



Publishing and Education Council (PEC)

Tuesday, June 27, 2017

Hyatt Regency Hotel - Long Beach, CA

Voting Members

Walid	Chakroun	Chair	
Edward	Tsui	Vice Chair	
Mark	Fly	Member/Director	
William	McQuade	Member/Director	
Michael	Schwedler	Member/Director	
Roger	Jones	Member/Director	
Chee Sheng	Ow	Member/Past Certification	
Heather	Platt	Member/Past ECC	
Florentino	Mendez	Member/Past Handbook	absent
John	Nix	Member/Past PDC	
Frank	Mills	Member/Past Publications	
Mohammad	Hosni	Member at Large	absent
Richard	Rooley	Member at Large	absent

Guests

David Soltis
Joslyn Ratcliff
Mark Owen
Karen Murray
Tim Kline
Emily Sigman
Jay Scott

Non-Voting Members

Richard	Rose	Certification Chair
Cameron	Labunski	Certification Vice Chair
Steven	Faulkner	ECC Chair
Heather	Schopplein	ECC Vice Chair
Forrest	Yount	HB Chair
David	Yuill	HB Vice Chair
Randy	Schrecengost	Historical Chair
Kent	Anderson	Historical Vice Chair
James	Bochat	PDC Chair
Kay	Thrasher	PDC Vice Chair/Planning
Charles	Henck	PDC Vice Chair/Operations
Jin Jin	Huang	Publications Chair
Kimball	Ferguson	Publications Vice Chair
Steve	Comstock	Staff Liaison

Additional Distribution:

Jeff Littleton, Executive Vice President
Mary Townsend, Assistant to Board of Directors (BOD)
ASHRAE Staff Directors, Publications & Education Managers

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Motions
Meeting of June 27, 2017

No.	Page	Motion
1	5	Approved the draft minutes as distributed the January 31, 2017 meeting in Las Vegas with corrections made for typos. (Approved 8-0-1 CNV)
2	13	Approved PDC delaying development of anymore university level educational courses until feedback on Building EQ® university course has been received. (Approved 10-0-1 CNV)
3	16	Approved Certification Committee's new HVAC Designer certification program. (Approved 10-0-1 CNV)
4	17	Approve Certification Committee's recommendation of assigning PAOE points for multiple certifications earned or renewed by the same chapter member. (Approved 10-0-1 CNV)
5	19	Approved Historical Committee's request to Tech Council seek input from TCs to name the best paper from each year since 1995 in preparation for ASHRAE 125th Anniversary. (Approved 10-0-1 CNV)
6	22	Approved annual confirmation and recommendation to BOD to approve the ASHRAE Units Policy (ROB 1.201.002). Approved (10-0-0 CNV)

Action Items
Meeting of June 27, 2017

<u>No.</u>	<u>Page</u>	<u>Responsibility</u>	<u>Action</u>
1	5	Staff	<p>Post the approved minutes of the January 31, 2017 meeting in Las Vegas minutes on the PEC page of the ASHRAE website and the PEC Basecamp site.</p> <p>Complete.</p>
2	13	Staff	<p>Distribute the Handbook Delivery Cost Breakdown Report to members of a Handbook Delivery Ad Hoc Committee as background for their consideration.</p> <p>Complete. (Attachment A)</p>
3	17	Staff	<p>Include PEC approved motion of the Certification Committee’s new HVAC Designer certification on the PEC report to BOD for the June 28, 2017 BOD meeting.</p> <p>Background: Following a preliminary review of an HVAC Designer certification proposal, in 2016 the Certification Committee conducted market research to determine the need, demand and growth potential of such a certification. The “Industry Need Survey: HVAC Designer Certification” was sent to over 23,000 Consulting Engineer, Design Build and Architectural/AE members. Altogether, there were approximately 1,900 respondents, an 8% response rate. According to Survey Monkey, with a survey population of 23,727, fewer than 1,100 respondents are needed for a 3% margin of error. (Certification Committee Approved 7-0-0 CNV) (PEC approved 10-0-0 CNV)</p> <p>Complete. (Attachment B)</p>
4	17	Staff	<p>Forward Certification Committee’s recommendation of assigning PAOE points for multiple certifications earned or renewed by the same chapter member as a referral.</p> <p>Background: Currently, 100 points may be earned for each individual who earns an ASHRAE certification during the Society President’s term, and an additional 50 points is added for each member who renews their ASHRAE certification during the Society President’s term. (Certification Committee Approved 7-0-0 CNV) (PEC Approved 10-0-0 CNV)</p> <p>Complete. (Attachment C)</p>
5	20	Comstock	<p>Help define parameters for standard process for course translation that will define the development processes and methods of cost recovery and provide answers for those members who seek foreign language courses.</p> <p>On-going.</p>
6	21	McQuade	<p>Liaise with GGAC for the input, recommendations and assistance in the development of two proposed Residential education courses with PDC.</p> <p>Complete.</p>

1. Call to Order

Mr. Chakroun called the meeting to order 8:01 a.m.

2. ASHRAE Code of Ethics Commitment

Mr. Chakroun reviewed the ASHRAE Code of Ethics Commitment.

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>.)

3. Introduction of Members and Visitors

Members of the council, visitors and staff introduced themselves.

- 3.1 PEC Roster 2016-2017
- 3.2 PEC Roster 2017-2018 (**Attachment D**)

4. Review of Agenda

Mr. Chakroun reviewed the agenda with council for any comments or additions.

5. Approval of draft Minutes - Meeting of January 31, 2017 Las Vegas

Mr. Chakroun reminded the council members that the draft minutes and other documents have been posted to the PEC Basecamp site.

Mr. Nix moved and Mr. Jones seconded:

- (1) That PEC approve the draft minutes as distributed for the January 31, 2017 meeting in Las Vegas.**

Some editorial typos were found and corrected.

MOTION (1) Approved 8-0-1 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 January 31, 2017 Las Vegas

Mr. Comstock reviewed the approved motions with the council.

No.	Page	Motion
1	9	Approved the draft minutes as distributed the November 9, 2016 Conference Call Meeting with corrections made for typos. (Approved 10-0-0 CNV)

- 3 16 Approved PEC Budget for 2017-18 as shown on the December 31, 2016 ASHRAE Financial Statements with the awareness adjustments to the budget will continue to be made during the remainder of the fiscal year to reflect business performance.

(Approved 10-0-0 CNV)

- 4 17 Accepted the following responses to Members Council as consent agenda items for approval:
- **Region X (San Diego Chapter) – Motion 27:** That ASHRAE provides for sale on the website basic tools such as a duct sizer, pipe sizer, psychrometric chart and expansion calculator.

Response: Tools such as a duct sizer, psych charts, and apps are available in the ASHRAE bookstore. Additional tools are regularly added to the bookstore and the membership's desire to have such tools is noted. Thank you for the feedback.

- **Region XIII (Hong Kong Chapter) – Motion 64:** That Society launch a pilot voluntary scheme of "ASHRAE Publication Care Program" for local chapters to handle undelivered ASHRAE handbooks and journals.

Response: Because of the expense, ASHRAE does not pay for return of undeliverable Journals and Handbooks to members outside of US or Canada. Also additional costs are incurred for a return to an address other than the shipping address, increasing costs still further. Also major problems for delivery success are theft in the postal stream and postal inefficiencies, rather than delivery failure. PEC is currently investigating Handbook delivery methods, including the membership benefit package and Handbook formats as part of addressing this issue. PEC agrees it is a top priority for resolution. This solution, however, is not economically feasible. PEC continues to explore improvements of publication delivery service to members outside the US and Canada. For example, a new Journal mailing service is being used which has shown marked improvement in delivery success and delivery times.

- **Region XII (Chile Chapter) – Motion 40:** That the ASHRAE standards and guidelines identified as being required to be used in the Student Design Competition be provided for use, during the course of the competition, in both English and Spanish (if available) language, at no cost to the chapter or student branch, beginning January 2017.

Response: ASHRAE's most demanded standards (such as 90.1, 62.1, and 189.1) are available (English language only) in read only format on the ASHRAE website. If Student Activities wishes standards not currently available as read only to be made available for such access, they should advise Director of Publishing and Education (Steve Comstock). It should be noted a cost is incurred based on the number of views for read only standards. Also, Spanish language translations of many ASHRAE documents are not available and translations into other languages have even less availability. Many ASHRAE chapters support students in design competitions by purchasing standards for student use. It is recommended this solution be considered.

• **Region XIII (Philippines Chapter) – Motion 67:** That Society furnish Region 13 with a list of members per Chapter who are unable to received their annual membership package such as ID’s, Membership Certificate and Handbooks whether electronic CD or Hard Bound. This way, each chapter can provide better services to both the new and regular members.

Response: A new Journal mailing service for international mailing has been implanted with improved delivery success and time reduction. A new plan for PDF delivery of Handbook has been developed reducing the need for mailing. The process for distributing membership packages to new members is at the discretion of Members Council PEC staff will provide cost information as requested. Also, it is recommended by PEC that the ability be provided online for members to print out certificates and membership cards upon renewal such as is typically available with medical insurance companies in the US.

(Approved 10-0-0 CNV)

5 19 Approved changes to Handbook Committee’s MOP to match with MOPs for TCs, TGs and TRGs.

(Approved 10-0-0 CNV)

6 20 Approved changes to Publications Committee’s MOP to match the ROB concerning number of committee members, as well as, organization changes and editorial corrections.

(Approved 10-0-0 CNV)

7 20 Approved & recommended to BOD changing the ROB to increase Historical Committee's voting members from 7 to 9.

(Approved 10-0-0 CNV) (Approved by BOD February 1, 2017)

8 22 To recommend CEC consider renaming the research track at ASHRAE conferences to reference Science and Technology for the Built Environment (STBE).

(Approved 10-0-0 CNV)

9 23 Approved ECC’s response to the following referral from **Tennessee Valley Chapter – Motion 4e (10/14/2016):** That ASHRAE Society provide a software program for all Chapters to streamline Chapter Operations (process meeting/event registrations, process transactions, meeting/event check-in, program ratings) and Chapter Administrative tasks (mailing lists, newsletter distribution, website materials) to directly address ASHRAE Strategic Plan, Initiative 1B and 2A.

ECC's response: A survey by ECC indicates that there is no one-size fits all solution for chapter needs, but that the chapters with solutions in place are generally happy with and would recommend the solutions they are using. ASHRAE's electronic collaboration tools subcommittee is working on a document based on the survey results intended to provide information to chapters about what tools are currently in use as a basis to decide which tools might be best to consider for their use. After discussion ECC researched estimated cost if Star Chapter was to be provided by Society for use across all chapters and estimates the cost to be \$147,256.20 set up and \$196,560.00 annually. ECC would need to know if this cost would be acceptable to proceed with a recommendation to use.

(Approved 10-0-0 CNV)

- 10 24 Approved ECC's response to the following referral from **Hampton Roads Chapter – Motion 7b (10/14/2016)**: That Society make the ASHRAE Email Distribution Service available for Chapter and Regional use for official communications to their respective members.

ECC's response: After discussion, ECC determined this is not a viable solution for chapter and region use. A survey by ECC indicates that there is no one-size fits all solution for chapter needs, but that the chapters with solutions in place are generally happy with a n d would recommend the solutions they are using. Although not specifically asked or stated in the survey, it can be inferred that this would hold true for official communications as well. An important item to consider is that an email from a chapter o r region is not the same as a mailing from Society. ASHRAE's electronic collaboration tools subcommittee is working on a document based on the survey results intended to provide information to chapters about what tools are currently in use as a basis to d e c i d e which tools might be best to consider for their use. Additionally ECC can provide a document outlining basic email best practices to help chapters and regions improve t h e delivery rate of all their email communications, including official communications.

(Approved 10-0-0 CNV)

- 11 24 Approved ECC's response to the following referral from **West Virginia Chapter – Motion 7c (10/14/2016)**: That ASHRAE Society's ECC develop a privacy policy for Regions and Chapters use to allow for consistent use of email addresses. A phased in approach starting with the US would be acceptable.

ECC's response: The websites subcommittee reviewed this motion and will draft guidance on protocols regarding the collection, sharing, and opting out of contact information to be submitted to Members Council prior to the Long Beach Annual conference for consideration for placement in the MCO Manual. Due to complexity of international laws ECC will focus the guidance on US laws (CAN SPAM) only, with the suggestion that international chapters should reference their local legislation.

(Approved 10-0-0 CNV)

- 12 25 Approved ECC's response to the following referral from **Spacecoast Chapter – Motion 7j (10/14/2016)**: That Society allows ASHRAE Chapters to utilize its e-mail engine and domain name to transmit mass e-mails to its Chapter memberships, effective July 1, 2017.

ECC's response: ASHRAE Society cannot take responsibility for chapter and region email communications. A whitepaper from ECC regarding basic email best practices is forthcoming for the Long Beach Annual Conference and will be made available via the ASHRAE website. The use of ASHRAE's domain for sending emails could blur the line between chapter and Society communications in the eye of Internet Service Providers and could cause Society emails to be blocked, blacklisted, or undelivered depending on what is sent by the chapters and to whom. In addition, Society has a special and specifically-negotiated contract for its email service provider, RealMagnet, to send emails and provide marketing automation technologies at an enterprise level for Society. Since each chapters needs are different not only in terms of email contacts and email volume, but also technical expertise to use such a solution, it becomes quite complex to begin to estimate both cost and time and resources needed for implementation for all chapters. There is also an additional element of staff infrastructure that would be needed to onboard any chapters that would use the solution. Lastly, to assist chapters (and regions) with their emailing needs, ASHRAE's electronic collaboration tools subcommittee is working on a document based on survey results intended to provide information to chapters about what tools are currently in use as a basis to decide which tools might be best to consider for their use. Additionally ECC will provide a document outlining basic email best practices to help chapters and regions improve the delivery rate of all their email communications, including official communications.

(Approved 10-0-0 CNV)

- 13b 29 Approve changing Handbook pdf files from CD format to electronic cloud based means starting with the 2017-18 Society year.

(Approved 9-0-0 CNV)

- 14b 30 Approved the following member benefit Handbook delivery options for the 2017-18 Society year: a) Receive a 12 month complimentary subscription to the Handbook Online & PDF files download; or b) Receive a printed Handbook & PDF files download without Handbook Online; or c) Pay extra to receive both (a) & (b); and d) Members paying developing economy fee receive Handbook PDF download.

(Approved 9-0-0 CNV)

- 15b 30 Approved a motion for referral to Members Council that members a pay mailing surcharge (based on the country of delivery) if they choose Handbook print copy, starting with the 2018-19 cycle Handbook volume.

(Approved 9-0-0 CNV)

7. Review of Action Items - Meeting of January 31, 2017 Las Vegas

Mr. Comstock reviewed the action items with the council.

No.	Page	Responsibility	Action
1	9	Staff	Post the approved minutes of the November 9, 2016 Conference Call meeting on the PEC page of the ASHRAE website. Complete.
2	13	Staff	Send PEC's response to Members Council referral from Region IV (Southern Piedmont Chapter) – Motion 31 (11/6/2015) : That ASHRAE MC and/or PEC undertake a project for ASHRAE to share ASHRAE provided attendee training and income with ASHRAE Chapters in order to expand use of ASHRAE provided member education. (<i>Attachment U of the Las Vegas Draft Minutes</i>) Complete.
3	19	Staff	Investigate, determine issues and provide chapters with a process for retrieving annual membership package, Journals and Handbooks not received by chapter members. Complete.
4	21	Staff	Include PEC's recommendation to the BOD changes to the Historical Committee section of the ROB as shown in <i>Attachment B</i> of the Functional Planning Subcommittee Report to PEC Minutes from Las Vegas. (Approved by BOD February 1, 2017) (<i>Attachment V of Las Vegas PEC minutes</i>) Complete.
5	22	Staff	Send referral memo requesting CEC rename the conference Research Track to reference STBE. Complete.

8. Items Referred by PEC to Other Groups

- 8.1 Referral to Members Council that members a pay mailing surcharge (based on the country of delivery) if they choose Handbook print copy, starting with the 2018-19 cycle Handbook volume.

Mr. Comstock reported that Fiscal Planning Subcommittee would report on this in their report to PEC.

9. Items Referred from Other Groups to PEC

9.1 Close down ASHRAExCHANGE – Excom

ECC, acting on a recommendation from ExCom, will no longer make available ASHRAExCHANGE effective August 1, 2017 and has created a plan to shutter the site and inform members of the site of the site's closing. Subcommittee Reports

10. Subcommittee Reports

10.1 Journal Advertising Sales

Mr. Chakroun gave the subcommittee report. (**Attachment E**)

Mr. Chakroun reported that the ASHRAE Journal's print advertising market share is 60%, which is an increase of 1% compared to the same time period in 2016, in a three-publication competitive market.

Mr. Chakroun reported to council that efforts are underway to increase revenue from HPB. An appendix to the HPB magazine business plan was discussed to provide more revenue to the Society in Fiscal Year 2017-18. The appendix calls for more ASHRAE branding to increase outreach to nonmember audiences, increase online advertising opportunities, and focus circulation on architects and business owners. It also calls for separating HPB advertising promotions from ASHRAE Journal promotions to increase appeal to advertisers targeting their marketing for architects and building owners interested in sustainability. Mark Fly made a motion to approve the Appendix to the HPB Magazine business plan as presented and send it to the finance committee. Chair Chakroun seconded, and the motion carried.

Mr. Comstock reported with more competition for use of advertising dollars, ASHRAE Media continues to increase opportunities such as sponsorships, online advertising, Online Handbook links and supplier-sponsored webinars.

10.2 eLearning

Mr. Chakroun gave the subcommittee report. (**Attachment F**)

Mr. Chakroun reported the subscription revenue for ASHRAE eLearning continues to remain strong:

- \$395,000 annual
- \$6,000 in May 2016
- 323 new subscriptions January- May corporate subscriptions
- Average of 58 individual subscriptions per month
- eLearning has reached 2.005 M cumulative subscription revenue in May 2016 after purchasing eLearning from Elsevier in June 2010 for 380K.

Mr. Chakroun reported infrastructure improvements are being developed to move 87 courses from Flash to HTML 5, enabling courses to be viewed on desktop, laptop, and mobile tablet platforms and prevent the risk of potential malware viruses. Remaining courses will undergo a content review to determine what courses should be updated or retired.

Mr. Comstock reported ASHRAE continues to work with Subject Matter Experts to develop new courses for eLearning. ASHRAE has eight courses under development.

Mr. Comstock reported the design of current eLearning platform allows for a user friendly experience to search, purchase and complete training and will be expanded to accommodate additional ASHRAE Training to achieve a centralized ASHRAE Learning Portal.

The major improvements and benefits include:

- My Training Record: Learners can access all their training credentials. ASHRAE training will automatically be added when training is completed.
- Self-Report Learning: Learners can add their completed training credentials.
- Mobile responsiveness for tablet devices
- Improved reporting and analytics for ASHRAE and corporate administrators

Mr. Comstock also reported the current schedule for the launch of the new platform:

- Infrastructure Testing June to July 2016
- Customer Data Migration July 2016
- Course Migration July to August 2016
- Launch: September 1, 2016

Mr. Comstock reported ASHRAE has implemented four course design templates to expedite the course design, development, and improve the quality of courses for our members:

- Content Design and Development Guide – This document guides Subject Matter Expert on the important elements of the course as they gather content to ensure the content meets the set objectives.
- Review Process – Courses will now be undergoing four levels of review
- Meta Data – Subject Matter Experts are required to provide course descriptive information to help facilitate search retrieval and purchases.
- Evaluation Process – Each course will have evaluation form to help gather feedback from customers.

Mr. Comstock reported to broaden and diversify the eLearning course catalog, eLearning continues to work with member volunteers to design and develop new courses. A list of recently completed courses and those still undergoing development are included on the subcommittee's report.

Mr. Comstock discussed the need to bring all ASHRAE courses under one umbrella was discussed. The Phase 2 Infrastructure development will put all ASHRAE training on one platform, where the user can search for the training they need. This platform will host both eLearning and Instructor- Led Training. Instructor-Led Training will be added during this Phase 2 development. The anticipated completion date for this project is 6/1/2018.

10.3 Fiscal Planning

Mr. Fly gave the subcommittee report. **(Attachment G)**

Mr. Fly reported the subcommittee reviewed all committee financials for the 2016-17 ASHRAE fiscal year.

Mr. Fly reported to the council that in response to a referral from Members Council members a pay mailing surcharge (based on the country of delivery) if they choose Handbook print copy, starting with the 2018-19 cycle Handbook volume. The options reviewed were to leave current distribution methods in place or to use FedEx Economy as a possible option for distribution. The FedEx Economy distribution method would provide a trackable distribution for the ASHRAE Handbook Member Benefit.

Mr. Comstock reported Handbook distribution continues to be an issue. Mr. Soltis reviewed with the council a report on Handbook mailing costs.

Mr. Comstock reported that if you considered changed to FedEx economy delivery for just the “rest of the world” category, which excludes US, Canada and Europe, the increase to the budget would be approximately \$50, 000.

The council discussed an “online only” option for a Handbook benefit in the future. Mr. Rose commented that maybe the time has come to consider this option now. Ms. Schopplein commented that this would be a burden for the developing countries. Mr. Ow commented that some members outside North American and Europe may not have reliable internet. Mr. Schwedler stated that the print volume is valuable to members outside North.

Ms. Huang asked if there was a trend of more members requesting the Handbook online. Mr. Comstock reported that there was but if a member does not specifically make a choice the ASHRAE dues system would automatically default to the print version as the member benefit.

Mr. Fly asked if the print costs go up per copy if the number of print copies go down and Mr. Comstock confirmed this was true. Ms. Thrasher commented that PE exams require a bound print copy and do not allow electronic versions.

Mr. Comstock suggested PEC should create an ad hoc committee comprised of PEC and Members Council members to work on strategies to better provide international ASHRAE members with ASHRAE handbook. Mr. Chakroun agreed and asked that the chart shown to the council be included for their reference.

An action was assigned to staff distribute the Handbook Delivery Cost Breakdown report to the Handbook Delivery Ad Hoc Committee as background for their consideration. **(ACTION ITEM 2) Complete. (Attachment A)**

10.4 Functional Planning

Mr. Schwedler gave the subcommittee report. **(Attachment H)**

Mr. Schwedler moved and Mr. Fly seconded:

- (2) That PEC approve PDC delaying development of anymore university level educational courses until feedback on Building EQ university course has been received.**

Background: The Building EQ[®] university course was developed in 2016-17. At the Board of Directors meeting Professor Brandemuehl reported that up to twenty universities have expressed interest in the course. This is a positive response. Professional Development Committee reported that it took over 2000 hours to develop the course and it was felt by the developer that this may not be economically sustainable.

Given this information the Functional Subcommittee felt it prudent to monitor the uptake of the Building EQ course prior to beginning development on a planned second university course. This would also allow information learned from use of the Building EQ course at universities to be incorporated into the subsequent course development.
(Functional Planning Subcommittee Approved 4-0-0 CNV)

Fiscal Impact: None. This would delay expenditures to a later date.

MOTION (2) Approved 10-0-0 CNV

Mr. Schwedler reported on status of PEC MBOs assigned to Functional Planning Subcommittee shown in *Attachment A* of the subcommittee's report to PEC.

MBO #1

Prepare study & recommendations on product alignment (format, delivery mechanism, content, and context) with younger members for future media dissemination.

Mr. Mendez gave the subcommittee a detailed report on a survey conducted to fulfill the MBO shown in *Attachment B*. The survey and responses are included *Attachment C*.

MBO #2

Identify product needs & prepare implementation roadmap for O&M market focus.

Functional Planning working group has developed a plan shown in *Attachment D*. Mr. Nix also noted ASHRAE's O&M Course is very popular and well received.

MBO #5

Refine User Manual Development Plan in collaboration with Tech Council.

No changes since January. Technology Council has continued to move forward with the co-developed User's Manual development plan. Standard 55 and Standards 62.1 and 62.2 User's Manuals published recently.

MBO #6

Develop and implement strategies to deliver products and services globally.

A report to better service international members is shown in *Attachment E*.

MBO #9

Develop educational and publishing programs to align with 2016-2017 Society theme.

Functional Subcommittee has followed the lead and supported PDC, Publications Committee and bEQ Committee. The subcommittee would like to thank PDC and Publications committee for the all their hard work.

MBO #10

Create 'infographic' to show interrelationships of ASHRAE publications, technical topics, and development groups.

10.5 Research Journal

Mr. Chakroun gave the subcommittee report. (**Attachment I**)

Mr. Chakroun reported the 2016 impact factor for the ASHRAE's Research Journal is 0.928 for the former title, *HVAC&R Research*, and 0.880 for *Science and Technology for the Built Environment* (STBE). This is an increase over its 2015 impact factor of 0.871. The 2016 five-year impact factor is 1.284. STBE's rankings among journals are 31st of 61 titles (up five spots) in the Construction & Building Technology field; 78th of 130 titles (up 19 spots) in the Engineering, Mechanical field; and 36th of 58 titles (up 7 spots) in the Thermodynamics field.

Mr. Owen reported STBE recently received a CiteScore (by Elsevier) of 1.01 and a CiteScore Rank of 50th of 149 journals in the Building and Construction field. This metric is calculated in a manner similar to Impact Factor, although it uses a 3-year window instead of 2 years, and it includes editorials and book reviews. .

Mr. Comstock reported that since January 2017, *ASHRAE members have had free online access to STBE using their existing ASHRAE login credentials*. It is believed that members' access to STBE will benefit firms, contractors, and other researchers through increased research transparency, case studies and access to cutting-edge technical information.

Mr. Comstock reviewed the report numbers with the council. In the first half of 2017, STBE received 168 submitted papers and published 86 papers; both of which are historically the highest for the journal.

Mr. Chakroun reported the subcommittee voted unanimously to approve increasing the number of issues per year from 8 to 10 (1520 pages/year). This will be done at no added cost to ASHRAE, and will be accompanied by an increase in the subscription price. It is anticipated that this action will help increase the Impact Factor.

Mr. Owen reported a program, *Science and Technology for the Built Environment Writer's Workshop: Authoring Research Papers with Impact*, was presented Sunday morning at the Annual Conference in Long Beach. The workshop was given by Alexa Flood of Taylor & Francis, Reinhard Radermacher, Editor-in-Chief, and Mary Baugher, assistant to the Editor-in-Chief.

Mr. Comstock reported that the subcommittee will report to PEC in fall 2017 on recommendations to work with the Conferences and Expositions Committee (CEC) to encourage submission and presentation of papers at ASHRAE Conferences and the following January regarding recommendations to speed the journal's review process and publication time.

Dr. Radermacher's report for June 2017 is shown in **Attachment J**.

The STBE survey results are shown in **Attachment K**.

12. Committee Reports

12.1 Certification

Mr. Rose gave the committee report. (**Attachment L**)

Mr. Fly moved and Ms. Platt seconded:

(3) That PEC approve Certification Committee's new HVAC Designer certification.

Background: Following a preliminary review of an HVAC Designer certification proposal, in 2016 the Certification Committee conducted market research to determine the need, demand and growth potential of such a certification. The "Industry Need Survey: HVAC Designer Certification" was sent to over 23,000 Consulting Engineer, Design Build and Architectural/AE members. Altogether, there were approximately 1,900 respondents, an 8% response rate.

According to [Survey Monkey](#), with a survey population of 23,727, fewer than 1,100 respondents are needed for a 3% margin of error. (*Certification Committee Approved 7-0-0 CNV*) (*PEC approved 10-0-0 CNV*)

In evaluating the potential for success of an HVAC Designer certification, the following positive "Industry Need" survey results were noted:

Need

- Respondents who work with HVAC Designers agree (95%) that "the level of competence among HVAC Designers varies greatly."
- Respondents who "influence the HVAC hiring decision" agree (81%) that "there is a need for qualified HVAC Designers at my company."

Demand

- Respondents who "influence the HVAC Designer hiring decision" view an HVAC Designer certification as a tool to identify competent new hire prospects (74%) and as a worthwhile professional development goal (82%). A majority (51%) agree that "an HVAC Designer certification would help my company be more successful."
- HVAC Designers themselves agree that earning an HVAC Designer certification would be a "worthwhile professional development goal" (75%) and "help differentiate practitioners from their peers" (70%).

Growth Potential

- 82% of respondents see demand for qualified HVAC Designers increasing over the next 5 – 10 years.
- Extrapolated to the survey population of ASHRAE members in the consulting engineer, design build and architectural/AE segments, approximately 12,300 do HVAC Design work, of whom 9,840 work full-time.
- According to the algorithm the Committee uses to evaluate new program proposals, the break-even number of applications needed is 100 annually.

While the proposed HVAC Designer certification could be earned by the professional engineer who wanted to demonstrate competence in the HVAC design field, it would be positioned for the non-licensed designer, working under the responsible charge of a professional engineer.

Fiscal Impact: \$125,000 in FY 2018-19 to develop and launch the program.

MOTION (3) Approved 10-0-0 CNV

An action was assigned to staff to include this motion on the PEC report to the BOD for June 28, 2017. **(ACTION ITEM 3) Complete. (Attachment B)**

Mr. Schwedler and Mr. Mills spoke in favor of this motion. Mr. Tsui agreed and commented that it would be a certification for fundamentals and that we already have several certification programs for specialist in various fields. Mr. Rose stated that this program would target “non- PEs” and ASHRAE would be the only group offering this in the industry.

Mr. Chakroun asked if this will be profitable and Mr. Rose answered ASHRAE Certification has been doing well and ANSI and DOE involvement has been growing. Mr. Chakroun stated he thought this certification would do well in Dubai.

Mr. Fly moved and Mr. Tsui seconded:

(4) That PEC approve Certification Committee’s recommendation of assigning PAOE points for multiple certifications earned or renewed by the same chapter member.

Background: Currently, 100 points may be earned for each individual who earns an ASHRAE certification during the Society President’s term, and an additional 50 points is added for each member who renews their ASHRAE certification during the Society President’s term. *(Certification Committee Approved 7-0-0 CNV)*

Fiscal Impact: None.

MOTION (4) Approved 10-0-0 CNV

An action was assigned to staff to forward this request to the ASHRAE staff responsible for working with the president on PAOE points designations. **(ACTION ITEM 4) Complete. (Attachment C)**

Mr. Rose reported the ANSI Year 2 Annual Surveillance application for all accredited programs has been accepted by ANSI with only one “Opportunity for Improvement” citation, and all citations from the BCxP Scope Extension application for accreditation have been resolved. Accreditation of the BCxP will be forthcoming in 2017.

Mr. Rose reported was given an MBO to evaluate “total cost for each certification exam”. Certification Committee reported to PEC, based on current application rates, the following estimates which do not include staff salaries or payroll expense, ANSI (for accredited programs) or allocation of overhead, while offsetting revenue includes both certification and recertification application fees.

Certification Committee 2016-2017 MBOs are shown in *Attachment A* of the committee's report to PEC.

Certification Committee 2017-2018 MBOs are shown in *Attachment B* of the committee's report to PEC.

11.2 Electronic Communications

Mr. Faulkner gave the committee report. (**Attachment M**)

Mr. Faulkner reported ECC worked with ASHRAE IT to create alias position groups for Region Officer Positions. These alias groups will be added as clients to Region Basecamps to facilitate communication between chapters and regions.

Mr. Faulkner reported ECC is continuing to roll out Basecamp by assigning clients to all Region Basecamps and sending an email to DRCs reminding them they have a Basecamp for their use. ECC will also create Basecamps for all Chapters and assign clients to each Chapter Basecamp.

Mr. Faulkner reported ECC created and approved a white paper based on results of their fall 2016 survey to be posted on the ASHRAE.org website to help chapter webmasters, newsletter editors, and other electronic communications-type positions understand what electronic tools are already in use by ASHRAE chapters.

ECC continued the discussion of app creation by chapters as a result of a request received prior to the Las Vegas meeting. Since apps are not electronic communication unless they are used to communicate electronically the committee is working to craft language to ensure apps created by chapters follow the existing ASHRAE Policy and Procedure for Format, Activity, and Content of Internet Sites for ASHRAE Groups.

Mr. Faulkner reported ECC has developed guidance for ASHRAE groups seeking to create and post content on YouTube has been posted to the ECC Page of ASHRAE.org.

ECC 2016-2017 MBOs are shown in *Attachment A* of the ECC report to PEC.

ECC 2017-2018 MBOs are shown in *Attachment B* of the ECC report to PEC.

11.3 Handbook

Mr. Yount gave the committee report. (**Attachment N**)

Mr. Yount reported the committee has continued training and promotion of the new ASHRAE Authoring Portal (authoring.ashrae.org), a collaborative authoring site, to TC Handbook Chairs in the Sunday training session. The Portal allows TCs or other authoring groups to store and revise copyrighted intellectual property in a secure, ASHRAE-approved location, with multiple authors able to work on a document simultaneously. Google Analytics data shows 676 users and 11,396 page views since launch last June. The portal is also in use by ASHRAE Learning Institute (ALI), and requests to use the portal have been received by authoring groups from Standards and several special publications.

Handbook Committee reported the 2017 *ASHRAE Handbook—Fundamentals* was published on schedule, on June 1, 2017. The volume includes a new chapter on moisture management in buildings.

Handbook Committee 2016-2017 MBOs shown in *Attachment A* of the committee's report to PEC.

Handbook Committee 2017-2018 MBOs shown in *Attachment B* of the committee's report to PEC.

11.4 Historical

Mr. Schrecengost gave the committee report. **(Attachment O)**

Mr. McQuade moved and Ms. Platt seconded:

- (5) That PEC request Tech Council seek input from TCs to name the best paper from each year since 1995.**

Background: This will be a continuation of the 100 best papers that were named as part of the Centennial celebration. Technical Committees would be a great source of information for historically significant technical processes and advancements for 125 anniversary.

Fiscal Impact: None.

MOTION (5) Approved 10-0-0 CNV

Mr. Schrecengost reported the committee is working on developing a list of projects for the 125 anniversary, establishing a firm timeline for all projects for the 125 anniversary, and discussed a new project to be considered for the 125 anniversary that should interest younger members.

Mr. Schrecengost reported the committee will reach out to Associate Societies for their input on the 125 anniversary to document the collaboration and influence between ASHRAE and the Societies in their countries.

Mr. Schrecengost reported that a Leadership Recall video is currently in the works with other presidential members for Lynn Bellenger.

Mr. Schrecengost also reminded the council that November 2017 will be the 10 year anniversary of UNEP and Montreal Protocol.

Historical Committee 2016-2017 MBOs is shown in *Attachment A* of the committee's report to PEC.

Historical Committee 2017-2018 MBOs is shown in *Attachment B* of the committee's report to PEC.

11.5 Professional Development

Mr. Bochat gave the committee report. **(Attachment P)**

Mr. Bochat reported that PDC discussed concerns that the present focus of the committee does not fully encompass the duties and responsibilities outlined in the Rules of the Board. Confusion exists because of the many shapes ALI has gone through in its history versus how it is currently utilized.

Mr. Chakroun commented that Mr. Tsui may appoint an Ad Hoc to help PDC define the duties and responsibilities with respect to coordinating ASHRAE training. Staff will provide a matrix of all ASHRAE course offerings as a coordination tool and to either re-market the term ALI or eliminate it and call all training products by their actual name, eLearning, instructor-led training, self-directed learning, webinar, etc.

Mr. Bochat reported PDC is working to improve marketing of existing and new ASHRAE courses and how they can be delivered locally, regionally or at companies will increase attendees and financial performance. PDC would like to work more closely with the ASHRAE Marketing Department to develop a plan to make members aware of available courses and how they can take advantage of the course offerings.

Mr. Bochat reported there are obstacles of course translations appear to include development costs, probable attendee counts and verification of the specific translation.

An action item was assigned to Mr. Comstock to help define parameters for standard process for course translation that will define the development processes and methods of cost recovery and provide answers for those members who seek foreign language courses. **(ACTION ITEM 5)**

Mr. Bochat reported CTTC requested PDC offer lower cost educational and training to local chapters, in particular the smaller chapters and those in developing nations. PDC will work with the PDC ExO and staff to develop methodologies to further reduce chapter course pricing. Suggestions include developing pricing formulas that would expose how costs are established and allow the chapters to see where they could save. (Example: Development Costs [if any] + Instructor Costs + Travel & Living Costs + Staff Labor + Venue Costs + Training Materials + BOD MU % / Minimum Number of Students = Per Student Cost.)

Mr. Bochat reported two new PDC courses

- Understanding and Designing Chilled Beam Systems (3-Hour)
- Revisions to Effective Energy Management in New & Existing Buildings (6-Hour)

The following courses were approved for presentation at the Winter Conference in Chicago.

3-Hour Courses

- Air-to-Air Energy Recovery Applications: Best Practices
- ASHRAE Guideline 0 - The Commissioning Process
- Complying with Standard 90.1-2016 Appendix G
- Design of Affordable and Efficient Commercial Ground Source Heat Pump
- Designing High-Performance Healthcare HVAC Systems
- Designing Toward Net-Zero Energy Commercial Buildings (with expected revisions)
- Energy Management Fundamentals and Application of Standard 55t Best Practices
- High-Performance Building Design: Applications & Future Trends
- IT Equipment Design Evolution & Data Center Operation Optimization

- Laboratory Design: The Basics and Beyond
- New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs
- Understanding & Designing Dedicated Outdoor Air Systems (DOAS)
- Understanding and Designing Chilled Beam Systems
- Variable Refrigerant Flow Systems: Design & Applications

6-Hour Courses

- Commissioning Process in New & Existing Buildings (with expected revisions)
- Complying with Standard 90.1-2016
- Humidity Control: Principles & Applications (Revised)
- Making Buildings Productive, Sustainable, and Efficient – ASHRAE Guidance in Action
- Complying with the Requirements of Standard 62.1-2016
- Making Buildings Productive, Sustainable, and Efficient – ASHRAE Guidance in Action* (3 Hour)
- Consulting Engineering Essentials course, has gone through final review and is ready for deployment. Staff is currently working on where and how to launch the first course.

Mr. Bochat reported PDC has abandoned development of the (2) two residential courses due to lack of response and feasibility.

Mr. Schwedler asked if PDC had contacted the Residential Committee. Mr. Bochat they were contacted but there had been no response.

Mr. Chakroun asked for more information on the courses. Mr. Bochat stated one was supposed to be for residents and the other for contractors. Ms. Thrasher commented that perhaps the Residential committee to take over the Development of these courses.

Ms. Huang suggested the development of very short YouTube videos and contact members from utilities to see if they want fund this with ASHRAE to give or sell to their customers. Mr. Comstock commented that perhaps this is not a course but an outreach, promotion or marketing effort. Mr. McQuade commented that GGAC is also working to develop outreach to policy makers and code officials.

An action item was assigned to Mr. McQuade to discuss this with GGAC and report back to PEC. **(ACTION ITEM 6) Complete.**

Mr. Bochat also reported PDC continues to update the Reference Manual and Method of Procedure Manual to improve the committee's development process.

PDC 2017-2018 MBOs are shown in *Attachment A* of the PDC report to PEC.

11.6 Publications

Ms. Huang gave the committee report. **(Attachment Q)**

Ms. Huang reported approved a proposal for a new ASHRAE design guide on natural ventilation. Mr. Comstock asked if the committee would be sending this information on to a TC or what the next steps would be. Mr., Owen confirmed that a TC was contacted and a vendor contract is currently being developed.

Ms. Huang reported of the two winners from submissions to the 2016 Apps Contest, one (SuperheatCalc) has now been cobranded and is available in Apple/Google app stores. The other has been incorporated into ASHRAE Handbook Online as the ASHRAE Climatic Design Database mapping tool.

Ms. Huang reported that the new web app for modeling compliance with Standard 90.1-2010 using the Energy Cost Budget (ECB) Method described in the standard now has 849 users and 560 projects registered.

Ms. Huang reported the committee approved a proposal for a new book on engineering management. And are waiting for a TC response with an author outline. The committee has also approved proposals for a new ASHRAE design guide on natural ventilation, a new book on engineering management and to revise the *Air-Conditioning System Design Manual*, 2edition.

Ms. Huang reported voted to support the initiative to revise the *District Cooling Guide* and develop a new *District Cooling Operations Guide* in cooperation and with underwriting by Empower.

Ms. Huang reported liaisons contacted authoring groups regarding the need for revision or replacement of ASHRAE publications four or more years old (and especially those 10 or more years old)

Special publications completed from June 2016 through June 2017 are listed in *Attachment A* and Special Publications completed from June 2016 through January 2017 are listed in *Attachment B* of the committee's report to PEC.

A status summary of upcoming publications is shown in *Attachment C* of the committee's report to PEC.

Publications Committee 2016-2017 MBOs shown in *Attachment D* of the committee's report to PEC.

12. Old Business

12.1 Units Policy

Mr. Comstock informed the council the ASHRAE Units Policy is required by the PEC Rule of Board to be reviewed and reconfirmed at the annually.

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

1.201.002 Units Policy	(82-07-01-30/84-06-21-39/85-06-27-41/87-01-19-28/88-05-21-37/90-02-14-10/90-06-14-31/91-01-24-51B/92-07-02-39/93-07-01-54/94-01-26-57/94-06-30-32B/95-02-02-38/95-06-29-29/01-06-28-38C/04-06-30-13/07-06-27-22/08-06-25-14/09-06-24-14/11-06-29-07/12-06-27-20)
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- 1.201.2.1 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.
- 1.201.2.2 TC 1.6 shall serve as the authority on SI and I-P usage and application.
- 1.201.2.3 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.
- 1.201.2.4 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.
- 1.201.2.5 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.
- 1.201.2.6 Handbook volumes shall be published in separate SI and I-P editions.
- 1.201.2.7 *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 (6) Approved 10-0-0 CNV

12.2 Presidential and Strategic Plan Initiatives

Mr. Chakroun reviewed the status of the council's Presidential and Strategic Plan Initiatives.

12.2.1 **Application Guides** - *(Society Directive 3 Initiative 2)*

The following guides are in publishing process: (1) Dedicated Outdoor Air Systems available in Long Beach; (2) Air Terminal Units to be approved in Long Beach; (3) Duct System Design to be approved in Long Beach; (4) Clean Room to be published in summer. Proposal for Natural Ventilation guide under consideration for Long Beach. Approval. [\(Assigned to Publications Committee\)](#)

12.2.2 **App Development** - *(Society Directive 3 Initiative 3)*

Two Publications Committee contest-winning apps were approved during the year: Super Heat Calc (downloads since ASHRAE co-branding in December 2016 at 842) and ASHRAE Weather Database (to be linked from Handbook Online by Long Beach). Two cobranded apps to be launched in summer: Duct Sizer and PT Chart. A new HVAC Units Converter app is under consideration. [\(Assigned to Publications Committee and staff\)](#)

12.2.3 **Residential Focused Courses**

RFP for two residential courses posted Sep 15. [\(Assigned to PDC\)](#)

12.2.4 **Engineering Essentials Course** - *(Society Directive 2 Initiative 2)*

Completed course on track for approval at the Long Beach meeting. To be presented for first time summer/fall 2017. [\(Assigned to PDC\)](#)

12.2.5 **Building EQ Course for Student Branches Use** - *(Society Directive 2 Initiative 3)*

Committee is working with presidential ad hoc committee to provide access. Free access will be provided through the ASHRAE website after appropriate registration for course usage tracking. Access process expected to be complete by the Long Beach Conference. [\(Assigned to Presidential Ad Hoc Committee\)](#)

12.2.6 **HVAC Operations Training** - *(PEC MBO 2)*

New course has been presented two times in 2016-17. Promotions to appeal to target market (facility managers and consultants working with facility managers) to be further refined. [\(Assigned to staff\)](#)

12.2.7 **Technology Portal** - *(Society Directive 3, Initiative 1)*

The ASHRAE Technology Portal launched in January with Research Reports and Journal articles available to ASHRAE members. In June, scope of the Portal expands to include ASHRAE Transactions, and Conference Technical Paper Preprints, Papers, and Seminars. These additional elements will be available on a subscription fee basis with member and nonmember pricing. Journal and Research Reports will be open to nonmember subscription fee access. The portal is one of the favored destinations at ashrae.org, with over 300 unique visitors per month, yielding almost 19,000 page views from almost 300 unique visits, each averaging 7+ minutes in duration. The vision for the ASHRAE Technology Portal is be a single online resource for member benefit and member purchased content, easing member access to the ASHRAE knowledge resource. [\(Assigned to staff\)](#)

12.2.8 Web Based Educational Platform - (Society Directive 1, Initiative 1)

New eLearning platform launched September 1 with personal training dashboard for members to track educational course completion whether taken in the eLearning Learning Management System or self-reported training from another source. Design improvements are continuing with work to make the platform the single place to register for all ASHRAE learning opportunities.

[\(Assigned to eLearning Subcommittee and staff\)](#)

12.2.9 Cooperation with UNEP - (PEC MBO 8)

eLearning course “Refrigerant Literacy” for policy makers was completed for UNEP and will be released at a UN planning meeting for the Montreal Protocol in July.

Work on a second eLearning course “Sound Refrigerant Management” for technicians is now beginning. [\(Assigned to staff\)](#)

12.2.10 ASHRAE CIBSE Training Initiative - (Executive Committee Assignment)

Collaboration took place with CIBSE to identify and produce educational products that serve the needs of ASHRAE and CIBSE members without regard to geographic boundary. Anticipated first delivery will be a web-based Fall 2017 presentation on subject of Use of Weather Data in Energy Modeling. [\(Assigned to staff\)](#)

12.2.11 Global Availability of Regionally Relevant Training - Dubai Center

Mr. Comstock reported PEC and staff have been working to develop a Global Training Center to help ASHRAE in creating the mindset that ASHRAE is home for professionals in all parts of the world to reinforce connects members with locally relevant products and services while patching them into an international network of fellow practitioners and giving them access to unparalleled technical resources, resources created by literally the best in the world. The ultimate goal is to foster an ecosystem that builds member engagement so that members outside the US have tools and resources to develop their own materials rather than be subsidized by delivery of US developed resources.

The Dubai Training Center has been opened to offer market relevant training for Middle East, Africa, Eur-Asia and Indian subcontinent markets. The objective of the training center is to produce and deliver high quality training that is relevant to the needs of Middle East practitioners.

Eight courses have been identified for customization, 4 faculty members identified, and a schedule developed with first course offering in September 2017. 12 courses (22 days of training) will be offered in first 12 months of operation. Training at the center will be offered in conjunction with ASHRAE Certification testing leading to a diploma from the center.

Courses

- HVAC Design Essentials (4-day)
- Commissioning Process in New & Existing Buildings (Full Day)
- Designing for IAQ: Complying with Requirements of Standard 62.1 (Full Day)
- Standard 90.1 HVAC Mechanical Design and Appendix G (Full Day)

- Design Guidelines for High-Performance Green Buildings: Using Standard 189.1 (Full Day)
- Variable Refrigerant Flow Systems: Design & Applications
- Energy Audit
- High Performing Healthcare Facilities

September	HVAC Design	4 days
October	Healthcare	½ day with VRF
	VRF	1 day one time with Healthcare
November	62.1	1 day goes with 90.1
	90.1	1 day goes with 62.1
December	Energy Audit	1 day goes with commissioning
	Commissioning	1 day goes with audits
February	HVAC Design	4 days
March	62.1	1 day goes with Green Buildings
	Green Buildings	1 day goes with 62.1
April	VRF	1 day one time goes with 90.1
	90.1	1 day goes with VRF
May	Energy Audit	1 day goes with commissioning
	Commissioning	1 day goes with audits

Schedule of Courses Year 1 Training Events

(HVAC Design is a Single Training Event; Each Course Pair is a Single Training Event)

Diploma

- Attendance certificate is awarded for each course.
- Each course will be assigned a number of credits based on hours of instruction.
- Reaching a specified number of credits total and holding/earning one or more ASHRAE Certifications, recipient earns Diploma.

12.3 Develop Energy/IEQ design guide for Developing Economies (Referred by Bjarne Olesen)

Mr. Chakroun reported that this is on hold waiting the new president's direction.

13. New Business

12.3 Thank you to out-going council members

Mr. Chakroun thanked out-going PEC members for their service to the council and presented certificates to standing committee chairs. The council acknowledged with gratitude Mr. Chakroun's leadership during the year.

14. Adjourn

Mr. Chakroun adjourned the meeting at 12:03 pm.

Report to the Publishing and Education Council (PEC)
From Handbook Ad Hoc
Meeting of Jan 31, 2017 (Tue)

Recommendation for the PEC approval:

MOTION 1:

Propose to change the method of transfer the Handbook pdf files from CD format to electronic means starting from 2018-19.

Background:

Disadvantage of CD

- We periodically receive complaints regarding non-delivery of printed Handbooks and/or CD;
- CD is a mean of transferring PDF file and there are other technologies to transfer files nowadays;
- CD technology is phasing out and disappearance of CD drives in most of the new mobile devices;
- ASHRAE CDs do not work in Mac environments. Files are sent on request to such users. Spend extra staff working hours;
- Expensive mailing cost;

Propose alternative to Handbook CD

Transfer the Handbook PDF files through download

What is it?

- Regular Members can download the handbook chapter PDF files through Handbook Online;
- Developing Countries reduced fee members can download the PDF through a Cloud based delivery platform;
- Files can be accessed when offline;
- Files can be read in computers (PC/Mac) or tablet and files are responsive;

COST to ASHRAE

PDF archiving capability to Handbook online (for regular members who choose HOL)	PDF Cloud based delivery platform (for regular members who choose print Handbook and developing economies members)
• One-time setup cost: \$10,000	• One-time setup cost: \$5,000
• Annual cost: \$30,000	• Annual cost: \$0
• Mailing cost: \$0	• Mailing cost: \$0

Costing and Saving

	COST	SAVING
Motion 1 & 2:		
a. Saving from NOT producing and mailing CD (per year)		\$125,374
Cost increase for add PDF download to Handbook Online		
b.	Year 1:	\$40,000.00
	Year 2 onward (per year):	\$30,000.00
c. Cost increase for developing economies members PDF Cloud base delivery platform (one time cost)		\$5,000.00

Fiscal impact

Saving: **USD80,374.00** in the first year.
(USD90,374.00 from the second year)

MOTION 2:

Propose to change the members' benefit in Handbook as follows, from 2018-19,














- **Regular member:**
 1. Receive a 12 month complimentary subscription to the Handbook Online, with PDF files download; or
 2. Receive a printed Handbook and Handbook PDF cloud based files download; or
 3. Pay extra to receive both (1) & (2)
 - 4.
- **Developing economies member:**
 1. Receive Handbook PDF cloud based file (with stamp)

Background

Same as Motion 1

Following is the how many members are receiving Handbook CD in 2016.

Background info:
what's format of Handbook members are choosing ...

  	No of mbr chose for 2016	Description	No of mbr got handbook of:		
					
 + 	32,251*	mbrs chose print handbook with CD	32,251	32,251	
	6,949	mbrs chose CD only and developing economies mbrs		6,947	6,949***
	5,717	mbrs chose Handbook Online (HOL) only			5,717
 +  + 	3,226	mbrs chose print handbook with CD & Online for \$33 additional	3,226	3,226	3,226
No of Handbook copies ASHRAE have to prepare			35,477	42,424	

Note: information are extracted from handbook June 2016 delivery data
 (*): Total no of full year members is 32251 + 3226 = 35477
 (**): This was never approved BUT members (including developing economies mbrs) chose CD also got HOL by unknown reason

Summary of the propose change in members benefit:

Propose change in Member's benefit (2018-19....)					
	Handbook print	Handbook CD	Handbook Online	Handbook PDF download through Cloud platform	Handbook Online + PDF download
Current up to 2017-18					
Regular member - standard benefit (opt 1)	Y	Y			
Regular member - standard benefit (opt 2)			Y		
Regular member benefit for \$33 additional	Y	Y	Y		
Developing economies mbr benefit		Y			
Mbrs benefit change in 2018-19					
Regular member - standard benefit (opt 1)	Y				
Regular member - standard benefit (opt 2)				Y	Y
Regular member benefit for \$33 additional	Y				Y
Developing economies mbr benefit				Y	

Fiscal impact

Same saving from MOTION 1

USD80,374.00 in the first year.

(USD90,374.00 from the second year)

MOTION 3:

Propose members (assume members outside US/Canada/Europe) to pay mailing surcharge (based on the country of delivery) if they choose Handbook Print copy, from 2019-20. And ASHRAE will send those members the printed Handbook by FedEx.

Background

Current problem in printed Handbook delivery:

- We periodically receive complaints regarding non-delivery of handbooks;
- Create member unhappiness to the society and chapters, due to non-delivery handbooks problem;
- Most of the complaints came from countries outside US/Canada/Europe;
- Situation was solved for countries historically with most complaint (Argentina, Mexico, India, Pakistan, Sri Lanka) by using FedEx to deliver printed Handbook to South America members, but very costly;
- Extra staff time and higher mailing cost to resend the Handbook when complaint received;

Propose change

Propose alternative to printed Handbook delivery

Promote Handbook Online as regular member's benefit

- Encourage members using Handbook Online to control mailing cost;
- Add PDF download to Handbook Online platform

Send the printed Handbook by FedEx to regular members in countries outside US/Canada and Europe, who choose to receive printed handbook

- Point-to-point delivery, reduce non-delivery cases/complaints;
- Members pay the surcharge for the mailing cost if they choose printed Handbook; (or use the saving from eliminating CD to cover the additional mailing cost)

Benefit to both the members and ASHRAE

Benefit in using Handbook online with PDF archiving capability

Benefit to ASHRAE

- Improve member satisfactions;
- Promote members to select Online product;
- Less complaint on non-delivery;
- Reduce extra staff time to manage complaint and resend the print handbook;
- Cost saving in delivery cost;
- No incremental cost for additional online users;
- Can help to analysis mbrs handbook usage behavior (only for members using HOL);

Benefit to members

- No delivery problem;
- Instant access to Handbook PDF, no need to wait for the Handbook/CD delivery;
- Can access when offline through downloaded PDFs;
- Content searchable within the handbook chapter;
- Content will be updated all the time;
- Permanent archiving of Handbook content for lapsed members providing they download content while still members;

Cost and saving analysis

Background info: Cost to distribute printed Handbook

Copies of printed Handbook distributed				Cost to distribute the printed Handbook (USD)		
Country	IP	SI	Total	Country	Mailing cost	Ave mailing cost per mbr
US	22956	1030	23986	US	61,164	2.55
	1797*	170*	1967*		11,802*	6.00*
Canada	2080	1110	3190	Canada	40,736	12.77
	149*	78*	227*		4,767*	21.00*
Europe	-	-	1197	Europe	19,236	16.07
	-	-	89*		1,869*	35.54*
Special delivery countries (**)	-	-	383	Special delivery countries (**)	13,609	35.54
	-	-	38*		1,350*	21.00*
ROW	-	-	2597	ROW	51,521	19.84
	-	-	283*		5,943*	
Total				Total	211,997	

ROW: Rest of the World

Note: Information are extracted from handbook June 2016 delivery data ;

(*): Those are subsequent mailings after large initial mailing; mailing cost does not include \$6.00/unit for pull/pack/ship and \$10 per book mailing fee fro FedEx;

(**): sent by FedEx;

Fiscal impact

~USD60,000.00 per year based on current no of global members

Handbook Postage

Canada

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 27,640.12	\$ 3,164.00	\$ 30,804.12	3014	\$ 10.22
Proposed Fed EX Economy	\$ 71,103.51	\$ 1,764.72	\$ 72,868.23		\$ 24.18
Difference			\$ 42,064.11		

Europe

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 12,947.20	\$ 1,372.00	\$ 14,319.20	1099	\$ 13.03
Proposed Fed EX Economy	\$ 26,705.39	1261.72	\$ 27,967.11		\$ 25.45
Difference			\$ 13,647.91		

Fed Ex Exception

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 13,824.00	\$ 714.00	\$ 14,538.00	301	\$ 48.30
Proposed Fed EX Economy	\$ 8,681.64	621.84	\$ 9,303.48		\$ 30.91
Difference			\$ (5,234.52)		

ROW

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 45,717.52	\$ 4,420.00	\$ 50,137.52	2762	\$ 18.15
Proposed Fed EX Economy	\$ 89,310.25	\$ 5,242.51	\$ 94,552.76		\$ 34.23
Difference			\$ 44,415.24		

United States

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 59,997.76	\$ 8,691.20	\$ 68,688.96	22954	\$ 2.99
Proposed UPS Ground	\$ 221,021.16	\$ 681.36	\$ 221,702.52		\$ 9.66
Difference			\$ 153,013.56		

All Countries including United States

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 160,126.60	\$ 18,361.20	\$ 178,487.80	30130	\$ 5.92
Proposed Fed Ex Economy and UPS Ground	\$ 416,821.95	\$ 9,572.15	\$ 426,394.10	30130	\$ 14.15
Differenece			\$ 247,906.30		

REPORT TO THE BOARD OF DIRECTORS
 From Publishing & Education Council (PEC)
 Meeting of June 27, 2017

RECOMMENDATIONS FOR VOTE:

1. PEC recommends BOD approve Certification Committee's new HVAC Designer certification.

Background: Following a preliminary review of an HVAC Designer certification proposal, in 2016 the Certification Committee conducted market research to determine the need, demand and growth potential of such a certification. The "Industry Need Survey: HVAC Designer Certification" was sent to over 23,000 Consulting Engineer, Design Build and Architectural/AE members. Altogether, there were approximately 1,900 respondents, an 8% response rate. According to [Survey Monkey](#), with a survey population of 23,727, fewer than 1,100 respondents are needed for a 3% margin of error. (*Certification Committee Approved 7-0-0 CNV*) (*PEC approved 10-0-0 CNV*)

In evaluating the potential for success of an HVAC Designer certification, the following positive "Industry Need" survey results were noted:

Need

- Respondents who work with HVAC Designers agree (95%) that "the level of competence among HVAC Designers varies greatly."
- Respondents who "influence the HVAC hiring decision" agree (81%) that "there is a need for qualified HVAC Designers at my company."

Demand

- Respondents who "influence the HVAC Designer hiring decision" view an HVAC Designer certification as a tool to identify competent new hire prospects (74%) and as a worthwhile professional development goal (82%). A majority (51%) agree that "an HVAC Designer certification would help my company be more successful."
- HVAC Designers themselves agree that earning an HVAC Designer certification would be a "worthwhile professional development goal" (75%) and "help differentiate practitioners from their peers" (70%).

Growth Potential

- 82% of respondents see demand for qualified HVAC Designers increasing over the next 5 – 10 years.
- Extrapolated to the survey population of ASHRAE members in the consulting engineer, design build and architectural/AE segments, approximately 12,300 do HVAC Design work, of whom 9,840 work full-time.
- According to the algorithm the Committee uses to evaluate new program proposals, the break-even number of applications needed is 100 annually.

While the proposed HVAC Designer certification could be earned by the professional engineer who wanted to demonstrate competence in the HVAC design field, it would be positioned for the non-licensed designer, working under the responsible charge of a professional engineer.

Fiscal Impact: \$125,000 in FY 2018-19 to develop and launch the program.

2. PEC confirms and recommends to the BOD approve the ASHRAE Units Policy (ROB 1.201.002):

Units Policy

- 1.201.002 Units Policy (82-07-01-30/84-06-21-39/85-06-27-41/87-01-19-28/88-05-21-37/90-02-14-10/90-06-14-31/91-01-24-51B/92-07-02-39/93-07-01-54/94-01-26-57/94-06-30-32B/95-02-02-38/95-06-29-29/01-06-28-38C/04-06-30-13/07-06-27-22/08-06-25-14/09-06-24-14/11-06-29-07/12-06-27-20)
- 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 annually. (PEC approved 10-0-0 CNV)

Fiscal Impact: None.

INFORMATION ITEMS:

1. Developing a Global Training Center is fundamental to ASHRAE creating the mindset that ASHRAE is home for professionals in all parts of the world. This mindset reinforces that the ASHRAE home connects members with locally relevant products and services while patching them into an international network of fellow practitioners and giving them access to unparalleled technical resources, resources created by literally the best in the world. The ultimate goal to foster an ecosystem that builds member engagement so that members outside the US have tools and resources to develop their own materials rather than be subsidized by delivery of US developed resources.

The Dubai Training Center has been opened to offer market relevant training for Middle East, Africa, Eur-Asia and Indian subcontinent markets. The objective of the training center is to produce and deliver high quality training that is relevant to the needs of Middle East practitioners.

Eight courses have been identified for customization, 4 faculty members identified, and a schedule developed with first course offering in September 2017. 12 courses (22 days of training) will be offered in first 12 months of operation. Training at the center will be offered in conjunction with ASHRAE Certification testing leading to a diploma from the center.

Courses

- HVAC Design Essentials (4-day)
- Commissioning Process in New & Existing Buildings (Full Day)
- Designing for IAQ: Complying with Requirements of Standard 62.1 (Full Day)
- Standard 90.1 HVAC Mechanical Design and Appendix G (Full Day)
- Design Guidelines for High-Performance Green Buildings: Using Standard 189.1 (Full Day)
- Variable Refrigerant Flow Systems: Design & Applications
- Energy Audit
- High Performing Healthcare Facilities

Schedule of Courses Year 1 Training Events

(HVAC Design is a Single Training Event; Each Course Pair is a Single Training Event)

September	HVAC Design	4 days
October	Healthcare	½ day with VRF
	VRF	1 day one time with Healthcare
November	62.1	1 day goes with 90.1
	90.1	1 day goes with 62.1
December	Energy Audit	1 day goes with commissioning
	Commissioning	1 day goes with audits
February	HVAC Design	4 days
March	62.1	1 day goes with Green Buildings
	Green Buildings	1 day goes with 62.1
April	VRF	1 day one time goes with 90.1
	90.1	1 day goes with VRF
May	Energy Audit	1 day goes with commissioning
	Commissioning	1 day goes with audits

Diploma

- Attendance certificate is awarded for each course.
- Each course will be assigned a number of credits based on hours of instruction.
- Reaching a specified number of credits total and holding/earning one or more ASHRAE Certifications, recipient earns Diploma.

2. PEC will appoint an ad hoc committee to work on coordinating educational training with ASHRAE's Strategic Plan.
3. PEC plans to create an ad hoc committee comprised of PEC and Members Council members to work on strategies to better provide international ASHRAE members with the ASHRAE Handbook.

June 28, 2017

Date

Walid Chakroun, PEC Chair

TO: Shelia Hayter, Members Council Chair
Joyce Abrams, Members Council Staff Liaison
FROM: Steve Comstock, Publishing & Education Council (PEC) Staff Liaison
DATE: August 9, 2017
SUBJECT: PEC Recommendation

At the June 27, 2017 Annual Meeting in Las Vegas, the Certification Committee requested PEC send the following recommendation to Members Council for consideration and implementation.

The Certification Committee recommends assigning PAOE points for multiple certifications earned or renewed by the same chapter member.

Background: Currently, 100 points may be earned for each individual who earns an ASHRAE certification during the Society President’s term, and an additional 50 points is added for each member who renews their ASHRAE certification during the Society President’s term.

Fiscal Impact: None

Certification Committee Approved: 7-0-0 CNV

PEC Approved: 10-0-0 CNV

2017-2018				
First Name	Last Name	Email	PEC member	Vote
Edward	Tsui	Edward.tsui@intelligent-net.com	Chair	y
Julia	Keen	jkeen@ksu.edu	Vice Chair	y
Billy	Austin	baustin@shultzeg.com	Member/Director	y
Douglas	Cochrane	dcc_ace@hotmail.com	Member/Director	y
William	McQuade	william.f.mcquade@jci.com	Member/Director	y
Benjamin	Skelton	bennyrun@gmail.com	Member/Director	y
Roger	Jones	rogerkentjones@verizon.net; rjones@emstec.com	Member/Director	y
Chee Sheng	Ow	iodised@gmail.com	Member/Past Certification	y
Heather	Platt	hplatt@mazzetti.com	Member/Past ECC/ Past Publications	y
Daniel	Dettmers	djdettme@wisc.edu	Member/Past Handbook	y
John	Nix	nix4055@gmail.com	Member/Past PDC	y
Jin Jin	Huang	huangji@coned.com	Member/Past Publications	y
Mohammad	Hosni	hosni@ksu.edu	Member at Large	y
Shanta	Tucker	shanta.tucker@atelierten.com	Member at Large	y
Cameron	Labunski	cameronl@tgce.com	Certification Chair	n
Eric	Fullerton	mfullerton@tmecorp.com	Certification Vice Chair	n
Heather	Schopplein	hschopplein@gmail.com	ECC Chair	n
Megan	Tosh	megan.tosh@gmail.com	ECC Vice Chair	n
David	Yuill	dyuill@unl.edu	HB Chair	n
Donald	Fenton	fenton@ksu.edu	HB Vice Chair	n
Kent	Anderson	M_Kent_Anderson@att.net	Historical Chair	n
Bruce	Flaniken	BLFlaniken@houstonmethodist.org	Historical Vice Chair	n
Kay	Thrasher	kay@townsend-engineering.com	PDC Chair	n
Charles	Henck	chenck@wrallp.com	PDC Vice Chair/Planning	n
Frederick	Betz	fbetz@aol.com	PDC Vice Chair/Operations	n
Francis	Lacharite	flacharite@enviroair.ca	Publications Chair	n
Jose Luis	Correa	director@kwingenieria.com	Publications Vice Chair	n
Ashish	Rakheja	ashish.rakheja@aeonconsultants.in	Consultant/Representing the RAL	n
Steve	Comstock	comstock@ashrae.org	Staff Liaison	n

ROB says half voting members makes quorum
14 voting members so 7 makes PEC quorum

2017-2018		Subcommittees			
Fiscal Planning		Monday - 2:00pm-3:30pm			
1	Heather Platt	hplatt@mazzetti.com	Chair	yes	Member
2	Cameron Labunski	cameronl@tgce.com	Member	yes	Member
3	Heather Schopplein	hschopplein@gmail.com	Member	yes	Member
4	David Yuill	dyuill@unl.edu	Member	yes	Member
5	Kent Anderson	M_Kent_Anderson@att.net	Member	yes	Member
6	Kay Thrasher	kay@townsend-engineering.com	Member	yes	Member
7	Francis Lacharite	flacharite@enviroair.ca	Member	yes	Member
8	Mo Hosni	hosni@ksu.edu	Member	yes	Member
10	Dan Dettmers	djdettme@wisc.edu	Member	yes	Member
11	Jin Jin Huang	huangji@coned.com	Member	yes	Member
12	Ashish Rakheja	ashish.rakheja@aeonconsultants.in	Member	yes	Member
13	Edward Tsui	Edward.tsui@intelligent-net.com	Member	yes	PEC Chair
14	Julia Keen	jkeen@ksu.edu	Member	yes	PEC Vice Chair
15	Steve Comstock	comstock@ashrae.org	Staff Liaison	no	Staff Liaison
Journal Advtg Sales		Sunday - 7:00am-8:30am			
1	Edward Tsui	Edward.tsui@intelligent-net.com	Chair	yes	PEC Chair
2	Julia Keen	jkeen@ksu.edu	Vice Chair	yes	PEC Vice Chair
3	Heather Platt	hplatt@mazzetti.com	Member	yes	Member
4	Mo Hosni	hosni@ksu.edu	Member	yes	Member
5	Francis Lacharite	flacharite@enviroair.ca	Member	yes	Member
6	Steve Comstock	comstock@ashrae.org	Staff Liaison	no	Staff Liaison
eLearning		Saturday - 1:30pm-3:00pm			
1	Edward Tsui	Edward.tsui@intelligent-net.com	Chair	yes	PEC Chair
2	Julia Keen	jkeen@ksu.edu	Vice Chair	yes	PEC Vice Chair
3	Kay Thrasher	kay@townsend-engineering.com	Member	yes	Member
4	Francis Lacharite	flacharite@enviroair.ca	Member	yes	Member
5	Jin Jin Huang	huangji@coned.com	Member	yes	Member
6	Steve Comstock	comstock@ashrae.org	Staff Liaison	no	Staff Liaison
Research Journal		Monday - 11:00am-12:00pm			
1	Edward Tsui	Edward.tsui@intelligent-net.com	Chair	yes	PEC Chair
2	Julia Keen	jkeen@ksu.edu	Member	yes	PEC Vice Chair
3	Eckhard Groll	groll@purdue.edu	Member	yes	n/a
4	Walid Chakroun	wchakroun@gmail.com	Member	yes	n/a
5	Reinhard Radermacher	raderm@umd.edu	Member	no	n/a
6	Steve Comstock	comstock@ashrae.org	Staff Liaison	no	Staff Liaison
7	Mark Owen	mowen@ashrae.org	n/a	no	RJ staff
Functional Planning		Monday - 3:30pm-5:00pm			
1	Mo Hosni	hosni@ksu.edu	Chair	yes	Member
2	Shanta Tucker	shanta.tucker@atelierten.com	Member	yes	Member
3	John Nix	nix4055@gmail.com	Member	yes	Member
4	CS Ow	iodised@gmail.com	Member	yes	Member
5	Edward Tsui	Edward.tsui@intelligent-net.com	Member	yes	PEC Chair
6	Julia Keen	jkeen@ksu.edu	Member	yes	PEC Vice Chair
7	Steve Comstock	comstock@ashrae.org	Staff Liaison	no	Staff Liaison

**Report to Publishing and Education Council (PEC)
Journal Advertising Sales Subcommittee
Meeting of June 13, 2017**

Members Attending:

Walid Chakroun, Chair
Mark Fly
Steve Comstock, Staff Liaison

Action Items for PEC:

None

Information Items:

1. ASHRAE Journal's print advertising market share (SOM) is 60%, a one-percent increase compared to the same time period during 2016, in a three-publication competitive market. While ASHRAE Journal did not sell as many advertising pages in the past 12 months, its competitors have also lost advertising pages during the same time period, resulting in the aforementioned gain in SOM.
2. Journal print advertising is on track to meet the forecast of \$3,150,000. Journal online program is on track to reach the forecast of \$725,000, exceeding budget by \$65,000.
3. ASHRAE Media is increasing opportunities with sponsorships, online advertising, Online Handbook links, ASHRAE Journal newsletter and supplier webinars. Programs are sold in packages as part of an integrated marketing strategy to maximize available audience channels along with a print advertising campaign.
4. Mark Fly made a motion to increase print advertising rates in ASHRAE Journal by 2% with online advertising rates to increase by 3%. Chair Chakroun seconded, and the motion carried.
5. Appendix to the HPB magazine business plan was discussed to provide more revenue to the Society in Fiscal Year 2017-18. The appendix calls for more ASHRAE branding to increase outreach to nonmember audiences, increase online advertising opportunities, and focus circulation on architects and business owners. It also calls for separating HPB advertising promotions from ASHRAE Journal promotions to increase appeal to advertisers targeting their marketing for architects and building owners interested in sustainability. Mark Fly made a motion to approve the Appendix to the HPB Magazine business plan as presented and send it to the finance committee. Chair Chakroun seconded, and the motion carried.

June 13, 2017

HPB Magazine Business Plan

June 2017 Update

The Calendar Year 2017 business strategy has had some success improving fiscal performance and publishing performance. The addition of greater online opportunity for sales has been successfully increased overall revenue in the 2016-17 Society Year. The strategy to couple HPB advertising with ASHRAE Journal at increased page rates did not provide return as expected and will be altered.

The magazine continues to be valued editorially by members. The strategy to increase ASHRAE associated branding has successfully increased awareness of ASHRAE being publisher of HPB and circulation has been strengthened in architectural and building owner markets by reducing non-targetted demographics. This has enabled production costs to be focused on recruited circulation at better cost efficiency.

Based on the 2017 calendar year performance to date, the business plan will be implemented for the 2018 calendar year with several tweaks, mostly focused on offering on print/digital editions advertising space.

The overarching strategy is to 1) continue increasing the branding of ASHRAE to HPB's editorial excellence; 2) continue to focus HPB circulation to architects and building owners; 3) reduce HPB advertising rates; 4) remove HPB from ASHRAE advertising promotions; and 5) further increase online advertising opportunities to meet demand.

Results from April Financial Report

	FY 15-16 YTD Actual	FY16-17 YTD Actual	FY 16-17 YTD Budget
Display Revenue	\$121,500	\$ 94,300	\$152,600
Online Revenue	\$ 30,700	\$ 66,200	\$ 50,000
Total Gross Revenue	\$152,200	\$160,500	\$202,600

Conclusion: Need to implement the following changes.

Previous Strategy	Action to Implement	Reason for Action
Add ASHRAE branding to HPB magazine.	Increase ASHRAE branding presence further.	Strengthens ASHRAE outreach to nonmember architectural & building ownership communities interested in sustainability.
Print circulation included nonmember executive management, facility managers & engineers.	Focus and reduce print circulation to nonmembers by eliminating approx. 5,000 nonmember executives, facility managers and engineers.	Increases effectiveness for advertising & reduces unnecessary expenses for printing, mailing printed HPB magazines to those not desired by advertisers.
Merge ASHRAE Journal and HPB magazine advertising promotional materials.	Separate promotions to distinct audiences of advertising prospects.	Most advertisers interested in only HVACR engineering products or sustainable building systems & components.
Increased HPB print advertising rates.	Decreasing HPB print advertising rates for 2018.	Most Journal advertisers not interested in cross-over print advertising with HPB. Many HPB prospects are not marketing to ASHRAE audience.
Limited webinar opportunities (four times per year) to HPB audience.	Adding seven webinar opportunities (11 times per year).	Matches supply with advertiser demand for opportunities to demonstrate thought-leadership and obtain leads from registrants.



HIGH PERFORMING BUILDINGS

Real Buildings | Real Data



Business Plan 2016-17

This document articulates the *High Performing Buildings* business plan and the initiatives underway to attain its fiscal objectives.



HPB serves the objective of demonstrating to the engineering, architectural and building owner communities that, with sound design and commitment to appropriate building operation and maintenance procedures, buildings can deliver reduced operating costs, productive environments and meet sustainability objectives.

HPB Profile

- Publishes case studies of today's best performing buildings based on efficiency and sustainability.
- Published four times per year in print and digital forms.
- All information is available free of charge on HPBmagazine.org. The website is organized by building sector for ease-of-use by building professionals.
- Recognized as an award-winning publication for its editorial content and promotion of sustainability.
- Webinar opportunities for suppliers to demonstrate “thought leadership” to sustainability decision makers.
- Redesigned newsletter for a 'digital-first' model. Latest editorial appears in the newsletter, followed by publishing in print.
- Website features online-only content that enhances the print product and also attracts thought leadership articles written by building professionals.
- 75,000 total circulation, including 13,000 non-members with principal activities of architecture, facility management, design-build.
- Total readership is estimated at 130,000 when considering reader responses about the number of people with whom they share their copy of HPB magazine.

Benefit

HPB offers these benefits to ASHRAE:

- Provides a membership benefit that delivers engineering information unique in the market place;
- Positions ASHRAE as a leading resource for construction and operation of buildings that are sustainable.
- Increases ASHRAE influence in communities that professionally partner with ASHRAE by providing those communities with experiences that demonstrate how sound engineering practice translates to comfortable, energy efficient buildings with favorable returns on investment.
- Delivers contact information for non-member audiences (owners, architects, engineers, operators) that can be used for non-HPB related promotional and outreach efforts.

Strategic Positioning

HPB offers Real Data for Real Buildings, a unique position in the market. The magazine's publishing strategy is to be graphically appealing, with descriptive text that effectively communicates real world relevance. This type of publication style brings ASHRAE to the attention of new demographics who do seek out highly technical engineering literature. This broadens the ASHRAE base.

CASE STUDY CORPORATION HALL

Urban Challenge

BY PERRY HAUSMAN, P.E., MEMBER ASHRAE



Front facade facing the street in downtown Kalamazoo. This redevelopment of a neglected property now provides a pharmacy within walking distance to downtown residents.

HOME TO AMERICA'S first outdoor pedestrian shopping mall, Kalamazoo, Mich.'s downtown has persisted as a vital part of the city through three centuries. Now, the thriving district is home to shops, restaurants and urban residences. Its vibrancy made it the ideal location for a developer seeking to revitalize the neglected 137-year-old Corporation Hall by integrating traditional technology with sustainable and energy-efficient design. Despite the challenges of a tight urban site and cold climate, the building team found innovative solutions to install a geothermal system, setting an example of energy efficiency in a historic and urban location.

Corporation Hall has served several uses over its history, including a fire station, the city's first City Hall, a library and a department store. By the late 2000s, the building was nearing the end of its useful life and was in need of a complete transformation. One of the primary challenges of the revitalization project was getting a historic building in a cold climate to perform with low and sustainable energy use. The solution involved installing a geothermal heating and cooling system beneath the building (as opposed to locating the system on adjacent property). This design allows heating to flow in and out of the building as needed and mitigates the need to install load equipment on the roof of the building.

CASE STUDY CORPORATION HALL



Rooftop view featuring a vegetative roof and large sloped glass roof monitors to capture natural light and bring it deep into the public zones.

entire building and is supplemented with the air system as a secondary heat source. This design was chosen because the low-temperature heat system maximizes the efficiency of the central station heat pump. The heat pump provides low-temperature heating water and chilled water using an earth-coupled heat exchanger. Paired together, the two systems complement each other.

Along with these systems are the condensing boilers used for secondary domestic water heat, redundant building heat and snow melt. The boiler-generated heating water loop is maintained at a 160°F supply temperature to satisfy a 140°F domestic water storage setpoint.

Domestic hot water is preheated with return heating water to provide cold return water to the boiler. The water is stored at 140°F to eliminate the possibility of growing bacteria such as Legionella in the tank.

The condensing boiler's efficiency increases inversely with return water temperature: colder water means higher efficiency. Pressure-independent control (PIC) valves continuously match heating and chilled water flow to the building's demand. They perform real-time balancing to maintain system performance at changing building loads. As a result, the variable speed pumps run no longer

Energy Efficiency
Engineers on the project team developed an energy model for making informed design decisions, ultimately arriving at several strategies that

contributed to optimal performance results. Sustainable features include a green roof, low-flow plumbing fixtures, high-efficiency mechanical units, low-consumption LED lighting, light tubes, solar thermal energy (Figure 1), silent heat through a radiant floor and a nonidling demand-response snowmelt system.

Energy efficiency for the project began with the rehabilitation of the original 1876 building envelope, which consisted of the interior structure, basement slab, and foundations (the roof was replaced). To face the challenge of producing an energy-efficient building in a cold climate, spray foam insulation was used as well as high-performance windows and responsible daylighting.

In-floor radiant heat is the primary heating delivery method for the

Figure 1 SOLAR THERMAL SYSTEM



Solar Thermal Panels: Domestic water is preheated with solar thermal panels piped to a tube bundle inside the storage tank. The 131 ft² collector is sized to provide an annual energy benefit of 34,600 kWh.



Solar light tubes on the vegetative roof provide natural light deep into the building.

ASHRAE's Business Decision for HPB

HPB provides ASHRAE members with a well-received membership benefit, helps members create and operate better performing buildings, promotes specification of products offering new technologies, and creates awareness of the ASHRAE brand to key demographics. The question is to what degree ASHRAE wishes to fund these benefits since revenue generated has been unable to cover all costs of publication.

Background

ASHRAE's *HPB* magazine began publishing in December 2007 as part of ASHRAE's mission to promote a sustainable world. Its circulation includes more than 70,000 readers, including all ASHRAE Members. It also includes a supplemental audience of architects, facility managers and building owners for additional ASHRAE outreach.

HPB was part of a three-legged stool on which ASHRAE's early 21st century efforts rested:

Leg 1. *HPB* to provide successful experiences to practitioners, owners and operators

Leg 2. BEAP and BEMP to ensure a qualified work force for sustainable buildings

Leg 3. Building EQ to provide a tool to align design and performance.

CASE STUDY IOWA UTILITIES BOARD AND OFFICE OF CONSUMER ADVOCATE

FROM DARKNESS TO LIGHT

ENGAGING EMPLOYEES TO SAVE

BY SCOTT BOWMAN, P.E., MEMBER ASHRAE, AND GARY NAGLE, AIA

Moving from a cave-like warehouse to an environment filled with daylight represented a dramatic shift for employees of the Iowa Utilities Board and Office of Consumer Advocate (IUBOCA). Employees jumped on board with the energy-efficiency efforts, giving up comforts such as individual coffee makers, and opening and closing windows as needed to operate the natural ventilation system. An integrated design that maximizes passive strategies provides significant energy savings, but employee cooperation, especially involving plug load reduction, has proven key to reaching and maintaining performance goals.

The IUBOCA was created to house the agencies that regulate Iowa's utilities and represent utility consumers, and demonstrate what can be accomplished in the built environment with a commitment to fiscal and environmental stewardship. Funded not by tax dollars but by the utility industry, the IUBOCA is a far cry from the agencies' previous rented warehouse on the Des Moines River. A "perfect storm" involving the end of the lease, a supportive state administration and an aggressive bidding environment allowed the agencies to cost-effectively build their own facility, one that is an asset and an example. The net zero ready facility has received LEED Platinum certification and 100 Energy Star rating. It consumed 21.75 kWh/ft²-yr in 2014 (or 17.2 kWh/ft²-yr after factoring in rooftop photovoltaic energy production). A code-compliant similar office building would use nearly four times the energy.

Back to Basics
The IUBOCA sits on an infill area at the southeast edge of the Iowa State Capitol complex. Its storm water management system is inspired by Iowa farm terraces and filters water from its 6-acre site and runoff from an adjacent 6 acres (Figure 1). Key components of the treatment train include pervious pavement, infiltration basins, bio-swales and a native prairie restoration. Additional connections to the historically natural landscape see the bluestem plants filling the entrance courtyard and a watergrass-inspired sculpture titled "Prairie Grass."

The building's south wing accommodates the IUB on two levels, while the north wing houses the OCA on the second level and provides common spaces on the ground level (including the hearing room, conference rooms and luncheon).

Top: The use of artificial lighting—shown here illuminating the south wing at dusk—is restricted by daylight sensors and occupancy sensors throughout the IUB/OCA building. Artificial lighting at night is setting, and is limited to the occupied zone and emergency signs.

Opposite: The second floor lobby—like all spaces in the IUB/OCA building—is naturally illuminated by daylight, which also drives an interior design prioritized at key locations with regionally harvested material selections.

BUILDINGS AT A GLANCE

Name	Iowa Utilities Board and Office of Consumer Advocate
Location	Des Moines, Iowa
Owner	Iowa Department of Administrative Services
Principal Use	Office building
Includes	Open offices, private offices, conference rooms, hearing rooms, records room, lobby
Employers/Occupants	83
Design Occupancy	103
Percent Occupied	85% (based on design 100%, based on workdays)
Gross Square Footage	44,400
Conditioned Space	44,400
Certifications/Awards	2014 AIA COTE Top Ten Plus Award, 2014 ASHRAE Sustainability Award, National Green Building Award (GreenSource), 2012 AIA COTE Top Ten Green Projects, 2012 LEED Platinum Certification
Total Cost	\$5.5 million
Cost per Square Foot	\$213
Substantial Completion/Occupancy	January 2015

Summer 2015 HIGH PERFORMING BUILDINGS 7

An Evolving Market

When *HPB* began publication three magazines occupied the "green building" market:
Environmental Design and Construction (published by Business News Publishing)
Sustainable Facility (published by Business News Publishing)
Green Source (published by McGraw Hill)

USGBC Plus (published by USGBC) entered the space later.

The only remaining publication other than *HPB* is USGBC Plus. What occurred is that advertisers returned to their traditional media outlets.

Through insights gained from the ASHRAE advertising sales team, we have learned that investments in the publications that reach focused specifiers of products have been determined to deliver greater return. For example, readers of a “green building” publication could include a circulation that includes a base of readers wanting to specify air conditioning, another lighting, yet another landscaping and still another cleaning equipment and suppliers. The readership could include engineers, architects, owners, facility operations staff, or maintenance managers. Advertisers were not willing to invest in significant numbers of wasted circulation, that is, pay for circulation that had no or little influence in purchase of their products. Pages migrated back to such magazines as

- Illuminating Engineering*
- Architectural Record*
- Architectural Products*
- Building Design and Construction*
- Building Operating Management*
- Buildings*
- Engineered Systems*
- HPAC Engineering*
- ASHRAE Journal*

The obstacle faced by *HPB* as one of the last remaining “green building” magazines is that a manufacturer of products specified by an architect has a long standing history and likely an existing ad program with books in the architectural field, making a buy for *ASHRAE* unlikely. Similarly, *ASHRAE Journal* has that advantage with air-conditioning manufacturers.

CASE STUDY: THE RENWICK GALLERY OF THE SMITHSONIAN AMERICAN ART MUSEUM

John Gruber, Middle Fork, 2015
The original vented ceiling was restored, revealing the intersection of a flat-awning that was installed in the 1970s to conceal HVAC ductwork.


Gallery Area Gallery

PRESERVING A NATIONAL TREASURE

BY ROGER CHANG P.E., ASSOC. AIA, BEMP

HOME TO THE SMITHSONIAN AMERICAN ART MUSEUM'S arts and crafts program since 1972, the Renwick Gallery was built in 1859 as the original Corcoran Gallery of Art. It is a principal structure in the Smithsonian Institution portfolio, based on the era of construction and its historic significance as the first purpose-built art museum in America. The building was originally designed by James Renwick, Jr., the architect of the Smithsonian's "Castle" and St. Patrick's Cathedral in New York City. It is often referred to as the American Louvre, with many similarities to the Second Empire Style Tuileries Gallery of the Louvre in France. The building was at risk of being demolished in the 1980s to make room for a new government facility. First Lady Jacqueline Kennedy led a successful campaign to bring new stewardship to the facility, including a modernization to restore the building's use as a museum. The building was listed on the National Register of Historic Places on March 25, 1969, and was one of the first buildings of the modern historic preservation movement.

CASE STUDY: THE RENWICK GALLERY OF THE SMITHSONIAN AMERICAN ART MUSEUM



ABOVE Historic Photo (1861).
LEFT Main Elevation: the building occupies a prominent site at the intersection of Pennsylvania Avenue and 17th St NW, only a block West of the White House and directly adjacent to the Blair House. Masonry was restored and 54 new windows were installed.

Fast forward to the 21st century and the building's comprehensive two-year renovation program, the first in 45 years, to address aging infrastructure, worn finishes, and align systems with today's standards and codes. The integrated design firm Westlake Reed Leskoski was selected as architect engineer (2012), and Conaigi Construction Co., Inc., as general contractor (2014), to carefully develop an approach to ensure the building would reach both old and new audiences for the next 50 years, efficiently, sustainably, and openly. On Nov. 13, 2015, the museum opened again to the public, with an innovative exhibit, "Wonder," which has generated significant interest in the intersection of art and historic architecture. The inscription on the building's front entrance, "Dedicated to Art," now holds renewed meaning: the art and science of design and construction now comes together more than ever, to ensure the sustainability of a cherished building for another generation.

Resource Efficiency: Stewardship of the Collection
The project incorporates systems designed to provide an ASHRAE Class A museum environment, per the *ASHRAE Handbook—HVAC Applications* (Chapter 23) and Smithsonian's standard of 72 ±4°F and 45% RH ±0% RH, developed based on significant research over the past decade to best balance efficiency and control with a diverse collection and building stock.



***HPB* Unique Value Proposition**

The editorial mission of *HPB* is to showcase buildings that achieve measured energy efficiency targets while satisfying comfort requirements. *HPB*

Supports the ASHRAE Mission – To advance the arts and sciences of heating, ventilating, air conditioning and refrigeration and related human factors to serve the evolving needs of the general public and ASHRAE members.

And the ASHRAE Vision – ASHRAE will be the global leader, the foremost source of technical and educational information, and the primary provider of opportunity for professional growth in the arts and sciences of heating, ventilating, air conditioning and refrigerating.

HPB effectively does this by reaching inside the ASHRAE membership and also to other stakeholders in the building industry. External reach through products that offer perceived value outside the ASHRAE membership is unusual for ASHRAE and a distinguishing characteristic of the magazine.

More broadly, *HPB*'s value proposition in the market is that it provides actual performance data, describing how buildings perform after design and providing lessons learned as design moves to operation. This is a value proposition unique in the market at time of launch and which continues today.

Value Other than Advertising

While advertising dollars may have fled the “green building” magazine market that does not mean there are no other benefits that ASHRAE accrues from the *HPB* reach in the “green building” market.

Reaching architects and building owners and operators is a key tenant of the integrated building design approach. Demonstration to building owners that “green buildings” are both achievable and sound investments is crucial to driving the enlightened purchasing decisions when owners commission design work, approve the construction of building envelopes, and purchase equipment. To borrow from an advertising line from another industry, “An educated consumer is our best customer.”

Moving the broad building community to actions that support sustainability is the role of ASHRAE in serving its members' commercial interests and more importantly fulfilling the Society's not for profit mission.

Plus, *HPB* offers ASHRAE members with content that is unique in the building field.

Brand Positioning and Advertising Promotion

At Launch

HPB was originally positioned to be perceived as a non-engineering publication. This was accomplished through a graphic centric design and descriptive rather than highly technical text. The ASHRAE brand association was minimized to minimize the perception of *HPB* as an engineering publication by and for engineers.

This approach won *HPB* significant acceptance in the architectural and building operating management fields as evidenced by circulation statements.

Current

With advertising pages failing to meet budgeted expectations, beginning in 2015-16, ASHRAE modified brand positioning:

Association with ASHRAE: *HPB* is well received by virtually all readers in its market. Its graphical presentation, descriptive text and delivery of performance data is highly valued. In order to enable the ASHRAE brand to benefit from this high acceptance, the ASHRAE logo was added to the cover of *HPB* and given greater emphasis on the publisher page. ASHRAE is able to benefit from a halo effect and achieve greater awareness of its activities among partner professionals.

Packaged Sales with ASHRAE: Beginning with the 2017 calendar year, ASHRAE raised rates for *HPB* to be equal to those for *ASHRAE Journal* (roughly a 50% increase.) While this might seem extreme considering difficulties *HPB* experienced attracting advertising the logic is sound:

- *HPB* reaches the entire ASHRAE circulation (albeit in digital form) justifying alignment with *ASHRAE Journal* rates.
- While digital copies are generally perceived to have less value than print by advertisers this negative is counterbalanced by *HPB*'s additional 20,000 reader circulation in the architectural and operating management fields.
- *HPB* is portrayed as being especially valuable to companies promoting highly energy efficient products because when reading *HPB*, ASHRAE members (along with their professional partner communities) are wearing their "sustainability hats" when reading the magazine.

Whether this approach has succeeded will be evaluated at the July 2018 meeting of the advertising sales and publishing teams.

Product Modifications and Enhancements

To improve fiscal performance, several product changes have been introduced, some to reduce cost and others to add revenue streams.

Cost Reduction

Eliminate non-essential promotional expenses: For *ASHRAE Journal* with its \$3 million plus in advertising revenue, ASHRAE employs several services to support the sales effort. Some of these same services were used in support of *HPB*, specifically agency promotions and competitive publication tracking. After analysis of sales needs, these non-essential support services (competitive analysis and advertising to advertising agencies) were discontinued.

Paper costs: At launch the paper selected was of a very high grade for color display and with high sustainability index. A different grade is now used which offers close to the same advantages at significantly less cost.

Circulation cleansing; Stray controlled (non-ASHRAE member) circulation not specifically within the architectural or building operations communities was eliminated to reduce printing cost and postage costs.

Building Digital Portfolio

In 2016 ASHRAE began to rebuild and strengthen the *HPB* digital product folio, following a strategy to build web site traffic to increase digital ad inventory and to offer new digital products. The growth of *HPB* revenue has been on the digital side, and *HPB* allows an outlet for digital advertising demand that cannot be met through *ASHRAE Journal* and *ASHRAE.org*.

Addition of web-only content to *HPB* website: Web-only content has been added to *HPBmagazine.org*. This content is staff prepared and can include interviews with authors, news or additional content associated with articles that was not published in the print/digital editions of the magazine. Also, editors are asking experts throughout the industry to write thought leadership articles. The purpose is to increase “stickiness” of the site and increase return visits. Both help deliver advertising inventory.

Redesign of *HPB* Newsletter: Two major editorial changes were made to the *HPB* newsletter along with a redesign. First, the web-only content is teased in the newsletter, which is emailed monthly to *HPB* subscribers. Second, articles appearing in the print/digital editions of *HPB* first appear in the newsletter, increasing newsletter value with the aim of increasing open rates over the long term and therefore enhancing the ability to serve ads and help drive more traffic to the website. The average readership in 2016 was 68,000 recipients, 16,000 unique opens and a 23% unique open rate.

Launch of Webinars. Webinars are the preferred advertising medium in today’s market for lead generation. Webinars enable companies, especially larger firms, to display thought leadership through the presentation of technical content rather than the promotional messages that is the strategy employed in brand awareness advertising. In 2016 *HPB* began offering supplier webinars to tap into this market. Sales are gaining strength, offering advertisers the opportunity to reach beyond the traditional HVAC&R engineering market to architects and owners/operators and providing relief for sold out *ASHRAE Journal* webinar opportunities. The sales strategy is to also package webinars with print/digital advertising sales.

Specific 2016-17 Actions to Improve Fiscal Performance

- Rate Increase Nov 1, 2016
 - Display advertising rates increased 22%.
 - Online advertising rates increase 10%.
 - Webinar rates increase 25%.
- Branding Program with ASHRAE Journal
 - ASHRAE Journal advertisers now able to count HPB advertisements as part of its ASHRAE Journal program. This offers reduced rates per advertisement purchased and generates more revenue to ASHRAE through greater advertising programs per account.
 - ASHRAE Media's publisher representatives incentivized to sell HPB advertising as part of its commission bonus program.
- Circulation
 - Circulation by demographic category being more closely monitored to improve renewal rates and in target categories. Current nonmember circulation levels are:
 - i. Architects: 3,298
 - ii. Facility Managers: 4,769
 - iii. Designers: 10,198
 - iv. Engineers: 22,289
 - v. Executives: 22,211
 - Circulation by demographic category for nonmembers only are:
 - i. Architects: 243
 - ii. Facility Managers: 440
 - iii. Designers: 1,294
 - iv. Engineers: 3,274
 - v. Executives: 2,433
 - Objective is to maintain above targets with 90% in first year subscription confirmation. Currently, 68 of the circulation is in the first-year category.
- Webinars
 - Along with the 25% rate increase referenced above in Item A, HPB webinars will be offered monthly to advertisers.
 - Webinars were introduced in last half of 2016 and will continued monthly in 2017.
- Promotions
 - Media Kit bundled with ASHRAE opportunities in promotions to emphasize that HPB reaches all ASHRAE members.
- Content
 - Increase in number of online articles through use of editorial staff to increase website traffic and improve advertising desirability and ad inventory.

Looking Forward: *HPB* Business Model Strategy

Opportunities to generate revenue and maintain or lower cost are constantly reviewed for *HPB*. The current strategy is being employed:

- 1) Continue increased ASHRAE branding to enable ASHRAE to benefit from *HPB* critical acclaim.
- 2) Continue packaging of *HPB* advertising with ASHRAE Journal with assessment of success in July 2017.
- 3) Continue improvements to digital assets to drive expansion of digital ad inventory.
- 4) Continue to improve digital assets to increase web and newsletter readerships.
- 5) Continue sales emphasis on supplier webinar opportunities with packages including print/digital *HPB* issue advertising.

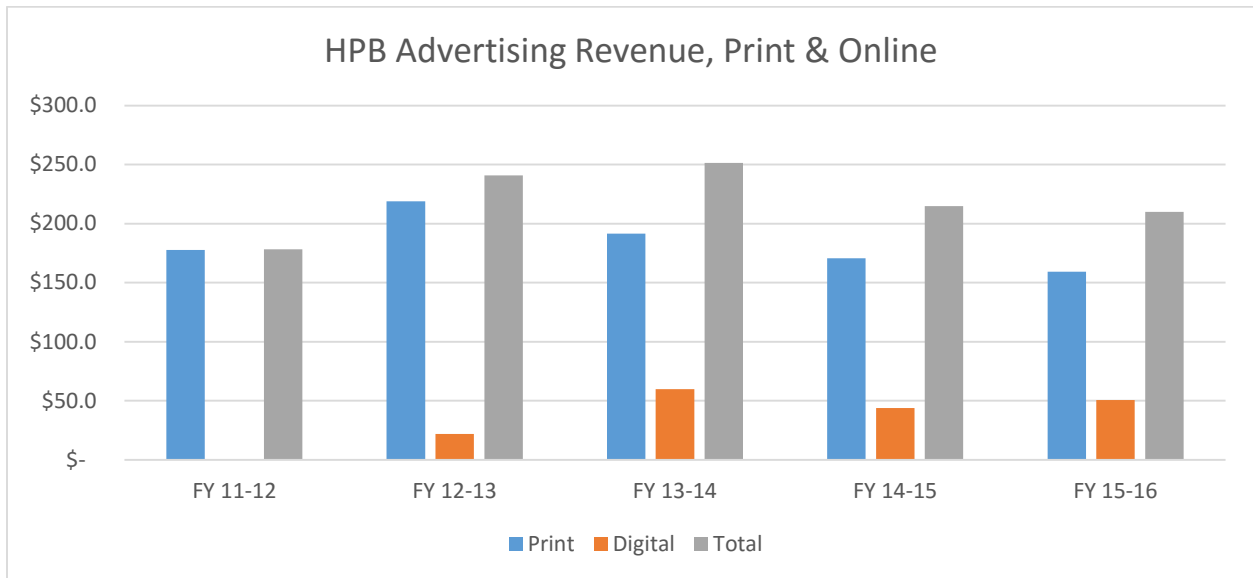
If ASHRAE determines the member benefit, prestige of publication and key demographic outreach cannot be justified, the annual investment in *HPB* can be lessened short of ceasing publication entirely.

- 1) Change the quarterly frequency of the print publication to semi-annual.
- 2) Include the semi-annual editions of *HPB* as bound in or standalone inserts mailed with *ASHRAE Journal* (June and December issues).
- 3) Eliminate “flip-book” *HPB* magazine and instead continue monthly newsletter publication with articles published on the newsletter cycle and immediate posting to the website.

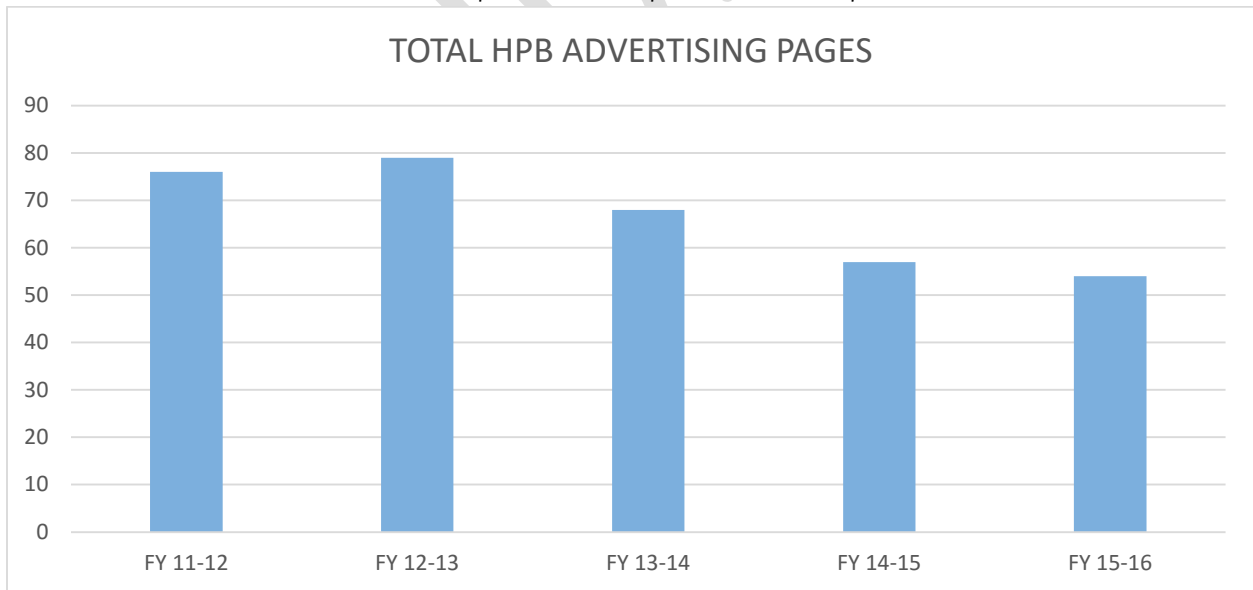
This alternate strategy could be employed beginning in January 2018 if ASHRAE chooses to lessen the investment. Expenses would be reduced annually by approximately 40% with revenue reduced by approximately 50%. Pursuing this strategy would lessen the annual investment to approximately \$225,000 (compared to current investment of approximately \$370,000). The net performance, however, is estimated to be unchanged.

To be considered is the diminished impact of being a standalone publication and elimination of non-member circulation impacting ASHRAE industry influence. (While nonmember circulation could still be offered, there would be little interest since *HPB* would be packaged with HVAC&R content).

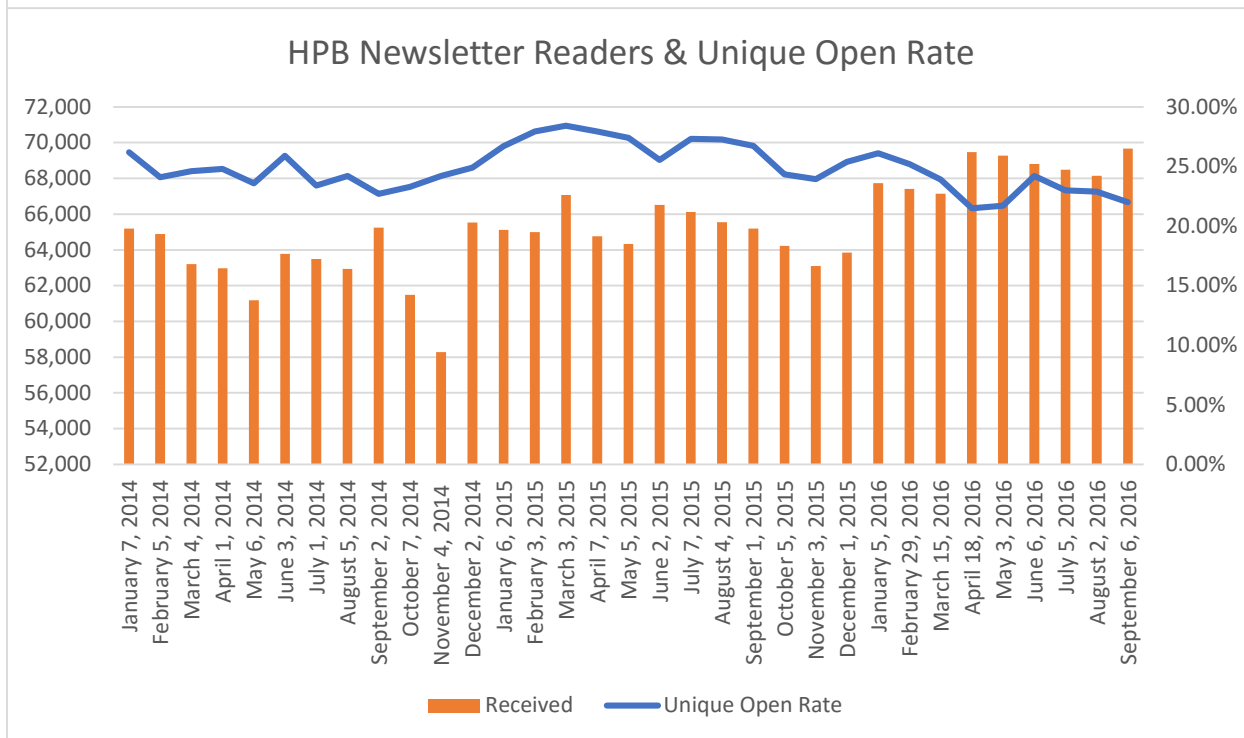
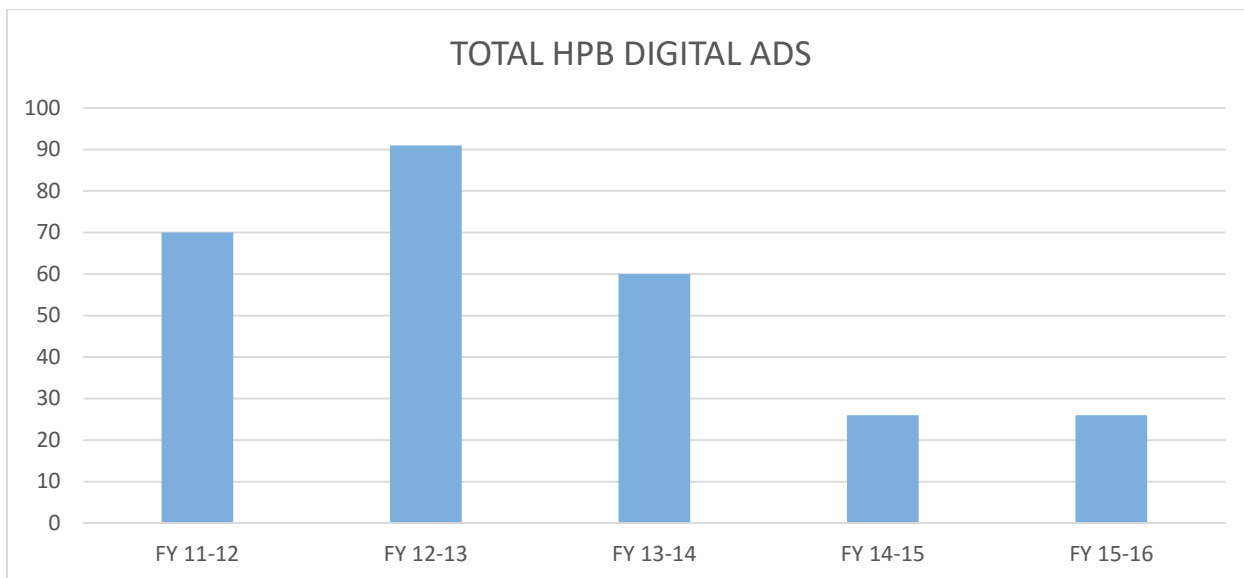
Fiscal Performance & Budget



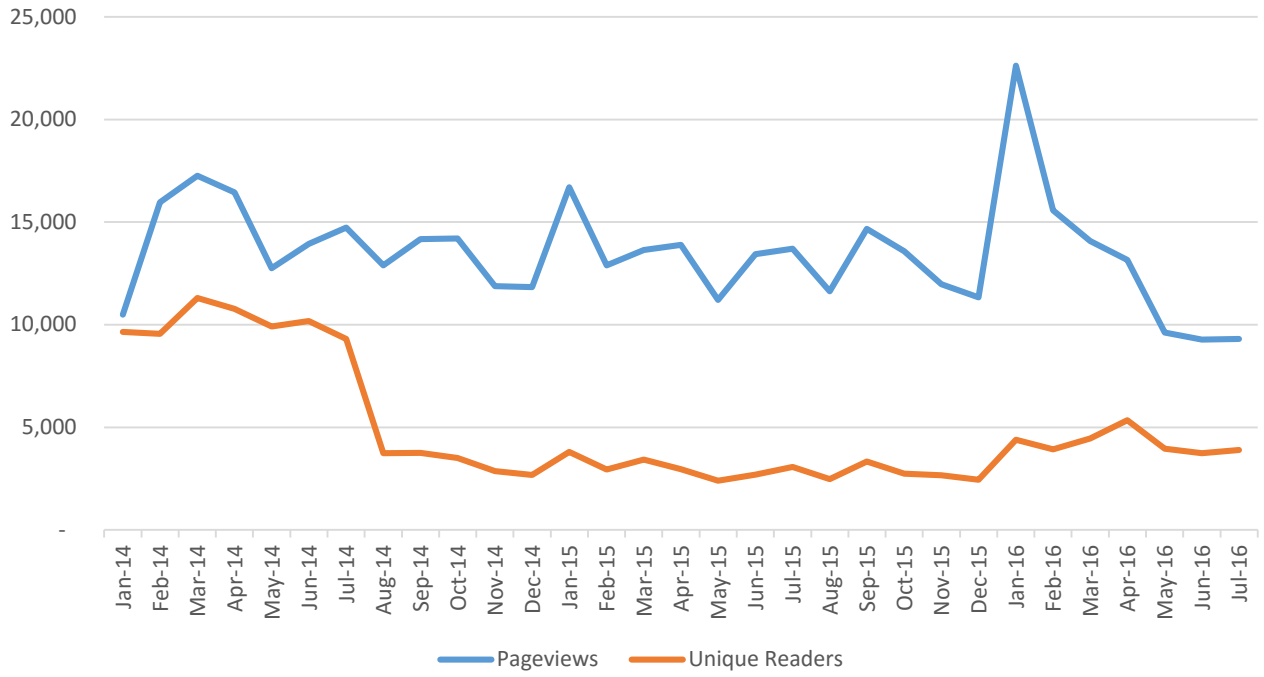
	Print	Digital	Total
FY 11-12	\$ 177.8	\$ 0.4	\$ 178.2
FY 12-13	\$ 219.0	\$ 21.8	\$ 240.8
FY 13-14	\$ 191.5	\$ 59.9	\$ 251.4
FY 14-15	\$ 170.8	\$ 44.0	\$ 214.8
FY 15-16	\$ 159.3	\$ 50.6	\$ 209.9



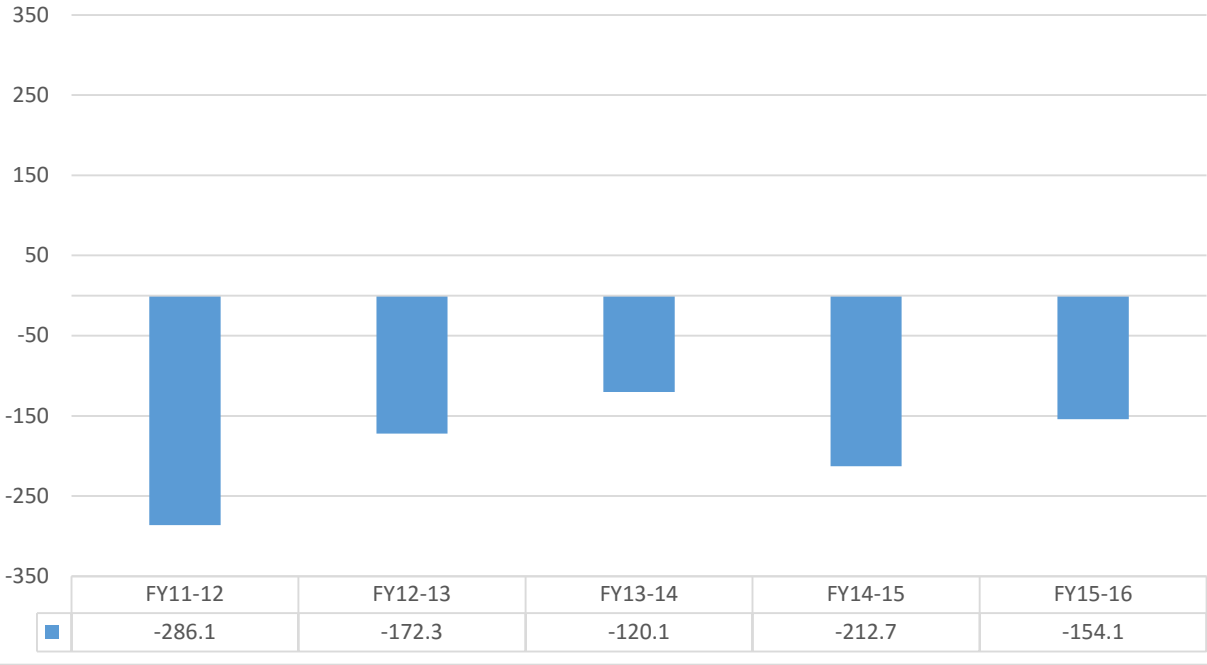
Web Site Statistics



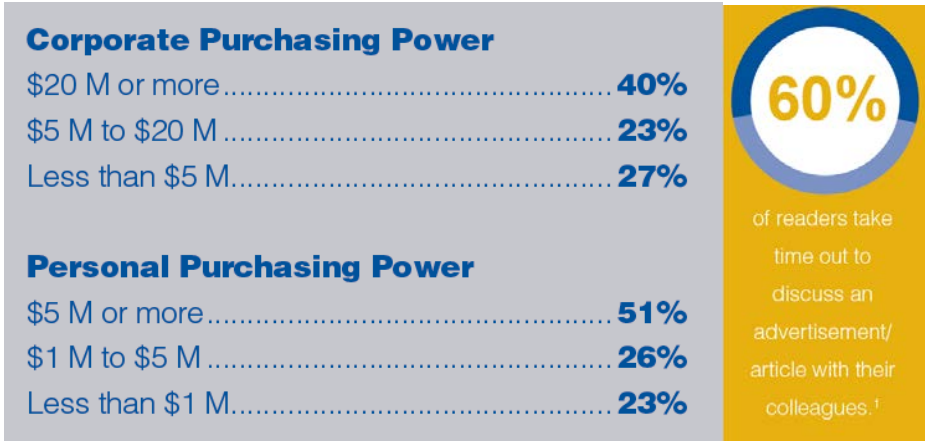
HPBmagazine.org Pageviews & Unique Readers



HPB Surplus/Deficit Before Overhead



HPB Advertising Messages



of readers rate High Performing Buildings magazine overall as excellent or good.¹



of readers rate High Performing Buildings as a "must read" or containing a good amount of information.¹

Overall Reader Impressions¹

Excellent Overall Quality	96%
Good Presentation of information.....	96%
Excellent quality of writing.....	95%
Valuable selection of topics.....	89%
Knowledgeable & Credible Authors ...	85%
Practical Information & Solutions	83%
Concise & Easy to Read.....	82%
Helpful to Me in My Work	76%
Publication I Regularly Save for Future Reference.....	67%



HPB Reaches 131,532 Sustainable Building Decision-Makers in Print and Online¹



of HPB readers have purchasing power²



of HPB readers take action on advertisements¹

Do **YOU SHARE** your copy of HPB magazine?

2 people on average read each print issue of HPB.¹

Total Buyers Reached Through HPB¹

103,600	..... HVAC Systems & Equipment
87,500	.... Sustainable Design Systems & Services
80,700	.....Lighting
75,400	..... Building Envelope & Materials
75,400	..... Sensors & Monitors
71,000	..... Building Automation
72,000	..... Water/Hydronic Systems
61,000	.....Fire & Smoke Control
51,100	.....Acoustics
45,700	..... Design Tools
33,600	..... Building Security
28,200	.....Furnishings



“I like how the articles have figures and highlight detail notes, lessons learned, energy at a glance, key sustainable features, etc.”³
 – *Architect, architectural firm*



**Report to PEC
eLearning Subcommittee
Meeting of Saturday, June 24, 2017**

Walid Chakroun—Chair
Edward Tsui — Vice Chair (Present)
James Bochat — Member (Present)
Jin Jin Huang — Member (Present)
Bill McQuade — Member (Present)
Doug Cochrane — Member (Guest)
Francis Lacharite — Member (Guest)
Tim Dwyer — Member (Guest)
Mick Schwedler — Member (Guest)
James Gallick — Member (Guest)
Steve Comstock — Staff Liaison
Eunice Njeru — Staff
David Soltis — Staff

Action Items

None

Information Items

1. The subscription revenue for ASHRAE eLearning continues to grow with the majority of subscriptions coming from individual subscribers. ASHRAE continues its marketing efforts to rebuild corporate subscriptions, which have previously shown to be great source of revenue for eLearning. Marketing efforts include chapter outreach through CTTC, monthly email to new members for the month, emails to corporations, face-to-face promotion at ASHRAE conference, and eLearning portal video to be hosted on ASHRAE.org as well as pushed out through social media.
The annual subscription revenue is 134k with a forecast of 150k, on a budget of 350k. Financial revenue and expense impacts are due to continual infrastructure and course improvements for 5 months during the 2016-17 year.

2. New Portal Progress

With eLearning, ASHRAE has the following positive items to report:

- Stable course programming - the newly rebuilt HTML5 courses continue to work well on the eLearning portal. ASHRAE eLearning is confident that it now has a stable programming for the courses and continues to develop new courses with similar programming.
- User feedback gathering – Since launch, ASHRAE eLearning has continued to gather user feedback to help with continuous portal improvements.

3. New Course Development Status.

In an effort to broaden and diversify the eLearning course catalog, eLearning continues to work with member volunteers to design and develop new courses. Below is a list of recently completed courses and those still undergoing development:

Course Name/Title	Status	Anticipated/Completion Date
School of Hard Knocks Controlling Moisture & Humidity in Buildings	Launched	1/20/2017
Ethics for the Built Environment Professional Engineer	Launched	2/28/2017
Refrigerant Literacy - UNEP – Course A	Complete-pending official launch	7-12-2017
Refrigerant Practices - UNEP– Course B	Content Review	11/1/2017
BIM Process, Practice and Workflow	Preliminary Phase	Unknown
Building Energy Modeling (BEM)	Preliminary Phase	Unknown
The Last Word on Energy Audits	Preliminary Phase	Unknown
Thermal Comfort - Update	Preliminary Phase	Proposed

The need for a coordinated metrics for new course development was discussed. To get the process started, Mr. Bochat was provided with a list of new and existing eLearning courses. eLearning will create this metric for new eLearning course development.

4. Phase 2 – Learning portal infrastructure development

The need to bring all ASHRAE courses under one umbrella was discussed. The Phase 2 Infrastructure development will put all ASHRAE training on one platform, where the user can search for the training they need. This platform will host both eLearning and Instructor-Led Training. Instructor-Led Training will be added during this Phase 2 development. The anticipated completion date for this project is 6/1/2018.



**Report to PEC
Fiscal Planning Subcommittee
Meeting of Monday, June 26, 2017**

Action Items

1. No Action Items to Report

Information Items

1. Fiscal Planning Subcommittee reviewed all committee financials for the 2016-17 ASHRAE fiscal year. (Attachment A)
2. The Certification committee's budget for the 2018-19 budget year needs to have an additional 60K added. This additional budget is for Certification to make additional infrastructure development cost.
3. Reviewed ASHRAE Handbook Postage costs and the methods used to distribute the ASHRAE Handbook to ASHRAE Members. The options reviewed were to leave current distribution methods in place or to use FedEx Economy as a possible option for distribution. The FedEx Economy distribution method would provide a trackable distribution for the ASHRAE Handbook Member Benefit.

Handbook Postage

Canada

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 27,640.12	\$ 3,164.00	\$ 30,804.12	3014	\$ 10.22
Proposed Fed EX Economy	\$ 71,103.51	\$ 1,764.72	\$ 72,868.23		\$ 24.18
Difference			\$ 42,064.11		

Europe

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 12,947.20	\$ 1,372.00	\$ 14,319.20	1099	\$ 13.03
Proposed Fed EX Economy	\$ 26,705.39	1261.72	\$ 27,967.11		\$ 25.45
Difference			\$ 13,647.91		

Fed Ex Exception

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 13,824.00	\$ 714.00	\$ 14,538.00	301	\$ 48.30
Proposed Fed EX Economy	\$ 8,681.64	621.84	\$ 9,303.48		\$ 30.91
Difference			\$ (5,234.52)		

ROW

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 45,717.52	\$ 4,420.00	\$ 50,137.52	2762	\$ 18.15
Proposed Fed EX Economy	\$ 89,310.25	\$ 5,242.51	\$ 94,552.76		\$ 34.23
Difference			\$ 44,415.24		

United States

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 59,997.76	\$ 8,691.20	\$ 68,688.96	22954	\$ 2.99
Proposed UPS Ground	\$ 221,021.16	\$ 681.36	\$ 221,702.52		\$ 9.66
Difference			\$ 153,013.56		

All Countries including United States

	Intial	Supplement	Total	Total Copies	Per Copy
Current Mailing Distribution	\$ 160,126.60	\$ 18,361.20	\$ 178,487.80	30130	\$ 5.92
Proposed Fed Ex Economy and UPS Ground	\$ 416,821.95	\$ 9,572.15	\$ 426,394.10	30130	\$ 14.15
Differenece			\$ 247,906.30		



Functional Planning Subcommittee of PEC Report to PEC

Meeting of Monday, January 30, 2017

2016-2017 Subcommittee Members

- Michael Schwedler, Chair
- Roger Jones
- C S Ow
- Florentino Mendez
- John Nix
- Frank Mills
- Richard Rooley
- Walid Chakroun
- Steve Comstock, Staff Liaison

Motions

1. That PEC approve the following changes to Handbook Committee’s Manual of Procedures (MOP) as shown:

[begin excerpt]

- 2.1.2 The Manual of Procedures (MOP) for Technical Committees, Task Groups, and Technical Resource Groups states:

~~“Each TC/TG/TRG is charged with the responsibility of reviewing Handbook chapters within its field of interest and making appropriate recommendations to the Handbook Committee. The TC/TG/TRG is responsible for the technical content of these chapters, but review and revision must be coordinated with the publication schedule established by the Handbook Committee.” (Para. 3.2.1)~~

Each TC/TG/TRG is charged with the responsibility of reviewing Handbook chapters within its field of interest and with making appropriate recommendations to the Handbook Committee and the responsible TC, TG, or TRG for a specific chapter(s).

The TC/TG/TRGs are responsible for the technical content of these chapters, but review and revision must be coordinated with the publication schedule established by the Handbook Committee. The most authoritative reference for TC/TG/TRG handbook responsibilities and procedures is the Handbook Authors and Reviser’s Guide.

MTGs review Handbook chapters within its field of interest and make appropriate recommendations if this responsibility is part of its scope.”

[end excerpt]

Background: Changes made corrects a reference used in the Handbook MOP to match with the Manual of Procedures for Technical Committees, Task Groups, Technical Resource Groups.

Fiscal Impact: None.

(Functional Subcommittee Approved 3-0-0 CNV)

2. That PEC approve the following changes to Publications Committee’s Manual of Procedures (MOP) as shown in Attachment A

Background: Changes reflect previously approved changes to the Publications Committee section of the Rules of Board (ROB) concerning number of committee members, as well as, organization changes and editorial corrections.

Fiscal Impact: None.

(Functional Subcommittee Approved 3-0-0 CNV)

3. That PEC approve and recommend to the Board of Directors (BOD) the following changes to the Historical Committee section of the Rules of the Board (ROB) as shown in Attachment B.

Background: The Historical Committee currently only has 7 Voting Members (VM), which is the smallest ASHRAE standing committee except for the Rules (6) and Audit (3) Committees. Regional Historians are Non- Voting Members (NVM) however a majority of them do not attend Society meetings, and they are not authorized travel to attend. The Regional Historians are responsible for the grass roots activities, including PAOE and reporting, of Chapter Historians.

In the past, the HC has had VM representation by the Regional Historians, especially during major Society historical events such as the Centennial recognitions and celebrations of ASHRAE and its predecessor Societies. The 125th Anniversary of the founding of ASHRAE will be celebrated in 2019-2020 and a number of events are being planned by the committee to recognize the milestone. Because committee member terms are for 3 years, the current membership does not always allow for new leadership to have served on the committee for long before moving up to Chair or Vice Chair; having 9 members with staggered 3-year terms will provide the best pool of leadership candidates. The committee also has a number of subcommittees (5 – Administrative, Archives, Communications/RVC Guidance, Leadership Recall/Awards, and 125th Anniversary) and there are not enough VM’s to support the subcommittees without multiple assignments, including the Chair and Vice Chair. Increasing the number of VM on the committee to 9 will provide enough committee members for the HC to be effective.

Fiscal Impact. The estimated fiscal impact of adding two voting members to the committee is \$2,500/year, maximum, for transportation, if requested.

(Functional Subcommittee Approved 3-0-0 CNV)

Information Items

MBO #1

Prepare study & recommendations on product alignment (format, delivery mechanism, content, context) with younger members for future media dissemination.

Ideas were generated from young members in a large chapter. The YEA Committee was contacted. They will develop and distribute the survey, then share it with the subcommittee. (**Attachment C**)

MBO #2

Identify product needs & prepare implementation roadmap for O&M market focus.

Functional Planning working group has developed a plan. (**Attachment D**)

MBO #5

Refine User Manual Development Plan in collaboration with Tech Council.

Tech Council has contracted for 90.1 User's Manual, updated their User's Manual Development manual. SSPC 90.1 Chair, Drake Erbe, is working with Steve Comstock on a web-based User's Manual for the future. (**Attachment E**)

MBO #6

Develop and implement strategies to deliver products and services globally.

Functional Planning working group has developed a plan. (**Attachment F**)

MBO #9

Develop educational and publishing programs to align with 2016-2017 Society theme.

Functional Subcommittee is following the lead and supporting PDC, Publications Committee and bEQ Committee. The Consulting Engineering Essentials course outline has been approved by PDC and is scheduled to be made available in June. PDC is waiting for the bEQ Training package which is expected in the fall to then begin developing supporting courses for bEQ.

MBO #10

Create 'infographic' to show interrelationships of ASHRAE publications, technical topics, and development groups.

Is still currently under development with Publications Committee and the Functional Subcommittee working group.

Respectfully submitted,

Mick Schwedler
Chair, Functional Planning Subcommittee

31 January 2017

DESCRIPTION

MBO	Background
Prepare study & recommendations on product alignment (format, delivery mechanism, content, context) with younger members for future media dissemination	Goal is to <u>deliver content that meets needs and expectations of better serve</u> younger ASHRAE members. <u>Publishing</u> Technology has changed significantly as have learning <u>preferencesstyles</u> . We have no YEA members on Tech Council today and need to ensure they are involved in this investigation and the <u>outcome</u> .
Identify product needs & prepare implementation roadmap for O&M market focus	Goal is to provide guidance for the O&M market. Roger led a group that made significant progress in 2015-16 and will continue this <u>year</u> .
Refine User Manual Development Plan in collaboration with Tech Council.	Goal is to develop User's Manuals <u>so they align as closely as possible to publication of the respective standardQuickly</u> . President Tom Phoenix came to a PEC meeting in 2015 and stated the question he was asked the most was why it took so long to publish User's Manual. Mick Schwedler worked with ASHRAE <u>Technology</u> Staff, PEC leadership and Tech Council to develop options. It was decided at that time that Tech Council will continue to take the lead. An update on progress is sought. Then plan refinements can be <u>suggested</u> .
Develop and implement strategies to deliver products and services globally	Goal is to deliver ASHRAE products and services <u>which have increased value</u> globally. There were recommendations in the MCI report <u>one of which was assigned to PEC for local structures to delivery content that is adapted for a specific region.</u> Other recommendations are -A number of them were not accepted being reconciled by - Planning Committee is reconciling them . Mick Schwedler is a member of PLC and can communicate updates from PLC to this task group.
Develop educational and publishing programs to align with 2016-2017 Society theme	Goal is to support President Wentz's initiatives <u>that more effectively bring ASHRAE technical resources to the membership.</u> Quite a few of President Wentz's initiatives involve new publications and courses. Publications and Professional Development Committees are doing significant work to deliver on those initiatives. PEC should support the Committees and allow them to take the lead if they wish.
Create 'infographic' to show interrelationships of ASHRAE publications, technical topics, and development groups.	Goal is <u>better enable members to understand the process by which ASHRAE develops resources and training.</u> This MBO is already being worked on by Publications Committee.

Comment [CS1]: But we do have YEA members on Publications Committee and Professional Development Committee I believe. They should be engaged since they are groups that deal with product development not Tech Council.

Comment [CS2]: You also have that very good list of referrals which has just been sent to TCs, staff and other committees.

Comment [CS3]: Steve Comstock is working with SSPC 90.1 on a Users Manual format that makes it an online product aligned with an online version of the standard. Once this online product is available, updating it for future editions should be much easier in that the UM can be updated as the Standard is revised through addenda. In effect this makes the UM a living document.

[begin excerpts from Publications Committee Manual of Procedures]

I. Scope and Purpose This manual describes procedures for accomplishing the duties and responsibilities assigned by the ~~Board Approved Rules (BAR)~~ Rules of the Board (ROBs) applicable to the Publications Committee. The Scope and Purpose of the Committee shall be:

1. To formulate the editorial policies of ASHRAE periodicals, books, and software products in print and nonprint formats in accordance with the policies of the Board of Directors.
2. To be responsible for the ~~Rules of the Board~~ Board Approved Rules as follows:
ASHRAE Journal is to maintain and enhance its leadership role in the communication of HVAC&R information to and from the profession, industry, and related interests through its worldwide readership and editorial content.

ASHRAE Insights shall be the primary vehicle for intrasociety communications.

Publications that are not *ASHRAE Handbook*, *ASHRAE Journal*, and *Insights* shall be referred to as special publications, including nonprint formats.

~~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 nonprint formats except the *ASHRAE Handbook*, *ASHRAE Journal*, and *Insights*.~~

II. Committee Organization

- A. *Committee Structure*^{*}: The Committee shall comprise a Chair, a Vice Chair, and ~~eight~~ ten other members appointed by the president-elect. Service on this Committee is intended to be for a 3-year term. Appointments are made, however, each year by the president-elect for the administrative year covered by his/her term as president. CO, BOD Ex-Officio, and Staff Liaison complete the committee. The Committee shall include a Planning Subcommittee.

...

- D. *Planning Subcommittee*: A subcommittee ~~shall~~ may be appointed by the Chair.

- E. *International Subcommittee*: A subcommittee ~~shall~~ may be appointed by the Chair.

- F. ~~MOP/BAR~~ ROB *Functional Subcommittee*: The Vice Chair shall be responsible for enhancements and updates of the Committee's MOP and ~~BAR~~ ROBs and presentation of changes for approval at Publishing and Education Council.

- G. *TAC Liaison*: The Chair shall appoint members of the Publications Committee to be liaison to ~~one or more section~~ each sections of the Technical Activities Committee.

...

IV. Committee Operations

Comment [HJ1]: We are proposing to increase the number of members by 2 in order to have adequate representation at each of the technical committees. Having regular and direct communication with the TCs will improve the special publications update rate. Keeping the special publications more up to date increase sales and that increase will provide more benefit than the cost of adding 2 members.

Comment [HJ2]: These two committees should be left for the Chair to decide each year, pending the need of the society and the chosen MBOs.

Comment [HJ3]: The 2 additional members will allow one liaison for each of the 10 TCs and allow the Chair and Vice Chair to perform their duties.

^{*}See the Reference Manual for specific details concerning Committee structure.

...
D. Prior to the Society Annual ~~(Summer) Conference Meeting~~, the Committee vice chair or the individual who will be the next year's chair will prepare objectives for the Committee for the next year and present these objectives to the Committee for review at the Committee meeting held during the Society Annual ~~Conference Meeting~~. The preparer of the objectives has the option of proposing objectives that extend beyond one year as long as the first-year objectives are clear and measurable. The objectives will be included in the Committee's report to the council at the Annual ~~Conference Meeting~~ as an information item, and a copy of the objectives will be sent to the Assistant to the Board of Directors.

Comment [HJJ4]: I think specifying that it is the summer annual meeting would help clarify for incoming officers.

...
VI. Staff Liaison The staff liaison shall carry out the requirements of the ~~ROBsBAR~~ and MOP and shall:

- Act as Secretary to the Committee in the preparation and mailing-distribution of the minutes.
- ~~Send copies of~~ Distribute minutes of the past four Committee meetings and the MOP to new Committee members. This shall occur as new appointments are made by the President-Elect.
- Distribute copies of the agenda, reports and other materials to members of the Publications ~~s~~ Committee.

[end excerpts from Publications Committee Manual of Procedures]

[begin excerpt]

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)~~ Nine (9) voting members including the chair and vice chair
- 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 shall should have served as a Regional Historian (RVC) or as a Chapter Historian

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*.

[end excerpt]

Background: The Historical Committee currently only has 7 Voting Members (VM), which is the smallest ASHRAE standing committee except for the Rules (6) and Audit (3) Committees. Regional Historians are Non-Voting Members (NVM) however a majority of them do not attend Society meetings, and they are not authorized travel to attend. The Regional Historians are responsible for the grass roots activities, including PAOE and reporting, of Chapter Historians.

In the past, the HC has had VM representation by the Regional Historians, especially during major Society historical events such as the Centennial recognitions and celebrations of ASHRAE and its predecessor Societies. The 125th Anniversary of the founding of ASHRAE will be celebrated in 2019-2020 and a number of events are being planned by the committee to recognize the milestone.

Because committee member terms are for 3 years, the current membership does not always allow for new leadership to have served on the committee for long before moving up to Chair or Vice Chair; having 9 members with staggered 3-year terms will provide the best pool of leadership candidates. The committee also has a number of subcommittees (5 – Administrative, Archives, Communications/RVC Guidance, Leadership Recall/Awards, and 125th Anniversary) and there are not enough VM's to support the subcommittees without multiple assignments, including the Chair and Vice Chair. Increasing the number of VM on the committee to 9 will provide enough committee members for the HC to be effective.

Fiscal Impact. The estimated fiscal impact of adding two VM to the committee is \$2,500/year, maximum, for transportation, if requested.

Attachment C
Functional Planning Subcommittee Report to PEC

MBO #1: Product alignment with younger members

30 January 2017

ACTION 1: (Tino Mendez)

My approach to this was to contact my local Chapter's YEA group, which is very active, and gave them the opportunity to provide input on this question. What follows is the text of an e-mail that was sent to approximately 60 YEA members of the Central Oklahoma Chapter.

You are receiving this e-mail because ASHRAE wants your input on how publications could best serve the needs of our members. You are the only YEA group being contacted at this time, so your input is very important. Please reply. See below.

The Publishing and Education Council has tasked its Functional Subcommittee, of which I am a member, to get input from YEA members on product alignment (format, delivery mechanism, content and context).

You could consider how this would affect all of ASHRAE's technical material. Also, consider the fact that not all ASHRAE members live in developed countries and delivery of printed material is a challenge.

I need to report prior to the winter meeting in Las Vegas so a prompt reply will be appreciated.

This is your opportunity, as an ASHRAE YEA member, to influence how ASHRAE technical material is made available to the General Membership.

Think about it and share your views by sending me an e-mail to tinomendez@cox.net with your ideas or call me at 405-590-4479 to discuss.

THANKS !!

I have received several replies with recommendations and suggestions that I will itemize below:

- 1 - I dislike that there is no "update" possibility on standards, e.g. need to buy a new standard once an update is out.
- 2 - No additional discounts for educators or students (smaller institutions do not have access to all standards through their library).
- 3 - DRM of pdf's may lead to issues if changing computers for some vendors of pdf documents (no good suggestion to solve the issue, don't recall if that was a major issue for ASHRAE standards).

4 - DRM sometimes prevents comments from being made into the pdf (don't recall which standard was the issue, but I ran into that issue)
5 - It would be great to sign up on a news-list specific to standards that were purchased previously.

6 - It would be good for committees to continually update the electronic version of the handbook rather than fixing that on the regular cycle of several years. If the deadline is not met by authoring committees then ASHRAE will otherwise lose the capability to update chapters until the next revision round.

7 - This sounds an awfully lot like trying to get away from physical books. If this is the case, I personally will always want a hardback book and it is the primary motivation behind being an ASHRAE member for myself.

8 - If I had to guess, I would think a lot of people will want both worlds, physical copy and "E-book", if you will. Going to a single eBook would most likely need to be accompanied by a drastic drop in membership fees.

9 - For ASHRAE Materials, I think an App where you can download chapters of the books to mobile devices would be useful. It would be important that the chapters be easily download-able and delete-able for this to work. There are many places where the handbooks would be useful, but lugging around a laptop with the CD or the physical book is not always the most practical when walking through a plant etc. Many of the areas where we work (inside factories for example) have limited cell service so having the chapters be downloadable so you can take specific sections of the book on your cellphone/tablet with you would be very helpful.

10 - The other thing I think would be useful are video/animation tutorials. The books are extremely useful, but there are times when a quick 1-2 minute video explanation would go a long way to providing an overview and better initial understanding that we can achieve with just text. There are other places where you can get these types of videos, but as the ASHRAE is the non-biased governing body it would be nice to have ASHRAE produced content linked in the chapters of the book to help illustrate some of the principles that are being discussed in each chapter.

11 - The last comment I have really falls more into IIAR territory and is more specific than I think you are looking for with the question you have but I will pass it along anyway. One of the issues I have recently run across is a lack of standard definition for ammonia refrigeration pipe allowable corrosion. One of the projects we are dealing with is requesting an assessment of piping integrity for ammonia systems. Everything we have found is very loosely defined RAGAGEP information, and there does not seem to

be any consensus for how much corrosion of pipe is acceptable before replacement is required. It would be nice if ASHRAE could work with IIAR/ASME to come up with some specific standards for when piping and/or equipment must be replaced that are less subjective than the RAGAGEP everyone is working under now (IE: If pipe wall is 90% of original wall thickness must be replaced with-in 1 year, if pipe wall is 70% of original wall thickness must be replaced with-in 1 month, less than 70% within one week...). I am sure there are liability issues that go along with this that people want to stay away from, so it may be a non-starter. Just something I have run-across recently that ASHRAE technical committees may be able to assist with.

I have explained to them how TCs work and clarified some misconceptions as to how Handbook Chapters are updated but I wanted to include all of their comments for your benefit.

As far as recommendations go, I believe that items 1, 5, 9 and 10 are worthy of further consideration. Other items may be of interest to committees and should be forwarded.

ACTION 2: Engage YEA Committee

- Contacted Erich Binder, YEA ExO who arranged a conference all with YEA Chair Haynes and Vice Chair Jake Kopocis
- Explained the MBO and requested their assistance
- We were invited to attend the YEA Committee meeting in Las Vegas and did so
- YEA Committee assigned a three person ad hoc to develop a survey, send it to YEA members (not just YEA Committee members) and report back
- No specific dates were set, but they generally move forward with tasks quickly
- Jake attended the Functional Subcommittee meeting along with one of their ad hoc members.
- Wednesday the ad hoc will meet to elect a Chair
- They will develop a draft survey and share it with Mick and Tino.

MBO #2: Identify product needs & prepare implementation roadmap for O&M market focus

PEC O&M Ideas to Support ASHRAE’s New Strategic Plan	Proposed Referral Assignments	POC	MBO 2 Assign	Notes
<p>1 O&M Video Develop ASHRAE service (fee based) to generate O&M video for specific projects. Store in ASHRAE cloud.</p>	<p>ECC Tech Council (TC 7.3)</p>	<p>Steve Faulkner Jim Vallort</p>	<p>Roger Jones</p>	
<p>2 Chapter O&M Resources Develop O&M package for use by local chapters. Target facilities personnel to join local chapter as benefit/enhance skill sets.</p>	<p>Members Council/CTTC</p>	<p>Bjarne Olesen</p>	<p>Roger Jones</p>	
<p>3 DBOSS App Develop app for DBOSS: Dynamic Building Optimization Systems and Service</p>	<p>Publications Committee</p>	<p>Jin Jin Huang</p>	<p>John Nix</p>	<p>DBOSS subcommittee is new and met for first time at AM2015</p>
<p>4 Guides & Cheklists Create practical guides and check lists for effective building operations geared toward operations staff.</p>	<p>Tech Council (TC 7.3)</p>	<p>Jim Vallort</p>	<p>Richard Rooley</p>	
<p>5 Standardized Sequence of Operation Educate consulting/specifying engineering community on our Handbook resources regarding standard sequences of operation.</p>	<p>Tech Council (TC 1.4; TC 7.3)</p>	<p>Jim Vallort</p>	<p>Richard Rooley</p>	
<p>6 Terminology Database Offer our O&M Terminology via cloud hosted database as a resource for visitors (read-only) and members (read/write/comment). Benefits include reduced confusion and increased uniformity.</p>	<p>Tech Council (TC 1.6; TC 7.3)</p>	<p>Jim Vallort</p>	<p>Richard Rooley</p>	

7	O&M Manual App Develop an app to generate a building specific O&M manual	Publications Committee Tech Council (TC 7.3)	Jin Jin Huang Jim Vallort	Richard Rooley
8	BIM Promote ideas involving big data usage and BIM.	Tech Council (MTG BIM; TC 1.5; TC 7.3)	Jim Vallort	Roger Jones
9	Service Life and Maintenance Cost Database Create a program to crowd source the Service Life and Maintenance Cost Database (managed by TC 7.8).	ASHRAE Marketing Tech Council (TC 7.5; TC 7.9)	Vanita Gupta	Roger Jones
10	Virtual Reality Explore how the new virtual reality programs could be used to support the O&M market.	Tech Council (TC 1.5; Emerging Technologies)	Jim Vallort	John Nix
	TC 1.4	Control Theory and Applications		
	TC 1.5	Computer Applications		
	TC 1.6	Terminology		
	TC 7.3	O&M Management		
	TC 7.5	Smart Building Systems		
	TC 7.9	Building Commissioning		
	MTG BIM	Multidisciplinary Task Group - Building Information Modeling		

PEC O&M Ideas to Support ASHRAE's New Strategic Plan

1. Develop an ASHRAE service (for a fee) to generate an O & M video for a specific project and keep it in the ASHRAE cloud. This project specific video, developed by engineers with ASHRAE software, would cover the basis of design, how the building is supposed to operate, the basic functions and operating parameters of the control system. If the building is remodeled, or it's intended use modified, these control strategies would need to be modified. ASHRAE could provide some system templates to help engineers create the videos. User cost needs to be low, like the YouTube model, to prevent others from offering a competing service. Benefits are ASHRAE Brand exposure and potential advertising. **(Propose assign to TC 7.3, ECC)**

Comments from our working group:

- a. "The great shame, maybe disgrace, is that we design buildings that are energy efficient; maintain occupant comfort and they don't work. Many don't work on day 1 much less in 2-3 years. Commissioning helps (certainly on day 1) but the training of the operating personnel especially after turnover is lacking."
- b. "In this age of computerized everything it seems like if, as a part of the "design package", ASHRAE helped create a video presentation by the engineer that showed the intent of the control sequences in plain language it would help not only the operating personnel but also the commissioning authority to make sure everything operates as intended. An additional fee would be warranted."
- c. "It is imperative that Temperature Controls and Control Strategies that are included with plans and specs as part of the facility design. The contractor and engineer do their best to see that the operating personnel at the facility understand the "intent" of the written word. Commissioning has come a long way toward the goal of having the facility operating as originally designed and re-commissioning could help in making sure that "new" operating personnel continue to operate the facility as originally intended."
- d. "Unfortunately, a lot of facilities do not have the luxury of getting so much attention and after a few years the operation barely resembles the original intent and results in low indoor air quality and wasted energy. In my own experience I found that if I sat down with a new operator and explained what we were trying to do, they were willing to use the tools that they were given to make it happen."
- e. "Having worked for many automatic temperature controls companies (Johnson Controls, Honeywell, Automated Logic and Staefa) one of our biggest frustrations is that we train owner personnel on the operation of our systems and six months later, they have moved on and there is no institutional memory of their building or our systems."
- f. "We have tried to roll training into service contracts, but it usually gets short shrift and is one of the first things to get cut when O&M budgets get tight."

2. Another item that concerns Operating and Maintenance is the training and management of the facility operating personnel. ASHRAE has not effectively marketed our available educational materials to this audience. We could put together an "O&M Package" that could be used by our.

Chapters to invite these operating individuals to our meetings and to join our Society and join our TCs and in so doing make their service to their employers more valuable. This could lead to more formalized training and maybe certification. Approaching BOMA and other related organizations and making them partners in the educational effort would benefit all. **(Propose assign to TC 7.3, Members Council, CTTC)**

3. ASHRAE DBOSS (Dynamic Building Optimization Systems and Service) uses software that communicates with "every item" in the building to optimize collective performance, reduce building energy and maintenance costs, and enable predictive maintenance/service. An ASHRAE app to help select DBOSS program features and/or predict savings could be of great interest to the O&M community and generate ASHRAE revenue. ASHRAE could also publish more DBOSS case studies like the ones on ASHRAE HQ.

(Propose assign to TC 1.5, Publications Committee, TC 7.5)

4. Create practical guides and check lists for effective building operations geared toward operations staff.

(Propose assign to TC 7.3)

- a. Strategies to utilize fault detection diagnostic tools for building operations, to deal with the large volume of data on alarms and operations monitoring.
- b. Research leading to a publication on best practices in effective building operations, with case studies.

- c. Develop and publish high performance building operations specifications, guidelines for specific building types.
5. We are starting to see ASHRAE standardized sequences in consulting engineers' specifications, but it is more the exception than the rule. One possible solution would be to educate consulting/specifying engineering community on our Handbook resources. **(Propose assign to TC 1.4, TC 7.3)**
 - a. This addresses the many controls companies that simply cut & paste the specified sequences of operation into their programming without much thought as to whether they work or not.
6. Expand the development and use of O&M Terminology by offering a filterable website database application of all terms and definitions tracked by TC 1.6. The cloud sourced database could be hosted in the ASHRAExCHANGE area with accessible read-only for visitors, but also read-write for commenting based access levels using ASHRAE's existing user database and/or ASHRAE Exchange. **(Propose assign to TC 1.6, TC 7.3)** This effort would help ASHRAE become visible as a source for O&M Terminology.

Such a database could:

- a. Allow building owners and maintenance groups to know what ASHRAE's definitions are, reducing confusion.
 - b. Bring more uniformity to ASHRAE consultants, contractors, researchers writing papers, code committees, etc. Position ASHRAE as a more authoritative source – having better definitions for O&M Terms.
 - c. Reduce risk for users of standard terminology and greater harmonization to occur as committees are allowed to see other term definitions in use with the O&M community.
 - d. Allow for expansion, with future efforts in graphical symbols, abbreviations, etc.
 - e. An app to generate inputs for a BEQ operation submission.
7. An app to generate a building specific O&M manual. **(Propose assign to TC 7.3, Publications Committee)**
 8. Promote ideas involving big data usage and BIM.
 - a. BIM does allow us to enter this new world of big data. It seems to allow us to move into the digital age - where most other industries already operate - but not Buildings. The UK is about to press ahead with compulsory BIM for government funded projects. As a large building owner/operator the UK government has a lot of clout and interest in getting this technology adopted. They have said from 2016 all their projects have to use BIM. ASHRAE needs to promote BIM. **(Propose assign to MTG BIM, TC 1.5, TC 7.3)**
 9. ASHRAE creates a program to crowd source the Service Life and Maintenance Cost Database (managed by TC 7.8). This database would allow O&M to more accurately plan and budget their operations. This database should accept spreadsheet information with pull down menu's that mimic the database elements per TRP 1237 and the existing database. The goal is to seed the database adequately so that it becomes the leading open source of building operating cost and service life for the built environment. TC 7.5 and TC 7.9 have indicated they have data to input. **(Propose assign to TC 7.5, TC 7.9, ASHRAE Marketing)**
 10. ASHRAE should explore how the new virtual reality programs could be used to support the O&M market. **(Propose assign to TC 1.5, Emerging Technologies)**

Scope of TC 1.5

TC 1.5 is concerned with determination of computer applications to the design and optimization of refrigeration, heating, and air-conditioning systems, equipment and components thereof; and with programs for all such uses. TC 1.5 has several additional specialized subcommittees: Emerging Applications (described below) and two recently formed subcommittees, DBOSS and Cyber Security. Check the home page for the meeting times of these subcommittees.

DBOSS: Dynamic Building Optimization Systems and Service

The TC 1.5 DBOSS subcommittee is newly formed and met for the first time at the 2015 Annual Conference in Atlanta. More information will follow.

PEC Functional Subcommittee - MBOs 2016-2017 SY

DESCRIPTION		RESPONSIBILITY													COMMENTS					
		Standing Committees						Subcommittees				Other								
		ASHRAE Strat Dir	Certification	ECC	Handbook	Historical	PDC	Publications	Functional	Fiscal	eLearning	Journal Advert.	Research Journal	PEC Chair	Staff	Status		Functional Volunteers	Lead	Committee also has MBO
1	Prepare study & recommendations on product alignment (format, delivery mechanism, content, context) with younger members for future media dissemination		-	-	-	-	-	-	X	X	X	-	-	-	X		How do we get YEA involved to ensure we have their input?	Tino, Mick	Tino	eLearning
	Background	Technology has changed significantly as have learning styles. We have no YEA members on PEC today and need to ensure they are involved in this investigation and these decisions. There are YEA members on the Publications and Professional Development Committees that could be contacted																		
2	Identify product needs & prepare implementation roadmap for O&M market focus		-	-	-	-	-	-	X	X	-	-	-	-	X		Build on 2015-16 work	Richard, John, Roger	Roger	
	Background	Roger led a group that made significant progress in 2015-16 and will continue this year. 2015-16 Referrals concerning O&M were shared																		
5	Refine User Manual Development Plan in collaboration with Tech Council.		-	-	-	-	-	-	X	X	-	-	-	-	X		Plan developed but not implemented as outlined. Refinement underway.	Mick	Mick	
	Background	President Tom Phoenix came to a PEC meeting in 2015 and stated the question he was asked the most was why it took so long to publish User's Manual. Mick Schwedler worked with ASHRAE Staff, PEC leadership and Tech Council to develop options. It was decided at that time that Tech Council will continue to take the lead. Drake Erbe (90.1 Chair) and Steve Comstock have also been discussing possible online products for the 90.1 Users Manual																		
6	Develop and implement strategies to deliver products and services globally		X	X	-	-	X	X	X	X	-	-	X	X		Waiting on MCI Report	Frank, Richard	Frank		
	Background	There were recommendations in the MCI report. A number of them were not accepted. Planning Committee is reconciling them. Mick Schwedler is a member of PLC and can communicate updates to this task group.																		
9	Develop educational and publishing programs to align with 2016-2017 Society theme		-	-	-	-	X	X	X	-	-	-	-	-	X			John, CS	John	Publications; Jin Jin Huang (Chair) PDC; James W. Bochat (Chair)
	Background	Quite a few of President Wentz's initiatives involve new publications and courses. Publications and Professional Development Committees are doing significant work to deliver on those initiatives. PEC should support the Committees and allow them to take the lead if they wish.																		

PEC Functional Subcommittee - MBOs 2016-2017 SY

DESCRIPTION		RESPONSIBILITY													COMMENTS					
		Standing Committees						Subcommittees				Other								
		ASHRAE Strat Dir	Certification	ECC	Handbook	Historical	PDC	Publications	Functional	Fiscal	eLearning	Journal Advert.	Research Journal	PEC Chair	Staff	Status		Functional Volunteers	Lead	Committee also has MBO
10	Create 'infographic' to show interrelationships of ASHRAE publications, technical topics, and development groups.		-	-	-	-	-	X	X	-	-	-	-	-	X		Aim is to enable clearer understanding and application of the wide range of ASHRAE publications, and also to provide a diagnostic to determine gaps and overlaps.	Roger, Frank	Publications in lead, Roger & Frank to support and report	Publications; Jin Jin Huang (Chair)
	Background	The goal is to help all groups involved understand publication relationships between committees and groups. This MBO is already being worked on by Publications Committee and one of their MBOs.																		

PEC MBO 5 Refine User Manual Development Plan in collaboration with Tech Council.

28 January 2017

Background

President Tom Phoenix came to a PEC meeting in 2015 and stated the question he was asked the most was why it took so long to publish User's Manual. Mick Schwedler worked with ASHRAE Staff, PEC leadership and Tech Council to develop options. It was decided at that time that Tech Council will continue to take the lead.

June 2016 – January 2017 Progress

Present User's Manuals

We received the following information from Pat Graef, Chair of Tech Council:

“Standard Committee approved the recommendation that Standards Committee revise its approval process for the development of User's Manuals to streamline approvals and that Publications create a marketing plan to market the pre-sale of the User's Manual when the standards come out. There would be no increase in the cost and the revised UM development process would maintain the quality of the User Manual's document.

The contracting process will be modified to include a drop dead date for the UM completion. This drop dead date will allow for publication within a reasonable time. Other process changes will include less approvals by higher bodies once the budget has been approved. For example, approval of the project monitoring subcommittee (PMS) would be done only by the project committee, requests for works statements from project committees will be done sooner, and a staff member from Pub Ed will be added to the PMS. The PC will have a defined period for review and approval of the UM final draft and if no response from the PC is received by the conclusion of the review period, the UM will automatically proceed to publication.

These changes will permit ASHRAE to announce/co-market the Standard and the User's Manual jointly; thereby, potentially increase UM sales. The UM will automatically ship when completed by the previously agreed upon date.”

SSPC 90.1 will receive the first draft of the User's Manual in February. There is a strict timeline. The schedule calls for the final publication to be transferred from the contractor to ASHRAE in August of 2017.

Mick Schwedler also reviewed and commented on the new User's' Manual development process document.

Future User's Manuals

Drake Erbe (90.1 Chair) and Steve Comstock have been discussing possible online products for the 90.1 User's Manual.

Steve Comstock is working with SSPC 90.1 on a User's Manual format that makes it an online product aligned with an online version of the standard. Once this online product is available, updating it for future editions should be in that the UM can be updated as the standard is revised through addenda. In effect this makes the UM a living document.

Drake is enthusiastic about these developments.

MBO #6

Develop and implement strategies to deliver products and services globally

ASHRAE – PEC Services to Overseas Members

Scope: this group has considered the types and range of publication and education services which could and should be provided for members outside North America.

Background: ASHRAE has seen a significant growth in overseas membership and now has over 25% of members 'outside North America'.

The current structure to identify, prepare and publish is based around the ASHRAE TC's, TRG, SSPC, and related committees which generally meet in North America during the winter and summer meetings. Whilst overseas members can attend, their meetings, join these committees and/or take part as corresponding members, they are principally made up of North American members.

There is a strong case for gaining more involvement of overseas members...

- ASHRAE is the World leader in HVAC and Refrigeration and aims to provide relevant technical information for the benefit of all members – including overseas members.
- There are many ASHRAE overseas members who are experts/specialist/world leaders in their area of expertise and should have the opportunity to contribute. Many do, for example the author of this report (Frank), and many others including President elect Bjarne Oleson.
- The developing economy countries have unique demands which will require some bespoke solutions. See, for example, Hot Climate Design Guide.

Overseas Membership

Historically, overseas members joined because they wanted to 'tap into' the available ASHRAE technology. They received the Journal, Handbooks and could purchase Standards, Guides, Educational programs etc. it is evident that this certainly provides those members to have the most up to date technical information available and to apply it during their daily work activities. It has been developed around a North American view point by virtue of the fact that most of the content has been published through the TAC structure using North American expertise. There has been overseas members input which has been extremely valuable, for example Professor Ole Fanger's input – and others.

Forward Planning

PEC should continue to develop services around the current North American model, because that it still a major requirement and is a service need of the majority of members.

Additionally, PEC should start to identify a range of services to overseas members, including their effective delivery.

'HANDBOOK'

The handbooks are now regarded as the leading source of HVAC and R technical guidance worldwide. TAC is encouraging TC's to involve overseas members in the task of Chapter updates and this is leading to a more 'international' content.

The Cold Climate Design Guide was published by ASHRAE using a team of authors from North America, Scandinavia, UK and parts of Europe.

The guide has been extremely popular and there is a request to publish a second edition which will be launched at the next Cold Climate Conference in Sweden in 2018.

Hot Climate Design Guide

Following the successful format of the Cold Climate Design Guide, this new publication (due in 2018) has used the ASHRAE Hot Climate Conference, held in Doha, as the catalyst for a new MTG consisting of authors who are currently preparing the content. The MTG Committee consists of North American and International members and has developed a content list which includes material from basic, low cost, low energy building solutions, to high tech, modern architecture including for example, tall glass buildings in desert climates.

Linking Conferences to PEC

The experience gained from the Cold Climate and the Hot Climate conferences indicates that there is an opportunity to link a specialist conference to a new publication and related learning packages – which could thus be delivered by Chapters.

Other points

'Waiting on MCI Report' – see PEC MBO 2 roadmap for OM Market focus

There were recommendations in the MCI report. A number of them were not accepted. Planning Committee is reconciling them. Mick Schwedler is a member of PLC and can communicate updates to this task group.



RESEARCH JOURNAL SUBCOMMITTEE
Report to Publishing and Education Council
Meeting of Tuesday, June 27, 2017

Subcommittee Members

Walid Chakroun, Chair
Edward Tsui, Vice Chair
Reinhard Radermacher, Editor-in-Chief
David Arnold
Steve Comstock, staff

Guests

Julia Keen, BOD
Mary E. Collins Baugher, editorial office
Julie Harr, staff
Lauren Ramsdell, staff
Mark Owen, staff
Alexa Flood, Taylor & Francis

Action Items

(None)

Information Items

1. The journal's 2016 Impact Factor (IF) is 0.928 for the former title, HVAC&R Research, and 0.880 for Science and Technology for the Built Environment. The 0.928 IF is a significant increase over its 2015 impact factor of 0.871. Its 2016 5-year impact factor is 1.284. The IF is split this year because of the title change in 2015; each IF reflects the citations in 2016 to the content published in the two iterations of the journal: content published in 2014 in HVAC&R Research and content published in 2015 in STBE. This IF year will be the last for HVAC&R Research and is the first for STBE. All future IF releases will deal strictly with content published under the STBE title; for example, the 2017 IF will show citations in 2017 to content published in 2015 and 2016, and both years reflect the new title.

STBE's rankings among journals are 31/61 (up 5 spots) in Construction & Building Technology; 78/130 (up 19 spots) in Engineering, Mechanical; and 36/58 (up 7 spots) in Thermodynamics.

2. The journal recently received a CiteScore (by Elsevier) of 1.01, a Highest CiteScore Percentile of 66%, and a CiteScore Rank of 50/149 journals in Building and Construction. This metric is calculated in a manner similar to Impact Factor, although it uses a 3-year window instead of 2 years, and it includes editorials and book reviews, which Impact Factor does not.

3. Since January 2017, ASHRAE members have had free online access to STBE using their existing ASHRAE login credentials. It is believed that members' access to STBE will benefit firms, contractors, and other researchers through increased research transparency and access to cutting-edge technical information and case studies.

4. STBE received 168 papers submitted during the first half of 2017 (the most ever), and published 86 papers (also the most ever).

5. The subcommittee voted unanimously to approve increasing the number of issues per year from 8 to 10 (1520 pages/year). This will be done at no added cost to ASHRAE, and will be accompanied by an increase in the subscription price. It is anticipated that this action will help increase the Impact Factor.

6. The subcommittee voted to renew the terms of two associate editors and to add a new associate editor to replace one departing.
7. For the first time, the recipients of the *Science and Technology for the Built Environment* Best Paper award were announced at this conference's Plenary Session. This had been requested with the aim of raising the profile and prestige of the journal among ASHRAE members and authors.
8. A program, Science and Technology for the Built Environment Writer's Workshop: Authoring Research Papers with Impact, was presented Sunday morning at this conference. The workshop was given by Alexa Flood of Taylor & Francis, Reinhard Radermacher, Editor-in-Chief, and Mary Baugher, assistant to the Editor-in-Chief.
9. The subcommittee will report to the council in fall 2017 on recommendations to work with the Conferences and Expositions Committee (CEC) to encourage submission and presentation of papers at ASHRAE Conferences.
10. The subcommittee will report to the council in January 2018 regarding recommendations to speed the journal's review process and publication time.

Respectfully submitted,

Walid Chakroun, Chair
Research Journal Subcommittee
06/27/2017
WC: mso



ASHRAE Science and Technology for the Built Environment

Reinhard Radermacher

Editor-in-Chief

[Current Status of STBE Submissions](#)

[STBE Original Manuscripts by Type](#)

[Papers Processed](#)

[Manuscript Task Report](#)

[Issue Lineup](#)

ASHRAE Summer Conference

June 2017

Long Beach, CA

Prepared by

Mary E. Collins Baugher,

Managing Editor

Science and Technology for the Built Environment

Guest editors listed in green.

Manuscript Task Status Report STBE							
June 5, 2017 to June 5, 2017							
Associate Editors	Manuscripts Currently Assigned	RA Manuscripts No. Assigned Last 12 Months <i>(includes revisions)</i>	Average Turnaround in Days	Accept	Reject	Accept %	Reject %
Bansal, Pradeep	3	23	29	5	7	42%	68%
Brown, Steve	2	27	30	11	4	73%	27%
Cook, Malcolm	4	34	48	11	10	53%	47%
de Dear, Richard	1	16	44	4	4	50%	50%
Kim, Yongchan	2	17	54	6	2	75%	25%
Lamberts, Roberto	2	23	47	6	5	54%	46%
Nellis, Gregory	0	1	7	1	1	50%	50%
Radermacher, Reinhard	0	8	17	4	0	100%	0%
Sekhar, Chandra	3	16	77	2	3	40%	60%
Toftum, Jørn	2	30	35	5	5	50%	50%
Wang, Shengwei	3	28	56	3	1	75%	25%
Zhang, Jianshun	1	17	27	3	7	30%	70%
Zilio, Claudio	3	18	32	6	0	100%	0%
Cao, Gangyu	1	10	95	5	0	100%	0%
Cremaschi, Lorenzo	0	15	48	5	1	84%	16%
Li, Xiangli	0	14	41	7	3	70%	30%
Moghaddam, Saeed	0	11	58	5	1	83%	17%
Sun, Hejiang	0	10	41	5	0	100%	0%
Yu, Philip	3	17	118	3	1	75%	25%
Total	30	335	47.6	97	55	69%	32%
<i>Radermacher, R. as MP</i>	37	387					
<i>Baughner, M. as MP</i>	1	7	<i>Baughner, M. as RA</i>	1	0	100%	0%

										12 Month Revolving Update June 2016 to June 2017*																Action			
2004/5		2005/6		2006/7		2007/8		2008/9		2009/10		2010/11		2011/12		2012/13		2013/2014		2014/2015		2015/2016		2016/2017			2017/2018		
Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June	Jan	June
48	59	86	62	107	103	83	84	68	69	76	73	76	56	128	79	115	44	109	87	74	93	132	113	112	141	114	168	Newly Submitted	
39	34	31	30	58	64	58	54	48	52	27	10	3	42	49	108	31	12	30	73	91	33	59	67	69	62	76	103	Accepted	
26	29	27	32	58	67	53	57	30	32	31	31	33	28	39	41	42	41	59	36	53	45	48	46	61	39	82	86	Published	
29	26	32	33	40	36	39	27	14	11	18	7	10	14	7	42	14	13	40	42	34	16	31	27	46	27	45	68	Rejected	
								24	26	24	25	61	20	81	48	66	62	39	45	43	54	56	24	59	80	110	147	In Progress	

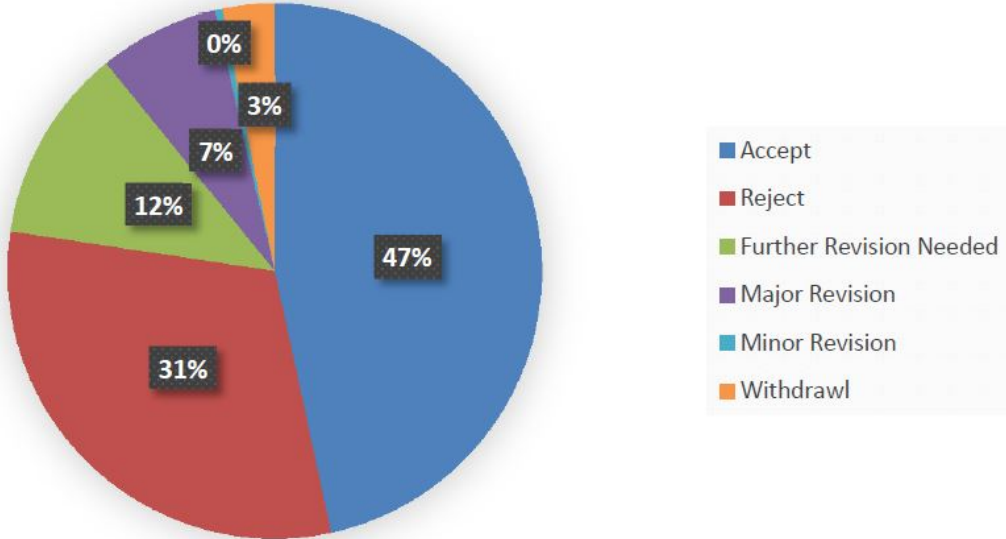
*Papers that are in progress no matter when initially submitted.

Total Papers Published by Issue											
Year	JAN	FEB	APR	MAY	JUNE	JULY	AUG	OCT	NOV	DEC	TOTAL
2017	19	15	14	12	60	10	16	15	15	56	116
2016	10	9	10	10	39	14	18	15	16	63	102
2015	10	12	11	10	43	22	14	14	11	61	104
2014	15	10	10	8	42	8	9	8	13	38	81
2013	8	8	11	9	36	15	10	13	16	54	90
2012	22	19	22	19						10	82
2011	8	7	10	16		17				16	74
2010	6	7	7	8	0	9		11			48
2009	8	12	11	9	0	8		10			58
2008	9	10	7	6	0	10		8			50
2007	5	11	7	9	0	10		8			50
2006	8			9	0	9		11			37

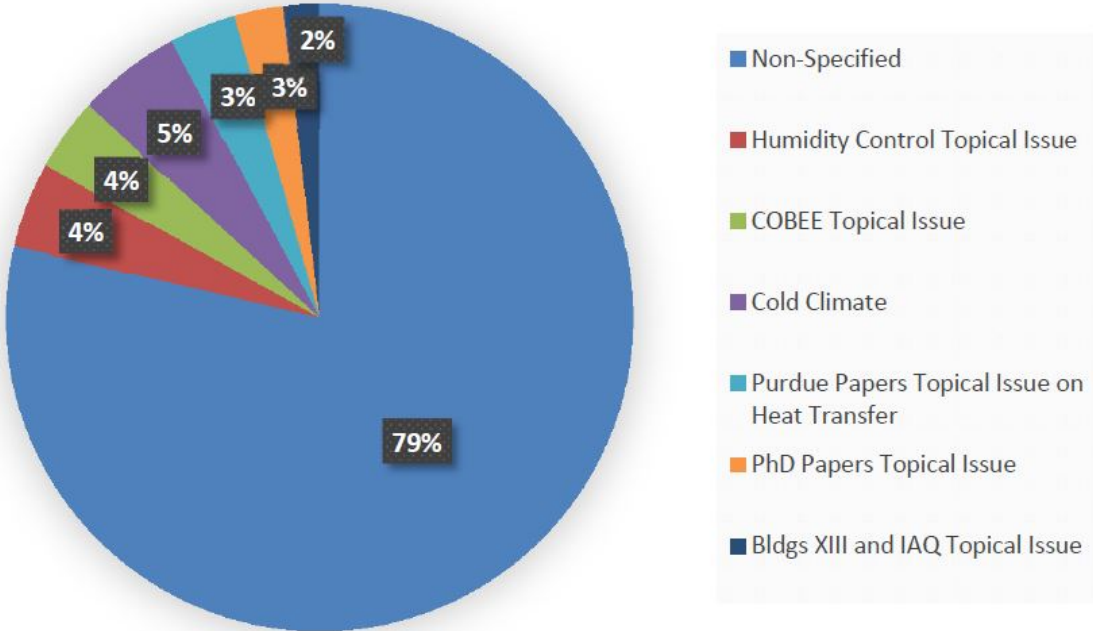
October, November and December but not yet published.

Virtual Topical Issues
Personalized Ventilation
June 2015, Editor: Chandra Sekhar
18 Papers

Current Status of STBE Submissions from the Last 12 Months



STBE Original Manuscripts Received By Type



Issue	Issue Title	Editor	Publ. Date	Submissions	Accepted
23.1	Humidity Control/General Issue	Linda Xiao	01/15/17	14/5	14/5
23.2	COBEE Topical Issue and General Section	Tim Tengfei, Hejiang Sun	02/15/17	12/5	11/5
23.3	Int. Conf. Cold Climate/General Issue	Cao Guangyu, Xiangli Li, Duanmu Lin	04/15/17	17	14
23.4	General Issue	Radermacher, Baugher	05/15/17	12	12
23.5	General Issue	Radermacher, Baugher	07/15/17	10	10
23.6	Purdue Papers Topical Issue on Heat Transfer and PHD Topical Issue/General Issue	Lorenzo Cremaschi and Saeed Moghadd	08/15/17	11, 8	10, 6
23.7	General issue	Radermacher, Baugher	10/15/17	15	15
23.8	General Issue	Radermacher, Baugher	11/15/17	15	15
24.1	BSA 2017 Topical Issue	Andrea Gasparella and Vincenzo Corrad	02/15/18	1	0
24.2	Bldgs XIII Topical Issue and IAQ2016 conf	William Bahnfleth and Chandra Sekhar	04/15/18	6	0
24.3	General Issue	Radermacher, Baugher	05/15/18	15	15
24.4	ISHVAC2017 and (ASTFE) Conference and 4th International Workshop on Heat Transfer	Pradeep Bansal	07/15/18	0	0
24.5	General issue	?	08/15/18	10	10
24.6	ISHPC Topical Issue and 12th IEA International Heat Pump Conference		11/15/18	0	0
24.7	General Issue		01/15/19	10	10
24.8	Beyond NZEB Retrofit of Existing Buildings		02/15/19	0	0
25.1	ASHRAE 2018 conference papers topical issue	Radermacher			
25.2	General Issue	?			
25.3	Second Developing Economies Conference and 2017 Building Performance Analysis Conference				
25.4	Cold Climate Topical Issue				
25.5					
25.6					
25.7					
25.8					

Usage Report for *Science and Technology for the Built Environment*

January – June 2017

TPS access from ASHRAE website

Publication	Service	Print ISSN	Online ISSN	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Reporting Period Total
Science and Technology for the Built Environment	List of Issues	2374-4731	2374-474X	169	122	108	55	129	12	595
Science and Technology for the Built Environment	Table of Contents	2374-4731	2374-474X	105	71	85	29	145	5	440
Science and Technology for the Built Environment	Abstracts	2374-4731	2374-474X	20	17	16	17	16	0	86
Science and Technology for the Built Environment	References	2374-4731	2374-474X	2	11	4	1	1	0	19
Science and Technology for the Built Environment	Full-text HTML	2374-4731	2374-474X	97	84	47	40	121	5	394
Science and Technology for the Built Environment	Full-text PDF	2374-4731	2374-474X	77	90	62	41	54	1	325
Science and Technology for the Built Environment	Full-text Total	2374-4731	2374-474X	174	174	109	81	175	6	719
Science and Technology for the Built Environment	Supplementary Material	2374-4731	2374-474X	0	0	0	0	0	0	0

Content being accessed by ASHRAE member-subscribers is generally 2015 to current.

Since ASHRAE did not have TPS access prior to 2017, there's no direct comparison for usage in previous years. However, here is a breakdown of ASHRAE member-subscriber figures from 2014 through 2016.

	PRINT+ONLINE	ONLINE ONLY
2016	93	29
2015	223	50
2014	339	100

Overview

The STBE researcher survey went out to more than 1100 authors on 2/7 and was closed on 2/28. A total of 89 respondents were recorded, with all non-required questions having at least 80 responses. The responses indicate the following:

- Researchers who publish with STBE are midcareer academics with a predominant interest in HVAC&R research.
- Readers appreciate STBE's connection with ASHRAE and feel that the ASHRAE approval is important to their continued publishing in the journal.
- Higher impact factors and faster publishing are important to these authors, and are areas in which STBE can improve.
- Open-access is a contentious topic, with nearly half for and half against the practice. Therefore, free open-access articles will likely be well-received by most readers.

Q1: How frequently do you access STBE content through the following channels?

The chart indicates that the vast majority of respondents access STBE through electronic means. More than 80% of respondents rarely or never access STBE in print, further indicating that the move to offer online subscriptions to our members was a good idea.

Q2: Which channel do you use most frequently?

Again, the majority accesses STBE through electronic means. Only 6 out of 88 respondents prefer the print version.

Q3: How does a journal's Impact Factor affect whether you subscribe to that journal?

Our readers indicate that Impact Factor does play a role in whether they subscribe to the journal, but it is not the most important one. 57% of respondents said Impact Factor was "not at all" or "somewhat" important, while 42% said it was "very" or "most" important. The most common response was "somewhat" important, at 41%.

Q4: How does a journal's Impact Factor affect whether you publish with that journal?

However, Impact Factor is much more important when it comes to publishing with a journal. 44% indicated that Impact Factor was "not at all" or "somewhat" important, while 55% indicated it was "very" or "most" important. The most common response was "very" important, at 45%.

Q5: Please order the following Special Topics in order of Most Interesting to Least Interesting

The list, in order of respondents' interest is:

1. Heating, ventilation, air conditioning, and refrigeration (HVAC&R) and related technologies
2. Thermodynamic and energy system dynamics, controls, optimization, fault detection and diagnosis, smart systems, and building demand-side management
3. Experiments and analysis related to material properties, underlying thermodynamics, refrigerants, fluid dynamics, airflow, and heat and mass transfer
4. Renewable and traditional energy systems and related processes and concepts
5. Indoor environmental quality, occupant health, comfort, and productivity

6. Integrated built environmental system design approaches and tools
7. Novel simulation approaches and algorithms and validated simulations
8. Building enclosure materials, assemblies, and systems for minimizing and/or regulating space heating and cooling modes

Q6: Does your institution have an open-access requirement?

The majority of respondents do not have an open-access requirement (78% do not, 21% do).

Q7: Would you prefer open-access publishing? Why?

There is a close split between those who prefer and those who do not prefer open-access publishing, with 51% to 48% in favor of open access. A few sample responses for the reasoning in favor:

- “To make my publication more visible. And because a publication should be accessible to a wide scientific audience, for reading and commenting after having been published.”
- “Allows for browsing of articles outside of specific interests and allows for less time and expense in having to buy individual articles.”
- “I would read a lot more articles if they were open access. Can't justify spending ~\$40/article unless very relevant to current work activities.”

And against:

- Scientific publications is not for everybody. I understand that developing countries should receive very cheap or even free access to scientific documentation. But not others.
- I prefer not to pay the extra fees. It seems like a poor use of my limited discretionary funds. I do believe it would be advantageous for the journal to be open-access; it would help impact factor if papers were freely available.
- I don't think pay-to-play is a good model for scientific publishing.

Q8: How much would you be willing to pay for an article published via open access?

Most respondents want to pay less than \$1000 for open-access articles.

Q9: How is the purchasing/subscription decision made?

Most people subscribe to STBE through their institution. Around 18% of respondents make the recommendation to subscribe directly to their institution.

Q10: What is the main reason you subscribe to STBE?

The majority of respondents subscribe because they believe STBE is the journal leader in its field. 38% indicated they subscribe “to keep up with current topics in the field”, while 22% said “research by thought leaders in the field.” This implies that STBE publishes research of good value to other researchers.

Q11: What other journals in related fields (HVAC&R) do you subscribe to?

Energy and Buildings, *International Journal of Refrigeration*, and *Building & Environment* led the pack for other subscriptions. In error, this question was not made multiple choice, so many respondents indicated they subscribe or have access to all of the listed journals.

The list of all journals, ranked by survey selection, is:

1. Energy & Buildings
2. International Journal of Refrigeration
3. Building & Environment
4. Applied Energy
5. Indoor Air
6. Journal of Building Performance Simulation
7. Energy
8. Applied Thermal Engineering
9. Applied Energy
10. Cryogenics

Q12: To what other journals have you submitted research?

Energy and Buildings, International Journal of Refrigeration, and Building & Environment are again the top responses.

Q13: How authoritative do you believe the research published in STBE is compared to other peer-reviewed journals in the field of indoor environments?

Most respondents believe STBE is more authoritative (61%) or the best in the field (8%) on this topic.

Q14: How authoritative do you believe the research published in STBE is compared to other peer-reviewed journals on the subject of refrigeration?

Most respondents believe STBE is more authoritative (54%) or the best in the field (7%) on this topic. However, 38% of respondents believe STBE is less authoritative than most on this topic. This could be an area of growth with invited articles.

Q15: How authoritative do you believe the research published in STBE is compared to other peer-reviewed journals on the subject of building systems and equipment?

Most respondents believe STBE is more authoritative (68%) or the best in the field (9%) on this topic.

Q16: What type of papers do you find most useful?

89% of respondents prefer research papers over all other types of papers. However, a few (9%) indicate that reviews are similarly useful.

Q17: Of the four article types, which would you like to see more of?

Most respondents (69%) would like to see more research papers. However, more people (22% of respondents) are interested in seeing additional review papers than currently think review papers are the most useful. Review articles could also be a good way to improve the Impact Factor, as they use and can be sources of multiple citations.

Q18: What is your main area of professional/academic interest?

The primary interests were indoor environmental quality, energy, heat pumps, and refrigeration. This further indicates that expanding publication in the area of refrigeration would be well-received.

The ranking of interests is as follows:

1. Indoor environmental quality
2. Energy

3. Heat pumps
4. Refrigeration
5. System optimization
6. Refrigerants
7. Heat transfer/heat exchangers
8. Building materials
9. Sustainable building systems
10. Ventilation
11. Comfort
12. Renewable energy
13. Controls
14. Heating
15. Fluid dynamics
16. Airflow
17. Commercial applications
18. Basic science
19. Simulation

Q19: Are you an ASHRAE member?

There was a nearly even split between ASHRAE members (51%) and nonmembers (48%).

Q20: If you have published with STBE multiple times, what is the main reason you continue to publish with STBE as compared to other journals?

STBE's association with ASHRAE is a major reason researchers continue to publish with STBE. Including STBE in more ASHRAE activities will be a benefit to the researchers (continued name recognition) and may entice new ASHRAE member researchers to publish with STBE for the first time.

Q21 What is the main benefit you receive of publishing with STBE?

ASHRAE affiliation and international recognition/recognition among peers are the main benefits of publishing with STBE. Other responses included the desire to improve scientific knowledge and educate readers.

Q22: What is the main disadvantage of publishing with STBE?

Respondents overwhelmingly cite STBE's lower Impact Factor as the main disadvantage of publishing with STBE.

- "Low impact factor means difficulty in academic job search in China, and the change of name and hence the recalculation of impact factor in the SCI database only make the matters worse. The occasional failure of the publisher to produce valid DOIs for published work that hinders electronic distribution of the work on the Internet is also a problem."

Another cited problem is a slowness of publication.

- "I know Taylor & Francis tries to address this by putting out uncorrected author versions, then "final" versions without paper numbers, but other journals (I'm mainly thinking of *Applied Energy* by Elsevier) seem much faster to get the final version out. Both time from acceptance to

proof and time from proof to final version being available are MUCH shorter. One Elsevier paper from 2015 took 34 days from acceptance to final version being online.”

Demographic details (Q23–Q30)

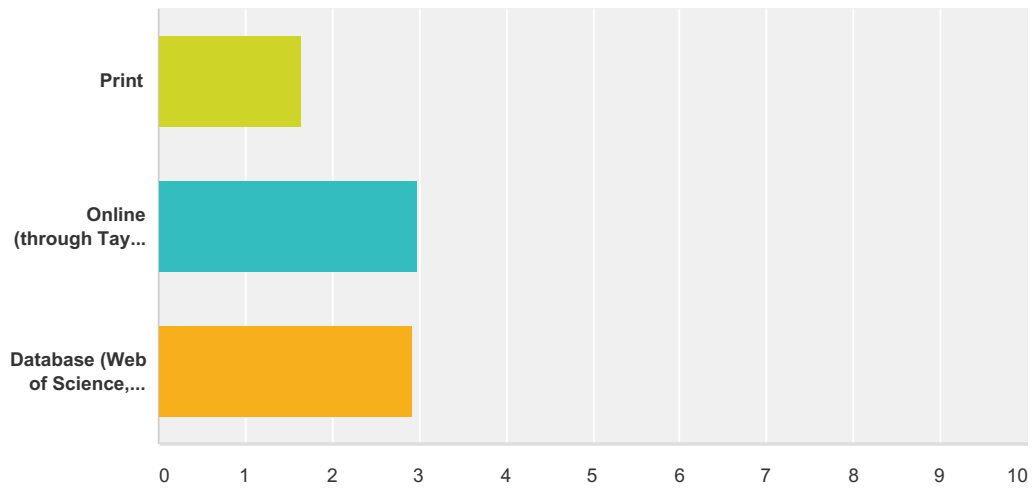
The average age of the survey respondents was 41 years. Of 83 responses, 6 were at or near retirement age (60 or above) and 9 were young engineers or perhaps graduate students (29 or below).

The majority of respondents work at an institution of higher learning in some capacity, as full professors, primary investigators, graduate students and assistants, or department heads. Many indicated they are professors or researchers employed by a university or college. 10 out of 83 responses came from PhD candidates, postdoctoral students, or research assistants.

The average time worked in the industry or in research was 15 years. This, along with the demographic age data, indicates that the majority of our readers are established professionals in their careers.

Q1 How frequently do you access STBE content through the following channels?

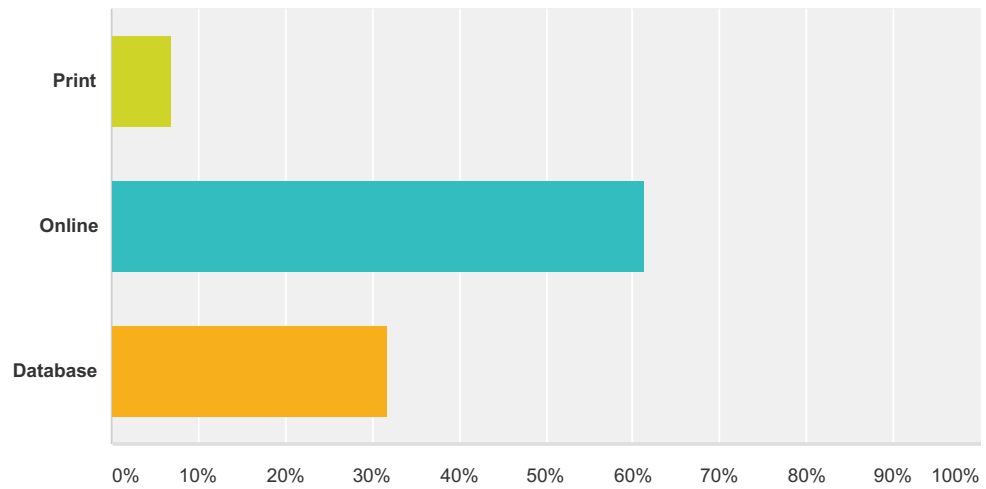
Answered: 89 Skipped: 0



	Not at all	Rarely	Sometimes	Often	Total	Weighted Average
Print	53.09% 43	30.86% 25	13.58% 11	2.47% 2	81	1.65
Online (through Taylor & Francis)	5.68% 5	19.32% 17	45.45% 40	29.55% 26	88	2.99
Database (Web of Science, EBSCOhost, JSTOR, etc.)	11.63% 10	16.28% 14	40.70% 35	31.40% 27	86	2.92

Q2 Which channel do you use most frequently?

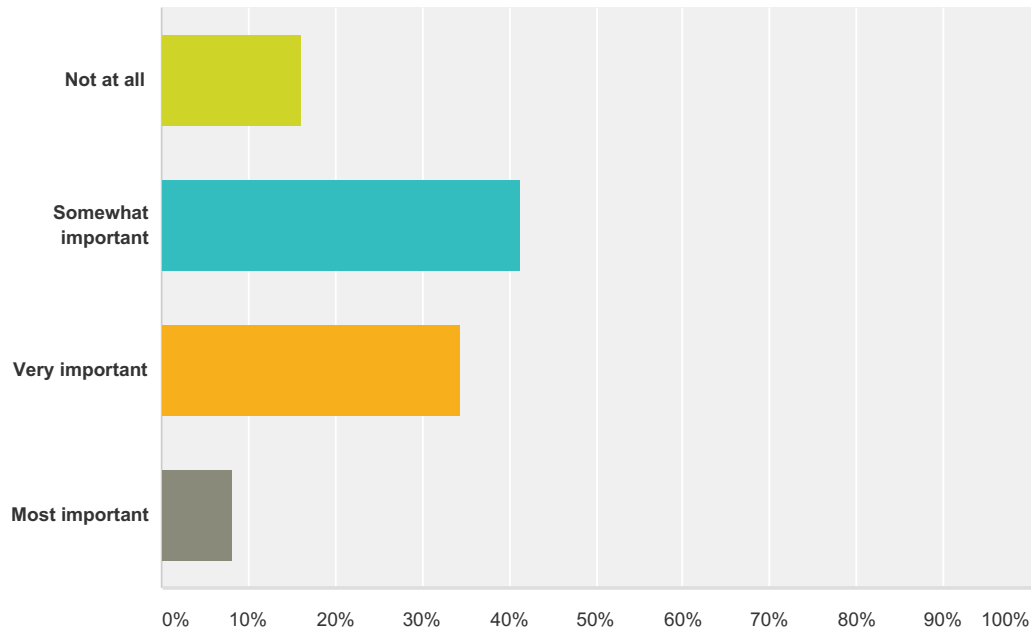
Answered: 88 Skipped: 1



Answer Choices	Responses
Print	6.82% 6
Online	61.36% 54
Database	31.82% 28
Total	88

Q3 How does a journal's Impact Factor affect whether you subscribe to that journal?

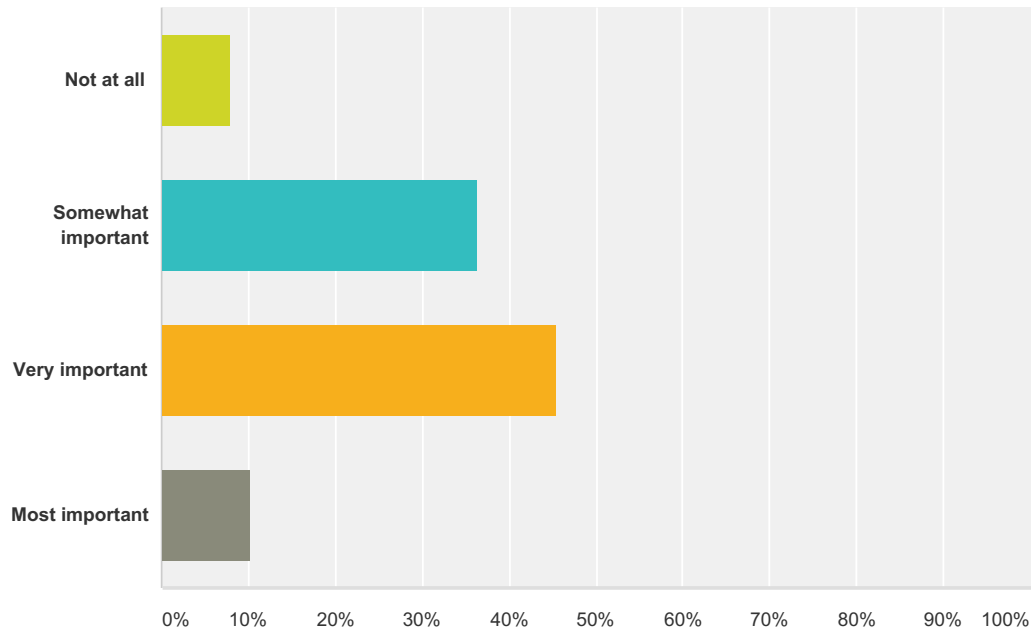
Answered: 87 Skipped: 2



Answer Choices	Responses
Not at all	16.09% 14
Somewhat important	41.38% 36
Very important	34.48% 30
Most important	8.05% 7
Total	87

Q4 How does a journal's Impact Factor affect whether you publish with that journal?

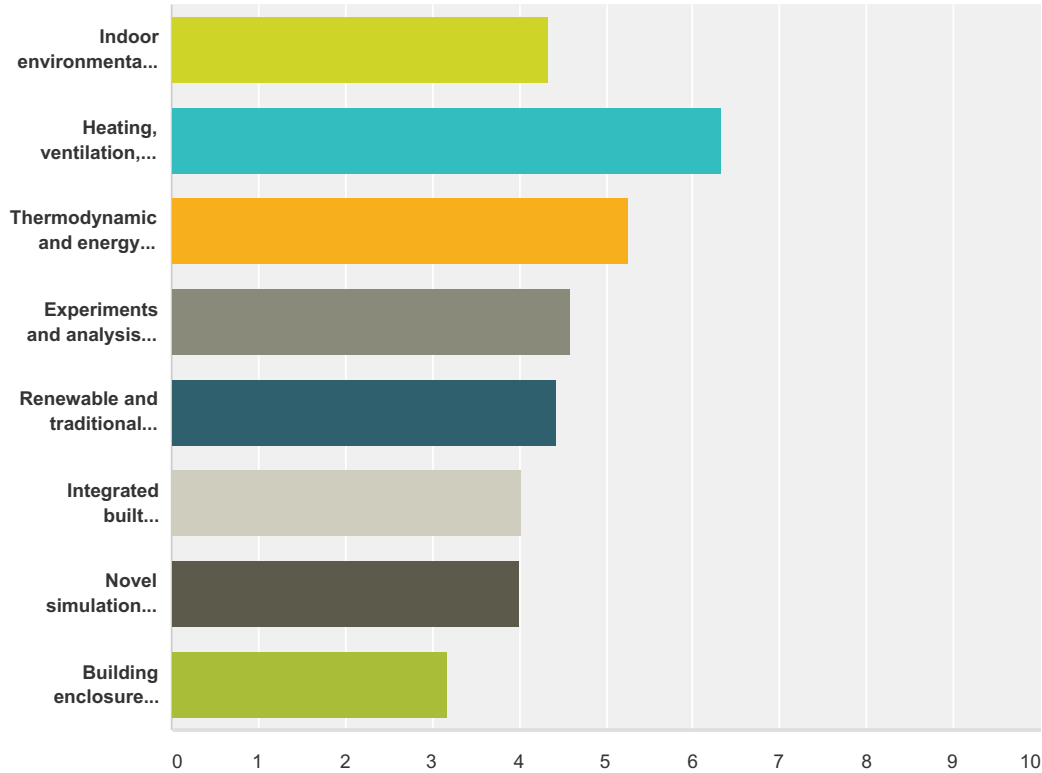
Answered: 88 Skipped: 1



Answer Choices	Responses	
Not at all	7.95%	7
Somewhat important	36.36%	32
Very important	45.45%	40
Most important	10.23%	9
Total		88

Q5 Please order the following Special Topics in order of Most Interesting to Least Interesting

Answered: 86 Skipped: 3



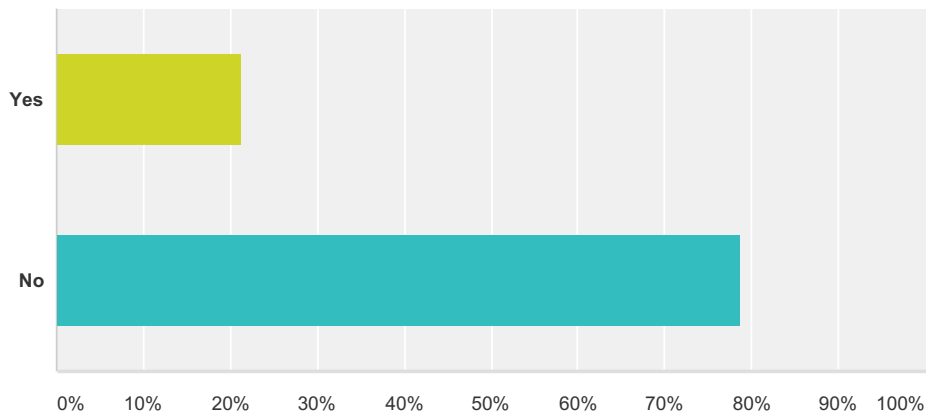
	1	2	3	4	5	6	7	8	Total	Score
Indoor environmental quality, occupant health, comfort, and productivity	20.25% 16	10.13% 8	10.13% 8	6.33% 5	5.06% 4	13.92% 11	12.66% 10	21.52% 17	79	4.34
Heating, ventilation, air conditioning, and refrigeration (HVAC&R) and related technologies	35.00% 28	30.00% 24	11.25% 9	2.50% 2	8.75% 7	6.25% 5	2.50% 2	3.75% 3	80	6.33
Thermodynamic and energy system dynamics, controls, optimization, fault detection and diagnosis, smart systems, and building demand-side management	17.28% 14	16.05% 13	17.28% 14	14.81% 12	14.81% 12	3.70% 3	12.35% 10	3.70% 3	81	5.27
Experiments and analysis related to material properties, underlying thermodynamics, refrigerants, fluid dynamics, airflow, and heat and mass transfer	9.64% 8	14.46% 12	15.66% 13	10.84% 9	15.66% 13	14.46% 12	7.23% 6	12.05% 10	83	4.59
Renewable and traditional energy systems and related processes and concepts	5.95% 5	13.10% 11	11.90% 10	20.24% 17	14.29% 12	13.10% 11	13.10% 11	8.33% 7	84	4.43
Integrated built environmental system design approaches and tools	2.47% 2	6.17% 5	17.28% 14	16.05% 13	11.11% 9	23.46% 19	17.28% 14	6.17% 5	81	4.02
Novel simulation approaches and algorithms and validated simulations	3.66% 3	8.54% 7	12.20% 10	19.51% 16	18.29% 15	9.76% 8	10.98% 9	17.07% 14	82	4.01

STBE Researcher Questionnaire

Building enclosure materials, assemblies, and systems for minimizing and/or regulating space heating and cooling modes	5.88% 5	3.53% 3	4.71% 4	8.24% 7	16.47% 14	14.12% 12	21.18% 18	25.88% 22	85	3.18
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Q6 Does your institution have an open access requirement?

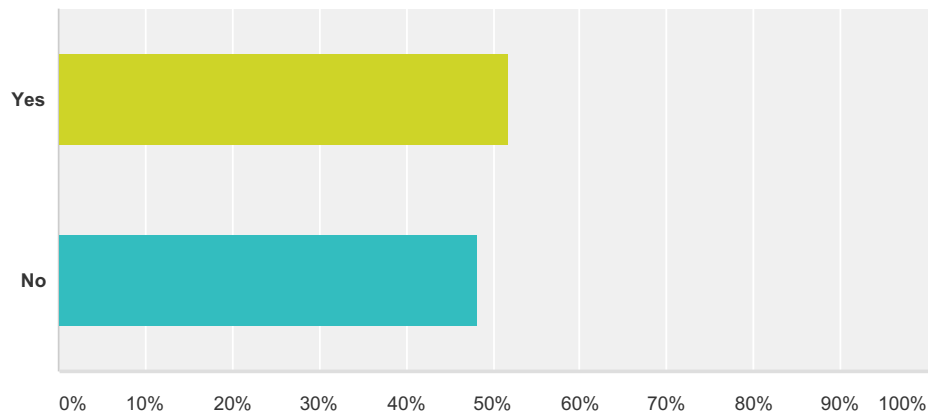
Answered: 89 Skipped: 0



Answer Choices	Responses
Yes	21.35% 19
No	78.65% 70
Total	89

Q7 Would you prefer open-access publishing? Why?

Answered: 85 Skipped: 4



Answer Choices	Responses
Yes	51.76% 44
No	48.24% 41
Total	85

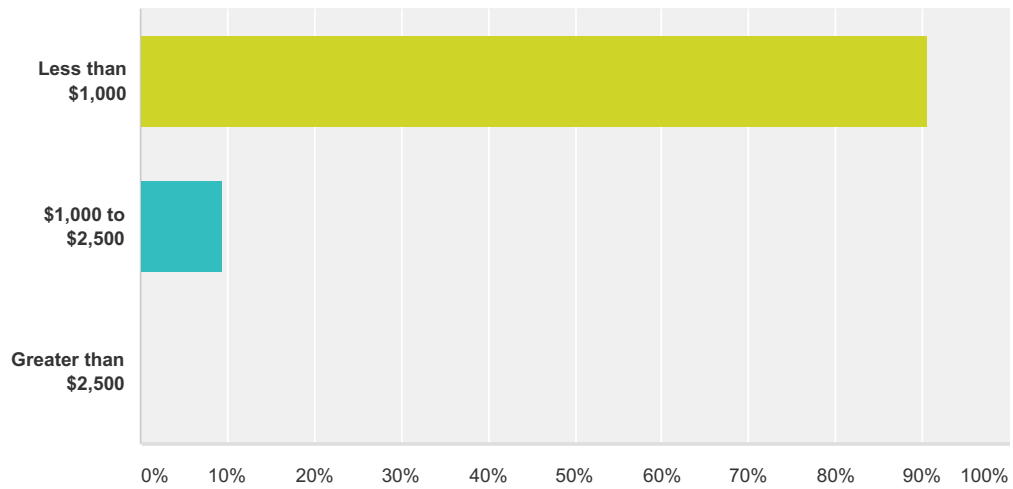
#	Why?	Date
1	for highest visibility of scientific results	3/2/2017 3:15 PM
2	Because papers are more easily accessible.	3/2/2017 3:59 AM
3	it can enlarge the influence of the journal as well as the paper	3/1/2017 1:55 AM
4	More references	3/1/2017 1:49 AM
5	have more chance to spread my research	3/1/2017 1:28 AM
6	More impact in a timely manner to a wider prospective audience.	2/28/2017 3:56 PM
7	May have more people read my articles	2/28/2017 3:18 PM
8	I would read a lot more articles if they were open access. Can't justify spending ~\$40/article unless very relevant to current work activities.	2/28/2017 2:12 PM
9	most of them are weak	2/28/2017 2:00 PM
10	Scientific publications is not for everybody. I understand that developing countries should receive very cheap or even free access to scientific documentation. But not others.	2/28/2017 1:26 PM
11	For requirements in research projects	2/28/2017 1:25 PM
12	I prefer not to pay the extra fees. It seems like a poor use of my limited discretionary funds. I do believe it would be advantageous for the journal to be open-access; it would help impact factor if papers were freely available.	2/28/2017 12:57 PM
13	Because open-access papers are more likely to be cited.	2/28/2017 11:02 AM
14	to reach more people	2/28/2017 11:01 AM
15	easier to get	2/28/2017 10:41 AM
16	too costly	2/28/2017 10:32 AM
17	Allows for browsing of articles outside of specific interests and allows for less time and expense in having to buy individual articles.	2/28/2017 10:17 AM

STBE Researcher Questionnaire

18	Publications are about sharing research findings with the largest possible pool of scientists as readers.	2/28/2017 8:33 AM
19	Knowledge was available to most researchers	2/23/2017 5:56 AM
20	Not needed since I work for national lab that does not cede copyright and has mechanism to publish content via OSTI	2/22/2017 1:51 AM
21	Because of high costs	2/18/2017 6:55 AM
22	The access is easier.	2/15/2017 11:54 AM
23	Better exposure for the work.	2/14/2017 5:38 PM
24	easier access for readers, wider audience, better citations	2/12/2017 5:47 AM
25	Easier to share research results	2/9/2017 9:09 AM
26	1) Research fund shortages. 2) Difficulty of access to global payment gates.	2/8/2017 3:38 AM
27	Maximum Reach	2/8/2017 1:11 AM
28	The quality of papers is not that good.	2/8/2017 12:17 AM
29	I value the free exchange of ideas and information	2/7/2017 10:22 PM
30	access to more papers and anywhere	2/7/2017 9:53 PM
31	increase the impact	2/7/2017 9:24 PM
32	this will be good for the availability of the paper to readers	2/7/2017 8:12 PM
33	Cost too much	2/7/2017 7:12 PM
34	it costs a lot.	2/7/2017 6:49 PM
35	don't want to pay too much fee.	2/7/2017 6:24 PM
36	I don't want to pay an article to submit to the journal.	2/7/2017 6:12 PM
37	To make better impact for my study	2/7/2017 3:43 PM
38	Because no one should have to pay the obscene costs to download a single paper.	2/7/2017 3:34 PM
39	Easier to get access to publications, less time consuming to search for it through inter library loan	2/7/2017 3:05 PM
40	Expensive	2/7/2017 1:11 PM
41	To make my publication more visible. And because a publication should be accesible to a wide scientific audience, for reading and commenting after having been published.	2/7/2017 11:12 AM
42	Would possibly get more reads	2/7/2017 11:08 AM
43	So that everybody can read my work, but for free.	2/7/2017 10:54 AM
44	Knowledge should be free	2/7/2017 10:54 AM
45	Open-access concept and research work go hand in hand perfectly	2/7/2017 10:48 AM
46	More reading	2/7/2017 10:48 AM
47	I don't think pay-to-play is a good model for scientific publishing.	2/7/2017 10:46 AM

Q8 How much would you be willing to pay for an article published via open access?

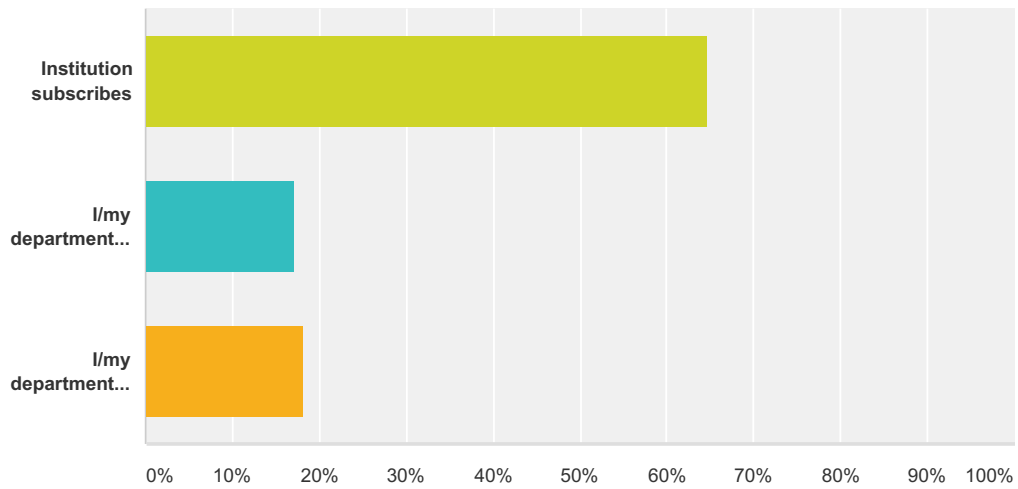
Answered: 86 Skipped: 3



Answer Choices	Responses	
Less than \$1,000	90.70%	78
\$1,000 to \$2,500	9.30%	8
Greater than \$2,500	0.00%	0
Total		86

Q9 How is the purchasing/subscription decision made?

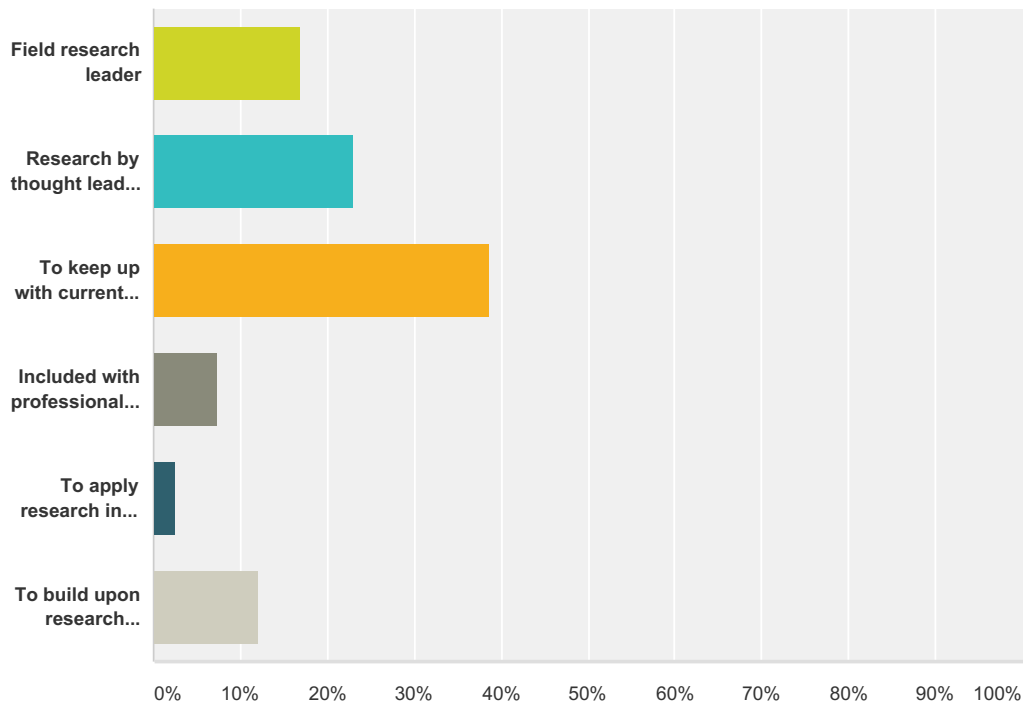
Answered: 88 Skipped: 1



Answer Choices	Responses
Institution subscribes	64.77% 57
I/my department subscribes	17.05% 15
I/my department recommends to the institution to subscribe	18.18% 16
Total	88

Q10 What is the main reason you subscribe to STBE?

Answered: 83 Skipped: 6

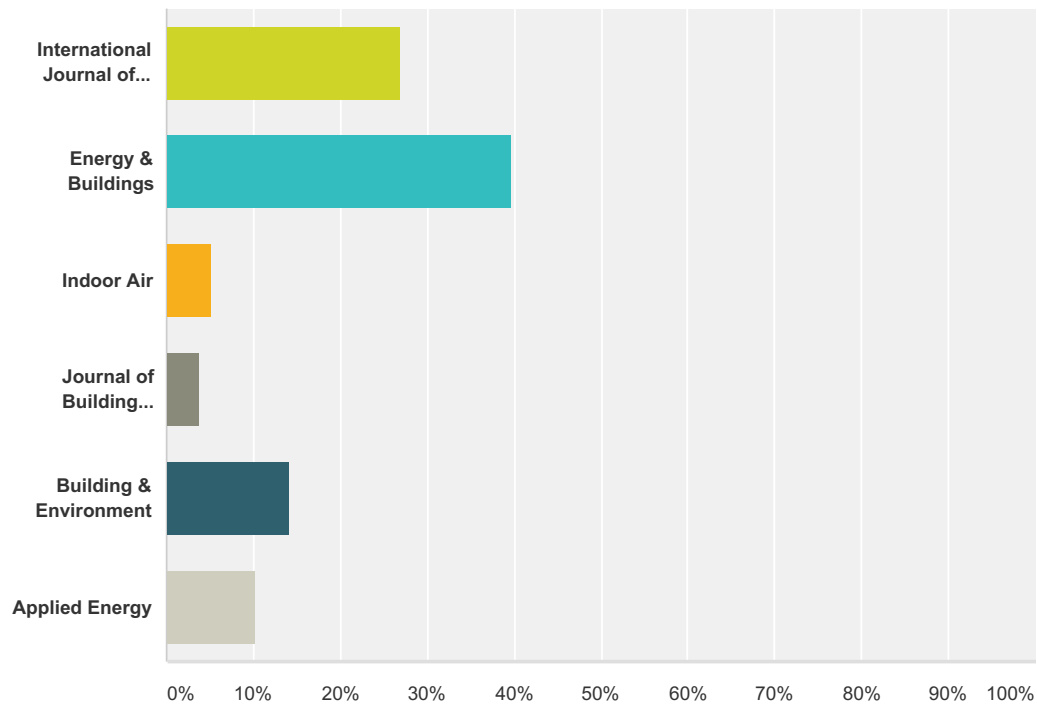


Answer Choices	Responses
Field research leader	16.87% 14
Research by thought leaders in the field	22.89% 19
To keep up with current topics in the field	38.55% 32
Included with professional society membership	7.23% 6
To apply research in network	2.41% 2
To build upon research through additional research	12.05% 10
Total	83

#	Other (please specify)	Date
1	na	3/1/2017 10:54 PM
2	Associated with ASHRAE	2/28/2017 10:04 AM
3	Institutional decision	2/22/2017 1:51 AM

Q11 What other journals in related fields (HVAC&R) do you subscribe to?

Answered: 78 Skipped: 11



Answer Choices	Responses
International Journal of Refrigeration	26.92% 21
Energy & Buildings	39.74% 31
Indoor Air	5.13% 4
Journal of Building Performance Simulation	3.85% 3
Building & Environment	14.10% 11
Applied Energy	10.26% 8
Total	78

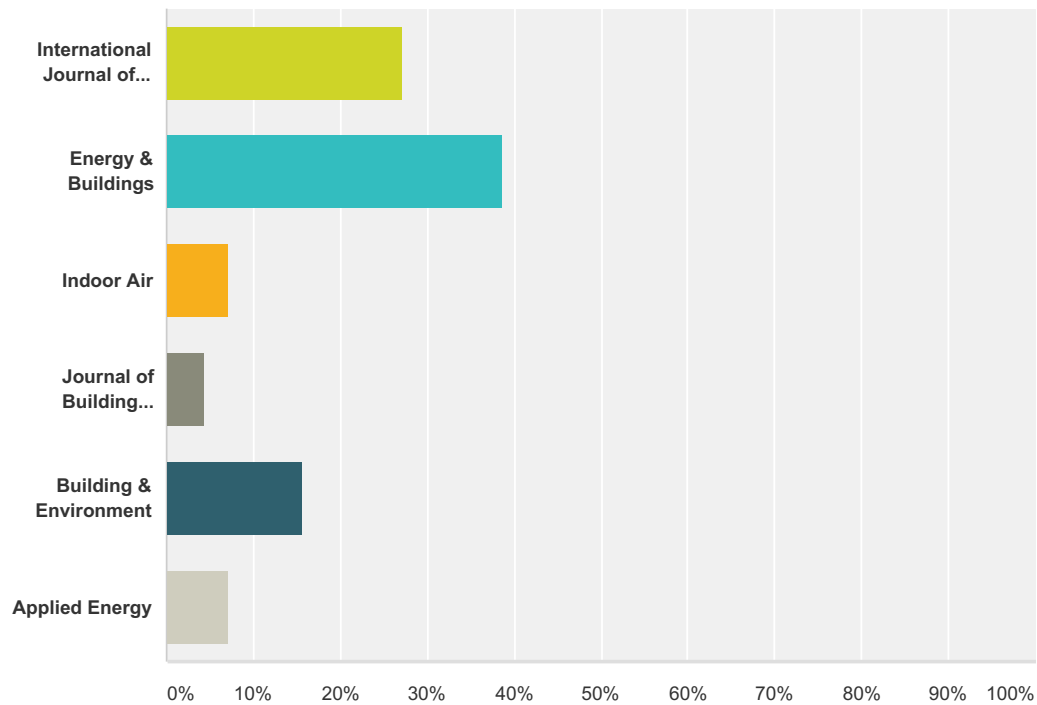
#	Other (please list)	Date
1	Energy, Renewable Energy	3/1/2017 7:08 PM
2	E & B	3/1/2017 1:49 AM
3	Have online access to most of these through work library access.	2/28/2017 3:56 PM
4	Energy	2/28/2017 3:10 PM
5	Have IIR membership → IJR access now. Otherwise, purchase articles individually found through ToCs as warranted.	2/28/2017 2:12 PM
6	and IJR, Energy & Buildings, Applied Energy, Building & Environment	2/28/2017 12:57 PM
7	Essentially all journals of interest to me are available through my institution's library	2/28/2017 12:05 PM
8	All	2/28/2017 11:25 AM

STBE Researcher Questionnaire

9	nearly all of them + some other relevant ones such as indoor and built environment, but the choice here is only one	2/28/2017 10:32 AM
10	Institution subscribes to all of these, I think	2/22/2017 1:51 AM
11	No	2/18/2017 6:55 AM
12	The survey tool does not allow multiple selections. I selected the main choice.	2/14/2017 5:38 PM
13	All previous. The subscription is at institution level and it includes all the previous journals.	2/9/2017 9:09 AM
14	This should have been a multiple choice; I read two more - JBPS, B&E	2/8/2017 12:27 AM
15	All of the above, in addition to "Energy" and "Applied Thermal Engineering".	2/7/2017 10:37 PM
16	Cryogenics	2/7/2017 6:24 PM
17	Applied Energy	2/7/2017 3:05 PM
18	A number of the above.	2/7/2017 12:23 PM
19	Journal of Building Performance Simulation Building & Environment Applied Energy	2/7/2017 12:07 PM
20	Energy Conversion and Management Journal of Cleaner Production	2/7/2017 10:54 AM
21	Applied Thermal Engineering	2/7/2017 10:48 AM
22	All of the above (multiple clicks wasn't an option)	2/7/2017 10:46 AM

Q12 To what other journals have you submitted research?

Answered: 70 Skipped: 19



Answer Choices	Responses
International Journal of Refrigeration	27.14% 19
Energy & Buildings	38.57% 27
Indoor Air	7.14% 5
Journal of Building Performance Simulation	4.29% 3
Building & Environment	15.71% 11
Applied Energy	7.14% 5
Total	70

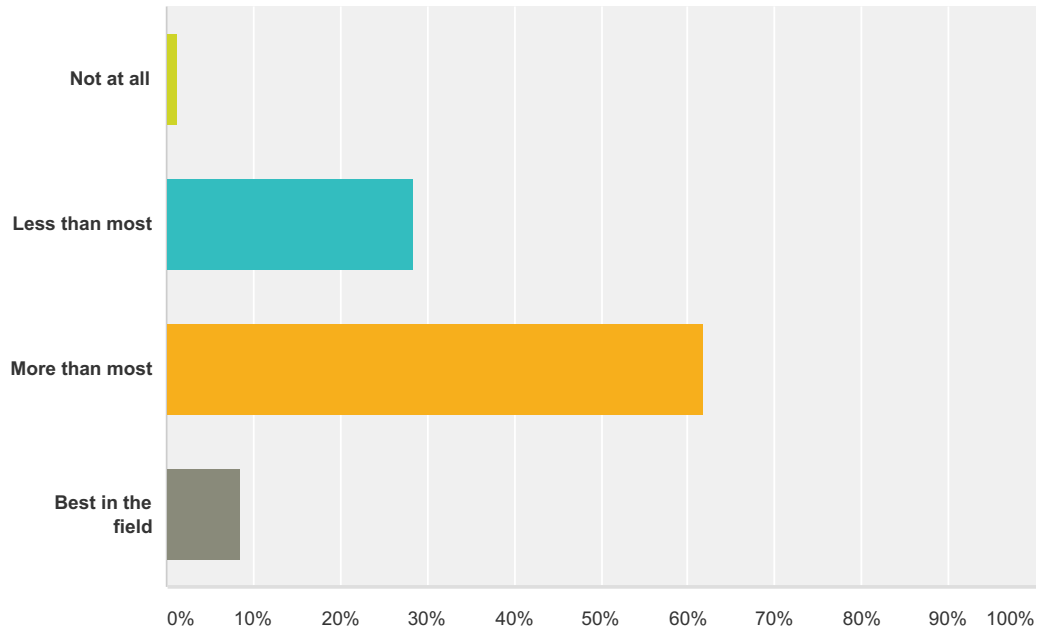
#	Other (please list)	Date
1	Int. Journal of Ventilation, Journal of Wood Science	3/2/2017 3:15 PM
2	Renewable Energy, Journal of Hydraulic Engineering	3/1/2017 7:08 PM
3	none so far	3/1/2017 1:55 AM
4	First journal article. Typically publish through conferences.	2/28/2017 2:12 PM
5	and JBPS, Energy & Buildings	2/28/2017 12:57 PM
6	Energy ki	2/28/2017 12:24 PM
7	I could only check one of these - I have also submitted to E&B and Indoor Air	2/28/2017 12:05 PM
8	E&B, IA, B&E	2/28/2017 11:25 AM

STBE Researcher Questionnaire

9	too bad - only one journal is permitted to tick	2/28/2017 10:32 AM
10	Applied Energy, JBPSA	2/28/2017 10:11 AM
11	International journal of low-carbon technologies	2/23/2017 5:56 AM
12	Your survey tool is not allowing me to check more than one. Also E&B and B&E among others.	2/22/2017 1:51 AM
13	No	2/18/2017 6:55 AM
14	The survey tool does not allow multiple selections. I selected the main choice.	2/14/2017 5:38 PM
15	Not answered to keep identity anonymous. Sorry.	2/7/2017 10:37 PM
16	Cryogenics	2/7/2017 6:24 PM
17	Renewable & Sustainable Energy Reviews	2/7/2017 3:43 PM
18	Applied Energy	2/7/2017 3:05 PM
19	ASME Journal of Electronic Packaging	2/7/2017 1:11 PM
20	A number of the above.	2/7/2017 12:23 PM
21	Journal of Building Performance Simulation Building & Environment Applied Energy	2/7/2017 12:07 PM
22	Int. Journal of Ventilation, Journal of Wood Science	2/7/2017 11:12 AM
23	None of these	2/7/2017 11:08 AM
24	Journal of Renewable and Sustainable Energy	2/7/2017 11:06 AM
25	Applied thermal energy	2/7/2017 10:55 AM
26	Energy Conversion and Management Journal of Cleaner Production	2/7/2017 10:54 AM
27	Energy	2/7/2017 10:48 AM

Q13 How authoritative do you believe the research published in STBE is compared to other peer-reviewed journals in the field of indoor environments?

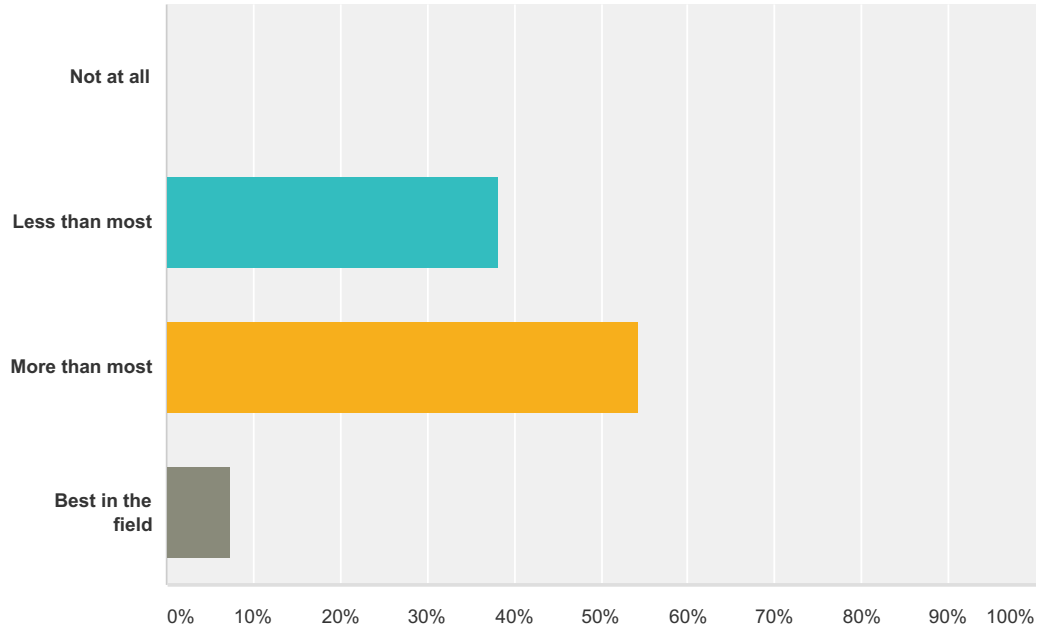
Answered: 81 Skipped: 8



Answer Choices	Responses
Not at all	1.23% 1
Less than most	28.40% 23
More than most	61.73% 50
Best in the field	8.64% 7
Total	81

Q14 How authoritative do you believe the research published in STBE is compared to other peer-reviewed journals on the subject of refrigeration?

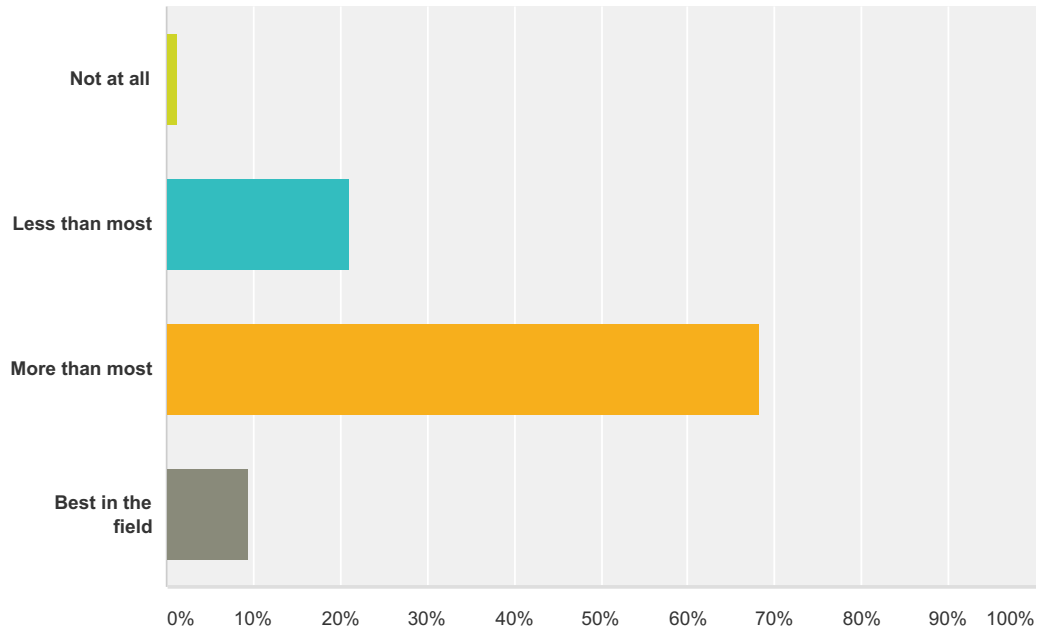
Answered: 81 Skipped: 8



Answer Choices	Responses
Not at all	0.00% 0
Less than most	38.27% 31
More than most	54.32% 44
Best in the field	7.41% 6
Total	81

Q15 How authoritative do you believe the research published in STBE is compared to other peer-reviewed journals on the subject of building systems and equipment?

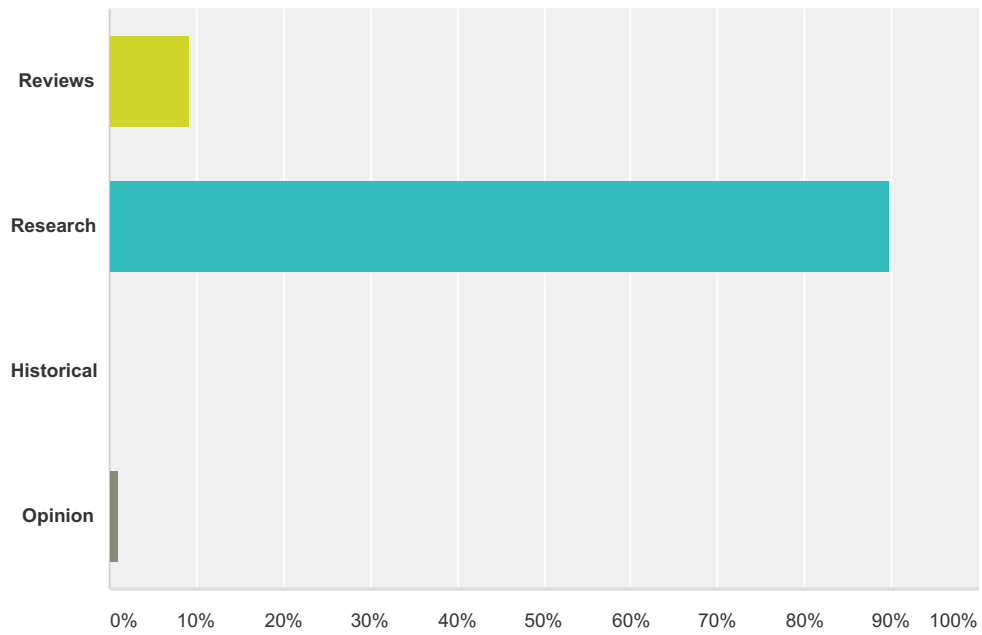
Answered: 85 Skipped: 4



Answer Choices	Responses
Not at all	1.18% 1
Less than most	21.18% 18
More than most	68.24% 58
Best in the field	9.41% 8
Total	85

Q16 What type of papers do you find most useful?

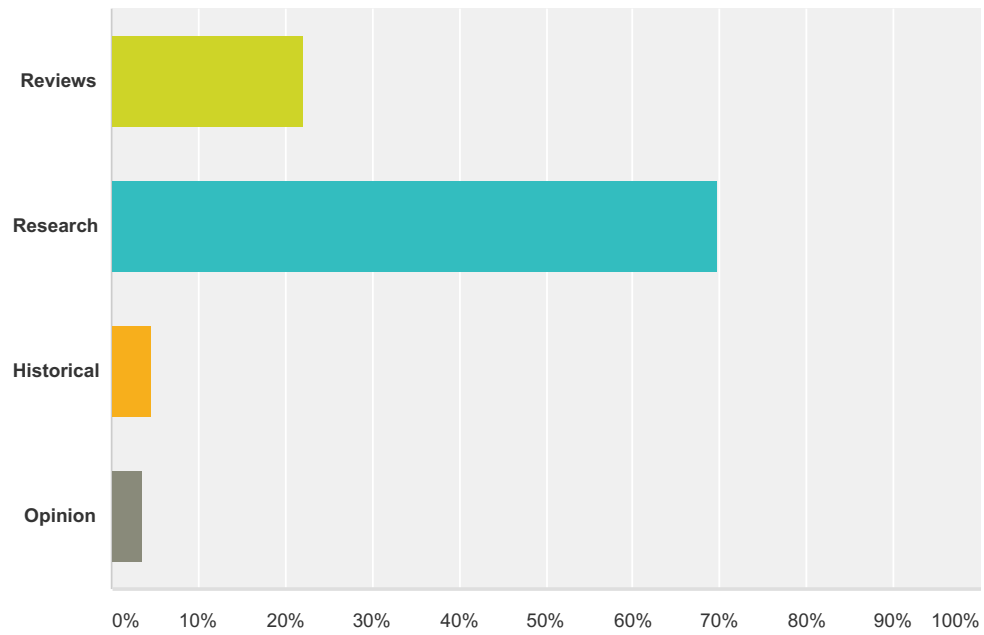
Answered: 88 Skipped: 1



Answer Choices	Responses
Reviews	9.09% 8
Research	89.77% 79
Historical	0.00% 0
Opinion	1.14% 1
Total	88

Q17 Of the four article types, which would you like to see more of?

Answered: 86 Skipped: 3

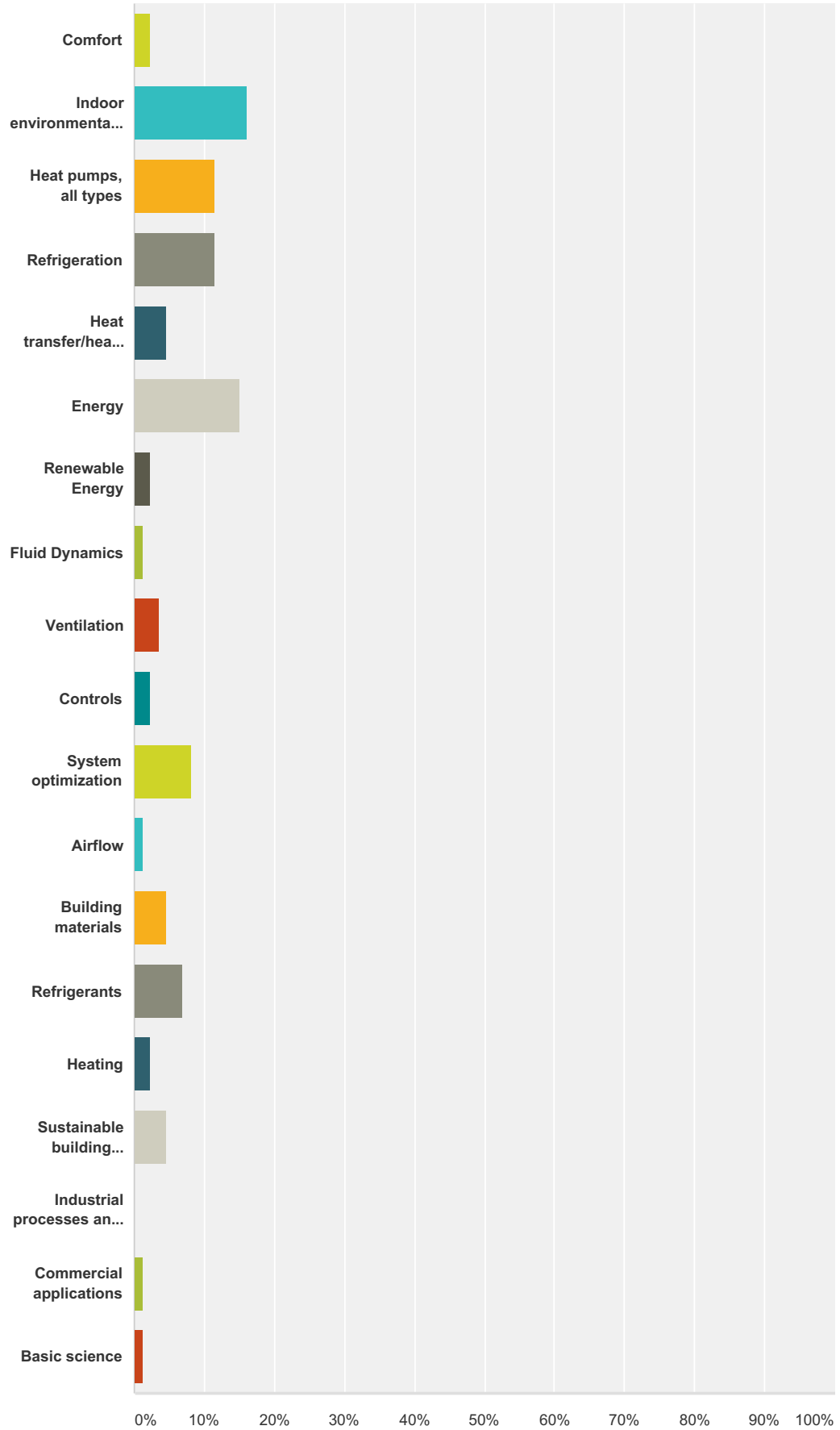


Answer Choices	Responses
Reviews	22.09% 19
Research	69.77% 60
Historical	4.65% 4
Opinion	3.49% 3
Total	86

Q18 What is your main area of professional/academic interest?

Answered: 87 Skipped: 2

STBE Researcher Questionnaire



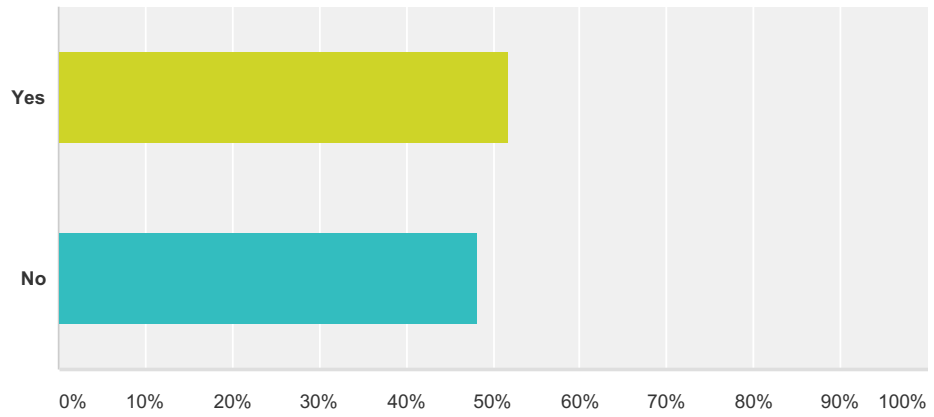
STBE Researcher Questionnaire

Answer Choices	Responses
Comfort	2.30% 2
Indoor environmental quality	16.09% 14
Heat pumps, all types	11.49% 10
Refrigeration	11.49% 10
Heat transfer/heat exchangers	4.60% 4
Energy	14.94% 13
Renewable Energy	2.30% 2
Fluid Dynamics	1.15% 1
Ventilation	3.45% 3
Controls	2.30% 2
System optimization	8.05% 7
Airflow	1.15% 1
Building materials	4.60% 4
Refrigerants	6.90% 6
Heating	2.30% 2
Sustainable building systems	4.60% 4
Industrial processes and applications	0.00% 0
Commercial applications	1.15% 1
Basic science	1.15% 1
Total	87

#	Other (please specify)	Date
1	Heat, Air and Moisture Transfer	3/2/2017 3:15 PM
2	Simulation, System optimization, Reliability and Safety	3/1/2017 7:08 PM
3	Get to choose only one?	2/28/2017 2:12 PM
4	heating, comfort, indoor environmental quality	2/9/2017 4:28 AM
5	Geothermal heat pumps	2/7/2017 10:55 AM

Q19 Are you an ASHRAE member?

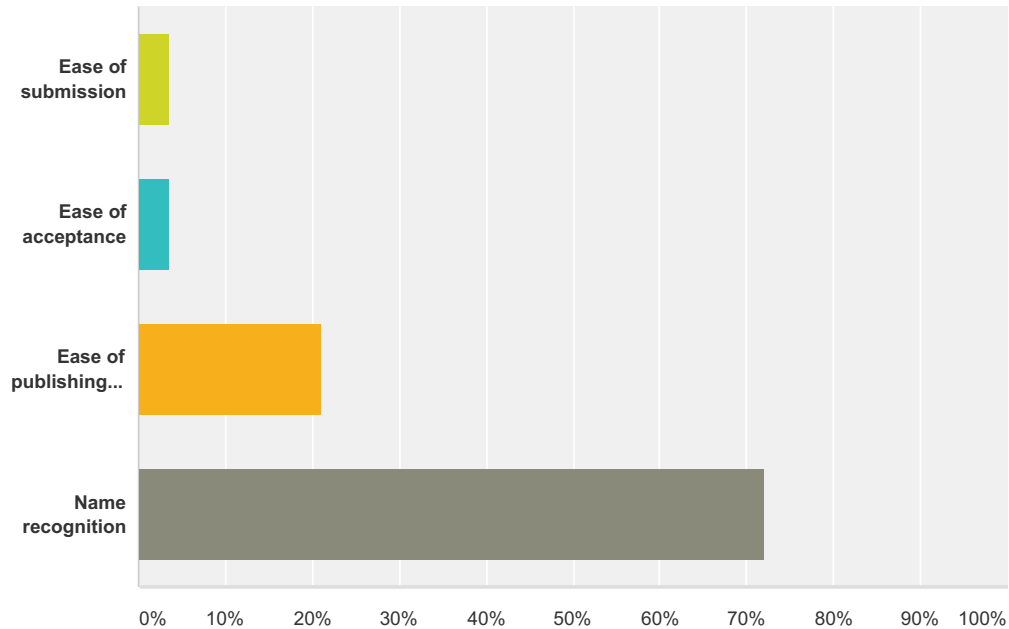
Answered: 87 Skipped: 2



Answer Choices	Responses	
Yes	51.72%	45
No	48.28%	42
Total		87

Q20 If you have published with STBE multiple times, what is the main reason you continue to publish with STBE as compared to other journals?

Answered: 57 Skipped: 32



Answer Choices	Responses
Ease of submission	3.51% 2
Ease of acceptance	3.51% 2
Ease of publishing process	21.05% 12
Name recognition	71.93% 41
Total	57

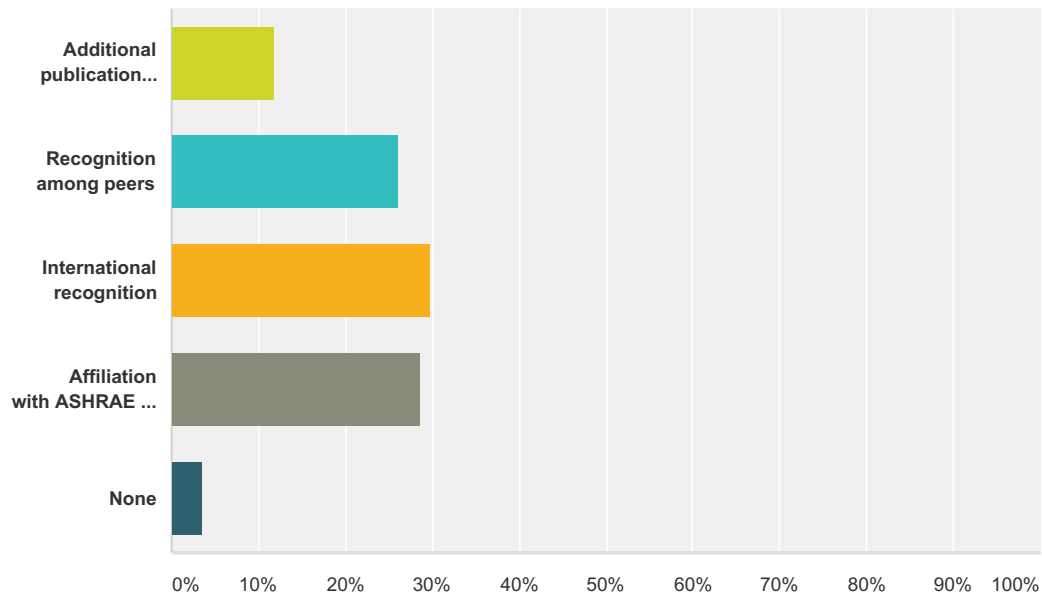
#	Other (please specify)	Date
1	Only once, willing to publish again.	3/2/2017 3:15 PM
2	na	3/1/2017 10:54 PM
3	the editor is very nice	3/1/2017 1:55 AM
4	not applied	3/1/2017 1:28 AM
5	Only one time -- by invitation for special issue.	2/28/2017 2:12 PM
6	Connection with ASHRAE	2/28/2017 12:57 PM
7	Appropriate Audience	2/28/2017 11:25 AM
8	Recognition from ASHRAE members	2/28/2017 11:02 AM
9	Only because it is associated with ASHRAE	2/28/2017 10:04 AM
10	Only published one time	2/28/2017 8:33 AM

STBE Researcher Questionnaire

11	different reasons each time.	2/22/2017 1:51 AM
12	I am re-considering which journals to be published in the future	2/7/2017 10:37 PM
13	invitation from the editor	2/7/2017 6:49 PM
14	Associated with ASHRAE	2/7/2017 3:34 PM
15	Required by ASHRAE projects	2/7/2017 3:05 PM
16	Haven't published before though.	2/7/2017 11:12 AM
17	I get the most useful and knowledgeable reviews from STBE	2/7/2017 10:46 AM

Q21 What is the main benefit you receive of publishing with STBE?

Answered: 84 Skipped: 5

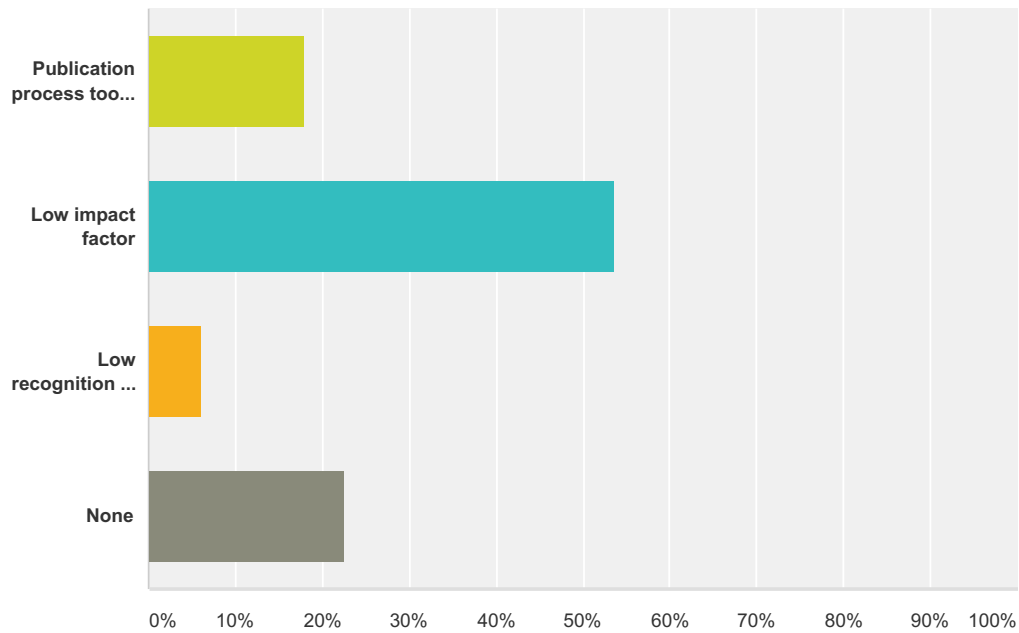


Answer Choices	Responses
Additional publication citations on my CV	11.90% 10
Recognition among peers	26.19% 22
International recognition	29.76% 25
Affiliation with ASHRAE or ASHRAE research	28.57% 24
None	3.57% 3
Total	84

#	Other (please specify)	Date
1	Educating readers (should be main reason for publishing)	2/28/2017 2:12 PM
2	I would recommend anyone who would like a job in the US to submit their papers to STBE and be active at ASHRAE	2/7/2017 10:37 PM
3	I get to increase scientific knowledge.	2/7/2017 10:46 AM

Q22 What is the main disadvantage of publishing with STBE?

Answered: 84 Skipped: 5



Answer Choices	Responses
Publication process too slow	17.86% 15
Low impact factor	53.57% 45
Low recognition by peers	5.95% 5
None	22.62% 19
Total	84

#	Other (please specify)	Date
1	I know Taylor & Francis tries to address this by putting out uncorrected author versions, then "final" versions without paper numbers, but other journals (I'm mainly thinking of Applied Energy by Elsevier) seem much faster to get the final version out. Both time from acceptance to proof and time from proof to final version being available are MUCH shorter. One Elsevier paper from 2015 took 34 days from acceptance to final version being online.	2/28/2017 12:57 PM
2	The published research is largely focused on short-term goals, not as fundamental.	2/28/2017 10:11 AM
3	Publishing is incredibly slow and inefficient.	2/28/2017 10:04 AM
4	Low impact factor means difficulty in academic job search in China, and the change of name and hence the recalculation of impact factor in the SCI database only make the matter worse. (https://jcr.incites.thomsonreuters.com/JCRJournalProfileAction.action?pg=JRNLPF&journalImpactFactor=0&year=2015&journalTitle=Science%20and%20Technology%20for%20the%20Built%20Environment&edition=SCIE&journal=SCI%20TECHNOL%20BUILT%20EN). The occasional failure of the publisher to produce valid DOIs for published work that hinders electronic distribution of the work on the Internet is also a problem	2/7/2017 10:37 PM
5	dual unit requirements	2/7/2017 3:05 PM

STBE Researcher Questionnaire

Q23 What is your age?

Answered: 82 Skipped: 7

#	Responses	Date
1	36	3/2/2017 3:15 PM
2	44	3/2/2017 3:59 AM
3	44	3/1/2017 10:54 PM
4	36	3/1/2017 7:08 PM
5	31	3/1/2017 1:55 AM
6	30	3/1/2017 1:49 AM
7	31	3/1/2017 1:28 AM
8	41	2/28/2017 4:13 PM
9	64	2/28/2017 3:56 PM
10	37	2/28/2017 3:34 PM
11	29	2/28/2017 3:18 PM
12	34	2/28/2017 3:10 PM
13	61	2/28/2017 2:12 PM
14	49	2/28/2017 2:00 PM
15	70	2/28/2017 1:26 PM
16	52	2/28/2017 1:25 PM
17	55	2/28/2017 12:57 PM
18	46	2/28/2017 12:24 PM
19	59	2/28/2017 12:05 PM
20	45	2/28/2017 11:24 AM
21	52	2/28/2017 11:02 AM
22	60 years	2/28/2017 11:01 AM
23	36	2/28/2017 10:43 AM
24	33	2/28/2017 10:41 AM
25	52	2/28/2017 10:32 AM
26	33	2/28/2017 10:25 AM
27	34	2/28/2017 10:24 AM
28	59	2/28/2017 10:17 AM
29	50	2/28/2017 10:17 AM
30	39	2/28/2017 10:11 AM
31	45	2/28/2017 10:11 AM
32	50	2/28/2017 10:08 AM
33	28	2/28/2017 10:04 AM
34	30	2/28/2017 8:33 AM
35	35	2/28/2017 7:16 AM

STBE Researcher Questionnaire

36	37	2/23/2017 5:56 AM
37	27	2/19/2017 4:23 PM
38	30	2/18/2017 6:55 AM
39	62	2/15/2017 11:54 AM
40	59	2/14/2017 5:38 PM
41	31	2/13/2017 12:47 PM
42	59	2/9/2017 4:52 PM
43	38	2/9/2017 9:09 AM
44	32	2/9/2017 4:28 AM
45	62	2/9/2017 2:38 AM
46	34	2/8/2017 3:38 AM
47	46 years	2/8/2017 1:11 AM
48	56	2/8/2017 12:27 AM
49	42	2/8/2017 12:17 AM
50	32	2/7/2017 11:13 PM
51	20-30	2/7/2017 10:37 PM
52	25	2/7/2017 10:25 PM
53	55	2/7/2017 10:22 PM
54	28	2/7/2017 9:53 PM
55	27	2/7/2017 9:24 PM
56	26	2/7/2017 8:54 PM
57	26	2/7/2017 8:32 PM
58	52	2/7/2017 8:17 PM
59	35	2/7/2017 8:12 PM
60	28	2/7/2017 7:12 PM
61	45	2/7/2017 6:49 PM
62	39	2/7/2017 6:49 PM
63	39	2/7/2017 6:24 PM
64	45	2/7/2017 6:12 PM
65	34	2/7/2017 3:43 PM
66	54	2/7/2017 3:42 PM
67	28	2/7/2017 3:34 PM
68	35	2/7/2017 3:05 PM
69	32	2/7/2017 1:11 PM
70	53	2/7/2017 12:23 PM
71	74	2/7/2017 12:20 PM
72	46	2/7/2017 12:14 PM
73	40	2/7/2017 12:07 PM
74	36	2/7/2017 11:12 AM
75	33	2/7/2017 11:08 AM
76	45	2/7/2017 11:06 AM

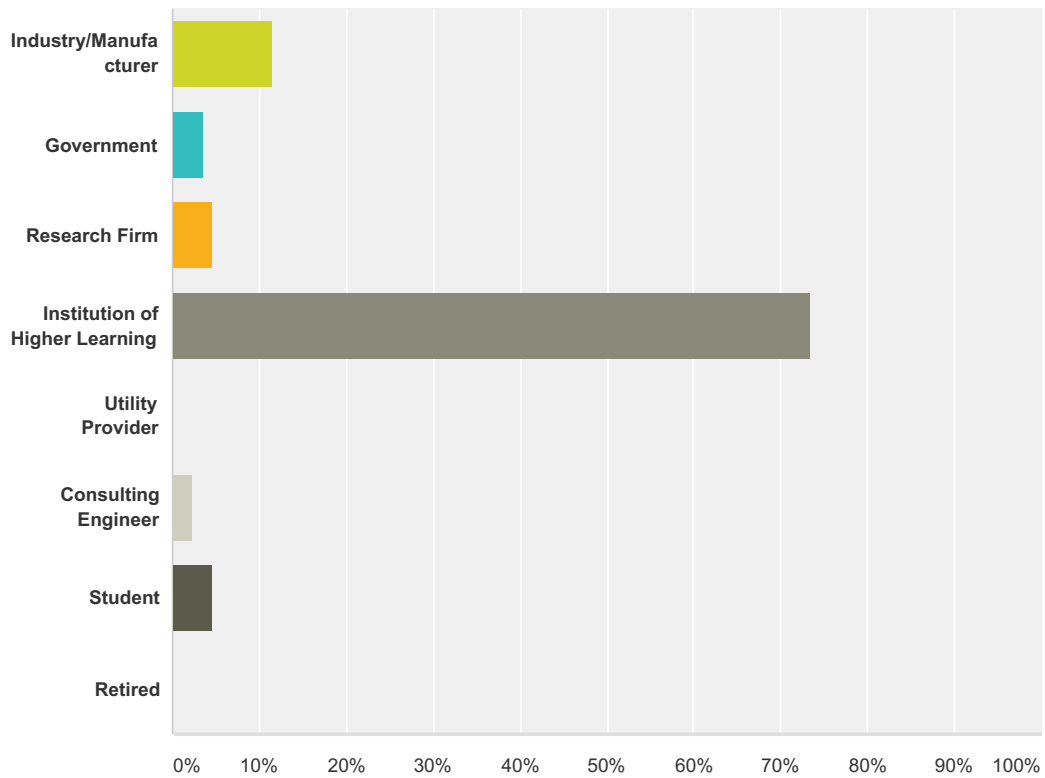
STBE Researcher Questionnaire

77	52	2/7/2017 10:55 AM
78	39	2/7/2017 10:54 AM
79	35	2/7/2017 10:54 AM
80	30	2/7/2017 10:48 AM
81	36	2/7/2017 10:48 AM
82	47	2/7/2017 10:46 AM

STBE Researcher Questionnaire

Q24 Who is your employer?

Answered: 87 Skipped: 2



Answer Choices	Responses
Industry/Manufacturer	11.49% 10
Government	3.45% 3
Research Firm	4.60% 4
Institution of Higher Learning	73.56% 64
Utility Provider	0.00% 0
Consulting Engineer	2.30% 2
Student	4.60% 4
Retired	0.00% 0
Total	87

#	Other (please specify)	Date
1	national lab	2/22/2017 1:51 AM

STBE Researcher Questionnaire

Q25 What is your job title/principal job activity?

Answered: 83 Skipped: 6

#	Responses	Date
1	Associate Professor	3/2/2017 3:15 PM
2	Researcher	3/2/2017 3:59 AM
3	Associate Professor	3/1/2017 10:54 PM
4	Associate Professor	3/1/2017 7:08 PM
5	ph.d candidate	3/1/2017 1:55 AM
6	scientific research (teacher)	3/1/2017 1:49 AM
7	phd student	3/1/2017 1:28 AM
8	Lecturer	2/28/2017 4:13 PM
9	Senior Research Staff / Building Equipment Design	2/28/2017 3:56 PM
10	Professor	2/28/2017 3:34 PM
11	Research Assistant	2/28/2017 3:18 PM
12	Professor	2/28/2017 3:10 PM
13	R&D Engineer	2/28/2017 2:12 PM
14	Assoc prof	2/28/2017 2:00 PM
15	Professor	2/28/2017 1:26 PM
16	Professor	2/28/2017 1:25 PM
17	Professor	2/28/2017 12:57 PM
18	Professor	2/28/2017 12:24 PM
19	Engineer	2/28/2017 12:10 PM
20	Professor	2/28/2017 12:05 PM
21	Research Engineer	2/28/2017 11:24 AM
22	Associate Professor	2/28/2017 11:02 AM
23	prof/university teacher	2/28/2017 11:01 AM
24	Postdoc	2/28/2017 10:43 AM
25	Associate Professor	2/28/2017 10:41 AM
26	professor	2/28/2017 10:32 AM
27	research fellow	2/28/2017 10:25 AM
28	assistente professor	2/28/2017 10:24 AM
29	Professor	2/28/2017 10:17 AM
30	Refrigerants Technology	2/28/2017 10:17 AM
31	Research Scientist	2/28/2017 10:11 AM
32	professor	2/28/2017 10:11 AM
33	Associate Professor	2/28/2017 10:08 AM
34	Graduate Assistant Researcher	2/28/2017 10:04 AM

STBE Researcher Questionnaire

35	Graduate student research assistant	2/28/2017 8:33 AM
36	Research	2/28/2017 7:16 AM
37	Assistant Professor	2/23/2017 5:56 AM
38	PI and Group Leader	2/22/2017 1:51 AM
39	Proposal Engineer	2/19/2017 4:23 PM
40	teacher	2/18/2017 6:55 AM
41	Professor	2/15/2017 11:54 AM
42	Engineering Researchch	2/14/2017 5:38 PM
43	assistant professor	2/13/2017 12:47 PM
44	Professor	2/12/2017 5:47 AM
45	Professor	2/9/2017 4:52 PM
46	University professor	2/9/2017 9:09 AM
47	associate professor	2/9/2017 4:28 AM
48	Full Professor	2/9/2017 2:38 AM
49	Chief engineer	2/8/2017 11:38 PM
50	I am the head of renewable department in my university.	2/8/2017 3:38 AM
51	Associate Professor GNA University	2/8/2017 1:11 AM
52	Principal Engineer	2/8/2017 12:27 AM
53	associate professor	2/8/2017 12:17 AM
54	Research	2/7/2017 10:37 PM
55	PhD student	2/7/2017 10:25 PM
56	Lecturer	2/7/2017 10:22 PM
57	postdoc, research	2/7/2017 9:53 PM
58	phd candidate	2/7/2017 9:24 PM
59	HVAC Engineer	2/7/2017 8:54 PM
60	Research fellow	2/7/2017 8:17 PM
61	Assoc. Prof.	2/7/2017 8:12 PM
62	Assistant professor	2/7/2017 7:12 PM
63	Research Engineer	2/7/2017 6:49 PM
64	associate professor	2/7/2017 6:49 PM
65	Professor	2/7/2017 6:24 PM
66	Education	2/7/2017 6:12 PM
67	professor	2/7/2017 3:42 PM
68	Graduate Assistant Researcher	2/7/2017 3:34 PM
69	Professor	2/7/2017 3:05 PM
70	Assistant Professor	2/7/2017 1:11 PM
71	Professor	2/7/2017 12:23 PM
72	Professor	2/7/2017 12:20 PM
73	IAQ research scientist	2/7/2017 12:14 PM
74	professor	2/7/2017 12:07 PM
75	Associate Professor	2/7/2017 11:12 AM

STBE Researcher Questionnaire

76	Product Engineering	2/7/2017 11:08 AM
77	Research Engineer	2/7/2017 11:06 AM
78	A/Prof	2/7/2017 10:55 AM
79	Researcher	2/7/2017 10:54 AM
80	Research Assistant	2/7/2017 10:54 AM
81	about to finish PhD	2/7/2017 10:48 AM
82	Research fellow	2/7/2017 10:48 AM
83	Professor	2/7/2017 10:46 AM

STBE Researcher Questionnaire

Q26 How many years have you worked in the field and/or in research?

Answered: 84 Skipped: 5

#	Responses	Date
1	10	3/2/2017 3:15 PM
2	18	3/2/2017 3:59 AM
3	20	3/1/2017 10:54 PM
4	7	3/1/2017 7:08 PM
5	6	3/1/2017 1:55 AM
6	3	3/1/2017 1:49 AM
7	8	3/1/2017 1:28 AM
8	28	2/28/2017 4:13 PM
9	39	2/28/2017 3:56 PM
10	14	2/28/2017 3:34 PM
11	8	2/28/2017 3:18 PM
12	10	2/28/2017 3:10 PM
13	30	2/28/2017 2:12 PM
14	24	2/28/2017 2:00 PM
15	30	2/28/2017 1:26 PM
16	25	2/28/2017 1:25 PM
17	33	2/28/2017 12:57 PM
18	More than 20	2/28/2017 12:24 PM
19	25	2/28/2017 12:10 PM
20	37 years	2/28/2017 12:05 PM
21	15	2/28/2017 11:24 AM
22	20	2/28/2017 11:02 AM
23	35 years	2/28/2017 11:01 AM
24	12	2/28/2017 10:43 AM
25	10	2/28/2017 10:41 AM
26	25	2/28/2017 10:32 AM
27	3	2/28/2017 10:25 AM
28	9	2/28/2017 10:24 AM
29	30	2/28/2017 10:17 AM
30	25	2/28/2017 10:17 AM
31	14	2/28/2017 10:11 AM
32	8	2/28/2017 10:11 AM
33	25	2/28/2017 10:08 AM
34	9	2/28/2017 10:04 AM

STBE Researcher Questionnaire

35	6	2/28/2017 8:33 AM
36	3	2/28/2017 7:16 AM
37	5	2/23/2017 5:56 AM
38	24	2/22/2017 1:51 AM
39	2	2/19/2017 4:23 PM
40	three	2/18/2017 6:55 AM
41	35	2/15/2017 11:54 AM
42	35	2/14/2017 5:38 PM
43	7	2/13/2017 12:47 PM
44	many!	2/12/2017 5:47 AM
45	30	2/9/2017 4:52 PM
46	13	2/9/2017 9:09 AM
47	8	2/9/2017 4:28 AM
48	more than 30	2/9/2017 2:38 AM
49	10	2/8/2017 11:38 PM
50	5	2/8/2017 3:38 AM
51	18	2/8/2017 1:11 AM
52	30	2/8/2017 12:27 AM
53	10	2/8/2017 12:17 AM
54	Less than 10	2/7/2017 10:37 PM
55	4	2/7/2017 10:25 PM
56	5	2/7/2017 10:22 PM
57	5	2/7/2017 9:53 PM
58	5	2/7/2017 9:24 PM
59	3	2/7/2017 8:54 PM
60	8	2/7/2017 8:17 PM
61	13	2/7/2017 8:12 PM
62	7	2/7/2017 7:12 PM
63	20 years	2/7/2017 6:49 PM
64	15	2/7/2017 6:49 PM
65	16	2/7/2017 6:24 PM
66	12	2/7/2017 6:12 PM
67	6 years	2/7/2017 3:43 PM
68	28	2/7/2017 3:42 PM
69	8	2/7/2017 3:34 PM
70	8	2/7/2017 3:05 PM
71	10	2/7/2017 1:11 PM
72	26	2/7/2017 12:23 PM
73	40	2/7/2017 12:20 PM
74	20	2/7/2017 12:14 PM
75	20	2/7/2017 12:07 PM

STBE Researcher Questionnaire

76	9	2/7/2017 11:12 AM
77	6	2/7/2017 11:08 AM
78	20	2/7/2017 11:06 AM
79	20	2/7/2017 10:55 AM
80	6	2/7/2017 10:54 AM
81	4	2/7/2017 10:54 AM
82	more than 3	2/7/2017 10:48 AM
83	15	2/7/2017 10:48 AM
84	20	2/7/2017 10:46 AM

STBE Researcher Questionnaire

Q27 Age

Answered: 82 Skipped: 7

#	Responses	Date
1	36	3/2/2017 3:16 PM
2	44	3/2/2017 3:59 AM
3	44	3/1/2017 10:54 PM
4	36	3/1/2017 7:20 PM
5	31	3/1/2017 1:56 AM
6	31	3/1/2017 1:53 AM
7	30	3/1/2017 1:52 AM
8	41	2/28/2017 4:13 PM
9	64	2/28/2017 3:56 PM
10	37	2/28/2017 3:34 PM
11	34	2/28/2017 3:10 PM
12	61	2/28/2017 2:12 PM
13	49	2/28/2017 2:01 PM
14	60	2/28/2017 1:27 PM
15	52	2/28/2017 1:25 PM
16	55	2/28/2017 12:57 PM
17	46	2/28/2017 12:25 PM
18	56	2/28/2017 12:11 PM
19	59	2/28/2017 12:06 PM
20	45	2/28/2017 11:25 AM
21	52	2/28/2017 11:03 AM
22	60 years old	2/28/2017 11:02 AM
23	33	2/28/2017 10:52 AM
24	35	2/28/2017 10:43 AM
25	52	2/28/2017 10:32 AM
26	33	2/28/2017 10:25 AM
27	34	2/28/2017 10:25 AM
28	59	2/28/2017 10:18 AM
29	50	2/28/2017 10:17 AM
30	39	2/28/2017 10:12 AM
31	45	2/28/2017 10:11 AM
32	50	2/28/2017 10:09 AM
33	28	2/28/2017 10:04 AM
34	30	2/28/2017 8:34 AM
35	35	2/28/2017 7:17 AM

STBE Researcher Questionnaire

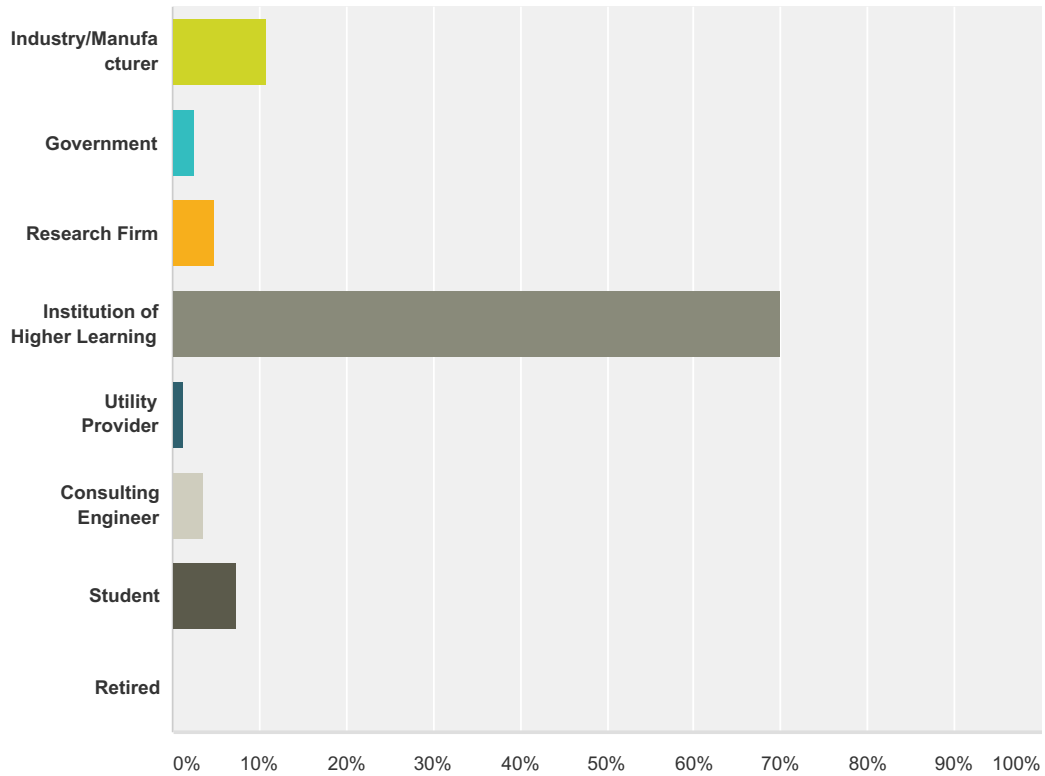
36	37	2/23/2017 5:57 AM
37	48	2/22/2017 1:51 AM
38	27	2/19/2017 4:24 PM
39	30	2/18/2017 6:55 AM
40	62	2/15/2017 11:54 AM
41	59	2/14/2017 5:39 PM
42	31	2/13/2017 12:47 PM
43	59	2/9/2017 4:52 PM
44	38	2/9/2017 9:09 AM
45	32	2/9/2017 4:29 AM
46	62	2/9/2017 2:39 AM
47	34	2/8/2017 3:38 AM
48	46	2/8/2017 1:13 AM
49	56	2/8/2017 12:28 AM
50	42	2/8/2017 12:18 AM
51	32	2/7/2017 11:14 PM
52	20 - 30	2/7/2017 10:37 PM
53	25	2/7/2017 10:25 PM
54	55	2/7/2017 10:22 PM
55	28	2/7/2017 9:54 PM
56	27	2/7/2017 9:25 PM
57	26	2/7/2017 8:54 PM
58	52	2/7/2017 8:18 PM
59	35	2/7/2017 8:15 PM
60	28	2/7/2017 7:12 PM
61	45	2/7/2017 6:49 PM
62	39	2/7/2017 6:49 PM
63	39	2/7/2017 6:25 PM
64	45	2/7/2017 6:12 PM
65	34	2/7/2017 3:43 PM
66	54	2/7/2017 3:43 PM
67	28	2/7/2017 3:34 PM
68	35	2/7/2017 3:05 PM
69	32	2/7/2017 1:11 PM
70	74	2/7/2017 12:20 PM
71	46	2/7/2017 12:14 PM
72	40	2/7/2017 12:07 PM
73	36	2/7/2017 11:12 AM
74	33	2/7/2017 11:09 AM
75	45	2/7/2017 11:06 AM
76	52	2/7/2017 10:55 AM

STBE Researcher Questionnaire

77	39	2/7/2017 10:55 AM
78	35	2/7/2017 10:55 AM
79	30	2/7/2017 10:48 AM
80	36	2/7/2017 10:48 AM
81	36	2/7/2017 10:48 AM
82	47	2/7/2017 10:46 AM

Q28 Employer

Answered: 83 Skipped: 6



Answer Choices	Responses
Industry/Manufacturer	10.84% 9
Government	2.41% 2
Research Firm	4.82% 4
Institution of Higher Learning	69.88% 58
Utility Provider	1.20% 1
Consulting Engineer	3.61% 3
Student	7.23% 6
Retired	0.00% 0
Total	83

#	Other (please specify)	Date
1	national lab	2/22/2017 1:51 AM
2	Please proofread your survey before sending it out.	2/7/2017 10:46 AM

STBE Researcher Questionnaire

Q29 Job title/principal job activity

Answered: 82 Skipped: 7

#	Responses	Date
1	Associate Professor	3/2/2017 3:16 PM
2	Researcher	3/2/2017 3:59 AM
3	Associate Professor	3/1/2017 10:54 PM
4	Associate Professor	3/1/2017 7:20 PM
5	Ph.d candidate	3/1/2017 1:56 AM
6	phd student	3/1/2017 1:53 AM
7	scientific research	3/1/2017 1:52 AM
8	Lecturer	2/28/2017 4:13 PM
9	Senior Research Staff / Building Equipment Design	2/28/2017 3:56 PM
10	Professor	2/28/2017 3:34 PM
11	Research Assistant	2/28/2017 3:18 PM
12	professor	2/28/2017 3:10 PM
13	R&D Engineer	2/28/2017 2:12 PM
14	Assocaite Professor	2/28/2017 2:01 PM
15	Professor	2/28/2017 1:27 PM
16	Professor	2/28/2017 1:25 PM
17	Professor	2/28/2017 12:57 PM
18	Professor	2/28/2017 12:25 PM
19	Engineer	2/28/2017 12:11 PM
20	Professor	2/28/2017 12:06 PM
21	Research Engineer	2/28/2017 11:25 AM
22	Associate Professor	2/28/2017 11:03 AM
23	prof/university teacher	2/28/2017 11:02 AM
24	Associate professor	2/28/2017 10:52 AM
25	postdoc	2/28/2017 10:43 AM
26	professor	2/28/2017 10:32 AM
27	research fellow	2/28/2017 10:25 AM
28	assistant professor	2/28/2017 10:25 AM
29	professor	2/28/2017 10:18 AM
30	refrigerants technology	2/28/2017 10:17 AM
31	Research scientist	2/28/2017 10:12 AM
32	professor	2/28/2017 10:11 AM
33	associate professor	2/28/2017 10:09 AM
34	Graduate Assistant Researcher	2/28/2017 10:04 AM
35	Graduate student research assistant	2/28/2017 8:34 AM

STBE Researcher Questionnaire

36	Research	2/28/2017 7:17 AM
37	Assistant Professor, teaching	2/23/2017 5:57 AM
38	PI and Group Leader	2/22/2017 1:51 AM
39	Proposal Engineer	2/19/2017 4:24 PM
40	teacher	2/18/2017 6:55 AM
41	Professor	2/15/2017 11:54 AM
42	Engineering Research	2/14/2017 5:39 PM
43	assistant professor	2/13/2017 12:47 PM
44	Professor	2/12/2017 5:47 AM
45	Professor	2/9/2017 4:52 PM
46	University professor	2/9/2017 9:09 AM
47	associate professor	2/9/2017 4:29 AM
48	full professor	2/9/2017 2:39 AM
49	Assistant Professor of Mechanical Engineering	2/8/2017 3:38 AM
50	ASsociate Professor	2/8/2017 1:13 AM
51	Principal Engineer	2/8/2017 12:28 AM
52	associate professor	2/8/2017 12:18 AM
53	Research	2/7/2017 10:37 PM
54	PhD student	2/7/2017 10:25 PM
55	Lecturer	2/7/2017 10:22 PM
56	postdoc, research	2/7/2017 9:54 PM
57	phd candidate	2/7/2017 9:25 PM
58	HVAC Engineer	2/7/2017 8:54 PM
59	Research fellow	2/7/2017 8:18 PM
60	Assoc. Prof.	2/7/2017 8:15 PM
61	Assistant professor	2/7/2017 7:12 PM
62	Pricipal Research Engineer	2/7/2017 6:49 PM
63	associate professor	2/7/2017 6:49 PM
64	Professor	2/7/2017 6:25 PM
65	Education	2/7/2017 6:12 PM
66	professor	2/7/2017 3:43 PM
67	Graduate Assistant Researcher	2/7/2017 3:34 PM
68	Professor	2/7/2017 3:05 PM
69	Assistant Professor	2/7/2017 1:11 PM
70	Professor	2/7/2017 12:20 PM
71	IAQ research scientist	2/7/2017 12:14 PM
72	professor	2/7/2017 12:07 PM
73	Associate professor	2/7/2017 11:12 AM
74	Product Engineering	2/7/2017 11:09 AM
75	Research Engineer	2/7/2017 11:06 AM
76	A/Prof	2/7/2017 10:55 AM

STBE Researcher Questionnaire

77	Researcher	2/7/2017 10:55 AM
78	Research Assistant	2/7/2017 10:55 AM
79	almost PhD	2/7/2017 10:48 AM
80	Research fellow	2/7/2017 10:48 AM
81	Engineer	2/7/2017 10:48 AM
82	Professor	2/7/2017 10:46 AM

STBE Researcher Questionnaire

Q30 Years worked in the field/in research

Answered: 83 Skipped: 6

#	Responses	Date
1	10	3/2/2017 3:16 PM
2	18	3/2/2017 3:59 AM
3	20	3/1/2017 10:54 PM
4	7	3/1/2017 7:20 PM
5	6	3/1/2017 1:56 AM
6	8	3/1/2017 1:53 AM
7	3	3/1/2017 1:52 AM
8	18	2/28/2017 4:13 PM
9	39	2/28/2017 3:56 PM
10	14	2/28/2017 3:34 PM
11	8	2/28/2017 3:18 PM
12	10	2/28/2017 3:10 PM
13	30	2/28/2017 2:12 PM
14	24	2/28/2017 2:01 PM
15	30	2/28/2017 1:27 PM
16	25	2/28/2017 1:25 PM
17	33	2/28/2017 12:57 PM
18	More than 20	2/28/2017 12:25 PM
19	25	2/28/2017 12:11 PM
20	37	2/28/2017 12:06 PM
21	15	2/28/2017 11:25 AM
22	20	2/28/2017 11:03 AM
23	35 years	2/28/2017 11:02 AM
24	10	2/28/2017 10:52 AM
25	12	2/28/2017 10:43 AM
26	25	2/28/2017 10:32 AM
27	3	2/28/2017 10:25 AM
28	9	2/28/2017 10:25 AM
29	30	2/28/2017 10:18 AM
30	25	2/28/2017 10:17 AM
31	14	2/28/2017 10:12 AM
32	8	2/28/2017 10:11 AM
33	25	2/28/2017 10:09 AM
34	9	2/28/2017 10:04 AM
35	6	2/28/2017 8:34 AM

STBE Researcher Questionnaire

36	3	2/28/2017 7:17 AM
37	5	2/23/2017 5:57 AM
38	24	2/22/2017 1:51 AM
39	2	2/19/2017 4:24 PM
40	three years	2/18/2017 6:55 AM
41	35	2/15/2017 11:54 AM
42	35	2/14/2017 5:39 PM
43	7	2/13/2017 12:47 PM
44	30	2/12/2017 5:47 AM
45	30	2/9/2017 4:52 PM
46	14	2/9/2017 9:09 AM
47	8	2/9/2017 4:29 AM
48	more than 30	2/9/2017 2:39 AM
49	5	2/8/2017 3:38 AM
50	18	2/8/2017 1:13 AM
51	30	2/8/2017 12:28 AM
52	10	2/8/2017 12:18 AM
53	Less than 10	2/7/2017 10:37 PM
54	4	2/7/2017 10:25 PM
55	5	2/7/2017 10:22 PM
56	5	2/7/2017 9:54 PM
57	5	2/7/2017 9:25 PM
58	3	2/7/2017 8:54 PM
59	8	2/7/2017 8:18 PM
60	13	2/7/2017 8:15 PM
61	7	2/7/2017 7:12 PM
62	25 Years	2/7/2017 6:49 PM
63	15	2/7/2017 6:49 PM
64	16	2/7/2017 6:25 PM
65	12	2/7/2017 6:12 PM
66	6 years	2/7/2017 3:43 PM
67	28	2/7/2017 3:43 PM
68	8	2/7/2017 3:34 PM
69	8	2/7/2017 3:05 PM
70	10	2/7/2017 1:11 PM
71	40	2/7/2017 12:20 PM
72	20	2/7/2017 12:14 PM
73	20	2/7/2017 12:07 PM
74	9	2/7/2017 11:12 AM
75	8	2/7/2017 11:09 AM
76	21	2/7/2017 11:06 AM

STBE Researcher Questionnaire

77	20	2/7/2017 10:55 AM
78	6	2/7/2017 10:55 AM
79	4	2/7/2017 10:55 AM
80	more than 3	2/7/2017 10:48 AM
81	15	2/7/2017 10:48 AM
82	15	2/7/2017 10:48 AM
83	20	2/7/2017 10:46 AM



Certification Committee
Report to Publishing and Education Council (PEC)
ASHRAE 2017 Annual Conference / Long Beach, CA

Items Requiring Council Attention

1. The Certification Committee recommends support of a new HVAC Designer certification.

Committee Vote: 7-0-0 Chair Not Voting
Background:

Following a preliminary review of an HVAC Designer certification proposal, in 2016 the Certification Committee conducted market research to determine the need, demand and growth potential of such a certification. The “Industry Need Survey: HVAC Designer Certification” was sent to over 23,000 Consulting Engineer, Design Build and Architectural/AE members. Altogether, there were approximately 1,900 respondents, an 8% response rate. According to Survey Monkey, with a survey population of 23,727, fewer than 1,100 respondents are needed for a 3% margin of error.

In evaluating the potential for success of an HVAC Designer certification, the following positive “Industry Need” survey results were noted:

Need

- Respondents who work with HVAC Designers agree (95%) that “the level of competence among HVAC Designers varies greatly.”
- Respondents who “influence the HVAC hiring decision” agree (81%) that “there is a need for qualified HVAC Designers at my company.”

Demand

- Respondents who “influence the HVAC Designer hiring decision” view an HVAC Designer certification as a tool to identify competent new hire prospects (74%) and as a worthwhile professional development goal (82%). A majority (51%) agree that “an HVAC Designer certification would help my company be more successful.”
- HVAC Designers themselves agree that earning an HVAC Designer certification would be a “worthwhile professional development goal” (75%) and “help differentiate practitioners from their peers” (70%).

Growth Potential

- 82% of respondents see demand for qualified HVAC Designers increasing over the next 5 – 10 years.

- Extrapolated to the survey population of ASHRAE members in the consulting engineer, design build and architectural/AE segments, approximately 12,300 do HVAC Design work, of whom 9,840 work full-time.
- According to the algorithm the Committee uses to evaluate new program proposals, the break-even number of applications needed is 100 annually.

While the proposed HVAC Designer certification could be earned by the professional engineer who wanted to demonstrate competence in the HVAC design field, it would be positioned for the non-licensed designer, working under the responsible charge of a professional engineer.

Fiscal Impact: \$125,000 in FY 2018-19 to develop and launch the program.

2. The Certification Committee recommends support of assigning PAOE points for multiple certifications earned or renewed by the same chapter member.

Committee Vote: 7-0-0 Chair Not Voting

Background:

Currently, 100 points may be earned for each individual who earns an ASHRAE certification during the Society President's term, and an additional 50 points is added for each member who renews their ASHRAE certification during the Society President's term.

Fiscal Impact: None

Information Items

1. ANSI

The ANSI Year 2 Annual Surveillance application for all accredited programs has been accepted by ANSI with only one Opportunity for Improvement citation, and all citations from the BCxP Scope Extension application for accreditation have been resolved. Accreditation of the BCxP will be forthcoming in July, 2017.

2. 2016 Recertification Audit

Preliminary results of the audit of 3% of 2016 recertification applicants are very favorable, with 11 of 12 applicants fulfilling audit requirements.

3. Better Buildings Workforce Guidelines (BBWG)

Energy Auditor

On track for DOE approval of the BEAP in July, 2017.

Building Commissioning Professional (BCxP)

On track for DOE approval of the BCxP by July, 2017.

4. Exam Development

In 2016-17 four certification programs – BCxP, BEAP, BEMP and OPMP - completed or substantially completed updates to their respective exam Detailed Content Outlines and exam forms. Detailed Content Outline and exam form development will continue for the HBDP and HFDP programs in 2017-18.

5. Progress on 2016-17 MBOs (**Attachment A**)

Executed MBO #7: *“Evaluate total cost for each certification exam given to help ASHRAE understand the application fee that should be charged.”*

Based on current application rates, the following “total cost for each certification exam” estimates do not include staff salaries or payroll expense, ANSI (for accredited programs) or allocation of overhead.

- BCxP \$277
- BEAP \$272
- BEMP \$181
- HBDP \$325
- HFDP \$325
- OPMP \$791

Offsetting revenue includes both certification and recertification application fees.

6. 2017 – 18 MBOs (**Attachment B**)

Respectfully submitted,
Rich Rose
Certification Committee, Chair
06/24/2017

Attachment A
Certification Committee Report to PEC

Certification Committee

MBOs Society Year: 2016-2017

Chair: Rich Rose

Date: June 24, 2017

Objective	SP 2014	Completion Date	Fiscal Impact	Responsible Party	Status	Comment
1. Attain 80% recertification rate for the 2016 renewal class, exceeding the industry average of 76%.	1B, 3D, 4B	3/31/17	Currently budgeted.	Chair, Staff	76% rate achieved.	
2. Grow the number of applications by 10% over 2015-16.	1B, 2C, 3C, 4A, 4B	6/30/17	None, Staff Time	Staff	Likely will not exceed 2015-16 record year of 500 applications.	
3. Make ASHRAE certification more relevant to ASHRAE members and the industry in general.	1B, 4A	6/30/17	Volunteer and Staff Time		New, BBWG-aligned Building Commissioning Professional (BCxP) certification on track for ANSI accreditation and DOE recognition by July, 2017.	
4. Manage certification programs against the ANSI/ISO/IEC 17024 accreditation standard.	2C, 4B	6/30/17	Currently budgeted.	Chair, Staff	Following the 2016 year 1 assessment, ASHRAE granted continued accreditation under the ISO/IEC/ANSI 17024:2012 standard for the BEAP, BEMP, CPMP and HBDDP.	
5. Achieve DOE recognition of the CPMP.	1B, 2C, 4B	6/30/17	Currently budgeted.	Chair, Staff	CPMP accredited by ANSI in May, 2016. On track for DOE recognition of new BCxP by July, 2017.	
6. Achieve DOE recognition of the BEAP.	1B, 2C, 4B	6/30/17	Currently budgeted.	Chair, Staff	BEAP accredited by ANSI in May, 2016. On track for DOE recognition of new BEAP by July, 2017.	
7. Evaluate total cost for each certification exam given to help ASHRAE understand the application fee that should be charged.	1B	6/24/17	None, Volunteer and Staff Time	Chair, Staff	Conducted in June 24, 2017 Committee meeting.	

8. Evaluate total cost for recertification to help ASHRAE understand the application fee that should be charged.	1B	6/24/17	None, Volunteer and Staff Time	Chair, Staff	Conducted in June 24, 2017 Committee meeting.	
9. Develop and publish FAQ summarizing past Committee discussions, decisions and actions regarding the subject of translating certification exam and other materials from English into other languages and otherwise accommodating non-native English speakers.	1B, 2A	6/24/17	None, Staff Time	Chair, Staff	Completed.	
Recommendations for Strategic Planning:						

Attachment B
Certification Committee Report to PEC

Certification Committee

MBOs Society Year: 2017-2018

Chair: Cameron Labunski

Date: June 24, 2017

Objective	SP 2014	Completion Date	Fiscal Impact	Responsible Party	Status	Comment
1. Attain 80% recertification rate for the 2017 renewal class, exceeding the industry average of 76%.	1B, 3D, 4B	3/31/18	Currently budgeted.	Chair, Staff	In progress.	2017 is first year CPMPs must renew as BCxPs, a process which requires an exam.
2. Grow the number of certification applications by 10% over 2015-16.	1B, 2C, 3C, 4A, 4B	6/30/18	None, Staff Time	Staff	In progress.	2015-16 application total of 500 was record high.
3. Enhance relevancy of ASHRAE certification to ASHRAE members and the industry in general.	1B, 4A	9/30/17	Volunteer and Staff Time		In progress.	<ul style="list-style-type: none"> - Pursue DOE recognition of BCxP and BEAP. - Task Force (Kurt Monteiro, Dan Pettway, Mark Bettin) to pursue USGBC LEED point recognition/requirement. - Task Force (David Eldridge, Vanessa Freidberg) to pursue Green Globes incorporation.
4. Manage certification programs against the ANSI/ISO/IEC 17024 accreditation standard.	2C, 4B	6/30/18	Currently budgeted.	Chair, Staff	In progress.	Following the 2017 year 2 assessment, ASHRAE granted continued accreditation under the ISO/IEC/ANSI 17024:2012 standard for the BEAP, BEMP, CPMP and HBDP. BCxP accreditation to be granted in June/July of 2017. Exam development planned for the BEAP, HBDP and HFDP.
5. Consider a motion to recommend to PEC support of a new HVAC Designer certification.	1B, 2C, 4B	1/30/18	Currently budgeted.	Chair, Staff	In progress.	To take place at the 2018 Winter Conference..

6. Evaluate the certification and recertification application fee schedule in December, 2017.	1B, 2C, 4B	12/31/17	Currently budgeted.	Chair, Staff	In progress.	The last time the fee schedule was evaluated was December, 2015, resulting in the first fee increase in the history of the program.
Recommendations for Strategic Planning:						

SP 2014 = Strategic Plan 2014 Initiative addressed by objective

1: Market Prioritization – Member Passion and Core Market

B. Only through close communication with its key constituencies can ASHRAE deliver relevant and timely products and services. ASHRAE will research the true impact of its standards and technology and share the results with the world. ASHRAE will actively reach out to its key constituencies to achieve open, two-way dialogue. The dialogue will be used to validate programs and identify new opportunities.

2: ASHRAE Efficiency – Organizational Assessment

- A.** ASHRAE must become more agile so that it can deliver products and services in a timely manner while respecting the value of volunteer time. ASHRAE will review all aspects of the organization to identify and remove encumbrances to agility and the respectful use of volunteer time.
- C.** Alignment with other existing organizations may be the fastest way to achieve success. ASHRAE will consider all arrangements on working with other existing organizations, including consolidation, partnerships, and joint ventures.

3: Applied Product Development

- C.** The world of prescriptive and performance-based standards is changing. ASHRAE will work with other standards development organizations (SDOs) to map a course through this changing environment that will deliver the most positive impact to the market place.
- D.** Professional development is a keystone of ASHRAE that can be delivered through our grassroots organization. ASHRAE will develop a comprehensive portfolio of practical applications courses intended to be delivered through our grassroots organization.

4: ASHRAE's Role in the Global Community

- A.** ASHRAE has already had significant impact in many countries around the world, but there is more that can be done. ASHRAE will conduct a detailed analysis of the needs of its global members and opportunities to work with organizations outside North America. ASHRAE will develop a strategy to serve its international members and participate in international markets. These strategies will be added to this strategic plan once approved by the Board of Directors
- B.** ASHRAE can learn from others about how to be effective in the global community. ASHRAE will work with consultants and other organizations to discover best practices and develop an approach to serve its members in the global community.



Electronic Communications Committee (ECC)
Report to Publishing and Education Council (PEC)
ASHRAE 2017 Annual Conference / Long Beach, CA

Items Requiring Council Attention

1. No items requiring action from the council.

Information Items

1. ECC moved to put forward a plan to sunset ASHRAExCHANGE effective August 1, 2017. [\(Attachment A\)](#)
2. ECC worked with ASHRAE IT to create alias position groups for Region Officer positions. These alias groups will be added as clients to Region Basecamps to facilitate communication between chapters and regions.
3. ECC will continue rolling out Basecamp during SY 2017-2018 by assigning clients to all Region Basecamps and sending an email to DRCs reminding them they have a Basecamp for their use. ECC will also create Basecamps for all Chapters and assign clients to each Chapter Basecamp.
4. ECC created and approved a white paper based on results of their fall 2016 survey to be posted on the ASHRAE.org website to help chapter webmasters, newsletter editors, and other electronic communications-type positions understand what electronic tools are already in use by ASHRAE chapters.
5. ECC continued the discussion of app creation by chapters as a result of a request received prior to the Las Vegas meeting. Since apps are not electronic communication unless they are used to communicate electronically the committee is working to craft language to ensure apps created by chapters follow the existing ASHRAE Policy and Procedure for Format, Activity, and Content of Internet Sites for ASHRAE Groups.
6. Guidance for ASHRAE groups seeking to create and post content on YouTube has been posted to the ECC Page of ASHRAE.org.
7. A white paper indicating that ECC has investigated LaTeX software is still in the development stage and will be continued by the ECT subcommittee in 2017-2018.
8. 2016-2017 MBOs are can be seen in Attachment B. [\(Attachment B\)](#)
9. 2017-2018 MBOs can be seen in Attachment C. [\(Attachment C\)](#)

Respectfully submitted,

Steven Faulkner
Electronic Communications Committee, Chair
06/27/2017

SF: jmr

Sunsetting ASHRAExCHANGE

Communication Plan

ECC, acting on a recommendation from ExCom, will no longer make available ASHRAExCHANGE effective August 1, 2017 and has created a plan to shutter the site and inform members of the site of the site's closing.

Timeline of Actions

- 1. Before July 7 -**
2017-2018 ECC Chair Heather Schoppelin to send message to ECC ad hoc and volunteer moderators that created ASHRAExCHANGE.
- 2. July 7 -**
Send message #1
Audience = ASHRAExCHANGE users
- 3. July 28 -**
Send message #2
Audience = ASHRAExCHANGE users
- 4. August 1-**
Remove all references: email footers, pages on ASHRAE.org – some pages include the following: AEDG, RBC, Resources & Publications – delete all data from ASHRAExCHANGE, begin to point ASHRAExCHANGE to placeholder webpage that invites any user that finds the page to visit ASHRAE on our mainstream social channels.
- 5. August 6 -** Send message #3 | General invitation to “Get Social with ASHRAE”
(Copy to be determined by ASHRAE Marketing)
Audience = ASHRAExCHANGE users
- 6. September 2017 -**
Report on metrics - We will track metrics to show how our social following increases as a result of the shuttering of ASHRAExCHANGE and promotion of social to all former ASHRAExCHANGE members as a result.

Email #1

From: eccchair@ashrae.net (with replies going to Joslyn)

Subject Line: ASHRAExCHANGE is closing

Pre-header: Join us on LinkedIn, Facebook, and Twitter

Dear [First Name]:

After evaluating various ASHRAE member engagement platforms, we have decided to discontinue ASHRAExCHANGE by August 1, 2017.

Since the launch of ASHRAExCHANGE in 2013, engagement of ASHRAE members in mainstream social media platforms such as LinkedIn, Facebook, and Twitter has grown exponentially. As a result, ASHRAExCHANGE is no longer needed as a platform for ASHRAE members and those in the industry. As a part of the sunset plan for ASHRAExCHANGE all data including the content of posts and user information will be permanently deleted.

We want to thank you for using ASHRAExCHANGE and participating in the community.

We invite you to join us on LinkedIn, Facebook, and Twitter. (Will include links for each.)

Please direct any comments / questions to social@ashrae.org

Sincerely,

Heather Schopplein
ECC Chair, 2017-2018

Email #2

From: eccchair@ashrae.net (with replies going to Joslyn)

Subject Line: Thank you for using ASHRAExCHANGE

Pre-header: Join us on LinkedIn, Facebook, and Twitter

Dear [First Name]:

This e-mail is a reminder that ASHRAExCHANGE will be discontinued effective August 1, 2017.

After August 1, ASHRAExCHANGE will no longer be in operation. All data including the content of posts and user information will be permanently deleted.

We look forward to seeing you on LinkedIn, Facebook, and Twitter. (Will include links for each.)

Please direct any comments / questions to social@ashrae.org

Sincerely,

Heather Schopplein
ECC Chair, 2017-2018

Email #3

Copy to be determined by ASHRAE Marketing

Electronic Communications Committee

MBOs for Society Year 2016-17

Objective	SP 2014	Compl. By	Fiscal Impact	Resp. Party	Comment/Status
1. Determine membership of subcommittees prior to Long Beach meeting (including new member welcome phone calls and mentor assignments).	2A	Jun 2017	None	Steven Faulkner, Heather Schopplein	Ongoing
2. Initial implementation/training of Basecamp3 at Board, Council, Regions, Chapters and Committees levels.	2A	Jun 2017	None	ECT	Complete
3. Develop and increase social media user base and expand usage by 20% among ASHRAE TAC and PEC voting members.	2A	Jun 2017	None	SMS	Complete
4. Create webinar for Social Media Best Practices.		June 2017	None	SMS	
5. Create a guidance/policy for producing content on ASHRAE YouTube, PowerPoint webinar		Jun 2017	None	SMS	Complete
6. Develop ECC cross committee/council/staff relationships		June 2017	None	Steven Faulkner	Ongoing
7. Create webinar for ASHRAE membership: Best practices for a Region Website.		Jun 2017	None	WS	Ongoing, revised for 2017-2018.
8. Research and create white paper for ASHRAE membership on LaTeX software, licensing, free?		June 2017	None	ECT	In Progress
9. Develop a survey to Chapters/Regions to see what they are using for event		June 2017	None	ECT	Complete

planning/website/email/payme nt with goal of creating a white paper to be posted on the ASHRAE.org website.					
Additional Recommendations for Strategic Planning: None at this time					

SP 2014 = Strategic Plan 2014 Initiative addressed by objective

ECT = Electronic Collaboration Tools Subcommittee

SMS = Social Media Subcommittee

WS = Web Sites Subcommittee

Electronic Communications Committee

MBOs for Society Year 2017-18

Chair: Heather Schopplein **Date:** 30 June 2017

Objective	Compl. by	Fiscal Impact	Resp. Party	Comment/Status
Determine and Develop ECC one-on-one relationships with staff, other standing committees, and other councils. Each member to make at least one "connection".	6/30/18	none	All	
Research and create white paper for ASHRAE membership on LaTeX software, licensing, free	6/30/18	none	ECT	
Support ASHRAE staff to promote their social media goals for the 2017-2018 year.	6/30/18	none	SM	
Create a Basecamp for each ASHRAE region, chapter, and standing committees. (Start TC incorporation).	6/30/18	No additional cost	ECT	
Create content for ASHRAE membership: Best practices for Region Websites.	6/30/18	None	Web	
Improve committee communication with RECC's and increase RECC participation.	6/15/18	None	ST	
Develop a formal presentation for CRC training of chapter ECC chairs.	12/30/18	None	All	
Improve committee communication with Chapter ECC's by providing (2) ECC updates annually.	6/30/18	None	ST	

ECT = Electronic Collaboration Tools Subcommittee

SMS = Social Media Subcommittee

WS = Website Subcommittee



**Handbook Committee Report to
Publishing and Education Council (PEC)
Meeting of June 27, 2017**

Action Items

(None)

Information Items

1. The committee continued training and promotion of the new ASHRAE Authoring Portal (authoring.ashrae.org), a collaborative authoring site, to TC Handbook Chairs in the Sunday training session. The Portal allows TCs or other authoring groups to store and revise copyrighted intellectual property in a secure, ASHRAE-approved location, with multiple authors able to work on a document simultaneously. Google Analytics data shows 676 users and 11,396 pageviews since launch last June. The portal is also in use by ASHRAE Learning Institute (ALI), and requests to use the portal have been received by authoring groups from Standards and several special publications.
2. The 2017 *ASHRAE Handbook—Fundamentals* was published on schedule, on June 1, 2017. The volume includes a new chapter on moisture management in buildings.
3. The status of 2016-2017 MBOs is shown in Attachment A.

Respectfully submitted,

Forrest Yount, Chair
Handbook Committee
06/27/2016
FY: mso

Handbook Committee

MBOs for Society Year 2016-2017

Chair: Forrest Yount

Date: 27 June 2017

Objective	SP Init.	Compl. Date	Fiscal Impact	Responsible Party	Status	Comment
1. Achieve 10 percent improvement in each volume revision score over previous volume score.	3	6/20	None	Chair, liaisons	Staff provided revision history. 2017F improved by 3%. 2018R, 2019A, 2020S review/revision in progress.	To remain relevant, Handbook chapters must be kept up to date. <i>Measure:</i> TCs regularly updating content as recorded in revision history reported by liaisons, staff.
2. Identify opportunities and risks in Handbook content areas.	3	6/17	None	Volume Subcoms; liaisons; Chair; staff	Staff provided revision history. Data under evaluation by liaisons; communicating to TCs.	To remain relevant, Handbook must meet users' needs. This objective is to identify those needs and the steps needed to meet them. <i>Measure:</i> areas needing attention identified.
3. Improve recognition of contributors to Handbook content.	2A	6/17	None	ExCom	Contributors list available from staff.	Volunteer recognition is important for supporting Handbook development. <i>Measure:</i> recognition given to contributors.
4. Pilot annual revision cycle with selected TC(s) to update ASHRAE Handbook Online.	2A	6/20	None	ExCom	TC 7.9 to pilot early revisions to their Ch 43 in 2019A. In progress.	Agile methodology--small sprints vs. 4-year cycle. Gain lessons learned, to help TCs better use volunteer time. <i>Measure:</i> TC(s) participate and report experience.
5. Solicit and receive feedback on new ASHRAE Authoring Portal.	2A	1/17	None	Training Subcom	Portal launched 6/17. Now 676 users, with requests to use by others.	Action to improve use of TC volunteer time. <i>Measure:</i> feedback received.
Additional Recommendations for Strategic Planning: None.						

SP Init. = Strategic Plan 2014 Initiative addressed by objective

FY: mso 27 Jun 2017

Handbook Committee

MBOs for Society Year 2016-2017

Chair: Forrest Yount

Date: 27 June 2017

Objective	SP Init.	Compl. Date	Fiscal Impact	Responsible Party	Status	Comment
1. Achieve 10 percent improvement in each volume revision score over previous volume score.	3	6/20	None	Chair, liaisons	Staff provided revision history. 2017F improved by 3%. 2018R, 2019A, 2020S review/revision in progress.	To remain relevant, Handbook chapters must be kept up to date. <i>Measure:</i> TCs regularly updating content as recorded in revision history reported by liaisons, staff.
2. Identify opportunities and risks in Handbook content areas.	3	6/17	None	Volume Subcoms; liaisons; Chair; staff	Staff provided revision history. Data under evaluation by liaisons; communicating to TCs.	To remain relevant, Handbook must meet users' needs. This objective is to identify those needs and the steps needed to meet them. <i>Measure:</i> areas needing attention identified.
3. Improve recognition of contributors to Handbook content.	2A	6/17	None	ExCom	Contributors list available from staff.	Volunteer recognition is important for supporting Handbook development. <i>Measure:</i> recognition given to contributors.
4. Pilot annual revision cycle with selected TC(s) to update ASHRAE Handbook Online.	2A	6/20	None	ExCom	TC 7.9 to pilot early revisions to their Ch 43 in 2019A. In progress.	Agile methodology--small sprints vs. 4-year cycle. Gain lessons learned, to help TCs better use volunteer time. <i>Measure:</i> TC(s) participate and report experience.
5. Solicit and receive feedback on new ASHRAE Authoring Portal.	2A	1/17	None	Training Subcom	Portal launched 6/17. Now 676 users, with requests to use by others.	Action to improve use of TC volunteer time. <i>Measure:</i> feedback received.
Additional Recommendations for Strategic Planning: None.						

SP Init. = Strategic Plan 2014 Initiative addressed by objective

FY: mso 27 Jun 2017

Handbook Committee

MBOs for Society Year 2017-2018

Chair: David Yuill

Date: 27 June 2017

Objective	Compl. Date	Fiscal Impact	Responsible Party	Status	Comment
1. Solicit ideas from HB subcommittee chairs for Handbook process improvements.	6/18	None	HB committee liaisons		
2. Develop a review form for incoming HB committees.	6/18	None	Functional		This form will be filled out by the liaisons for the recently-published chapter from each TC they're assigned to.
3. Update College of Fellows chapter review form.	6/18	None	Functional		It is anticipated that the new form will be combined with a renewed request for Fellows' reviews.
4. Dialog with RAC to consider ideas for increasing incorporation of research results into Handbooks.	6/18	None	Chair and Vice Chair		
5. Improve peer-to-peer training of incoming volume subcommittee chairs.	6/18	None	Vice Chair		It is envisioned that this will become normal practice. A document may be produced providing written guidance.
6. Review relevance, scope, and objectives of HB subcommittees.	6/18	None	HB ExCom		Reform, rename, repurpose, or remove committees, if appropriate.
7. Update Chapter Checklist form.	6/18	None	Functional and Staff		

DY: mso 27 Jun 2017



Historical Committee (HC)
Report to Publishing and Education Council (PEC)
ASHRAE 2017 Annual Conference / Long Beach, CA

Action Item

Request that Tech Council seek input from TCs to name the best paper from each year since 1995. This will be a continuation of the 100 best papers that were named as part of the Centennial celebration.

Information Items

1. Historical Committee discussed the necessity of establishing a firm timeline for all projects for the 125th anniversary.
2. Historical Committee enumerated the list of projects for the 125th anniversary and discussed the progress made by the Committee on project development.
3. Historical Committee discussed reaching out to Associate Societies for their input on the 125th anniversary; to document the collaboration and influence between ASHRAE and the Societies in their countries.
4. Historical Committee discussed ways to reach out to Technical Committees to help document historically significant technical processes and advancements for 125th anniversary.
5. Historical Committee discussed the necessity of holding status meetings via teleconference or Go to Meeting to collaborate/report on various projects underway for 125th anniversary.
6. Historical Committee discussed a new project to be considered for the 125th anniversary that should interest younger members.
7. Historical Committee discussed the need to review the committee MOP in the coming year; in particular, making sure that the criteria listed for the Lou Flagg award in the MOP are consistent with the official criteria contained in the Rules of the Board.
8. Historical Committee discussed how to conduct Leadership Recall interviews for ASHRAE leaders who have passed away.
9. Historical Committee named several possible candidates to be named for future Leadership Recall interviews.
10. Historical Committee discussed establishing a formal policy for retention of documents and items of historical interest; policy to be added to the committee's MOP.
11. Historical Committee discussed increasing the number of ASHRAE Journal articles that are available in electronic format.
12. Historical Committee discussed the importance of being able to include remote meeting participation; in particular for international members
13. MBOs *Attachment A*

Respectfully submitted,
Randy Schrecengost, Chair Historical Committee

06/26/2017

RS: ess

Attachment A
Historical Committee Report to PEC

Objective	SPGoal	Completion Date	Fiscal Impact	Delegated to:	Status	Comment
Finalize 125 Year ASHRAE Anniversary celebration Action Plan	1	Winter meeting 2019	Major	125th Anniversary Celebration sub committee	Ongoing - Next update January Winter Meeting 2018	Working with Staff on overall schedule and requirements for publications. We have defined: the Focus for Articles; basic Specifications for such articles; 3 Action Items at this time; and, a preliminary Schedule. SC plans to hold periodic discussions with ASHRAE staff as appropriate.
		Winter Meeting 2017	Minor	125th Anniversary Celebration sub committee	Complete	Meeting to discuss the schedule and develop a Call for Papers publication notice for Submission Guidelines. Las Vegas Winter Meeting January. Complete as we have run a call for articles in multiple ASHRAE Journal newsletters, and other communication. Efforts will continue in item below.
		March 1, 2019	Minor	125th Anniversary Celebration sub committee	Ongoing	Have received 4 abstracts. Will continue to run a call for articles in multiple ASHRAE Journal newsletters, and other communication. Will run a final date for all materials (final drafts, figures, captions, photos) by March 2019.
Planning/implementation begun on publication/s to celebrate 125th Anniversary	1	Winter meeting 2019	Major	125th Anniversary Celebration sub committee	Ongoing - Next update January Winter Meeting 2018	Currently working with Staff on overall schedule and requirements for publications. Discussions during LB Mtg with Steve Comstock resulted in plan for SC to hold a teleconference approximately every 6 weeks with staff to establish more detailed schedule and milestone dates.
Assist in publicizing 125 th Anniversary. Develop seminars of historical interest that can be presented at National and Regional Meetings	1	Winter meeting 2019	Major	125th Anniversary Celebration sub committee	Ongoing - Next update January Winter Meeting 2018	The sub-committee has been formed and will develop proposals for submission to PEC to support the anniversary and demonstrate to members the strength in depth of our Society. Discussions in the HC meeting illustrated a need to meet with CEC as well to discuss possible tracks and registration costs for historical items.

Incorporate a Women In Engineering component to the 125 Year ASHRAE Anniversary celebration	1	Winter meeting 2019	Minor	Communication Sub Committee	Ongoing - Next update January Winter Meeting 2018	The 125 Year ASHRAE Anniversary celebration will include a Women In Engineering element. Still a desire to incorporate this item within the related items above.
		Winter Meeting 2017	None	Historical Committee Chair	Complete	Proposed to add a PAOE line item "For a local Chapter Historical activity performed by an actively engaged "Woman in ASHRAE (WiA)" member". Proposed and accepted by PAOE Committee, however, a WiA and YEA cannot be double counted.
Recommend a change to the overall criteria for PAOE	1	Summer meeting 2017	None	Historical Committee Chair/PEC/PEAC	Complete	Historical category should be included as one of the 7 categories in which chapters must meet a minimum of points. Proposed and rejected by PAOE Committee. It was stated that Historical is not a Grassroots Committee so the PAOE Criteria would not be changed.
Preparing several suggested changes to Historical PAOE criteria	1	Summer meeting 2017	None	Historical Committee Chair/PEC/PEAC	Complete	Suggested changes to several PAOE Historical category points criteria including adding a WiA component to YEA activities; specifying acceptable exceptions to chapter histories outside the chapter geographic area; tightening criteria for what constitutes an acceptable history; establishing criteria for incoming chapter historians. Proposed and accepted by PAOE Committee.
Encourage women and younger members of ASHRAE to have interest in history-related activities of the Society	2	Summer meeting 2017	None	Communication Sub Committee	Ongoing	Contacts provided by Tim Dwyer are considering how this might be achieved. Still a desire to incorporate this item within the related items above. Discussions were held to develop a possible procedure for dedicating historical sites, perhaps with a plaque and a write up on the web page. Further discussions are warranted and the HC may take this on as a long term mission/project and use the 125th Anniversary as the kick-off.

		Summer meeting 2017	None	Historical Committee Chair	Complete	Proposing to keep the PAOE line item "For a local Chapter Historical activity performed by an actively engaged YEA member" Proposed and accepted by PAOE Committee, however, a WiA and YEA cannot be double counted
Develop proposals to improve the opportunities for Regional Historians to participate in Historical Committee activities.	1	Summer meeting 2017	None	Communication Sub Committee	Ongoing	Prepare a guideline for RVCs to supplement current guidance and develop a proposal to allow on-line participation of non-voting members (RVCs) at Committee meetings. A few proposed draft documents have been developed that will serve as a guideline to RVCs/RHs to supplement current guidance and will be reviewed further for additional modifications. In addition, the HC tried the Remote Participation Meeting (RPM) at Long Beach and it appeared to be a success overall, but only 3 individuals participated.
Foster collaboration with other international societies to improve our historical research and support history-related activities of the Society	4	Summer meeting 2017	None	Communication Sub Committee	Ongoing	Historical committee already has links with similar groups in CIBSE and AiCARR - opportunity now being pursued to work with similar committees in CEN, International Institute of Ammonia Refrigeration (IIAR), International Institute of Refrigeration (IIR), and the Global Cold Chain Alliance (GCCA). Oswaldo D S Bueno, PE. was to address ASA. Kent Anderson and Branislav Todorovic to attend meeting on Monday afternoon.
Leadership Recall Arrange for videos to be taped at Annual meeting 2017	1	Summer meeting 2017	\$1,000 Already Budgeted	Leadership Recall Sub Committee	Ongoing	Interview of Tom Phoenix set for Long Beach. HC reviewed other potential interviewees and provided a list that still includes Lynn Bellenger, and other members with significant contributions (e.g., Ray Cohen from Purdue, and Mr. Michael Newman
Digitize Archived Journals + Transactions	2	Summer meeting 2017	Major	Archives Sub Committee / PEC	Complete	Searchable indexes now available. Transactions go back to 1970
Finalize "Historically Significant" document retention policy	2	Summer meeting 2017	TBD	Administration Sub Committee	Ongoing - Next update January Winter Meeting 2018	Administration Subcommittee is still researching suggested retention policy for historical documents and other items be possibly added to the ROB.



**Professional Development Committee
Report to Publishing and Education Council
ASHRAE 2017 Annual Conference – Long Beach**

Motions

None

Information Items

1. PDC Responsibilities

The Professional Development Committee (PDC) discussed concern that the present focus of the committee does not fully encompass the duties and responsibilities outlined in the Rules of the Board.

2. ASHRAE Learning Institute (ALI) - Definition and Recognition

It has been observed that the term ALI is not well understood by ASHRAE members. ASHRAE staff defines ALI to include all ASHRAE instructor-led training. Yet the ASHRAE Webpage defines ALI to include all ASHRAE training and educational products. Confusion exists because of the many shapes ALI has gone through in its history verses how it is currently utilized.

3. Course Marketing

PDC believes improved marketing of existing and new ASHRAE courses and how they can be delivered locally, regionally or at companies will increase attendees and financial performance.

4. Foreign Language Courses

Obstacles of course translations appear to include development costs, probable attendee counts and verification of the specific translation.

5. CTTC Request for Lower Cost Chapter Training

The CTTC requested PDC offer lower cost educational and training to local chapters, in particular the smaller chapters and those in developing nations.

6. New Courses

- Understanding and Designing Chilled Beam Systems (3-Hour)
- Revisions to Effective Energy Management in New & Existing Buildings course (6-Hour)
- Making Buildings Productive, Sustainable, and Efficient – ASHRAE Guidance in Action* (3Hour)
- The Consulting Engineering Essentials course, has gone through final review and is ready for deployment. Staff is currently working on where and how to launch the first course.

7. 2018 Winter Conference Courses

The following courses were approved for preservation at the Winter Conference in Chicago.

3-Hour Courses

- Air-to-Air Energy Recovery Applications: Best Practices
- ASHRAE Guideline 0 - The Commissioning Process
- Complying with Standard 90.1-2016 Appendix G

- Design of Affordable and Efficient Commercial Ground Source Heat Pump
- Designing High-Performance Healthcare HVAC Systems
- Designing Toward Net-Zero Energy Commercial Buildings (with expected revisions)
- Energy Management Best Practices
- Fundamentals and Application of Standard 55
- High-Performance Building Design: Applications & Future Trends
- IT Equipment Design Evolution & Data Center Operation Optimization
- Laboratory Design: The Basics and Beyond
- New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs
- Understanding & Designing Dedicated Outdoor Air Systems (DOAS)
- Understanding and Designing Chilled Beam Systems
- Variable Refrigerant Flow Systems: Design & Applications

6-Hour Courses

- Commissioning Process in New & Existing Buildings (with expected revisions)
- Complying with Standard 90.1-2016
- Humidity Control: Principles & Applications (Revised)
- Making Buildings Productive, Sustainable, and Efficient – ASHRAE Guidance in Action
- Complying with the Requirements of Standard 62.1-2016

8. Residential Courses

PDC has abandoned development of the (2) two residential courses due to lack of response and feasibility.

9. Reference Manual

PDC continues to update the Reference Manual and Method of Procedure Manual to improve the committee's development process.

10. The 2017-2018 PDC MBOs are attached.

Respectfully submitted,
 Jim Bochat, Professional Development Committee, Chair
 June 26, 2017

Professional Development Committee

MBOs for Society Year 2017-18

Chair: Jim Bochat **Date:** June 26, 2017

Objective	SP	Completed by	Fiscal Impact	Responsible Party	Comment/Status
1. Develop a 5-year plan on developing young engineer training products that can reach a wider audience than just our design class	1C	Jan 2018	None	Full Committee	In Progress
2. Develop outlines for an additional (3) practical applications courses to 'fill the gaps' in our current offerings.	3D	Jan 2018	None	Planning Subcommittee	New
3. Develop a standard guideline on the method to develop, translate and produce courses to an international market	4?	Jan 2018	None	Staff	Need an ASHRAE standard to guide our efforts.
4. Develop training for use in university curriculum. • BEQ Task Force Prototype	1C	June 2018	No Revenue	Ad Hoc Committee	Ad hoc led by Michael Brandemuehl is developing the Building EQ prototype. Course expected to be available in fall 2017.
5. Establish guidelines for liaison		Jan 2018	None	Operations Subcommittee	New
6. Every course reviewed by PDC Liaison prior to presentation– Quality check		Jan 2019	None	Operations Subcommittee	New
7. Improve marketing of courses/branding. Work with ASHRAE marketing for improvement		Jan 2018	TBD	Planning Subcommittee	New

Additional Recommendations for Strategic Planning: None at this time

ASHRAE Strategic Plan 2014 Initiatives addressed by Objective



**Publications Committee Report to
Publishing and Education Council
Meeting of June 27, 2017**

Action Items

(None)

Information Items

1. Of the two winners from submissions to the 2016 Apps Contest, one (SuperheatCalc) has now been cobranded and is available in Apple/Google app stores. The other has been incorporated into ASHRAE Handbook Online as the ASHRAE Climatic Design Database mapping tool.
2. The new web app for modeling compliance with Standard 90.1-2010 using the Energy Cost Budget (ECB) Method described in the standard now has 849 users and 560 projects registered.
3. The committee voted to support the initiative to revise the *District Cooling Guide* and develop a new *District Cooling Operations Guide* in cooperation and with underwriting by Empower (Dubai).
4. The committee approved a proposal for a new ASHRAE design guide on natural ventilation.
5. The committee approved a proposal for a new book on engineering management.
6. The committee approved a proposal to revise the *Air-Conditioning System Design Manual*, 2nd ed.
7. The 2016 *ASHRAE Journal Paper of the Year* award was presented at the Plenary Session to Hugh Crowther and Teng Yi Ma for their article, "Design Considerations for Dedicated OA Systems."
8. Liaisons from the committee contacted authoring groups regarding the need for revision or replacement of ASHRAE publications four or more years old (and especially those 10 or more years old).
9. Special publications completed from June 2016 through June 2017 are listed in Attachment A.
10. A status summary of upcoming publications is shown in Attachment B.
11. The status of MBOs for 2016-2017 is reported in Attachment C.
12. MBOs for 2017-2018 are shown in Attachment D.

Respectfully submitted,

Jin Jin Huang, Chair
Publications Committee
06/27/2017
JJH: mso

Special Publications Published Projects
July 2016 to date

July 2016

- Standard 41.8-2016
- Standard 20-1997 (RA 2016)
- Addenda b, c, e, & g to Standard 15-2013
- Addenda y, z, ad, af, ag, ah, & ai to Standard 34-2013
- Addendum d to Standard 145.2-2011
- Addendum d to Standard 160-2009

August 2016

- St. Louis Seminars DVD
- Fundamentals of Psychometrics, 2ed, SI (SDL)
- Standard 90.4-2016
- Standard 154-2016
- Standard 126-2016
- Addenda k & ad to Standard 170-2013

September 2016

- ASHRAE IAQ 2016 papers download
- Spanish Standard 188-2015
- Second International Conference on Efficient Building Design: Materials and HVAC Equipment Technologies*
(Beirut flash drive contents)
- Addenda aa, ab, ac, ae & aj to Standard 34-2013

October 2016

- Guideline 10-2016
- Standard 55 User's Manual*
- Addendum g to Standard 55-2013

November 2016

- Fundamentals of Refrigeration (SI), 2nd ed. (SDL)
- Standard 90.1-2016 (I-P)
- Standard 90.1-2016 (SI)
- St. Louis Transactions 122(2)
- Duct Size Calculator, I-P & SI

December 2016

- Standard 62.1 User's Manual*
- UFAD O&M Guide/Bundle
- Buildings Conference 2016 Papers
- Standard 130-2016
- Standard 145.2-2016
- Standard 86-2013 (RA 2016)
- Standard 124-2007 (RA 2016)
- Standard 138-2013 (RA 2016)
- Standard 160-2016
- Guideline 33-2013 (RA 2016)
- Standard 15-2016
- Standard 34-2016
- Standard 184-2016
- Standard 16-2016
- Standard 51-2016
- Addendum m to Standard 170-2013

- Addendum e to Standard 160-2009
- Addenda (96) to Standard 90.1-2013

January 2017

- Energy Efficiency in Buildings and Communities—ERDC Published Research 2006–2016 [CD]
- Standard 62.2 User's Manual*
- Standard 62.1-2016, Spanish
- Addenda i & g to Standard 62.1-2016
- Standard 52.2-2017

February 2017

- Hot Climates Conference Flash Drive & Papers
- Standard 32.1-2017
- Standard 120-2017
- Guideline 40-2017

March 2017

- Las Vegas Seminars DVD
- Standard 137-2013 (RA 2017)

April 2017

- Weather Data Viewer, Version 6.0
- ASHRAE Transactions* volume 123 pt 1
- Standard 172-2017

May 2017

- Standard 78-1985 (RA 2017)
- Standard 97-2007 (RA 2017)
- Standard 189.3-2017
- Standard 206-2013 (RA 2017)
- Standard 214-2017

June 2017

- Standard 63.2-2017
- Standard 103-2017 (pending ANSI letter -MW)
- Standard 171-2017
- ASHRAE Design Guide for Dedicated Outdoor Air Systems*

MSO 24 June 2017

SPECIAL PUBLICATIONS PROJECTS : June 21, 2017

Att. B (Publications to PEC)

Title	Responsible Entity	Date Exp to Receive [Recd]	Current Status	Expected Publish Date	Comments
Books					
Commissioning Definitions and Terminology for the Building Industry	ASHRAE TC ??; AiCARR; CIBSE	TBD	Writing	TBD	Author: Walter Grondzik
ASHRAE Design Guide for Cleanrooms	TC 9.11	[Apr 28, 2016]	Proofs to authors	Feb 2017 Jun 2017	Contact: Wei Sun
ASHRAE Design Guide for Sustainable Refrigeration Facilities and Systems	SP 131; AHRI/IIAR UNEP ; RP-1634	2014 Aug 31, 2016 Feb 1, 2017 Jun 30, 2017	Writing	Jan 2018	per M Vaughn email 3/13/2017: extension to Jun 30, 2017
ASHRAE Design Guide for Air Terminal Units	TCs 5.3, 7.7	Jan 2015 Jul 2016 Feb 2017 Jul 2017	Writing	Oct 2016 Jun 2017 TBD	Authors: David John, Gus Faris
ASHRAE Design Guide for Duct Systems	TC 5.2; RP-1180	Jun 2010 Jul 2011 Aug 2011 Feb 2013 Jun 2013 Jan 2014 Sep 2014 Nov 2014 Jan 2015 Jul 2015 Jan 2016 Jul 2016 Feb 2017 Jul 2017	Writing	Jun 2004 Sep 2004 Nov 2010 Oct 2011 Apr 2013 Nov 2013 Jan 2015 Feb 2015 Jun 2015 Dec 2015 Oct 2016 Jun 2017 Oct 2017	TC 5.2 contact: Pat Brooks As of Jan 2016: Contractor Farnsworth defaulted; TC 5.2 will finish the rest
ASHRAE GreenGuide, 5 th ed.	TC 2.8	Jun 2017	Writing	Fall 2017	
Commissioning Stakeholders' Guide What to Expect from the Commissioning Process (w/supplemental files)	Gerald Kettler	Jul 2016 Winter 2016 Summer 2017	Compiling/ Writing	TBD	BCA to co-sponsor or hold joint copyright
Datacom -IT Equipment Power Trends and Cooling Applications, 3 rd ed (Datacom Series)	TC 9.9	Jan 2015 Long Beach 2017	Revising	Apr 2015 TBD	Major rewrite per DBeaty 6/26/16
PHVAC and PHVAC Solutions Manual revisions	N/A	PHVAC: Jul Sol Man: Aug	Revising	PHVAC: Nov Sol Man: Dec	Every four years (2017, 2021, 2025)
Pocket Guide revision	N/A	I-P: Aug SI: Sep	Revising	I-P: Dec SI: Jan	Every four years (2017, 2021, 2025)

SPECIAL PUBLICATIONS PROJECTS : June 21, 2017

Att. B (Publications to PEC)

Title	Responsible Entity	Date Exp to Receive [Recd]	Current Status	Expected Publish Date	Comments
AEDG for K-12 School Buildings—Achieving a Zero Energy Building	Lilas Pratt staff contact	Aug/Sep 2017	90% draft	Dec 2017?	
Cold-Climate Buildings Design Guide, 2 nd ed.	Erich Binder	Aug/Sep 2017	Planning	Chicago 2018	
Proclaiming the Truth, 2 nd ed.	SComstock	2019	Planning	2019	8/25/2016 per SComstock; part of ASHRAE 125 th Anniversary
HVAC&R Pioneers	Staff; TBD	2019	Planning	2019	8/25/2016 per SComstock; part of ASHRAE 125 th Anniversary
Member’s Survival Guide: Design/Build section	Mitchell Swann	TBD	Revising	TBD	Aims to have draft for TC in January 2016
Member’s Survival Guide: Pitfalls section	Jennifer Leach, TC 1.7	TBD	Revising	TBD	
Member’s Survival Guide: Contracts section	Jennifer Leach, TC 1.7	TBD	Revising	TBD	
District Cooling Guide, 2 nd ed.	TC 6.2; SP-XXX	TBD	In discussion	Jun 2018	With funding from Empower (UAE)
District Cooling Guide Operations Manual	TC 6.2; SP-XXX	TBD	In discussion	Jun 2018	With funding from Empower (UAE)
Structural and Vibration Guidelines, 2 nd ed (Datacom Series)	TC 9.9	Jun 2015 TBD	Revising	Oct 2015 TBD	Still valuable in current form. TC will update as time allows but not in 2016 per DBeaty 6/26/16
Particulate and Gaseous Contamination, 2 nd ed (Datacom Series)	TC 9.9	2015 TBD	Revising	TBD	per Don Beaty, 1/25/15
Economizers for Datacom Facilities (Datacom Series)	TC 9.9	Jul 2010 Jun 2011 Oct 2011 Sep 19, 2013 TBD	Planning	Jan 2011 Oct 2011 TBD	per DBeaty, Aug 2013 email to Steve C.
IT Equipment Cooling book (Datacom Series)	TC 9.9	Jun 2011? Nov 2011 TBD	Writing	Oct 2011? TBD	per DBeaty 9/8/11; white paper first

SPECIAL PUBLICATIONS PROJECTS : June 21, 2017

Att. B (Publications to PEC)

Title	Responsible Entity	Date Exp to Receive [Recd]	Current Status	Expected Publish Date	Comments
ASHRAE Design Guide for Hazardous Spaces	TCs 5.8, 9.2	TBD	Writing	TBD	Author: Mike Baucom Draft to be complete mid Jun per 6/2/16 email from MBaucom
Engineering Concepts in Supporting Community Containment Measures During Public Health Incidents	TC 9.6	TBD	Planning	TBD	
Integrated Building Design Applications Manual	TC 7.1	Jan-2009 Jun-2010 TBD	Writing	January-2008 Jun-2008 Sep-2010 Jan-2015 TBD	MOwen queried CGulledge 6/2/16 email
Heat Load Estimating Guide for Electrical Equipment (a Design Guide)	RP-1395; RP-1104	TBD		TBD	May be better to simply incorporate the data into the Handbook (keep selling RP reports, too).
ASHRAE Design Guide for Hot-Climature Buildings	MTG.HCDG	TBD	Planning	TBD	MTG Ch Frank Mills
Residential IAQ Guide	EHC; RP-1663	TBD	Writing	TBD	
ASHRAE Design Guide for Cool Thermal Storage	Jason Glazer, TC 6.9; RTAR-1719	TBD	Proposed	TBD	TC working on work statement
A Comprehensive HVAC Design Guide for Justice Facilities	TC 9.4	TBD	Writing	TBD	
Advanced Control Sequences for HVAC Systems: Phase I, Air Distribution and Terminal Systems	TC 1.4; RP-1455	TBD	RP in progress	TBD	
(Report listing and reviewing international standards and guidelines related to IEQ.)	IEQ-GA	Summer 2017	Planning	Fall 2017	Bjarne Olesen initiative for 2017-18
Standards and Guidelines and User's Manuals					
Standard 90.1-2016 User's Manual	Contractor	Aug 2017	Writing	TBD	Contact: LPratt
Standards/addenda to be published after approval at Annual Conference	Varies	Jul/Aug 2017		Aug/Sep 2016	Every 6 mos.
Revision of Standard 189.1	SSPC 189	Sep 2017		Oct 2017	Every three years (2014, 2017, 2020)
Standards/addenda drafts going for approval at Winter Conference	Varies	mid Oct 2017		Nov 30, 2016	Every 6 mos; publish = ready for review at conf
Revision of Standard 135.1	SSPC 135	2017		2017	Per Stephanie R phone 7/7/14

SPECIAL PUBLICATIONS PROJECTS : June 21, 2017
Att. B (Publications to PEC)

Title	Responsible Entity	Date Exp to Receive [Recd]	Current Status	Expected Publish Date	Comments
Revision of Standard 90.2	SSPC 90.2	Winter 2017		Mar	Every three years (2016, 2019, 2022)
Revision of Standard 140	SSPC 140	Winter 2017		Mar	Every three years (2016, 2019, 2022)
Standards/addenda to be published after approval at Winter Conference	Varies	Feb/Mar 2018		Mar/Apr 2017	Every 6 mos.
Standards/addenda drafts going for approval at Annual Conference	Varies	Mid-Apr 2018		Jun 1, 2017	Every 6 mos; publish = ready for review at conf
18-month Addenda Supplements to Code-Intended Standards	Varies	Spring 2018		Sep/Oct	Every three years (2015, 2018, 2021)
Revision of Standard 62.1	SSPC 62	Spring 2019		Summer 2016	Every three years (2016, 2019, 2022)
Revision of Standard 62.2	SSPC 62	Spring 2019		Summer 2016	Every three years (2016, 2019, 2022)
Revision of Standards 15 and 34	SSPCs 15, 34	Jul 2019		Oct 2019	Every three years (2019, 2022, 2025)
Revision of Standard 90.1	SSPC 90.1	Aug/Sep 2019		Oct 2, 2016 (electronic)	Every three years (2019, 2022, 2025)
Revision of Standard 52.2	SSPC 52.2	Winter 2019		Mar	Every three years (2019, 2022, 2025)
Specialty Conferences					
Thermal Performance of the Exterior Envelopes of Whole Buildings XIII [flash drive]	Andre Desjarlais (ORNL)	Jun 2019		Nov 2019	Every three years (2019, 2022, 2025)
IAQ Conference [flash drive]	Tony Giometti	Aug 2019		Sep 2019	Every three years (2019, 2022, 2025)
Position Documents					
PD on Climate Change	Steve Hammerling	Spring 2016 Early July 2016 Fall 2016 Feb 2017 Jun 2017	In TC Review	TBD	
PD on Environmental Tobacco Smoke	Steve Hammerling	July 2016 Feb 2017 Jun 2017	Revising	TBD	Current version was reaffirmed in Jul 2016 to keep it posted online until revision is complete
PD on IAQ	Steve Hammerling	Early July 2016 Feb 2017 Jun 2017	In progress	TBD	
PD on Unvented Combustion of Solid Fuels and IAQ-Indoor Air Quality in Primarily Developing Countries	Steve Hammerling	Oct 2015 Jan 2016 Spring 2016 Jul 2016		Nov 2015 Feb 2016 TBD	
PD on Energy Efficiency in Buildings	Steve Hammerling	Nov 2015 Spring 2016 Feb 2017 Jun 2017	In progress	Dec 2015 TBD	Per Steve H: New PD, so full editorial review needed

SPECIAL PUBLICATIONS PROJECTS : June 21, 2017

Att. B (Publications to PEC)

Title	Responsible Entity	Date Exp to Receive [Recd]	Current Status	Expected Publish Date	Comments
PD on Legionellosis	Steve Hammerling	Dec-2015 Jan-2016 Spring-2016 Late-2016 Feb-2017 Jun 2017	In progress	Jan-2016 Feb-2016 TBD	
Translations					
HVAC Design Manual for Hospitals and Clinics, 2 nd Ed (Spanish)	ATEAAR	June 2017	Waiting on Signed Contract	TBD	
Standard 90.1-2016	Spain Chapter	TBD	Translating	TBD	
Guideline 0.2-2015	Spain Chapter	TBD		TBD	
Standard 15-2013 (Spanish)	ATEAAR	2015 TBD	Contracted	TBD	
Standard 100-2015	Argentina Chap.	TBD	Contracted	TBD	
Water System Design SDL (Spanish)	Mexico Chapter	TBD		TBD	
IAQ Guide (Spanish)	Miami Chapter	May-2014 TBD	Contracted	TBD	
Thermal Guidelines for Data Processing Environments, 2nd edition (Spanish)	ATEAAR	May-2011 TBD	Contracted	TBD	
Standard 34-2007 or -2010 (Spanish)	ACAIRE	Dec-2010 TBD	Contracted	TBD	
Standard 90.1-2007 (Spanish)	Mexico City Chapter (AMERIC)	2009 TBD	Contracted	TBD	
Fundamentals of HVAC Control Systems SDL, 2001 edition (Spanish)	ASHRAE Monterrey Chapter (MX)	2010 TBD	Contract sent; unsure if signed	TBD	
Standard 188-2015	Spain Chapter	TBD		TBD	
189.1-2009 User's Manual (Spanish)	ATEAAR	2011 TBD	Contracted	TBD	
Standard 90.1-2010 (Spanish)	Argentina Chapter	TBD	Contracted	TBD	
Standard 41.3-1989 (Spanish)	Mexico City Chapter (AMERIC)	2012 TBD	Contracted	TBD	
Standard 41.1-1986 (RA 2006) (Spanish)	Mexico City Chapter (AMERIC)	2012 TBD	Contracted	TBD	
Standard 90.1-2016 (SI)	Spain Chapter	TBD	Waiting on Signed Contract	TBD	
Guideline 2-2010 (Spanish)	Mexico City Chapter (AMERIC)	2012 TBD	Contracted	TBD	
Guideline 22-2008 (Spanish)	Mexico City Chapter (AMERIC)	2012 TBD	Contracted	TBD	
Standard 111-2008 (Spanish)	Mexico City Chapter (AMERIC)	2013 TBD	Contracted	TBD	
Standard 52.2-2012 (Spanish)	Mexico City Chapter (AMERIC)	TBD	Waiting on Signed Contract	TBD	
Standard 90.1-2013 (Chinese)	Taiwan Chapter	TBD	Contracted	TBD	
Standard 189.1-2009 (Chinese)	Taiwan Chapter	TBD	Contracted	TBD	

SPECIAL PUBLICATIONS PROJECTS : June 21, 2017
Att. B (Publications to PEC)

Title	Responsible Entity	Date Exp to Receive [Recd]	Current Status	Expected Publish Date	Comments
Guideline 0-2013 (Chinese)	Taiwan Chapter	TBD	Contracted	TBD	
Guideline 1.1-2008 (Chinese)	Taiwan Chapter	TBD	Contracted	TBD	
CDs/DVDs					
Weather Data Viewer DVD	Michael Roth	Spring 2021		Summer 2021	Every four years (2021, 2025, 2029)
Online Products					
ASHRAE Terminology	TC 1.6	Ongoing		Ongoing	Contact: Art Hallstrom
Cold Climate website		Ongoing	Gathering content	Ongoing	
Thermal Comfort Tool, v3	SSPC 55	Summer 2014? April 2015 TBD		TBD	Contact: Abhijeet Pande; might be published with Std. 55 UM instead
Recurring Conference-Related Projects					
Annual Conference Seminar Recordings	Tony Giometti	Request spreadsheet first week in Jul; submit art Jul 22		Proof content Aug 5–9; approve by Aug 12	Needed in inventory by Sep 1
Annual Conference Transactions (Part 2)	Staff	Aug/Sep		Oct	
Winter Technical Papers	N/A	Sep–Nov		Nov	
Winter Conference Papers	N/A	Nov		Submit content Nov 27, art Dec 9	
Winter Conference Seminar Recordings	Tony Giometti	Request spreadsheet first week in Feb; submit art Feb 25		Proof content Mar 4–8; approve by Mar 11	Needed in inventory by Apr 1
Winter Conference Transactions (Part 1)	Staff	Feb/Mar		May	
Annual Technical Papers	N/A	Mar–Apr		mid-Apr	
Annual Conference Papers	N/A	Apr		Submit content Apr 23, art May 6	

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Publications Committee

MBOs for Society Year 2016-17

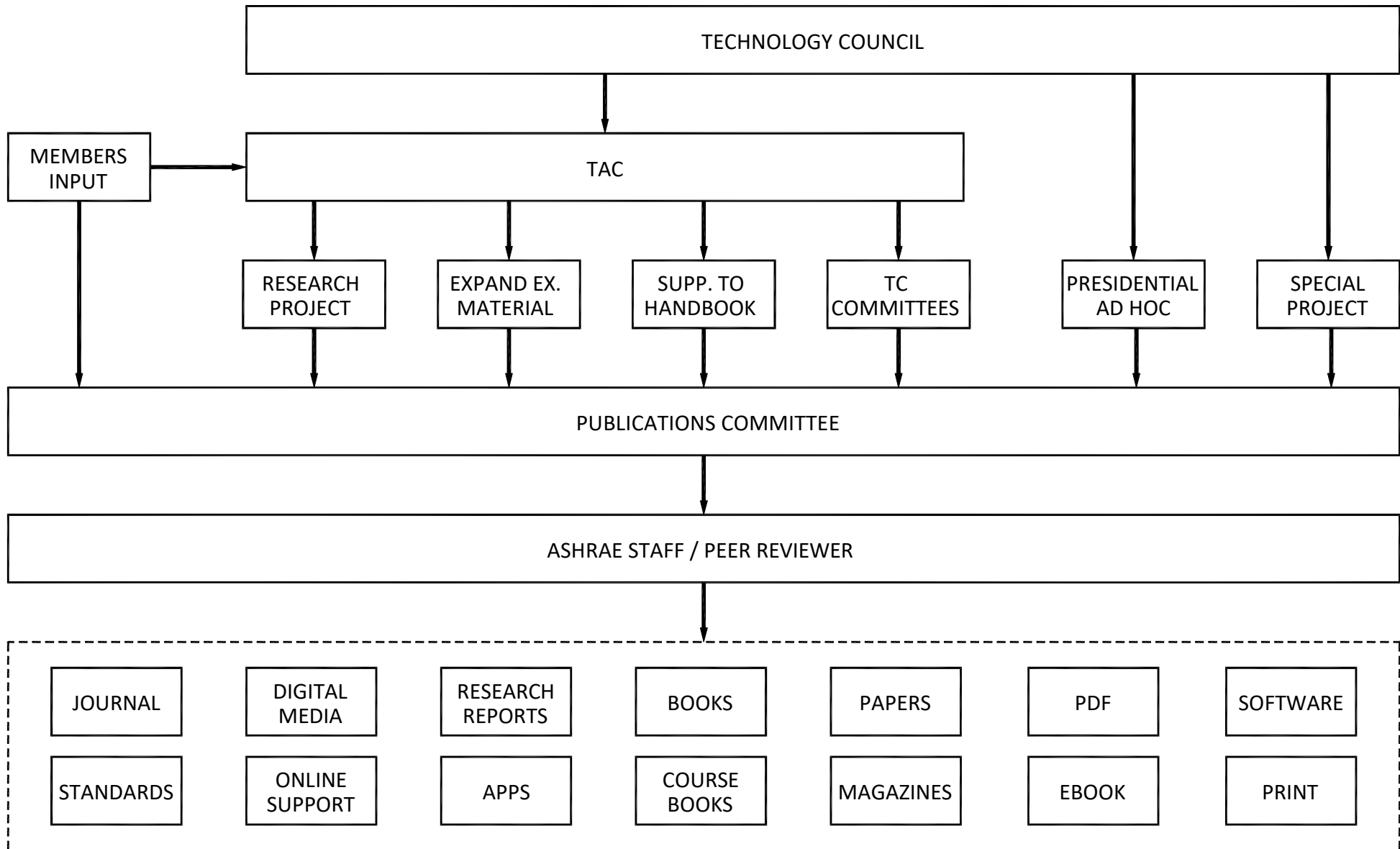
Chair: Jin Jin Huang Date: 27 June 2017

Objective	SP 2014	Compl. by	Fiscal Impact	Resp. Party*	Comment/Status
1. Continue the development of 'infographic' to show interrelationships of ASHRAE publications, technical topics, and development groups.	1	6/17	None	Ferguson, Bansal, Lacharite, Tome	Aim is to enable clearer understanding and application of the wide range of ASHRAE publications. Strengthen communication collaboration with at least two other ASHRAE committees. Complete. See attachment. Staff to enhance graphics.
2. Expand on ASHRAE apps competition with lessons learned and develop new apps competition.	3	6/17	TBD?	Beaty, Ow, Vallort	Builds on 2015-16 MBO #2. Contest launched at 2016 Winter Conference. Complete. Second competition drew no substantial submissions. The committee will not continue this effort for the next year. The committee will work directly with the TCs to develop new apps for the future. We already have one request from TC 7.6.
3. Strengthen communication with TC and improve special publications refresh rate.	2	6/17	TBD?	Huang, ALL	Assign a liaison to each TC. Focus on special publications that are in the top sales list and work with TCs specifically to update issues that are 10yrs or older. Complete. One member will be dedicated as liaison to one TC section moving forward. Thus far, TCs have provided positive feedback for the presence of a Publications Committee liaison.
4. Conduct and monitor mentoring program for new	2	6/17	None	Lacharite, Kourakos,	Continuation of MBO#5 from 2015-2016. Complete. New on-

members.				Guzman	boarding document will be sent to incoming members beginning July 2017.
Additional Recommendations for Strategic Planning: None at this time					

SP 2014 = Strategic Plan 2014 Initiative addressed by objective
 *Lead for each MBO is shown in **boldface**.

JJH: mso 27 Jun 2017



Publications Committee

MBOs for Society Year 2017-18

Chair: Francis Lacharité Date: 27 June 2017

Objective	SP 2014	Compl. by	Fiscal Impact	Resp. Party*	Comment/Status
1. Continue the development of 'infographic' to show interrelationships of ASHRAE publications, technical topics, and development groups.		6/18	None	TBD	Create a roadmap for TCs on how to develop various types of publications.
2. Facilitate ASHRAE Journal articles comment and judging.		1/18	None	Ow Scott Weems	Create subcommittee to coordinate monthly surveys for collecting comments and ratings for Paper of the Year and report on progress.
3. Strengthen communication with TCs and improve special publications refresh rate.		1/18	None	TBD	Assign a liaison to each TAC Section. Create subcommittee to improve communication with TAC/TCs, and prepare liaisons TC/Section breakfasts. Ensure mandatory attendance. Identify publications needing revision.
4. Conduct and monitor mentoring program for new members.		6/18	None	Correa	Mentor all new members, make sure they are on track and help them to achieve what they commit to.
Additional Recommendations for Strategic Planning: None.					

SP 2014 = Strategic Plan 2014 Initiative addressed by objective

*Lead for each MBO is shown in **boldface**.

FL : mso 27 Jun 2017

PUBLICATION & EDUCATION COUNCIL - MOBs 2017-2018 SY

DESCRIPTION	ASHRAE	RESPONSIBILITY												Status	COMMENTS			
	Strat	Standing Committees					Subcommittees				Other							
	Dir	Certification	ECC	Handbook	Historical	PDC	Publications	Functional	Fiscal	eLearning	Journal Advert.	Research Journal	Ad-hoc			PEC V Chair	PEC Chair	Staff
1	Prepare study & recommendations on product alignment (format, delivery mechanism, content, context) with younger members for future media dissemination	-	-	-	-	-	-	0	0	0	-	-	-	-	-	0		
2	Consider apps and online tools related to OM and service life and operating costs of data	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0		
3	Provide guidance and training in field of cybersecurity related to HVAC	-	-	0	-	0	0	-	-	-	-	-	-	-	-	0		
4	Meet 2017-18 milestones for ASHRAE 125 anniversary activities	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0		
5	Launch online standard and users manual plan using 90.1 as trial case	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0		
6	Develop and implement strategies to deliver products and services cost effectively globally	0	0	-	-	0	0	0	0	0	-	-	0	0	0	0		
7	Support Developing Economy Initiatives through UNEP cooperation by developing joint publications & documents on sound management of refrigerants	-	-	-	-	0	0	-	-	-	-	-	-	-	-	0		
8	Coordinate with member council to develop improved handbook content access to members globally	-	-	-	-	-	-	-	0	-	-	-	0	-	0	0		
9	Expand eLearning portal to centralize training registration and to allow for planned career development paths	-	-	-	-	-	-	-	0	-	-	-	-	0	0			
10	Gain intergovernmental support and recognition of ASHRAE established training centers of global excellence	-	-	-	-	-	-	-	-	-	-	-	0	0	0			
11	Develop mechanism to accept/facilitate Research Journal paper to be presented in Winter/Annual meeting	-	-	-	-	-	-	-	-	-	0	-	-	0	0			
12	Explore the opportunities in publishing HPB in different language and broaden the global solicitation of content to serve global members	-	-	-	-	-	0	-	-	-	-	-	-	0	0			
13	Review PEC standing committee scopes, responsibilities and reporting structure related to the training and publication portfolio to meet strategic needs of membership and including processes related to publications and training that are generated by committees and groups outside of PEC structure of content to serve global members	-	-	-	-	-	-	-	-	-	-	0	-	-	-			

<u>Attachments</u>	<u>Pages</u>
A Handbook Delivery Ad Hoc Committee Report & Cost Breakdown	29-33
B PEC Report to BOD - June 27, 2017 Long Beach	34-37
C PEC Referral to Members Council- Certification PAOE points	38
D PEC Roster & Subcommittee Rosters 2017-2018	39-40
E Journal Advertising Sales Subcommittee Report to PEC	41
<i>HPB Magazine Business Plan - June 2017 Update</i>	42-58
F eLearning Subcommittee Report to PEC	59-60
G Fiscal Planning Subcommittee Report to PEC	61
<i>Handbook Postage Cost Breakdown Report</i>	62-63
H Functional Planning Subcommittee Report to PEC	64-67
<i>Att A - Changes to Publications Committee MOP</i>	68-69
<i>Att B - Changes to Historical Committee Section of ROB</i>	70-71
<i>Att C - Report on MBO #1 - Product alignment with younger members</i>	72-74
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