. Total advertising pages for HVACR Engineering publications also declined. While traditional publishers continue programs to compete for reaching ASHRAE’s audience, nontraditional publishers are also becoming more competitive. These include Google, Facebook, and other online publishers offering advertising. Staff is developing new opportunities to accelerate online advertising revenue growth for the Society.

2. Reductions in expenses include removal of poly-bagging for most issues of ASHRAE Journal and changing the binding of HPB magazine. Together, these will remove about $18,000 of expenses annually.

eLearning Subcommittee (Attachment N)

3. Subscription revenue for ASHRAE eLearning is on track to make the forecast for the 2018-2019 fiscal year. Most of this revenue is from individual subscriptions, with corporate subscriptions beginning to gain traction. This revenue includes UNEP projects of new courses development and translation of existing courses.

4. A collective topical catalog for all ASHRAE products, with a goal of making it easier for members to find and purchase products by topics is being developed by staff.

5. During the Members Council 2019 winter meeting in Atlanta, the following motion was referred to PEC and PEC assigned an action item to ECC to review and make recommendations:

   Membership Promotion Committee – Motion 11 (01/15/2019): That e-learning courses be translated to major non-English languages based on membership demographics.

   Background: ASHRAE’s vision is to be a global leader and foremost source of technical and educational information. Based on membership demographics, the top eight non-English speaking countries include: Canada (French), India (Urdo), Hong Kong (Chinese), Philippines (Tagalog), UAE (Arabic), Malaysia (Malay), Brazil (Portuguese), and Mexico (Spanish). Voice-over audio recording of the e-learning materials will provide greater global membership value. Translations can be completed by volunteer members with peer review.

   Fiscal Impact: Recommend $0 fiscal impact. Generate income with new e-learning benefit and increase use of e-learning.
6. eLearning ASHRAE staff will review the project requirements of time, resources, and cost to evaluate the feasibility of completing translations for eLearning courses and make recommendations to PEC.

7. eLearning Course offerings are being updated to improve the course interactivity and engagement for better marketability to both corporate and individual customers. Fundamentals courses take priority as they have a higher market demand.

8. Attachment A of the eLearning Subcommittee Report to PEC shows a list of new, in-progress, and proposed courses to broaden and diversify the eLearning course catalog.


**Fiscal Planning Subcommittee (Attachment O)**

10. At the request of the PEC, ASHRAE staff investigated and reported the potential cost savings for eliminating polybag wrapping of ASHRAE Journal. Staff recommended eliminating the print version of the ASHRAE Insights publication with a potential saving of $31,500 annually. (Attachment A of the Fiscal Planning Subcommittee Report to PEC)

11. At the request of the PEC, ASHRAE staff investigated and reported on business models of academic journals and gave a response to the subcommittee as shown in Attachment B of the Fiscal Planning Subcommittee Report to PEC.

**Functional Planning Subcommittee (Attachment P)**

12. A special orientation module to explain to council and committee members the restructure changes will be developed for the January Winter Meeting and used every year to ensure the continued effectiveness of the committees and subcommittees.

**Research Journal Subcommittee (Attachment Q)**

13. Dr. Reinhard Radermacher retired as Editor-in-Chief (EIC) of ASHRAE’s *Science & Technology for the Built Environment* (STBE) on June 30, 2019 and was thanked by the chair and the subcommittee for his many years of service to ASHRAE and the growth of the journal during his tenure.

14. Research Journal Subcommittee approved Dr. Jeff Spitler as the new EIC as of July 1, 2019.

15. An increase in paper submissions was reported to the subcommittee with STBE associate editors contributing papers, some being highly cited and annually published paper increasing from 37 in 2006 to an average of 102 each of the last four years. (Attachment A of the Research Journal Subcommittee Report to PEC)
16. STBE’s publishing partner Taylor & Francis gave the subcommittee a detailed publisher’s report highlighting the success of Open Access papers, topical issues and improvement in the submission to publication process. The report states that STBE received 48,907 article downloads in 2018, which is 16% higher than downloads received in 2017. From January-June 2019, there have been 20,326 article downloads, which is 28% higher than the same period in 2018. 

(Attachment B of the Research Journal Subcommittee Report to PEC)

17. STBE 2018 Impact Factor (IF) for STBE has improved to 1.199, up from last year’s 1.183.

Certification Committee (Attachment R)


19. There has been an increase on the certification application rate year-to-date compared to last year by 10.5% with 378 applications over the previous year’s 342.

20. ANSI completed its Year 4 Annual Surveillance of accredited Certification programs with the recommendation that ASHRAE continues to fulfill all components of the 17024 Accreditation Standard and citing only one opportunity for improvement.

21. Certification Committee has partnered with the Marketing Department recently on executing initiatives to raise awareness and communicate value including an ASHRAE Journal house ad (Attachment AOF Certification Committee’s Report to PEC), videos for BEAP and CHD, and a drip email campaign for each program.

22. Certification Committee reported on the ongoing exam development activities planned for 2019-20 will help ensure the continued relevancy and validity of ASHRAE’s certification programs:
   - CHD - Exam passing score to be finalized in August-September.
   - HBDP - New form to launch in November.
   - HFDP - New form to launch in November.

23. Certification Committee approved a slate of nominees and alternates for six exam subcommittees for the 2019-22 term.

24. Certification Committee’s 2018-19 MBOs are shown in Attachment B of Certification Committee Report to PEC.

25. Certification Committee’s 2019-20 MBOs are shown in Attachment C of Certification Committee Report to PEC.
Electronic Communications Committee (ECC) (Attachment S)

26. ECC’s Electronic Collaboration Tools Subcommittee is working to set up Basecamps for all chapters and regions with plans to schedule training sessions based on time zone. Folders and files will be maintained, cleaned-up and/or archived in Basecamp.

27. ECC’s Social Media Subcommittee is reviewing methods to increase social media presence of ASHRAE Regions on Society’s social media channels.

28. ECC’s Websites Subcommittee shared progress on a survey it will be sending to chapter leaders involved with ECC-style positions, chapter presidents and DRCs as part of work the subcommittee is doing to create website templates in answer to Region I (Granite State Chapter) Motion 25 (11/8/2018) and Membership Promotion Committee – Motion 10 (01/15/2019).

29. ECC discussed a motion from the Membership Promotion Committee – Motion 9 (01/15/2019): That the Electronic Communications Committee research the feasibility and capabilities of expanding the ASHRAE 365 App by January 2020 to allow chapters, regions and Society to distribute information to members. The committee had previously responded to the motion that it would take on the research requested.

30. ECC reported an increased communication with Region Electronic Communications Chairs (RECC) as evidenced by participation of RECCs on conference calls and in attendance as guests at the annual meeting.

31. ECC’s 2018-19 MBOs are shown in Attachment A of ECC Report to PEC.

32. ECC’s 2019-20 MBOs are shown in Attachment B of ECC Report to PEC.

Historical Committee (Attachment U)

33. Historical Committee reviewed and unanimously approved the committee’s ROB and MOP which have been revised for the organizational changes to the PEC structure. This restructure will result in a cost savings of about $3,000, because of the reduction in voting members from nine to seven. The committee also reviewed the Chapter and Historians Guide to make sure it would be consistent with the committee’s restructure, but still be a valid and valuable tool to share with chapter and region historians.

34. Historical Committee discussed ways to continue to provide guidance to region and chapter historians, even though there is no longer an official connection.

35. Historical Committee reviewed a report on the status of PAOE points on the part of chapters by regions and discussed potential changes to PAOE to propose for the next fiscal year (2020-21)

36. Historical Committee 2018-2019 MBOs were updated and shown in Attachment A of Historical Committee Report to PEC.
**Handbook Committee (Attachment T)**

37. ASHRAE Handbook Online now has 15,756 active subscribers and income generated is on track to exceed $100,000 for FY 2018-19.

38. Two new spreadsheets were added with the 2019 Handbook Online update and out-of-sequence updates are planned for two chapters during the second half of 2019.

39. Handbook Committee approved TC 6.5’s plan to consolidate their radiant heating and cooling chapters (currently Chapter 6 in HVAC Systems and Equipment, and Chapter 54 in HVAC Applications) into one Applications chapter.

40. Handbook Committee’s 2018-19 MBOs are shown in *Attachment A of Handbook Committee to PEC*.

**Professional Development Committee (PDC) (Attachment V)**

41. PDC is working to review all existing courses, establish guidelines for future reviews and develop criteria for new course instructors. PDC will also seek ways to package higher-level training in a format that can be used as a certification exam-prep resource.

42. Five new PDC courses were presented in Kansas City. The new Guideline 36 course drew the highest number of registrants.

43. PDC approved a proposed slate of courses for the 2019 Fall Online Course Series; one new 3-hour course combining Guideline 0 and Standard 202; and the first one-hour course, an overview of the new IgCC with a primary focus on HVAC.

44. PDC’s 2018-19 MBOs are shown in *Attachment A of PDC Report to PEC*.

45. PDC’s 2019-20 MBOs are shown in *Attachment B of PDC Report to PEC*.

**Publications Committee (Attachment W)**

46. Publications Committee will participate in a project with RAC wherein those submitting a proposal to receive RAC funding specifically earmarked for a publication as a deliverable will go through submission and approval procedures with RAC and Publications Committee.

47. Publications Committee approved a proposed new ASHRAE Design Guide for Air Curtains.

48. Publications Committee’s 2018-19 MBOs are shown in *Attachment A of Publications Committee Report to PEC*.