MINUTES

EXECUTIVE COMMITTEE MEETING

Sanderling Resort
Duck, North Carolina
March 27, 28 & 29, 2015

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

Executive Committee Meeting  
March 27, 28 & 29, 2015

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call to Order</td>
<td>1</td>
</tr>
<tr>
<td>Review of Agenda</td>
<td>1</td>
</tr>
<tr>
<td>Approval of Minutes</td>
<td>1</td>
</tr>
<tr>
<td>Review of Action Items – January 24, 28 and 29, 2015</td>
<td>2</td>
</tr>
<tr>
<td>Report of the President</td>
<td>2</td>
</tr>
<tr>
<td>Report of the Treasurer</td>
<td>3</td>
</tr>
<tr>
<td>Ad Hoc Committee Reports</td>
<td>3</td>
</tr>
<tr>
<td>Indoor Environmental Quality Alliance</td>
<td>4</td>
</tr>
<tr>
<td>Developing Economies</td>
<td>4</td>
</tr>
<tr>
<td>Effective Use of Volunteer Time</td>
<td>4</td>
</tr>
<tr>
<td>Effect of Centralized Training on CRCs</td>
<td>5</td>
</tr>
<tr>
<td>Unfinished Business</td>
<td>5</td>
</tr>
<tr>
<td>Teamup Calendar Review</td>
<td>5</td>
</tr>
<tr>
<td>Future of Building Performance Alliance (BPA)</td>
<td>5</td>
</tr>
<tr>
<td>ASHRAE’s Involvement with the Solar Decathlon</td>
<td>5</td>
</tr>
<tr>
<td>IAQA Consolidation</td>
<td>5</td>
</tr>
<tr>
<td>Exhibit Revenues</td>
<td>5</td>
</tr>
<tr>
<td>Board/Council Liaisons</td>
<td>6</td>
</tr>
<tr>
<td>Transition Team Update</td>
<td>6</td>
</tr>
<tr>
<td>IAQA Staffing</td>
<td>6</td>
</tr>
<tr>
<td>Student Competition – CLIMA 2016</td>
<td>6</td>
</tr>
<tr>
<td>MCI: European Office</td>
<td>7</td>
</tr>
<tr>
<td>New Business</td>
<td>7</td>
</tr>
<tr>
<td>Orientation for New Officers</td>
<td>7</td>
</tr>
<tr>
<td>Bahrain Society of Engineers AASA Membership Application</td>
<td>7</td>
</tr>
<tr>
<td>Energy Position Documents</td>
<td>8</td>
</tr>
<tr>
<td>Alliance to Save Energy’s Systems Efficiency Initiative</td>
<td>8</td>
</tr>
<tr>
<td>GRMI Charter and Future Commitments</td>
<td>9</td>
</tr>
<tr>
<td>ASHRAE Foundation Learning Center Usage Policy</td>
<td>9</td>
</tr>
<tr>
<td>Bahrain World Bank Code/Standards Project</td>
<td>9</td>
</tr>
<tr>
<td>Australia Chapter</td>
<td>10</td>
</tr>
<tr>
<td>Facility Guideline Institute Memorandum of Understanding</td>
<td>10</td>
</tr>
<tr>
<td>2015-2016 Strategic Plan DRC Assignments</td>
<td>10</td>
</tr>
<tr>
<td>Report from the Foundation Trustees</td>
<td>10</td>
</tr>
<tr>
<td>Votility Software</td>
<td>11</td>
</tr>
<tr>
<td>NCEES – Masters or equivalent funding</td>
<td>11</td>
</tr>
<tr>
<td>IDEA Memorandum of Understanding</td>
<td>11</td>
</tr>
<tr>
<td>Timing of User’s Manuals</td>
<td>12</td>
</tr>
<tr>
<td>Workshop with Building Owners on Operation and Maintenance Training</td>
<td>12</td>
</tr>
<tr>
<td>PEAC Report on Standing Committees</td>
<td>12</td>
</tr>
<tr>
<td>Standing Agenda Items</td>
<td>12</td>
</tr>
<tr>
<td>AHR Exposition Final Accounting Report</td>
<td>12</td>
</tr>
<tr>
<td>Marketing/PR Update</td>
<td>12</td>
</tr>
<tr>
<td>ExCom Reference Manual</td>
<td>12</td>
</tr>
<tr>
<td>Future Meetings</td>
<td>12</td>
</tr>
<tr>
<td>Final Date for Board of Directors Spring Finance Meeting</td>
<td>12</td>
</tr>
<tr>
<td>2015 CRC Schedule</td>
<td>13</td>
</tr>
</tbody>
</table>
2015-2016 CRC Schedule ................................................................................................................... 13
Officers’ Spring 2016 Travel Assignments .......................................................................................... 13
ExCom Meeting .................................................................................................................................... 13

Information Items ............................................................................................................................................. 13
  American Society for Healthcare Engineers......................................................................................... 13

Executive Session........................................................................................................................................... 13

Adjournment ..................................................................................................................................................... 13
### PRINCIPAL MOTIONS

Executive Committee Meeting  
March 27, 28 & 29, 2015

<table>
<thead>
<tr>
<th>Number</th>
<th>Motion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 7</td>
<td>that ExCom recommends the Board of Directors approve ASHRAE Associate Society Alliance membership for the Bahrain Society of Engineers.</td>
</tr>
<tr>
<td>2B – 8</td>
<td>that a request to start with the <em>Energy Efficiency in Buildings</em> Position Document be approved.</td>
</tr>
<tr>
<td>3 – 10</td>
<td>that ExCom recommends the Board of Directors approve the Facility Guideline Institute/ASHRAE Memorandum of Understanding.</td>
</tr>
<tr>
<td>4 – 11</td>
<td>that the purchase of a two year subscription to the Votility – Bill Track 50 government affairs software be approved.</td>
</tr>
</tbody>
</table>
## ACTION ITEMS
### Executive Committee Meeting
March 27, 28 & 29, 2015

<table>
<thead>
<tr>
<th>Item</th>
<th>Responsible</th>
<th>Summary of Action</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 2</td>
<td>Olesen</td>
<td>(Carryover) Work with Technology Council to develop a plan and process for internationalization of ASHRAE standards. <em>(1/2014: The work is progressing and a copy of the plan will be submitted to ExCom upon completion. 10/4/2014: MBO for Tech Council, to be completed by June Annual Meeting 2015. 1/2015: Ongoing. 3/2015: Ongoing.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>2 – 2</td>
<td>Underwood/ Gulledge</td>
<td>(Carryover) Appoint a committee to work on policy and procedures for managing and monitoring MOUs, so that required actions are taken and they produce meaningful collaboration. <em>(10/2014: Gulledge and Underwood will work on a committee roster. 1/2015: Ongoing. 3/2015: Ongoing – MOUs are downloaded.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>3 – 2</td>
<td>Phoenix</td>
<td>(Carryover) Review committee roster for the Technical Committee Streamlining Ad Hoc and send appointment letters. <em>(1/2015: A request for names has been issued to populate the committee. 3/2015: Ongoing – Staff sent a list of potential candidates.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>4 – 2</td>
<td>ExCom</td>
<td>(Carryover) Send ideas to President Tom Phoenix for the next project for the Building Performance Alliance (BPA) Ad Hoc Committee. <em>(1/2015: Send Suggestions. 3/2015: Ongoing.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>5 – 2</td>
<td>Phoenix</td>
<td>(Carryover) Finalize BPA project and committee roster and send appointment letters. <em>(1/2015: Ongoing. 3/2015: Ongoing.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>6 – 2</td>
<td>Phoenix/Underwood</td>
<td>(Carryover) Contact Larry Staples regarding the status and future of “Think Tank.” <em>(1/2015: Spoke with Mr. Staples, still ongoing. 3/2015: Phoenix to send emails to Underwood. Underwood to take lead.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>7 – 2</td>
<td>Littleton</td>
<td>(Carryover) Draft Chapter MOU Policy to clarify the ASHRAE stance on chapters signing MOUs. <em>(1/2015: Ongoing. 3/2015: Suggestion to include that all proposed MOUs come to Society for review.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>8 – 2</td>
<td>Gulledge/ Vallort</td>
<td>(Carryover) Finish the roadmap for transferring the reporting function used for committee appointment out of PEAC. <em>(3/2015: Ongoing.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>9 – 2</td>
<td>Olesen</td>
<td>(Carryover) Review the Ebies criteria with Technology Council and send comments to ExCom. <em>(3/2015: Open until Atlanta, need to work on criteria and did not see much of ASHRAE’s recent input included.)</em></td>
<td>_________</td>
</tr>
<tr>
<td>10 – 2</td>
<td>Littleton</td>
<td>(Carryover) Schedule a conference call this spring to discuss the Ebies Award criteria with Olesen, Boyce and Underwood and feasibility of ASHRAE participation.</td>
<td>_________</td>
</tr>
<tr>
<td>Item</td>
<td>Responsible</td>
<td>Summary of Action</td>
<td>Status</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>-------------------</td>
<td>--------</td>
</tr>
<tr>
<td>11 – 2</td>
<td>Littleton</td>
<td>(Carryover) Research the Climate and Clean Air Coalition and its goals and initiatives. <em>(3/2015: Ongoing.)</em></td>
<td></td>
</tr>
<tr>
<td>12 – 2</td>
<td>Littleton</td>
<td>(Carryover) Research the DOE Commissioning requirements and the impact on ASHRAE and Standard 202. <em>(3/2015: Ongoing – Meeting in D.C. in April.)</em></td>
<td></td>
</tr>
<tr>
<td>13 – 2</td>
<td>Littleton</td>
<td>(Carryover) Research the 2016 STEM Conference and Building Innovation Conference. <em>(3/2015: Ongoing.)</em></td>
<td></td>
</tr>
<tr>
<td>14 – 2</td>
<td>Littleton</td>
<td>(Carryover) Check into ASHRAE’s financial responsibility and involvement with IIR. <em>(3/2015: Ongoing.)</em></td>
<td></td>
</tr>
<tr>
<td>15 – 2</td>
<td>Phoenix/Littleton</td>
<td>Develop an agenda of items to be discussed with UNEP in Paris that includes the following: World Bank, World Health Organization, United Nations Industrial Development Organization (UNIDO) and Workforce Development.</td>
<td></td>
</tr>
<tr>
<td>16 – 2</td>
<td>Phoenix</td>
<td>Report to ExCom the results of the May 2015 UNEP meeting in Paris.</td>
<td></td>
</tr>
<tr>
<td>17 – 2</td>
<td>Littleton</td>
<td>Develop a memo detailing ASHRAE involvement in Workforce Development from Tom Phoenix to Presidential Members.</td>
<td></td>
</tr>
<tr>
<td>18 – 2</td>
<td>Wentz</td>
<td>Send to ExCom a report of the May 21, 2015 bEQ meeting and the status of marketing efforts.</td>
<td></td>
</tr>
<tr>
<td>19 – 2</td>
<td>Underwood</td>
<td>Discuss with Members Council the involvement of chapters in sponsoring shows and the need to communicate the boundaries of chapter participation.</td>
<td></td>
</tr>
<tr>
<td>20 – 2</td>
<td>Littleton</td>
<td>Send to Underwood the rules for show sponsorship by ASHRAE chapters.</td>
<td></td>
</tr>
<tr>
<td>21 – 4</td>
<td>Olesen/Littleton</td>
<td>Investigate whether IEQ-GA should be incorporated.</td>
<td></td>
</tr>
<tr>
<td>22 – 4</td>
<td>Littleton</td>
<td>Review potential alternative means of electronic communication with volunteers besides the current use of Go to Meeting/Webinar and conference calls.</td>
<td></td>
</tr>
<tr>
<td>23 – 5</td>
<td>Boyce</td>
<td>Compose a short description of Building Operations and Maintenance, the new focus of BPA, to include in the request for BPA members or continued membership on the ad hoc.</td>
<td></td>
</tr>
<tr>
<td>24 – 5</td>
<td>Littleton</td>
<td>Draft an appointment letter for Tom Phoenix that will formally reappoint the BPA committee and include the new focus.</td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Responsible</td>
<td>Summary of Action</td>
<td>Status</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>25 – 5</td>
<td>Littleton</td>
<td>Ask Mark Ames to profile the DOE Solar Decathlon and make suggestions for ways that ASHRAE can become more involved.</td>
<td>______</td>
</tr>
<tr>
<td>26 – 5</td>
<td>Littleton</td>
<td>Arrange a meeting while officers are in D.C. with the contact in DOE organizing the Solar Decathalon</td>
<td>______</td>
</tr>
<tr>
<td>27 – 6</td>
<td>Littleton</td>
<td>Calculate IAQA’s historical “net” exhibit income from expositions and recommend some suggested amounts that ASHRAE could consider appropriating to IAQA.</td>
<td>______</td>
</tr>
<tr>
<td>28 – 6</td>
<td>Littleton</td>
<td>Report to IAQA that they may have representation on the councils as non-voting consultants and that an informal board liaison is approved.</td>
<td>______</td>
</tr>
<tr>
<td>29 – 6</td>
<td>Underwood</td>
<td>Assign some of the strategic Board directors to work on how IAQA/ASHRAE collaboration can be optimized.</td>
<td>______</td>
</tr>
<tr>
<td>30 – 6</td>
<td>Olesen</td>
<td>Convey a message to REHVA that ASHRAE will send a student to participate in the CLIMA 2016 competition.</td>
<td>______</td>
</tr>
<tr>
<td>31 – 7</td>
<td>Littleton</td>
<td>Notify the Bahrain Society of Engineers of ASHRAE’s approval of their application into the AASA.</td>
<td>______</td>
</tr>
<tr>
<td>32 – 8</td>
<td>Vallort</td>
<td>Relay ExCom’s final Energy Efficiency Position Document motion to Technology Council and clarify ExCom’s decision.</td>
<td>______</td>
</tr>
<tr>
<td>33 – 9</td>
<td>Phoenix</td>
<td>Request Mr. Wentz continue his involvement for the remainder of this Society year in the Systems Efficiency Initiative and attend the meeting in May.</td>
<td>______</td>
</tr>
<tr>
<td>34 – 9</td>
<td>Olesen</td>
<td>Send information on European CEN standards related to systems efficiency to Mr. Wentz.</td>
<td>______</td>
</tr>
<tr>
<td>35 – 9</td>
<td>Phoenix</td>
<td>Empower the Refrigeration Committee to make decisions regarding GRMI Charter.</td>
<td>______</td>
</tr>
<tr>
<td>36 – 9</td>
<td>Phoenix</td>
<td>Appoint three or four people to work with Mr. Littleton to look at the Foundation Learning Center Usage Policy with a report at the Atlanta meeting.</td>
<td>______</td>
</tr>
<tr>
<td>37 – 10</td>
<td>Littleton</td>
<td>Place the FGI/ASHRAE Memorandum of Understanding motion for approval on the Board Atlanta agenda.</td>
<td>______</td>
</tr>
<tr>
<td>38 – 10</td>
<td>Littleton</td>
<td>Send Mr. Underwood’s proposed strategic plan DRC assignments to ExCom.</td>
<td>______</td>
</tr>
<tr>
<td>39 – 10</td>
<td>ExCom</td>
<td>Send to Mr. Underwood any additional ideas regarding the Strategic Plan DRC assignments.</td>
<td>______</td>
</tr>
<tr>
<td>40 – 11</td>
<td>Littleton</td>
<td>Allocate funds for the Votility and Bill Track 50 software from the Opportunity Fund.</td>
<td>______</td>
</tr>
<tr>
<td>41 – 11</td>
<td>Phoenix</td>
<td>Notify Dick Hayter that ExCom wants him to continue the work against the NCEES masters or equivalent.</td>
<td>______</td>
</tr>
<tr>
<td>Item</td>
<td>Responsible</td>
<td>Summary of Action</td>
<td>Status</td>
</tr>
<tr>
<td>------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>42 – 11</td>
<td>Littleton</td>
<td>Begin the process of working on a memorandum of understanding between IDEA/ASHRAE.</td>
<td>______</td>
</tr>
<tr>
<td>43 – 12</td>
<td>Boyce/Olesen</td>
<td>Work with Technology Council and Publication and Education Council to analyze the concurrent publication of user manuals and standards, and report on a potential plan in Atlanta.</td>
<td>______</td>
</tr>
<tr>
<td>44 – 13</td>
<td>Phoenix</td>
<td>Provide dates and times for a Doodle Poll to be sent to Board of Directors to determine best date for spring finance meeting.</td>
<td>______</td>
</tr>
<tr>
<td>45 – 13</td>
<td>Littleton</td>
<td>Make staff assignments for the 2015-2016 CRCs.</td>
<td>______</td>
</tr>
</tbody>
</table>
EXECUTIVE COMMITTEE MEETING

Sanderling Resort
Duck, North Carolina
March 27, 28 & 29, 2015

MEMBERS PRESENT: Thomas H. Phoenix, President
T. David Underwood, President-Elect
Timothy G. Wentz, Treasurer
Darryl K. Boyce, Vice President
Charles E. Gulledge, Vice President
Bjarne W. Olesen, Vice President and Treasurer Nominee
James K. Vallort, Vice President
Patricia Graef, Vice President Nominee (arrived Friday p.m., 3/28)
Walid Chakroun, Vice President Nominee

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

Call to Order

President Phoenix called the Executive Committee meeting to order on Friday, March 27, 2015 at 8:30 a.m. ExCom members and nominees attended as listed above.

Review of Agenda

The following items were added to the agenda under Unfinished Business:
  • Student Competition: CLIMA 2016 – Olesen
  • MCI: European Office – Olesen

The following items were added to the agenda under New Business:
  • NCEES – Masters or equivalent funding – Littleton
  • IDEA Memorandum of Understanding – Littleton
  • Timing of User’s Manuals – Littleton
  • Workshop with Building Owners on Operation and Maintenance Training – Boyce
  • PEAC Report on Standing Committees – Littleton

Approval of Minutes

Mr. Wentz moved

that the minutes of the January 27, 28 & 29, 2015 meeting be approved.

MOTION PASSED (Unanimous voice vote, CNV)
Review of Action Items – January 24, 28 and 29, 2015

Action items 1 – 14 are ongoing from previous ExCom meetings and listed in the action item list at the beginning of the minutes, updates are included where possible. Items 15 – 18 were assigned during the action item review.

Report of the President  Attachment A

President Phoenix reviewed highlights from his report:

- Unable to attend the ACREX conference in India due to illness.
- Visited several chapters in Virginia and Ohio.
- Attended the IAQA Annual Conference in Grapevine, Texas. Received great feedback at the conference regarding the consolidation of ASHRAE and IAQA. A presidential panel with the two association presidents went well. There were 40 exhibitors. The IAQA BOD is planning a day and a half board meeting in Atlanta during the Annual Conference.
- Traveled to Atlanta for the webcast taping.
- More travel in the next 3 months than at any other time in his presidency.

Reports of Officers’ Intersociety Visits

Mr. Wentz attended:

- Attended the Mechanical Contractors Association of America National Convention.
- Traveled to San Diego to attend the International Institute of Ammonia Refrigeration. They are very intent on bringing in young people through a scholarship program.
- Attended the Architectural Engineering Institute (AEI) Conference. They are a subset of the American Society of Civil Engineers. AEI is really intent on the requirement for a master’s degree to sit for the PE exam.
- Visited Washington, D.C. and attended the first Alliance to Save Energy Systems Efficiency Initiative Steering Committee meeting. They meet again next month and it coincides with a speaking engagement at the EE Global Forum in D.C., so he will attend the next steering committee meeting.

Mr. Gulledge participated in the annual ASHRAE Committee Appointments process in Atlanta and will be attending the 2015 NAE-AAES Convocation of Professional Engineering Societies.

Mr. Littleton attended:

- The IAQA Conference in Texas. One of IAQA’s challenges is to deal with the shortened planning time for the next conference and some restructuring so that it fits around the AHR Expo. While at the conference there were meetings with the Restoration Industry Association (RIA) and National Air Duct Cleaning Association (NADCA). NADCA would like to be a part of the IEQ-GA.
• He will attend the Executive Roundtable for Complex Organizations (ERCO) meeting next month. This group provides great opportunities to network with other association executives.

Mr. Vallort attended the ASHRAE Committee Appointments meeting in Atlanta and the webcast taping.

Mr. Chakroun gave a short report on the upcoming UNEP meeting in Paris.

Mr. Phoenix and Mr. Littleton will include the following items to the UNEP meeting agenda:
  • World Bank
  • World Health Organization
  • United Nations Industrial Development Organization (UNIDO)
  • Workforce Development

Mr. Phoenix will report to ExCom the results of the May 2015 UNEP meeting in Paris.

Mr. Wentz will send to ExCom a report of the May 21, 2015 bEQ meeting and the status of marketing efforts.

Mr. Littleton will develop a memo detailing ASHRAE involvement in Workforce Development from Tom Phoenix to Presidential Members.

Report of the Treasurer  Attachment B

Mr. Wentz reported that ASHRAE is doing well. The most important update is that the surplus of $1.2 million reported in Chicago is down to $1.0 million. He reviewed a report showing major variations. Print advertising revenue is declining and that is a trend to watch. Another major variation is the monthly income of $26,000 from IAQA. The final numbers from the Chicago expo are just short of 480,000 square feet.

Mr. Littleton reported that the surplus is largely due to income from the expo which exceeded $5 million for the first time. Some chapters have endorsement relationships with other expositions that have created some discussions with AHRI.

Mr. Underwood will discuss with Members Council the involvement of chapters in endorsing shows and the need to communicate the boundaries of participation.

Mr. Littleton will send to Mr. Underwood the rules for show endorsement by ASHRAE chapters.

Ad Hoc Committee Reports

ASHRAE Support for Residential Construction  Attachment C

Mr. Wentz reported that the ad hoc is working hard on the assumption that the ad hoc will transition to a standing committee. There are subcommittees working on a manual of operations and a reference manual. Mr. Wentz is a member of both subcommittees.

Mr. Phoenix reported that the motion for the Residential Construction Ad Hoc to become a standing committee was postponed in Chicago and will be on the Sunday agenda in Atlanta.
There is discussion on where the committee should report. It could fit under Technology Council, Publication or Education Council or report to the Board of Directors.

Additional discussion included:

- Demonstrating ASHRAE’s commitment to the residential market.
- Determining the factors that move an ad hoc to a standing committee.
- Defining the circumstances for creating and terminating a standing committee.
- Raising the visibility and importance of the residential market in the ASHRAE community.
- Impact on ASHRAE staffing of adding a new standing committee.
- What other groups in ASHRAE will use this as an example that their area of concentration needs to be raised to the level of a standing committee?

**Indoor Environmental Quality Global Alliance Attachment D**

Mr. Olesen reported that the ad hoc developed a presentation for the Atlanta annual meeting and it has been accepted into the program. The Alliance is investigating incorporation and other legal status options.

Mr. Olesen and Mr. Littleton will investigate options for the the future legal status of IEQ-GA.

**Developing Economies Attachment E**

Mr. Wentz reported that the ad hoc anticipates a final report for the Atlanta Annual Meeting. It is looking at two potential paths. Each has advantages and disadvantages.

- Becoming a standing committee. They are not as far along in the process as the Residential Construction Ad Hoc.
- Becoming a steering committee of AASA. This would require changes to AASA, reporting structure, a budget and continuation of membership/leadership for a potential of three years.

ExCom’s discussion included:

- AASA does not have many groups from developing economies in its membership.
- Create a substantial focus and involvement of AASA in ASHARE.
- Determining AASA willingness to take on this role.

**Effective Use of Volunteer Time Attachment F**

Mr. Phoenix reported that Chair Sheila Hayter’s report is attached. The ad hoc has been very involved and has kept in constant contact with him. They are planning on sharing the ad hoc findings and recommendations by mid-May.

Mr. Chakroun reported that one of the considerations should be streamlining communication, perhaps using Skype.

Mr. Littleton will review new ways of communicating electronically with volunteers besides the current use of Go to Meeting/Webinar and conference calls.
Effect of Centralized Training on CRCs  Attachment G

Mr. Phoenix reported that Chair Ginger Scoggins is planning the committee's second conference call meeting in April. Their first meeting in Chicago was well attended and good discussion.

Unfinished Business

Teamup Calendar Review

Mr. Phoenix reported that the current officer travel information has been combined into the new Teamup Calendar. The consensus of the officers was that this system is useful and effective. Officers may input their travel or they can send the information to Lois Benedict.

Future of Building Performance Alliance (BPA)

Mr. Phoenix reported that the original task for BPA was the commissioning road map. This task was completed. A focus for this year has not yet been chosen.

Mr. Boyce suggested that operations and management of buildings might be a possible choice. There is a need for more training, more performance management tools and improved building performance.

Mr. Boyce will compose a short description of Building Operations and Maintenace, the new focus of BPA, to include in the request for bEQ members or continued membership on the ad hoc.

Mr. Littleton will draft an appointment letter for Tom Phoenix that will formally reappoint the BPA committee and include the new focus.

ASHRAE’s Involvement with the Solar Decathlon  Attachment H

Mr. Olesen has received information DOE that the agency may wish to reduce its involvement in the Solar Decathalon. This may be a good opportunity for ASHRAE to be involved, and thereby support the Society's growing interest in the residential market.

Mr. Littleton will ask Mr. Mark Ames to profile the DOE Solar Decathalon and make suggestions for ways that ASHRAE can become more involved.

Mr. Littleton will arrange a meeting while officers are in D.C. with the contact in DOE organizing the Solar Decathalon.

IAQA Consolidation

Exhibit Revenues

Mr. Littleton reported that the IAQA revenues for the exhibits at the 2015 conference was $70,120. This revenue crosses association years and is recorded when funds are received. The consolidation impacts the future revenues for IAQA exhibits. The question is, what is ASHRAE's financial responsibility to IAQA for future exhibits? In Orlando a 24 booth pavilion will be dedicated to IAQA.
ExCom discussion included:

- Six companies overlap that attend the ASHRAE Expo and the IAQA Expo.
- Some of those existing exhibitors will probably make the choice not to be in a dedicated IAQA area.
- The exhibit has been a major topic on the transitions calls.
- Could use this year as a baseline and as they grow there would be an increase.

Mr. Littleton will calculate IAQA’s historical “net” exhibit income from expositions and recommend some suggested amounts that ASHRAE could consider appropriating to IAQA.

Board/Council Liaisons

Mr. Phoenix reported that IAQA has requested greater participation in the ASHRAE structure. This includes having a representative serve on the three councils and attend Board meetings. A bylaws change for ASHRAE might be needed depending on the decision.

Mr. Boyce suggested that a consultant position on the councils would be relatively easy. We could also evaluate what other committees the IAQA expertise could be utilized.

Mr. Littleton will report to IAQA that they may have representation on the councils as non-voting consultants and that an informal board liaison is approved.

Mr. Underwood will assign some of the strategic Board directors to work on how IAQA/ASHRAE collaboration can be optimized.

Transition Team Update  Attachment I

Mr. Phoenix referred to the action item list that is generated from the weekly IAQA/ASHRAE calls.

IAQA Staffing  Attachment J

Mr. Littleton reported that the final staffing proposal was for 7.5 FTEs. The number was rounded to 8 and ASHRAE will assume the cost of the additional half person (.5). Two additional staff members have been hired in Member Services.

Student Competition – CLIMA 2016

Mr. Olesen reported that REHVA has a student competition each year. The students attend the REHVA conference and present. CLIMA should participate in this international competition and begin the process of deciding who will represent ASHRAE. It is a world competition and as a global Society the ASHRAE representative could be from anywhere in the world. Funding for travel for the student was budgeted into the CLIMA budget at $2500.00.

Mr. Littleton will convey a message to REHVA that ASHRAE will send a student to participate in the CLIMA 2016 competition.
MCI: European Office

Mr. Olesen reported that there is a meeting with MCI in Brussels, Belgium in May. There has been discussion that an ASHRAE office will be opening in Europe. This may be seen as aggressive to many of the European societies. Mr. Olesen suggested that perhaps there could be a half time person in the REHVA office.

Mr. Phoenix gave some background of his discussions with REHVA when they met together in Nuremberg this fall. He has also had lengthy discussions with MCI about the concern for relationships with other groups in Europe. The final report is still pending and it will help drive the final decision regarding office locations. This is a large investment for ASHRAE and the report should give the Society some clarity and direction.

New Business

Orientation for New Officers

Mr. Phoenix welcomed Patricia Graef and Walid Chakroun. He reported that new BOD officers attended the BOD Orientation at the beginning of March in Atlanta. Spring ExCom is definitely the first real opportunity for new officers to participate on ExCom. The nominees have voice but no vote until the Wednesday Board meeting in Atlanta at the Annual Meeting.

Mr. Phoenix thoughts included:
- This is a recognition by your peers that you are the best of the best.
- Your travel responsibility will expand a great deal.
- The email traffic will be massive and it is wise to come up with a plan to deal with it now versus later.
- Do not hesitate to call staff.

Other thoughts shared by officers were:
- Try to go to the Council meeting that you will be working with this next year.
- There will be an ExCom luncheon on Thursday at the Annual Meeting. It will occur after the last ExCom meeting. This luncheon is for officers and companions.

Mr. Chakroun thanked ExCom for the warm welcome.

Bahrain Society of Engineers AASA Membership Application Attachment K

Mr. Phoenix reported that the Bahrain Society of Engineers has applied for membership into AASA.

Mr. Underwood moved

(1) that ExCom recommends the Board of Directors approve ASHRAE Associate Society Alliance membership for the Bahrain Society of Engineers.

MOTION 1 PASSED (Unanimous voice vote, CNV)

Mr. Littleton will notify the Bahrain Society of Engineers of ASHRAE’s approval of their application into the AASA.
Energy Efficiency Position Documents  Attachment L

Mr. Olesen reported a new position document on Energy Efficiency was drafted. The document was exceptionally long, and it was rejected by Tech Council. There is a new request to reorganize the long Energy Efficiency position document into three separate position documents. Completing the three documents would take about one year. The documents would be sequential as follows:

- Energy Efficiency in Buildings
- On-Site Renewable Energy Generation in Buildings
- Sustainable Energy Sources for Buildings

Mr. Olesen moved

(2) that Technology Council recommends that the Executive Committee approve a request to develop three new Energy position documents (PD):
- Energy Efficiency in Buildings
- On-Site Renewable Energy Generation in Buildings
- Sustainable Energy Sources for Buildings

ExCom discussion included:

- Consensus that we need an Energy Efficiency position document. It tells the community where we stand on a position.
- Significant overlap between the second and third proposed position documents.
- Documents two and three will involve a discussion on site vs. source energy.
- Writing sequentially may not be necessary.
- Appears to be U.S. focused and should be changed to reflect global society.
- Approving the motion is approving a plan to write these three specific documents.

Mr. Wentz moved to amend the motion:

(2A) start with the Energy Efficiency in Buildings PD and strike the other two documents.

MOTION 2A PASSED (4-2-CNV)

(2B) that a request to start with the Energy Efficiency in Buildings Position Document be approved.

MOTION 2B PASSED (Unanimous voice vote, CNV)

Mr. Vallort will relay the final Energy Efficiency position document motion to Technology Council and clarify ExCom’s decision.

Alliance to Save Energy’s Systems Efficiency Initiative  Attachment M

Mr. Wentz represented Mr. Phoenix at the Alliance to Save Energy’s steering committee meeting. It is a new initiative called Systems Efficiency Initiative. The approach is to gain significant energy savings by focusing on a systems approach, as opposed to a component approach. The plan is a two year program and the first meeting was held in Washington, D.C. It was well attended by many of the industry leaders. The four goals of the initiative are:

- A well-documented assessment of energy saving potential for building systems
- A roadmap of specific opportunities, priorities, and near-term actions to achieve them
• An inventory of policy and program strategies to support systems energy efficiency
• A proposed plan of action to better incorporate systems-level efficiency in current
  government and utility programs, and in federal or state legislation.

Mr. Wentz stated that his report includes some of his concerns and questions but this was the
first meeting. They are holding another meeting May 14, 2015.

Mr. Phoenix requests Mr. Wentz continue his involvement for the remainder of this Society year
in the Systems Efficiency Initiative and attend the meeting in May.

Mr. Olesen will send information on European standards related to Systems Efficiency to Mr.
Wentz.

GRMI Charter and Future Commitments  Attachment N

Mr. Littleton reported that the charter for Global Refrigerant Management Initiative is attached
and does not require action from ExCom. There have been previous approvals for ASHRAE’s
participation in the initiative. Mr. Steve Hammerling is the staff contact. This initiative operates
on an annual budget and ASHRAE should anticipate a request for additional funds. The track
changes in the document are ASHRAE’s recommendations for changes to the charter.

Mr. Phoenix is empowering the Refrigeration Committee to make decisions regarding GRMI
Charter.

ASHRAE Foundation Learning Center Usage Policy  Attachment O

Mr. Phoenix requested the attached information about the usage of the Foundation Learning
Center in ASHRAE Headquarters. There had been a recent request to use the facility for a
public gathering that involves marketing a commercial product. The request has since been
withdrawn. However, it is appropriate to look the usage policy in case of similar requests. The
policy is six years old and it is the time to look at the fee structure, who can use the center and
what other issues should be included in a new policy.

Mr. Phoenix will appoint three or four people to work with Mr. Littleton to look at the Foundation
Learning Center Usage Policy with a report at the Atlanta meeting.

Bahrain World Bank Code/Standards Project  Attachment P

Mr. Littleton reported that ASHRAE has been contacted by the World Bank to develop energy
efficiency standards for Bahrain. This is similar to the project ASHRAE did in Saudia Arabia.
The Bahrain World Bank would like to move quickly on this $250,000 project. The project will
involve hiring and paying contractors to do the work and there will be some income to ASHRAE.
Australia Chapter

Mr. Phoenix reported that AIRAH has offered to help ASHRAE form a chapter in Australia.

ExCom discussion included:

- There are 300 potential ASHRAE members in Australia.
- Perhaps a group from Australia could attend and experience a CRC and the training provided.
- Transportation costs would not be provided for AIRAH representatives to attend the CRC.

Facility Guideline Institute Memorandum of Understanding  Attachment Q

Mr. Phoenix reported that the FGI Memorandum of Understanding will be expiring. There are some minor tweaks to the MOU and the relationship does provide some income to ASHRAE.

Mr. Olesen suggested an editorial change to say “the latest version of Standard 170.”

Mr. Vallort moved

(3) that ExCom recommends to the Board of Directors the Facility Guideline Institute/ASHRAE Memorandum of Understanding.

MOTION 3 PASSED (Unanimous voice vote, CNV)

Mr. Littleton will place the FGI/ASHRAE Memorandum of Understanding motion for approval on the Board Atlanta agenda.

2015-2016 Strategic Plan DRC Assignments

Mr. Underwood reported that 5-6 strategic initiatives have been identified for DRCs to follow. He requested that thought be put into which of the DRCs would be best to appoint to these initiatives. The deliverables would include reports to ExCom at the winter conference in Orlando and the 2016 annual meeting in St Louis.

Mr. Littleton will send the proposed strategic initiative assignments for DRCs to ExCom.

ExCom is requested to send to Mr. Underwood any additional ideas regarding the Strategic Plan DRC assignments.

Report from the Foundation Trustees  Attachment R

Mr. Phoenix reported that scholarship endowments are a great option for chapters that have amassed funds that are currently not being put to use. When the Benny Bootle Scholarship reached the minimum of $30,000 the chapter was able to have the funds managed by Society professional money managers. There are different minimum funding thresholds for each Chapter scholarship option. The requests by the ASHRAE Foundation for the Dallas Chapter Peanut Vinther Endowed Scholarship Fund and the Kansas City Chapter Endowed Scholarship Fund will be included in a informational report to the Board of Directors from ExCom. No further approvals for establishing these scholarships are needed since the Chapters are selecting the scholarship recipients.
Votility Software Attachment S

Mr. Wentz reported that one of the findings that has come from GGAC and Advocacy meeting together is realizing they need a new software program that tracks legislation and regulations that impact the Society. A new software is being proposed because it provides a more comprehensive software than the current program. The new software is more flexible, looks at municipal, state and national level issues and has more filtering abilities. Votility and Bill Track 50 are two separate companies that work hand-in-glove. The contracts ASHRAE signs would be separate, but they would function seamlessly together for ASHRAE staff and volunteers.

Mr. Wentz stated that a two year contract does give financial savings and his recommendation is to purchase before the end of the year.

Mr. Wentz moved

(4) that the purchase of a two year subscription to the Votility – Bill Track 50 government affairs software be approved.

MOTION 4 PASSED (Unanimous voice vote, CNV)

Mr. Littleton will allocate funds for the Votility and Bill Track 50 software from the Opportunity Fund.

NCEES – Masters or Equivalent Campaign Funding

Mr. Littleton reported that Dick Hayter has communicated that despite earlier efforts, the Masters or equivalent (MOE) discussion has not gone away. Vermont legislators have introduced legislation requiring an MOE to sit for the PE exam. There will be a need for funds and Mr. Hayter has asked for approval to stay involved.

Mr. Wentz reported that MOE proponents are also trying to drive the MOE requirement through the university system. ASCE is very dedicated to making this a requirement.

Mr. Phoenix stated that ASHRAE has always been against this movement and we need to reinforce ASHRAE’s commitment with Dick Hayter to continue to oppose MOE requirements. The funding option would depend on the request and use of funds.

Mr. Phoenix will notify Dick Hayter that ExCom wants him to continue the work against the NCEES masters or equivalent.

International District Energy Association (IDEA) Memorandum of Understanding

Mr. Littleton reported that the International District Energy Association (IDEA) has expressed interest in establishing a memorandum of understanding with ASHRAE. Mr. Littleton is looking for ExCom’s direction.

Mr. Littleton will begin the process of working on a memorandum of understanding between IDEA/ASHRAE.
Timing of User’s Manuals

Mr. Littleton reported that there is a growing concern about the delay between the release of a standard and the release of that standard’s user’s manual. This is a challenge for Technology Council and Publication and Education Council. They are formally bidding projects to write user manuals and a closer study should help us figure out how to release both items concurrently.

Mr. Phoenix reported that NFPA has managed to come up with some solutions to the same issue because NFPA user’s manuals are released at the same time as the related NFPA standard.

ExCom discussion included:
- Publishing both documents at the same time could be a substantial income producer.
- Demonstrating that ASHRAE is willing to work at the speed of business.

Mr. Olesen and Mr. Boyce will work with Technology Council and Publication and Education Council to analyze the publication of user manuals and standards and report on a potential plan in Atlanta.

Workshop with Building Owners on Operation and Maintenance Training

Mr. Boyce reported that Publication and Education Council has a strategic planning initiative to develop owner and maintenance operation training. A focus group is expected to be held this spring to discuss how to better train in this area. The potential workshop location will be in Washington, D.C.

Mr. Phoenix suggested that with the new focus and reactivating of the Building Performance Alliance this initiative may belong under that committee.

*(Secretary’s Note: See action items 25 and 26 that also apply to this item of discussion.)*

PEAC Report on Standing Committees

Mr. Underwood reported that he appointed Board member Julie Keen to investigate the status of standing committees, examine the rules to establish a standing committee, justify the cost of a standing committee and review a sunset clause for standing committees. This report is coming in May or June.

Standing Agenda Items

AHR Exposition Final Accounting Report Attachment T
Marketing/PR Update Attachment U
ExCom Reference Manual Attachment V

Future Meetings

Final Date for Board of Directors Spring Finance Meeting
Mr. Phoenix will provide dates and times for a Doodle Poll to be sent to Board of Directors to determine best date for spring finance meeting.

2014-2015 CRC Schedule Attachment W  
2015-2016 CRC Schedule Attachment X

Mr. Underwood reported that assignments have been made.

Mr. Littleton will make staff assignments for the 2015-2016 CRCs.

Officers’ Spring 2016 Travel Assignments

ExCom Meetings

ExCom will meet next in Atlanta, Georgia at the Annual Meeting on June 27, July 1 and 2, 2015.

Information Items

American Society for Healthcare Engineers Attachment Y

Executive Session

Executive session was convened on Sunday, March 29, 2015 at 8:30 AM and concluded at 11:30 AM.

Adjournment

Mr. Phoenix thanked everyone for coming. The meeting was adjourned at 12:00 PM on Sunday, March 29, 2015.

Jeff H. Littleton, Secretary

Mdt/2015/05/04

Distribution: Board of Directors
             Staff Directors

Attachments: Attachment A – Report of the President
             Attachment B – Report of the Treasurer
             Attachment C – ASHRAE Support for Residential Construction Ad Hoc
             Attachment D – Indoor Environmental Quality Alliance
             Attachment E – Developing Economies
             Attachment F – Effective Use of Volunteer Time
             Attachment G – Effect of Centralized Training on CRCs
             Attachment H – ASHRAE’s Involvement with the Solar Decathlon
             Attachment I – IAQA Transition Team Update
Attachment J – IAQA Staffing
Attachment K – Bahrain Society of Engineers AASA Membership Application
Attachment L – Energy Position Documents
Attachment M – Alliance to Save Energy’s Systems Efficiency Initiative
Attachment N – GRMI Charter and Future Commitments
Attachment O – ASHRAE Foundation Learning Center Usage Policy
Attachment P – Bahrain World Bank Code/Standards Project
Attachment Q – FGI Memorandum of Understanding
Attachment R – Report from the Foundation Trustees
Attachment S – Votility Software
Attachment T – AHR Exposition Final Accounting Report
Attachment U – Marketing/PR Update
Attachment V – ExCom Reference Manual
Attachment W – 2014-2015 CRC Schedule
Attachment X – 2015-2016 CRC Schedule
Attachment Y – American Society for Healthcare Engineers Report
<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting</th>
<th>Location</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 13-16, 2014</td>
<td>Purdue University Conference</td>
<td>West Lafayette, IN</td>
<td></td>
</tr>
<tr>
<td>July 24-26, 2014</td>
<td>Leadership Retreat</td>
<td>Greensboro, NC</td>
<td></td>
</tr>
<tr>
<td>July 30-Aug 3, 2014</td>
<td>Region VII CRC</td>
<td>New Orleans, LA</td>
<td></td>
</tr>
<tr>
<td>August 6-11, 2014</td>
<td>Region X CRC</td>
<td>Honolulu, HI</td>
<td></td>
</tr>
<tr>
<td>August 12-17, 2014</td>
<td>Region XIII CRC</td>
<td>Taipei, Taiwan</td>
<td></td>
</tr>
<tr>
<td>August 20, 2014</td>
<td>ICC Roundtable</td>
<td>Washington, DC</td>
<td></td>
</tr>
<tr>
<td>September 9-12, 2014</td>
<td>ASHRAE/IBPSA Conference</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>September 17-22, 2014</td>
<td>Region-at-Large CRC</td>
<td>Madrid, Spain</td>
<td></td>
</tr>
<tr>
<td>October 1-5, 2014</td>
<td>Fall BOD and ExCom Meetings</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>October 6-11, 2014</td>
<td>CIBSE/IMechE Meetings</td>
<td>London, England</td>
<td></td>
</tr>
<tr>
<td>October 13-16, 2014</td>
<td>Chillventa Expo</td>
<td>Nuremberg, Germany</td>
<td></td>
</tr>
<tr>
<td>October 21-24, 2014</td>
<td>USGBC Greenbuild</td>
<td>New Orleans, LA</td>
<td></td>
</tr>
<tr>
<td>October 27-29, 2014</td>
<td>DC Leadership Meetings</td>
<td>Washington, DC</td>
<td></td>
</tr>
<tr>
<td>Oct 31-Nov 2, 2014</td>
<td>IAQA Transition Team</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>November 5, 2014</td>
<td>Arkansas Chapter</td>
<td>Little Rock, AR</td>
<td></td>
</tr>
<tr>
<td>November 6, 2014</td>
<td>NW Arkansas Section</td>
<td>Springdale, AR</td>
<td></td>
</tr>
<tr>
<td>November 13-14, 2014</td>
<td>East Tennessee Chapter</td>
<td>Knoxville, TN</td>
<td>50th Anniversary</td>
</tr>
<tr>
<td>November 15-19 2014</td>
<td>AHRI Annual Meeting</td>
<td>Carlsbad, CA</td>
<td></td>
</tr>
<tr>
<td>November 23-24, 2014</td>
<td>ASHRAE Headquarters</td>
<td>Atlanta, GA</td>
<td>Volunteer time Ad-Hoc</td>
</tr>
<tr>
<td>December 3-4, 2014</td>
<td>Bermuda Ministries &amp; Others</td>
<td>Hamilton, Bermuda</td>
<td>bEQ Presentation</td>
</tr>
<tr>
<td>December 14-16, 2014</td>
<td>ASHRAE Headquarters</td>
<td>Atlanta, GA</td>
<td>189/IGCC Meetings</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>January 7-9, 2015</td>
<td>NIBS Building Innovation 2015</td>
<td>Washington, DC</td>
<td></td>
</tr>
<tr>
<td>January 13, 2015</td>
<td>Boston Chapter Visit</td>
<td>Boston, MA</td>
<td></td>
</tr>
<tr>
<td>January 14, 2015</td>
<td>Central NY Chapter Visit</td>
<td>Syracuse, NY</td>
<td></td>
</tr>
<tr>
<td>January 15, 2015</td>
<td>Champlain Valley Chapter Visit</td>
<td>Burlington, VT</td>
<td></td>
</tr>
<tr>
<td>January 21-29, 2015</td>
<td>ASHRAE Winter Meeting</td>
<td>Chicago, IL</td>
<td></td>
</tr>
<tr>
<td>February 2, 2015</td>
<td>Richmond Chapter Visit</td>
<td>Richmond, VA</td>
<td></td>
</tr>
<tr>
<td>February 2, 2015</td>
<td>VCU Student Branch Visit</td>
<td>Richmond, VA</td>
<td></td>
</tr>
<tr>
<td>February 3, 2015</td>
<td>Hampton Roads Chapter Visit</td>
<td>Norfolk, VA</td>
<td></td>
</tr>
<tr>
<td>February 4, 2015</td>
<td>National Capital Chapter Visit</td>
<td>Washington, DC</td>
<td></td>
</tr>
<tr>
<td>February 10, 2015</td>
<td>Lynchburg Section Visit</td>
<td>Lynchburg, VA</td>
<td></td>
</tr>
<tr>
<td>February 10, 2015</td>
<td>Roanoke Chapter Visit</td>
<td>Roanoke, VA</td>
<td></td>
</tr>
<tr>
<td>February 23-28, 2015</td>
<td>ACREX</td>
<td>Bangalore, India</td>
<td><strong>Trip cancelled due to illness</strong></td>
</tr>
<tr>
<td>March 11, 2015</td>
<td>Columbus Chapter Visit</td>
<td>Columbus, OH</td>
<td></td>
</tr>
<tr>
<td>March 11, 2015</td>
<td>Cleveland Chapter Visit</td>
<td>Cleveland, OH</td>
<td></td>
</tr>
<tr>
<td>March 14-17, 2015</td>
<td>IAQA Convention</td>
<td>Dallas, TX</td>
<td></td>
</tr>
<tr>
<td>March 18, 2015</td>
<td>Webcast Taping</td>
<td>Atlanta, GA</td>
<td></td>
</tr>
<tr>
<td>March 26-29, 2015</td>
<td>Spring ExCom Meeting</td>
<td>Duck, NC</td>
<td></td>
</tr>
</tbody>
</table>
### GENERAL (Fund 2)
#### STATEMENT OF REVENUES & EXPENSES
For the Eight Months Ending February 28, 2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REVENUES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31 Membership Dues Earned Income</td>
<td>$6,928.9</td>
<td>$7,077.4</td>
<td>$7,428.5</td>
<td>$7,178.7</td>
<td>$7,388.0</td>
<td>$7,188.0</td>
<td>$7,581.9</td>
<td>$7,806.1</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>32 Publication Sales Income</td>
<td>4,282.1</td>
<td>3,324.3</td>
<td>3,852.0</td>
<td>3,803.6</td>
<td>3,746.2</td>
<td>3,896.5</td>
<td>3,701.3</td>
<td>3,819.0</td>
<td>($150.3)</td>
<td></td>
</tr>
<tr>
<td>34 Advertising Income - Display</td>
<td>3,869.2</td>
<td>3,856.1</td>
<td>3,850.0</td>
<td>3,773.1</td>
<td>3,780.0</td>
<td>3,897.0</td>
<td>3,902.3</td>
<td>3,952.5</td>
<td>($117.0)</td>
<td></td>
</tr>
<tr>
<td>34 Advertising Income - Classified</td>
<td>18.1</td>
<td>19.3</td>
<td>16.1</td>
<td>26.5</td>
<td>16.9</td>
<td>16.9</td>
<td>18.0</td>
<td>16.8</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>34 Advertising Income - Online</td>
<td>431.0</td>
<td>525.4</td>
<td>580.0</td>
<td>470.4</td>
<td>610.0</td>
<td>620.0</td>
<td>640.0</td>
<td>675.0</td>
<td>($100.0)</td>
<td></td>
</tr>
<tr>
<td>35.1 Meeting &amp; Seminar Income</td>
<td>1,398.1</td>
<td>1,535.2</td>
<td>1,775.1</td>
<td>1,967.9</td>
<td>1,631.3</td>
<td>1,666.3</td>
<td>1,556.2</td>
<td>1,583.1</td>
<td>($35.0)</td>
<td></td>
</tr>
<tr>
<td>35.2 Certification Registration</td>
<td>140.2</td>
<td>138.7</td>
<td>160.0</td>
<td>146.5</td>
<td>190.0</td>
<td>140.0</td>
<td>195.0</td>
<td>200.0</td>
<td>$30.0</td>
<td></td>
</tr>
<tr>
<td>35.3 Education Registration</td>
<td>1,171.5</td>
<td>1,103.1</td>
<td>1,150.0</td>
<td>1,301.6</td>
<td>1,450.0</td>
<td>1,450.0</td>
<td>1,420.0</td>
<td>1,520.0</td>
<td>($120.0)</td>
<td></td>
</tr>
<tr>
<td><strong>EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9 Compensation Expense</td>
<td>2,577.3</td>
<td>2,656.8</td>
<td>2,693.7</td>
<td>2,805.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.6 Occupancy &amp; Insurance</td>
<td>115.0</td>
<td>111.7</td>
<td>100.0</td>
<td>98.6</td>
<td>115.0</td>
<td>115.0</td>
<td>115.0</td>
<td>115.0</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>115.6 Fixed Asset Depreciation</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>115.6 Other Depreciation</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>115.6 Total Depreciation</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>115.6</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>115.6 Miscellaneous Income</td>
<td>734.0</td>
<td>286.4</td>
<td>320.5</td>
<td>341.9</td>
<td>678.9</td>
<td>410.9</td>
<td>327.4</td>
<td>346.9</td>
<td>$268.0</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL REVENUES</strong></td>
<td>22,344.8</td>
<td>20,501.8</td>
<td>21,904.9</td>
<td>21,710.2</td>
<td>23,558.3</td>
<td>23,318.4</td>
<td>22,853.3</td>
<td>23,012.7</td>
<td>$239.9</td>
<td></td>
</tr>
<tr>
<td><strong>EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51 Salary Expense</td>
<td>6,409.0</td>
<td>6,814.3</td>
<td>7,073.8</td>
<td>6,980.0</td>
<td>7,272.3</td>
<td>7,357.2</td>
<td>7,654.0</td>
<td>7,883.8</td>
<td>($80.5)</td>
<td></td>
</tr>
<tr>
<td>52 Payroll Taxes, Benefits, Personnel Exp</td>
<td>1,917.0</td>
<td>2,070.3</td>
<td>2,019.2</td>
<td>2,106.2</td>
<td>2,109.0</td>
<td>2,265.9</td>
<td>2,246.3</td>
<td>2,365.7</td>
<td>($26.7)</td>
<td></td>
</tr>
<tr>
<td>53141.1 AHR Exposition Income</td>
<td>4,179.4</td>
<td>3,949.9</td>
<td>4,148.3</td>
<td>3,973.0</td>
<td>5,146.8</td>
<td>4,857.9</td>
<td>4,145.6</td>
<td>4,387.8</td>
<td>$288.7</td>
<td></td>
</tr>
<tr>
<td>53141.2 Contributions and Matching Gifts</td>
<td>($1,815.2)</td>
<td>($1,930.9)</td>
<td>($1,859.2)</td>
<td>($2,620.0)</td>
<td>($1,481.4)</td>
<td>($1,481.4)</td>
<td>($2,620.0)</td>
<td>($1,481.4)</td>
<td>($2,620.0)</td>
<td></td>
</tr>
<tr>
<td>53141.3 AHR Exposition Income - Other Countries</td>
<td>116.3</td>
<td>116.3</td>
<td>116.3</td>
<td>116.3</td>
<td>116.3</td>
<td>116.3</td>
<td>116.3</td>
<td>116.3</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>43 Reserve Transfers</td>
<td>385.2</td>
<td>510.9</td>
<td>503.0</td>
<td>489.2</td>
<td>314.5</td>
<td>314.5</td>
<td>384.9</td>
<td>500.0</td>
<td>$0.0</td>
<td></td>
</tr>
<tr>
<td>45 Miscellaneous Income</td>
<td>734.0</td>
<td>286.4</td>
<td>320.5</td>
<td>341.9</td>
<td>678.9</td>
<td>410.9</td>
<td>327.4</td>
<td>346.9</td>
<td>$268.0</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL EXPENSES</strong></td>
<td>21,601.2</td>
<td>20,316.7</td>
<td>21,094.8</td>
<td>21,654.8</td>
<td>22,547.0</td>
<td>22,644.8</td>
<td>22,856.6</td>
<td>23,049.6</td>
<td>($97.8)</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Figures have been adjusted for reconciliation purposes and may not reflect the final report figures.
Report to ExCom on Residential ad hoc and Developing Economies ad hoc
Spring 2015 ExCom meeting
Duck, North Carolina

I have chosen to combine the two reports into a single report because both ad hoc committees are working towards the exact same conclusion; how to move their work forward in the next Society year once the ad hoc committee concludes. Both ad hoc committees are in their second year of operation, which is usually the maximum length of time an ad hoc committee is allowed to operate without some form of transition plan.

Residential ad hoc  Attachment C

The Residential ad hoc put forward the motion in Chicago to transition to a standing committee named the Residential Buildings Committee. A 60-day moratorium was declared, as the change would be a major structural change to Society. It is assumed that a new Residential standing committee would be assigned to Tech Council. The new ROBs have been sent to Society Rules Committee and they are working on the necessary MOPs and a Reference Manual.

The anticipated role of the Residential Buildings Committee would include the following:

- Identify major trends in residential construction impacting HVAC & R
- Communicate to the Board and membership the impact of these trends
- Recommend new activities and policies to address the impacts and trends
- Become a resource to Society on issues relating to building technology
- Develop relationships and coordinate communication with other organizations and societies relating to residential design and construction

In anticipation of the transition to a standing committee, the Residential ad hoc has created the following new subcommittees:

- Planning and Policy
- Stakeholders and Collaborations
- Research and Standards
- Handbook and Education
- Conferences and Exhibitions
- Program and Communications
The Developing Economies is also brainstorming ideas on how to move their work and objectives forward after the start of the new Society year in 2015. They have identified two likely paths forward; a permanent standing committee, probably reporting to Members Council, or a steering committee, that would likely be a part of the ASHRAE Associate Society Alliance (AASA).

The transition to a standing committee would be pretty straightforward and would follow the same path as the Residential ad hoc committee. There is strong support for transitioning the ad hoc into a standing committee amongst some members of the ad hoc. They believe that creating a Developing Economies standing committee better demonstrates the importance of developing economies to the mission of the Society. Transitioning to a standing committee also denotes a permanence that a steering committee may not. Another reason for a standing committee is the depth and breadth of the activities that impact developing economies. For example, the Developing Economies ad hoc has already identified initiatives within the bEQ committee, the AEDG Steering Committee, the Planning Committee, along with many others that could or should impact developing economies.

The Developing Economies ad hoc has noted some resistance to the motion of converting the Residential ad hoc into a standing committee. The AASA is a large organization that appears to be under utilized by ASHRAE. At the same time, AASA appears to have a lot of passion and energy. There was standing room only at the Chicago meeting, for example.

In order for the AASA to adequately support a steering committee of the importance and broad spectrum of the Developing Economies ad hoc, several structural changes to AASA would have to occur. Those changes include:

- AASA would have to report to some entity, probably the Board. Currently, AASA has no reporting duties or responsibilities.

- AASA would need to have a budget, although probably not a large one. Currently, AASA has no budget, which limits its effectiveness.

- The contract with AASA members would have to be restructured such that at least one AASA representative serves a consistent term of office, probably for a three-years. Some mechanism would have to be developed to stagger the terms to create a uniform transition.

- ASHRAE would similarly have to change its approach to the AASA and provide a consistent pattern of leadership. It is widely held that the chair of the AASA would be an excellent opportunity to take advantage of the expertise of our presidential members.
The purpose of the steering committee would be to communicate emerging trends within developing economies that impact HVAC & R technology to the appropriate committee or council within ASHRAE. In many respects the role of the steering committee wouldn’t be much different from the roles articulated by the Residential Buildings ad hoc.

Regardless of which path is selected, the Developing Economies ad hoc has moved forward with establishing subcommittees in the same manner as the Residential ad hoc committee. The subcommittees formed include the following:

- Cold and Food Chain
- Government Interaction and Resource
- Technical and Construction Industry Needs
- Outreach and Education
- Transition

Respectfully submitted,

Tim Wentz
Coordinating Officer to Residential and Developing Economies
Report of IEQ-GA to ExCom March 21, 2015

By
Bjarne W. Olesen

The main part of this report is the enclosed notes from our meeting in Chicago.

One important issue is if the Alliance should be incorporated, so I would like ASHRAE legal counsel to advice on this. We would prefer not to have too much administration involved.

As it is still ASHRAE’s AdHoc that initiate the activities there is a wish to continue for another year. Out of the 15,000 $ budget for society year 2014/15 we have only spend 4610 $. We also have a budget of 15,000 $ to build up the web-page, which has not been used yet.

We are in the process of including organizations covering lighting and acoustic. It is however very important that we decide on the type of organization so we can agree on bylaws

Bjarne W. Olesen
1. **Call to Order**

Chair Bjarne Olesen called the meeting to order at 1230 PM. Many attended in the room and some participated remotely through GoToMeeting connection. Attendees included Bjarne Olesen (Chair), Bill Bahnfleth, Karel Kabele (REHVA), Mary Ann Latko (AIHA), Andy Persily, Jim Powell (AWMA), Michael Rosenow (AIHA), Chandra Sekhar, Max Sherman (AIVC), Pawel Wargocki, Peter Wouters (AIVC) & Don Weekes (IAQA). ASHRAE Staff members Mark Ames and Steve Hammerling attended. Others included Joe Hughes (IICRC), Richard Kimball, Tony Rizzuto (ACGIH), Mark Stinson (ICA), Al Veeck (NAFA), Jennifer Veitch (CIE) and LanChi Weekes (EHC).

2. **Items from previous meetings**

2.1 **Position Documents**

**ASHRAE & AIHA Mold PDs**

Persily reported reviewing the ASHRAE and AIHA mold related position documents. A summary report was sent to committee in Jan. 26th email. Persily noted there did not appear to be any major conflicts between the two; therefore, the question should be asked as to whether a joint position document on indoor mold should be developed. How such a document would be developed and approved are both big issues to address first. Details can be found in emailed report.

**New IEQ PD from IEQ-GA?**

Persily reported he had not outlined an IEQ-GA PD. The ad hoc had discussed this idea if procedures could be worked out for other organizations to participate on and approve the PD. Bahnfleth offered to draft a PD proposal (AI #1). He would then circulate to the group and ask for representatives. Bahnfleth noted his focus would be on complimenting current PDs. The idea would be to develop using the ASHRAE PD procedures and sent to all BODs for consideration.

**ASHRAE IAQ position document**

A position document committee is revising the ASHRAE Indoor Air Quality position document. It is in the early stages and writing assignments have been made but they expect to have a draft for Annual meeting in June. LanChi Weekes is on the committee and welcomed support and participation from members of the IEQ-GA. IEQ-GA members discussed if it’d be preferable to have an IEQ-GA member formally on the IAQ PD committee roster or to strictly liaise, review, etc. It was noted there is at least one member (Bahnfleth) attending as a member so they report or liaise and make available for review, etc.

**Ventilation & Health Technote**

A draft of this AIVC Technote was emailed 1/22. Sherman noted another draft shortly. Seems relevant to IEQ-GA. Sherman noted IEQ-GA may wish to somehow participate or co-sponsor or endorse but the IEQ-GA would need process for doing so.
2.2 Collect inventory of existing standards and guidelines - (Weekes)
Weekes noted he now has emails of Society participants so he will send request to organizations shortly (AI #2) and catalog. He asked all for a swift response with list of PDs, standards, guidelines, etc.

2.3 Organizations requested to send advocacy methods and contacts. (All Societies)
Olesen noted a request for this information was sent previously to all Societies but will be sent out again (AI #3)

3. Model for operation of the society
The IEQ-GA discussed the draft bylaws and comments from AIHA’s Latko sent with the meeting agenda. Olesen noted that he’d ask ASHRAE legal counsel to review (AI #4) to seek their opinion on incorporating vs. not incorporating, location of incorporation, etc. Latko emphasized that they did not have a formal opinion on if IEQ-GA should be incorporated or not, but that the documents were not clear on this point.

Olesen summarized that the general sense seemed to be that at some point incorporation would make sense but that this was not an immediate need. Olesen asked any other organizations with comments to submit them and that he would pursue ASHRAE legal team review.

4. Affiliate Memberships (Trade/Government organizations)
   • Affiliate Member organizations
     Al Veeck from the National Air Filtration Association (NAFA) was introduced and briefly summarized his organization (www.nafahq.org). He noted their BOD is prepared to vote to sign the Affiliate Member MOU. Staff was asked to send Veeck the MOU and to work out details for signing the document (AI #5).

     Joe Hughes with the Institute of Inspection Cleaning and Restoration Certification (IICRC) introduced his organization (www.iicrc.org) as well. Staff was asked to send the Affiliate Member MOU to Hughes for his organizations consider (AI #6).

5. Full Member organizations
   • American Conference of Governmental Industrial Hygienists (ACGIH)
     Tony Rizzuto addressed the group and noted his organization was looking at Full vs. Affiliate Membership options. Their BOD is ready to move forward but there are some concerns on lobbying or advocacy issues listed in MOU. Rizzuto suggested they opt out of advocacy and lobbying in MOU. Ames noted ASHRAE’s advocacy activities focus on educating policy makers on technical issues. Rizzuto noted ACGIH will take this discussion back to his BOD.

   • International Commission on Illumination (CIE) – www.cie.co.at
     Dr. Jennifer Veitch, Director, CIE Division 3, gave a presentation about her organization (Attachment A). Ms. Veitch noted she has not yet brought participation for discussion with CIE leadership but was observing today. The BOD will seek more information. She reported that involvement with IEQ-GA would be departure from typical CIE relationships which tend to be lighting specific. The CIE has 56 member countries with 1400 experts worldwide. A decision on joining the IEQ-GA may have to wait until after their transition of leadership but her plan is to report to her BOD and discuss at their meeting in July.
Olesen offered any information Veitch may wish to have for their BOD to consider. An IEQ-GA representative may wish to attend BOD meeting in Manchester to speak. Veitch agreed to discuss with Olesen and work out later.

- **International Commission for Acoustics (ICA) –** [www.icacommission.org](http://www.icacommission.org)  
  Mike Stinson, Secretary General of the ICA addressed the committee. He noted their BOD had discussed briefly and was interested. He noted they may fit better as an affiliate member. ICA is a society of organizations including 44 national acoustic societies. The emphasis of these groups is not necessarily acoustics indoor environments, it is much broader. They have a BOD meeting in June in the Netherlands where this will be discussed further. Olesen offered to send any information that may be helpful towards a decision. Stinson noted there are member organizations to ICA that focus a bit more on architectural acoustics if IEQ-GA wished to reach out to them as well:
  - Acoustical Society of America (ASA) – [www.acousticalsociety.org](http://www.acousticalsociety.org)
  - Institute of Noise Control Engineering (INCE) – [www.inceusa.org](http://www.inceusa.org)
  - National Council of Architectural Consultants (NCAC) - [www.ncac.com](http://www.ncac.com)

- **Other organizations to consider**  
  Olesen asked what other organizations should be considered. USGBC, BOMA, IFMA were mentioned previously. Perhaps more global organizations should be approached. Kimball noted >50% of LEED projects were outside USA. Olesen noted he’d contact Brendan Owens at USGBC to see if they might be a good fit in the IEQ-GA (AI #7).

- **Draft written criteria for including Full Member organizations**  
  Olesen volunteered to draft a criteria for Full Member organizations to assure they fit within scope of efforts (AI #8).

### 6. IEQ-GA track at conferences

- **ASHRAE Summer 2015, Atlanta, GA**  
  Olesen distributed a seminar proposal prior to meeting (Attachment B). Olesen noted he considered two paths, one that highlighted each organization’s involvement in IEQ activities, or another where different IEQ parameters are discussed with comments on what information is available. The consensus was to pursue the former path for the program with 8 organizations represented. Olesen would submit program to ASHRAE by Feb. 9th deadline (AI #9).

  Olesen would work with CIE on a speaker suggestion. Speakers from WHO, EPA should be asked also. Powell offered to help get a speaker from EPA.

- **ASHRAE IAQ2016, Sept. 12-14, 2016 in Washington DC**  
  Bahnfleth noted planning continues for IAQ 2016. IEQ-GA will hold a meeting at the event, most likely directly after the conference. IEQ-GA would plan another program, perhaps to highlight progress on IEQ-GA activities, added organizations, or a forum discussion on standards and codes. Details can be worked out in the future.

- **USGBC Green Build**  
  Weekes agreed to propose an IEQ-GA program for USGBC’s GreenBuild 2016 with member support (AI #10).
• **Other conferences**
  Sekhar gave background information on the 2015 International Green Building Conference in Singapore. They are firming up program now. Sekhar noted Bahnfleth may be able to speak about IEQ-GA and will follow up.

7. **Other**
  Wouters discussed the IEQ-GA website, [www.ieq-ga.net](http://www.ieq-ga.net), noting the site needed some content. Three announcements listed currently. Staff agreed to compile each organization’s web content contact and send to him (AI #11). Wouters would then reach out to these contacts for web contact (AI #12).

  Weekes asked if the IEQ-GA should make a presence on social media. Wargocki was asked to lead a subcommittee with Weekes and Kimball to assess the role of social media in the efforts of this group (AI #13). An idea for posting IEQ-GA commentary on issues of the day may help to make website more popular.

8. **Next Meeting**
  The IEQ-GA would plan on meeting in Atlanta for the ASHRAE Annual Meeting. A conference call would be help prior to this at a time to be determined.

  It was noted at this time that the ad hoc appointment should be formally extended by ASHRAE for at least another year so it can plan beyond current Society year. Olesen agreed to formally pursue this matter (AI #14).

9. **Adjournment**
  Olesen thanked all for their participation and adjourned the meeting at approximately 245 PM CST.

**List of Attachments**
- A – CIE presentation
- B – IEQ-GA seminar proposal for Atlanta

**List of Action Items from Ad Hoc Meeting**
- #1 – Bahnfleth – Draft proposal for IEQ-GA position document on IEQ
- #2 – Weekes –Sent request for organizations for list of current standards and guidelines.
- #3 – Olesen – resend request for organization’s advocacy methods and contacts
- #4 – Olesen – Request legal review of draft IEQ-GA bylaws
- #5 – Staff – sent MOU to Al Veeck for NAFA consideration
- #6 – Staff – sent Affiliate Member MOU to IICRC
- #7 – Olesen – contact Brendan Owens at USGBC to determine interest in joining
- #8 – Olesen – draft criteria for Full Member to IEQ-GA
- #9 – Olesen – Submit IEQ-GA related program for ASHRAE’s Annual meeting by Feb. 9th
- #10 – Weekes – prepare submission for USGBC Green Build 2016
- #11 – Hammerling – compile list of organizational web content contacts
- #12 – Wouters – request web content from member organizations
- #14 – Olesen – Pursue official extension of IEQ-GA ad hoc committee for another society year.
INFORMATION ITEMS:

1. Ad hoc committee members are focusing on developing recommendations for actions ASHRAE can take to improve the volunteer experience (e.g., helping volunteers feel better about the time they spend volunteering for ASHRAE) and to increase the number of people volunteering in ASHRAE roles. The goal is to address these two areas for all levels within the ASHRAE volunteer structure, including grassroots, Society-level, and international.

2. Ad hoc committee members have developed an initial set of recommendations for actions ASHRAE can take. The committee members are in the process of refining and prioritizing these recommendations and anticipate sharing a report to President Phoenix by mid-May.

March 24, 2015  ____________________________  Sheila Hayter  ____________________________
Date  Chair
March 23, 2014

To: ASHRAE Ex-com

From: Ginger Scoggins

RE: Status of Ad-hoc on the Effect of Centralized Training on CRCs

REPORT:

Our sub-committee kicked off our efforts at the Chicago meeting. We had numerous folks in attendance that were not on the committee, as well as a quorum of committee members, and had lively discussion on this issue.

Since the Chicago meeting, we have had one conference call and have another one set up for early April. We have been in the information gathering stage, and staff has been gathering data regarding the number of committee chairs that have attended CRC’s and centralized training in the past 5 years, as well as the number of chairs that have attended both. We’ve also been analyzing the improvements in the research campaigns and the membership campaigns since centralized training was instituted.

This month we have created a survey for past membership and research promotion chairs to ask a few questions about both CRC training and centralized training to try to glean some information on which (or both) that the committee chairs felt was most helpful and why, and if they attended one or both events and why they chose the one they chose.

At our call in April, we hope to have enough information gathered to be able to start brainstorming ideas for improving the process of training our committee chairs, and to determine if both arenas of training are necessary, or if there is a better method that could be used.

Sincerely,

M. Ginger Scoggins
Chair
To: Jeff Littleton  
From: Joyce Abrams  
Re: Solar Decathlon

Pre-December 2012  
• ASHRAE contributed $55,000 to each Decathlon, including hosting the Reception Dinner  
• Student Activities Committee had an Ad Hoc Committee for the Decathlon  
• ASHRAE Members participated as judges (observers) for parts of the competition  
• ASHRAE speakers led workshops/sessions  
• ASHRAE Staff Liaison attended all 10 days of the competition

Post-December 2012  
• ASHRAE contributes $20,000 to each Decathlon, which covers sponsoring a lunch reception  
• Staff Liaison is the only person involved  
• Staff Liaison attends 3 days of the event, including the ASHRAE-sponsored reception

Reasons for reduced funding  
• Although ~17,000 students participate in the event, only a small percentage were considered to be potential ASHRAE members  
• The competition is for residential dwellings, which in the past was not a primary focus for Society
ASHRAE/IAQA Transition Team

Action Item List (T-TAIL)

Updated: 3/10/15

Note: Does not include AI’s related to the ASHRAE/IAQA consolidation from IAQA Board meetings.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Assigned to:</th>
<th>C</th>
<th>Status</th>
</tr>
</thead>
</table>
| 1  Strategy for liaisons between IAQA and ASHRAE committees, Boards, etc. Activity liaison. | Don Weekes Larry Fisher       | O  | 2-24-15 Don and Larry agree to develop a draft process.  
3-10-15 Proposal drafted and circulated to committee. Board and Council level liaisons proposed. Ready to be submitted to Boards. Starting point. Agreed to also identify committees that need to formally explore ASHRAE/IAQA collaboration opportunities. |
| 2  Policy for use of each respective organization’s name and logo. Include message distribution policy. | Gupta                          | O  | 2-24-15 Staff to draft a straw man review  
3-10-15 Targeting having a draft plan for next meeting |
| 3  Policy for review of position documents to avoid conflicts. Covers both existing and new documents as they are produced. | Ramspeck                       | O  | 2-24-15 Notification is not enough. Need to consider opinions during the PD generation process. Claire will develop process.  
3-10-15 Drafted the policy. Doing final review. Present at next TT meeting. |
| 4  Integration of ASHRAE and IAQA Chapter structure. New chapter structure for IAQA? Policies for places where IAQA has or does not have chapters. IAQA Chapter tax returns and policy for tax ID numbers. | IAQA Chapter Relations Committee | O  | 2-24-15 IAQA Chapter Relations Committee will take the lead. Some connections between Chapters is already taking place.  
3-10-15 Committee will discuss next week at IAQA mtg. |
| 5  Policy for AHR Expo exhibit revenue sharing | Littleton                     | O  | 2-24-15 Will ask Tom to add to ASHRAE Spring ExCom Mtg  
3-10-15 Confirmed for Spring ExCom agenda later this month. |
| 6  Policy for joint conference registrations | Abrams                        | O  | 2-24-15 Need to involve CEC from ASHRAE. Both orgs have agreed to provide membership pricing. Have a joint social event? Anticipating attendance is an issue. Joyce to develop straw man. |
| 7  Policy for joint memberships | Abrams                        | O  | 2-24-15 MP has assigned an ad hoc to look at this issue. Subcommittee will report to MP in June. Can we accelerate the process?  
3-10-15 Ad hoc meeting this Friday via conference call. ExCom plus incoming chair. |
| 8  Discontinue remaining IESO Minnesota corporation | Simmons                     | O  | 2-24-15 Cindy will check with attorney to see if motions needed from IAQA or IESO BoD members. |
| 9  IAQA Member publication proposal options | Comstock/IAQA BoD             | O  | 2-24-15 Presented to IAQA Board. Advertising interest to be gaged at IE3, Grapevine. |
| 10 Transition IAQA to a July-June Society year effective July 2015 | Simmons/Greenblatt           | O  | 2-24-15 Action needed by IAQA Board in Grapevine? Cindy to check |
| 11 Transition IAQA from a cash-based to an accrual-based accounting system | Simmons                     | O  | 2-24-15 Tied to NetForum change, IAQA membership grades |
| 12 Transition IAQA to ASHRAE’s internal NetForum database | Simmons                     | O  | 2-24-15 Need final membership grades from IAQA. Checking on fees from NetForum. |
| 13 Hire IAQA staff according to Board-approved plan | Littleton/Rawhouser           | O  | 2-24-15 IAQA staffing ad hoc reviewing membership/standards tradeoffs. |
| 14 IAQA Strategic Plan input | All                           | C  | 2-24-15 Send Kent thoughts on IAQA strategic planning by March 10th. Plan to be discussed in Grapevine. |
|   | Invite IAQA members to ASHRAE Chapter mtgs in locations where there is no IAQA Chapter | Gurley | O | 2-24-15 IAQA Chapter Relations Committee separately working on IAQA Chapter structure. Inform IAQA members where to find local Chapter meeting info? |
Executive Vice President  
ASHRAE  
Atlanta, USA

25th January 2015

Dear Sir,

SUBJECT: APPLICATION FOR AFFILIATION WITH ASHRAE

Kindly be advised that based on the resolution taken by our Board of Directors on 25th January 2015, we hereby submit our application to become an ASHRAE Associate Society.

We confirm that we are fully aware of the basic requirement for association with ASHRAE and that we agree to the basic Rights and Privileges:-

Please find attached

1. A brief information about the Bahrain Society of Engineers.
2. Copy of By Laws which is self-explanatory.
3. Our society issues the following publications:
   A. Monthly Newsletter : “Al-Mohandis Times”
   B. Periodic Journal named “Al Mohandis” which is equivalent of “Engineers” in English.
4. The main members of the Board in addition to the Committee members are
   -Mr. Masoud E. Al Hermi : President
   -Mr. Abdulla A. Janahi : Vice President
   -Mr. Mohammed Al Alkhozaae : Executive Secretary
   -Mr. Abbas Ali Al-Watani : Treasurer

We are looking to receiving your approval at your earliest convenience.

Yours Faithfully,

Masoud Al Hermi
President
Bahrain Society of Engineers (BSE)  
In Brief

BSE is a professional voluntary organization concerned with engineers in Bahrain and looking after their interest and seeking to develop their capabilities through its technical and social programs. The official incorporation of the Bahrain Society of Engineers (BSE) was announced in the Official Gazette on 1.7.1972.

BSE objectives include contributing in the industrial and urban development in Bahrain, regulating engineering profession and enhancing its standards, expressing the professional interests and rights of its members. Furthermore, its objectives also include conducting scientific and practical researches and encourage the same through conferences, seminars, scientific visits and exchange of information between BSE and other engineering societies.

The total registered BSE member stands now at approximately 1700 from all categories, disciplines and nationalities including Bahrainis, Arab and foreign members. The BSE has given intensive attention to raising the professional awareness among its members and updating them on the latest developments through organizing various technical symposiums, seminars and visiting on-going projects. However, organizing exhibitions and conferences play greater role in this respect since they provide valuable opportunities for members to meet with prominent experts, speakers and participants in such conferences.

BSE has opened a training center to organize courses and workshops on various vital topics in the field of engineering, technical and administrative matters and development of human resources. The training center was officially licensed by the Ministry of Labour in the in 2003. It is well equipped with the latest advanced equipment to facilitate learning and adoption with the latest know-how in order to enable it to conduct solid training courses that are recognized by major educational institutions worldwide.

Additionally, the BSE contributes actively in encouraging students to enroll in engineering disciplines through awarding grants to support students while studying.
CHAPTER 1

GENERAL RULES

ARTICLE 1 This Society is established in the State of Bahrain in accordance with the Societies and Clubs Licensing Ordinance of 1959, under the name of “THE BAHRAIN SOCIETY OF ENGINEERS”.

ARTICLE 2 The Society shall acquire the legal character following completion of legal proceedings relative to its registration.

ARTICLE 3 The Society’s headquarters shall be temporarily located in the city of Muharraq at the building allocated by the Government of Bahrain.

ARTICLE 4 The Society shall be legally represented by its President, or whoever deputizes for him by virtue of resolution passed by the Board of Directors.

ARTICLE 5 The Society shall not be permitted to involve itself in political or religious issues.

ARTICLE 6 The Arabic language shall be the official language of the Society, but foreign languages maybe used if necessary.

CHAPTER II

OBJECTIVES OF THE SOCIETY

ARTICLE 7 The Society shall seek to fulfill the following objectives:

a) To contribute to the industrial and development activities in the country, in cooperation with the competent authorities.

b) To plan the basics for the engineering profession and enhance its standards in cooperation with the Ministry of Labour and Social Affairs and other concerned Ministries.

c) To establish and promote relations, through scientific and technological cooperation between engineers in Bahrain and their colleagues in the Arab as well as the non-Arab countries.

d) To conduct and encourage scientific and engineering research through publications, lectures and visits, and to exchange information with other engineering bodies in other States.

e) To provide professional advice in matters related to engineering whenever requested to do so.

f) To encourage training in the field of engineering in the State of Bahrain through the use of various facilities available.

CHAPTER III

MEMBERSHIP

ARTICLE 8 Members shall fulfill the following conditions:

a) Shall not be less than 18 years of age.
b) They must be characterized by good conduct and behaviour and they should not have been convicted of a criminal offence that may breach their integrity, honour and general rule of conduct, unless they have been reinstated.

c) Abide by the Society's Constitution Bye- Laws and Regulations.

d) Pay entrance and Annual subscription.

**ARTICLE 9**

Membership of the Society shall fall into the following categories:

A - Corporate Members: Fellow Member  
B - Non- Corporate Members: Graduate Technician Student  
C - Honorary Members

**A) FELLOW MEMBER (FBSE)**

Every candidate for election to the class of Fellow must fulfill the following conditions:

1) shall be approved by the Board of Directors.  
2) is not less than 40 years of age.  
3) should have been in the class of Member for a period of at least three years or is a Fellow of an approved Engineering Institution.  
4) have had experience involving superior responsibility for at least five years in the field of engineering or architecture.

**B) MEMBER (MBSE)**

Every candidate for the class of Members must fulfill the following conditions:

1) shall be approved by the Board of Directors.  
2) is not less than 25 years of age.  
3) shall have at least, attained a Bachelor's Degree or its equivalent in engineering or architecture, from an accredited University or Institute, and recognized by the authorities concerned. Such qualifications should entitle them to carry the title of “Engineer” in the country where such credentials have been issued. Such qualifications must not be rated below the standard specified by the Society. But the Society reserves the right to accept the qualifications below that of a Bachelor’s Degree yet accredited by international professional Institutions approved by the Society.  
4) has undergone training which satisfies the requirements of the training regulations of the Society.  
5) has not less than three years experience in engineering or architecture.  
6) The aggregate of his engineering education, training and experience is not less than six years.

**C) GRADUATE (Grad BSE)**

Every candidate for election to the class of Graduate must fulfill the following conditions:

1) shall be approved by the Board of Directors.  
2) is not less than 21 years of age.
3) Has attained a standard of general engineering education which is prescribed for the Member above.

D) TECHNICIAN (Tech BSE)

Every candidate for election to the class of Technician must fulfill the following conditions:

1) shall be approved by the Board of Directors.
2) is not less than 21 years of age.
3) Has attained a standard of general engineering education which is prescribed for the Member above.

E) STUDENT

Every candidate for the class of Members must fulfill the following conditions:

1) shall be approved by the Board of Directors.
2) holds Secondary or Technical School Certificate.
3) undergoing a regular course of further education in engineering.

F) HONORARY MEMBERS

The Board of Directors shall grant honorary membership to those persons who are morally or materially beneficial to the Society, or to those who are distinguished in science and arts related to an engineering profession, albeit they have not practiced it as profession.

ARTICLE 10 For the purpose of this Bye-Law, all members are deemed to follow the following:

a) All Bahraini Citizens shall enjoy all the rights they are entitled to, and they shall be liable to all duties incumbent upon them.
b) All non-Bahraini Members shall enjoy all the rights they are entitled to, but without the right of candidacy for election as members in the Board of Directors.
c) Voting in the General Assembly is restricted to resident Corporate members only.

ARTICLE 11 MEMBERSHIP/TRANSFER

The election of Candidates for membership of the Society in any class be by the Board of Directors. Candidates for election shall be proposed and supported as provided here-under, from personal knowledge according to the following:

a) Any person desirous of election as a Corporate Member shall be proposed by a Fellow and two Members.
b) Any person desirous of election as a Non-Corporate Member shall be proposed by two Corporate Members.

ARTICLE 12 Anyone wishing to join the Society shall submit an application addressed to the Executive Secretary on the form prepared for this purpose.
The Secretary in turn, shall submit the application to the Board of Directors during its first session thereafter, to decide whether to accept or refuse such an application, within a period of one month from the date it had been submitted.

ARTICLE 13 The applicant shall be notified in writing regarding the decision of the Board of Directors whether his application has accepted or refused, within two weeks from the date of taking such a decision.

Applications which have been refused by the Board of Directors shall not be re-submitted to the committee for re-consideration, except after the lapse of a period of not less than three months from the date of the resolution imposing such refusal.

ARTICLE 14 Members of the Society shall be entitled to obtain their membership cards following their registration in the membership register and payment of entry and subscription fees. The card shall bear the member's name, address, age, entry date, membership number and any other relevant details and also to obtain a copy of the Society Bye – Laws.

ARTICLE 15 Any member who wishes to withdraw from the Society shall submit an application to the Executive Secretary, alongwith written reasons as to what caused such a withdrawal.

The Secretary, in turn, shall submit the application to the Board of Directors within one month from the date it has been received, so that the Board may discuss the reason as to what caused such a decision. Should the Member refuse to respond to the advice of the Board of Directors the request for withdrawal shall be deemed to have been accepted.

The withdrawing member shall be liable to settle all outstanding subscription as well as any other financial liabilities due to the Society.

ARTICLE 16 The Board of Directors may dismiss a member from the Society in any of the following cases:-

a) Breach of the Society's Constitution or its internal regulations.
b) Violation of the resolutions and recommendations of the General Assembly or the Board of Directors.
c) If he embezzles the Society's funds, or forges its seals, documents or correspondence.
d) If he slanders or defames the Society or of the Board of Directors.
e) If he refuses paying annual subscription without any reason despite reminding him in writing.
f) Conviction of a criminal offence against him by a court in cases related to dishonesty, dishonour and breach of morals in general; unless he has been reinstated, or that he had served the term of his sentence.
g) If he misuses the membership designation.

The member cannot be dismissed unless approved by two-third of the Board of Directors. The board shall therefore inform the said member of such a resolution within fifteen days from the date of its issuance.

Article 17 The member who has been dismissed by a resolution from the Board of Directors may file a complaint against such a resolution during the first ordinary or extraordinary meeting of the General Assembly, whichever comes first.
The decision of the General Assembly shall be final and incontestable.

The Executive Secretary shall thereafter inform the said member of such a resolution within fifteen days from the date of issuance.

**Article 18** Membership shall be forfeited in any of the following cases:-

a) Death  
b) Withdrawal  
c) Forfeiture of any of the membership conditions provided in Article 8 hereof.  
d) Dismissal from the Society.

**Article 19** In his professional conduct, a member must perform his work accurately and honestly and respect the profession’s traditions and dignity.

**Article 20** Each member shall comply with the Society’s Bye-Laws and internal Regulations and abide by its resolutions. He shall report any violations committed thereof by other members to the Board of Directors.

**Article 21** Each member shall deal with his colleagues on the basis of mutual trust and respect, and refrain from degrading or belittling their technical knowledge.

**Article 22** Each member must comply with the rules at professional practice agreed by the Society.

---

**CHAPTER IV**

**THE GENERAL ASSEMBLY**

**Article 23** The General Assembly shall be the supreme authority in planning and implementing its policies and its decisions shall be applicable to all the committees and members.

**Article 24** The General Assembly shall consist of all members, and shall convene its ordinary meeting once every year at the Society’s headquarters within three months from the end of the financial year.

The Board of Directors shall indicate in the summons for such a meeting, the date and place of convening the General Assembly and the proposed agenda. The summons for the General Assembly shall be sent to the members at least two weeks before the date fixed thereof.

The General Assembly meeting may not be convened at any other venue other than the Society’s headquarters, save with the approval of the Ministry of Labour and Social Affairs.

**Article 25** The Board of Directors shall display on the notice board placed at the Society’s headquarters, a list of the members wishing to nominate themselves for the membership of the Board of Directors, five days before the convention of the General Assembly.

**Article 26** The General Assembly meeting shall be deemed validly convened if it is attended by more than half the members. If the necessary quorum is not obtained,
the meeting shall be postponed to another meeting to be held seven days after the first meeting. The second meeting shall be valid if at least one-third of the General Assembly members are present. If the required quorum is not obtained, the matter shall be referred to the Ministry of Labour and Social Affairs for a decision.

If the quorum is obtained at the beginning of the meeting, the resolutions adopted shall not be affected by the withdrawal of less than half the members present.

**Article 27** The General Assembly may hold an Extraordinary meeting in the following cases:-

a) By virtue of an order by the Ministry of Labour and Social Affairs.
b) By virtue of a resolution of the Board of Directors approved by one-third of its members.
c) Upon receipt of a written request signed by not less than one-third of the members of the General Assembly.

The summons shall specify the purpose of holding the meeting and the topics to be discussed by the General Assembly. The procedures applied to an Extraordinary Meeting shall be the same as those of the Ordinary Meetings, with respect of summoning, venue and validity of such meetings.

**Article 28** The Ordinary meeting of the General Assembly shall be empowered to transact the following:

a) To discuss the reports and suggestions presented by the Board of Directors or the committees.
b) To discuss the draft budget for the following financial year.
c) To discuss the Board of Directors report on the business of the expired year and the final account of the Society's revenues and expenditure.
d) To select the auditor and determine his remuneration if any.
e) To elect the Board of Directors members
f) Any other matters arising in the course of discussions.

**Article 29** The Extraordinary General Meeting shall be concerned with the following:

a) To amend the Constitution of the Society.
b) To submit a motion of “no confidence” or give a vote of confidence to certain or to all members of the Board of Directors.
c) To dissolve the Society.
d) To discuss other essential and urgent topics included in the agenda.

**Article 30** The General Assembly resolutions shall be adopted in the following manner:

a) Ordinary resolutions shall be adopted by the majority of present members.
b) Dismissal of members shall be adopted by the absolute majority of the General Assembly members.
c) The no-confidence resolutions issued against all or some of the Board of Directors members shall be adopted by a two-third Majority of the General Assembly members.
d) Amending the Constitution shall be decided by a two-third majority vote of the General Assembly members.
e) Dissolution of the Society shall be determined by a three-quarter majority of the General Assembly members.

**Article 31** The ordinary and extra-ordinary General Assembly may not consider any matters not included on the agenda except with the approval of the majority of the members present.

**CHAPTER V**

THE BOARD OF DIRECTORS

**Article 32** The Board of Directors is the supreme executive body in the Society, which shall implement the policies drawn by the General Assembly, as well as the resolutions and recommendations adopted by the Assembly.

**Article 33** The Board of Directors shall consist of nine members who shall be elected by the General Assembly from amongst the members by secret ballot. The term of office of the Board members shall be two years renewable.

Any member wishing to nominate himself for the President post should have been a member of the Society for a minimum of five years.

**Article 34** The Board of Directors consists of a President, a Vice-President, an Executive Secretary and a Treasurer elected by secret ballot (except for President) at the first Board meeting. Their duties and powers shall be as follows:

**President:**
- Shall be the Society's legal representative towards all parties.
- Chairs all the meetings of the Board of Directors.
- Chairs the meetings of the General Assembly.
- Signs minutes of the meetings, jointly with the Secretary.
- Signs cheques, payment vouchers and financial documents jointly with the Treasurer.
- Manages the Board of Directors and General Assembly.
- Signs members’ dismissal decisions.
- Supervises all the Society’s activities.
- Decides on urgent matters which may not be delayed, provided that these matters shall be referred to the Board of Directors for approval at its next meeting.

**Vice-President:**

The Vice-President shall have all the powers of the President in the event of his absence, and the Board of Directors has the right to delegate some permanent financial, administrative or technical jurisdictions to him.

**Secretary:**
- He shall prepare the agenda of the sessions of the Executive Board and the General Assembly.
- He shall record the minutes of meetings and jointly sign them with the Chairman.
- He shall supervise and maintain all clerical duties, correspondence, files, records, books, documents and contracts.

**Treasurer:**

- Manages the Society's funds, accounts, revenues, and expenditure.
- Makes payments approved by payment vouchers signed by the President and himself.
- Controls the collection of membership fees and ensure they are recorded in the relevant books and registers.
- Maintains financial documents, producing financial commitments towards the Society or rights thereto.
- Ensures that revenues and expenditure are in accordance with the provisions of the financial regulation.
- Presents a monthly report to the Board of Directors on the Society's financial position and its revenues and expenditure.
- Keeps a certain amount as petty cash in accordance with the Society's financial regulation.

**Article 35** Applications for nomination to membership of the Executive Board shall be filed with the Board's Secretary, within a period of no less than 21 days from the date of convening the General Assembly meeting. Applications received after this date shall not be considered.

**Article 36** The Board of Directors shall have the right to perform all acts which are required for administering the Society, particularly the following:

  a) To draw up the Society's general policy.
  b) To set plans and programmes to achieve the Society's objectives.
  c) To establish the Society's regulations in the light of its Constitution.
  d) To review reports submitted by the committees and members' suggestions and take appropriate decisions on them.
  e) To prepare the Society's budget.
  f) To prepare and print an annual report on the Society's business.
  g) To prepare and distribute cultural bulletins and booklets and scientific information and studies.

**Article 37** The Board of Directors may form sub-committees from among its members or others. The Board shall determine the number of members of each sub-committee as well as its functions and the rules governing its activities, provided that the results of its studies, researches and activities shall be submitted to the committee, so that it may decide whatever action deems fit to be taken in respect thereof.

**Article 38** The Board of Directors shall meet once every month on a regular basis. Meetings shall be validly convened if the majority of its members are present. The Secretary shall prepare meetings' agenda and notify members thereof at least one week before the date of convening. Resolutions shall be adopted by the majority vote of members present, and in the case of an equality of votes. The President shall have a second casting vote.

**Article 39** The Board of Directors may hold an extraordinary meeting in the presence of the absolute majority of all its members at the summons of the President or the request of at least one-third of the Board's members to discuss urgent matters. The meeting shall only discuss the topics included on the agenda.
**Article 40** Membership of the Board of Directors shall be forfeited if a member absents himself for three consecutive meetings or six meetings in one year without a justifiable cause.

In case of death, resignation or dismissal of one of its members, the Board of Directors may fill the vacancy by appointing an alternative member, provided that the new member was the next winning member to the members who received the majority of votes at the last election held by the General Assembly. The term of office of the new member shall complete the remainder of his predecessor's term.

If the member whose vacancy is desired to be filled had won by recommendation, the Board may proceed with its business to the end of the term without appointing a successor, provided that the number of members whose places have become vacant for the aforesaid reasons does not exceed one-third of the total members, otherwise the matter should be referred to the General Assembly.

**Article 41** The Board of Directors shall be dissolved if one-third of its members resign en masse or if the number of members is reduced to less than one half.

In these two cases, the General Assembly shall be summoned for an extra-ordinary meeting to elect a new Board to complete the term of its predecessor. The Ministry of Labour and Social Affairs shall take the necessary steps to summon the General Assembly within one month from the dissolution of the Board.

**Article 42** The Board of Directors shall maintain at the Society’s headquarters the following records and books:

- a) A register for recording each member's name, surname, nationality, occupation, date of birth and date of his acceptance as a Society member.
- b) A register recording the minutes of the Board of Director's meetings, which should be signed by the President, the Secretary and all members present.
- c) A register for recording the General Assembly's meetings.
- d) A revenues and expenditure book.
- g) A register for recording all the fixed assets owned by the Society including estates and movables. The register should include a brief description of each asset, price of purchase, date of purchase, location and name, title and address of the person who keeps it in his custody.
- h) The register shall be updated to reflect any changes occurring to the assets.

The Board of Directors may, if necessary, add any other data to the versions referred to, or create new registers and books as appropriate.

Each page of the aforesaid books and registers shall be allocated a serial number and stamped with the Society's stamp, before use.
CHAPTER VI

THE SOCIETY'S FINANCES

Article 43 The Society's finances shall consist of the following:

a) The entrance fees paid by the members upon their registration or re-registration in the Society.
b) Membership subscription.
c) Grants and donations approved by the Ministry of Labour and Social Affairs.
d) Proceeds from the conferences, parties, exhibitions and charity bazaars held by or contributed to by the Society after obtaining the approval of competent authorities.
e) Profits and interests resulting from the investment of its funds in accordance with the laws applicable in the State of Bahrain.

Article 44 The Society's financial year shall commence on the first day of January and shall end on 31st December.

Article 45 The President and members of the Board of Directors shall be deemed liable, each to the extent of his respective capacity, for the Society's funds and for any act which may contravene the provisions of this Constitution, the Society's internal regulations and the General Assembly's resolutions.

Article 46 The Board of Directors shall lay down financial regulations governing spending of funds, deposit thereof, fixing joining and membership fees, the imprest that the Treasurer may maintain to meet expenditure in emergency cases and other matters. The financial regulations shall not be valid except after their approval by the General Assembly.

Article 47 The Board of Directors shall refer to the General Assembly the Society's final accounts approved by all its members for discussion and approval. The Board of Directors shall submit to the Assembly the draft budget for the following year for discussion and approval.

The Board of Directors shall also submit to the Ministry of Labour and Social Affairs, a copy of the final account and the budget, together with the minutes of the General Assembly meeting at which they were endorsed.

Article 48 The Society's cash funds shall be deposited in the name of the Society. Withdrawals shall be made by cheques jointly signed by the President and the Treasurer or the persons authorised to act on their behalf by a resolution from the Board of Directors.

Article 49 No Payments shall be made out of the Society's funds except under a resolution from the Board of Directors, and to serve the Society's objectives in accordance with the provisions and Bye-laws of this Constitution and the financial regulations.
Article 50 The Society's assets, whether in tangibles or cash, including subscriptions, fees, donations, grants and others, shall be considered as the sole assets of the Society, and not as possessions of its current or former members, whose memberships were forfeited for any reason whatsoever, nor their inheritors who shall not have any rights therein.

Article 51 The Society may appoint clerks or labourers to work at the Society's headquarters on a permanent or temporary basis. Their salaries or remunerations shall be determined by the Board of Directors, in accordance with the Society's financial regulations and the labour law provisions governing the private sector.

Article 52 The General Assembly shall appoint an auditor from chartered accountants to perform the following duties:

a) To review the Society's accounts.

b) To verify budget compliance and report his observations to the Board of Directors.

c) To prepare the final accounts report for the expired financial year and submit it to the General Assembly.

His entitlements shall be paid from the Society's finances.

CHAPTER SEVEN
SPECIALIST ASSOCIATIONS AND CHAPTERS

Article 52
Specialist engineers in a certain engineering or professional discipline or engineers who have been working for no less than one year in the same specialisation or discipline shall have the right to establish associations or chapters within the framework of the Bahrain Society of Engineers, each in their respective disciplines, according to the following requirements:

A. The number of members in any of the engineering or professional specialisation shall not be less than fifteen members.

B. The Board of Directors of the Bahrain Society of Engineers shall approve the establishment of associations or bonds after receiving a written application signed by those members.

C. Each association or branch shall be given a name, as follows: The association or chapter (specialisation) of the Bahrain Society of Engineers.

Article 53
Associations and bonds shall be an integral part of the Bahrain Society of Engineers.

Article 54
Membership in the Society shall be a condition precedent for membership in the association or chapter. A member who forfeits membership in the Society for any reason whatsoever shall be deemed to have forfeited membership in the association or chapter.

Article 55
The expanded meeting of any specialised association or chapter shall convene at least one meeting every year under the supervision of the Bahrain Society of Engineers in the presence of a representative of the Board of Directors. The administrative committee of the association or chapter shall notify the Board of Directors of the date of the expanded meeting at least two weeks before such meeting is held.

Article 56
The affairs of each association or chapter shall be managed by an administrative committee consisting of one of the Board of Directors of the Society, who will be appointed by the Board of Directors, and from three to seven members to be elected members by secret ballot the association or chapter in the expanded meeting of its members. Responsibilities will be allocated among members of the Committee during its first meeting after being elected. No member may be nominated as member of the Administrative Committee for more than three successive ordinary terms.
Article 57
Bye-laws shall be laid down to organise the affairs of the specialised association or chapter, to be approved during its expanded meeting, provided that they shall not conflict with the provisions of the Constitution of the Society and shall be submitted for the Board of Directors for approval.

Article 58
The objectives of the associations or chapters shall be as follows:
A. Academic: Encouraging scientific engineering studies and research and organising engineering seminars and lectures on engineering disciplines and such other activities which aim at upgrading the standards of the specialisation in Bahrain.
B. Professional: Participating, with the Board of Directors of the Society, in organising and running the affairs of the members of the same specialisation.

Article 59
A. The revenues of the associations or chapters shall be included in the Society’s overall revenues.
B. The Board of Directors of the Society shall specify the required financial assistance for the associations and chapters, each according to its activity, and according to the financial resources available to the Society.

Article 60
The association or chapter shall be autonomous in its activities and action within the framework of the Society’s overall policies, and without conflicting with the Society’s moral and financial obligations.

Article 61
Each specialist association or chapter shall submit an annual report about its activities to the Board of Directors of the Society.

CHAPTER VII
FINAL PROVISIONS

Article 53 The resolution of the General Assembly with respect to amending the Constitution shall not be effected except after its approval by the Ministry of Labour and Social Affairs and its publication in the official gazette.

Article 54 The Society shall be dissolved in the following cases:

a) If it becomes clear to the Board of Directors that the Society is unable to realize the objectives for which it has been established.
b) If the number of members drops to the level where the continuation of the Society’s activity becomes impossible.

Article 55 In the event of voluntary dissolution, the General Assembly shall elect liquidators amongst its members, specify their powers and remuneration and the liquidation period and notify the Ministry of Labour and Social Affairs of the liquidator’s names.

The Society shall make no payments out of its cash funds after the dissolution, save with the approval and under the supervision of the Ministry of Labour and Social Affairs, and for charitable purposes.

Article 56 In case of any doubt or ambiguity in interpreting any of the provisions of the Society’s Constitution, the Board of Directors shall refer the matter to the Ministry of Labour and Social Affairs for interpretation and clarification.
APPENDIX NO. (1)

(A) LIST
OF THE ENGINEERING SPECIALIZATIONS
RECOGNIZED BY THE BAHRAIN SOCIETY OF ENGINEERS

Civil Engineering

Civil Engineering
Health Engineering
Irrigation Engineering
Highway Engineering
Construction Engineering
Soil Engineering
Water Engineering
Municipal Engineering
Ports Engineering
Hydrological Engineering
Airport Engineering
Public Works Engineering
Traffic Engineering
Railway Engineering
Agricultural Soil Conservation Engineering
Survey Engineering
Transport Engineering
Transport Economy Engineering
Meteorological Engineering
Buildings Construction Engineering
Aviation/Air Traffic/Land Transport Engineering
Civil Projects Management Engineering
Bridge Engineering
Environmental Engineering

Architectural Engineering

Architectural Engineering
Urban Organisational Engineering (Urban Planning)
Squares and Roads Landscaping Engineering

Mechanical Engineering

Mechanical engineering
Thermal Power and Machinery
Industrial Production Engineering
Aviation Engineering
Motor Engineering
Air-conditioning, Cooling, Heating and Ventilation Engineering
Ship Engineering
Alloy Engineering
Physics Engineering
Nuclear Engineering
Agricultural Machinery Engineering
Weaving Tools Engineering
Maintenance and Operation Engineering
Fluid Mechanics Engineering
Oil and Gas Tanks Pipelines Engineering
Oil Exploration Machinery and Tools Engineering
Thermal Automatic Control Engineering
Heavy Machinery Engineering
Mining Machinery Mechanics Engineering
Instrumentation Mechanics Engineering
Electrical Engineering

Electrical Engineering
Automatic Control Engineering
Electric Systems and Grid Engineering
Agricultural Electricity Engineering
Power Engineering
Electronics Engineering
Communications Engineering
Biomedical Engineering
Computer Engineering
Remote Sensing Engineering

Mining, Mineral, Geological and Petroleum Engineering

Mining & Mineral Engineering
Metallurgical Extraction Engineering
Alloys Concentrates Engineering
Mineral Engineering
Mines Machinery and Maintenance Engineering
Petroleum Geological Engineering
Underground and Surface Water Geological Engineering
Geophysics Engineering
Geomechanics Engineering
Petroleum Engineering
Exploration Engineering
Drilling Engineering
Reservoir Engineering
Production Engineering

Chemical Engineering

Chemical engineering
Ceramics Engineering
Manufacturing Engineering
Polymer Engineering
Metals Engineering
Refining Engineering
Industrial Engineering
Textile Engineering
Materials Engineering
Alloys Concentrates Engineering
Fuel Engineering
Timber Manufacturing Engineering
Paint Engineering
Organic Technology Engineering
Foodstuffs Processing Engineering
Petrochemical Engineering
Genetic Engineering

(B) LIST OF THE SPECIALIZATIONS
CLOSELY RELATED TO ENGINEERING WHICH ENTITLE HOLDERS TO BECOME AFFILIATE MEMBERS OF THE BAHRAIN SOCIETY OF ENGINEERS

1. Internal Design and Decor.
2. Quantity Surveying from non-Engineering universities and institutions.
### APPENDIX NO. (3)

**RIGHT TO ATTEND, NOMINATE VOTE AND FORM QUORUMS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Membership Class</th>
<th>Attendance of General Assembly</th>
<th>Nomination for Administrative Positions</th>
<th>Quorum</th>
<th>Voting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Resident Bahraini Fellow</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>Non-Bahraini Fellow</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>Non-resident Fellow</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>Resident Bahraini Active Member</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>Non-resident Bahrain Active Member</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Non-resident Active Member</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td>Resident and Non-resident Affiliate Member</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8</td>
<td>Resident and Non-resident Graduate Member</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9</td>
<td>Student Member</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>10</td>
<td>Honorary Member</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

X = NO
✓ = YES

### APPENDIX NO. (4)

**MEMBERSHIP TITLES, ENTRANCE FEES AND ANNUAL DUES (BAHRAIN DINARS)**

<table>
<thead>
<tr>
<th>Membership Class and Membership Title</th>
<th>Membership Symbol</th>
<th>Entrance Fees</th>
<th>Annual Subscriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Resident</td>
<td>Non-Resident</td>
</tr>
<tr>
<td>1 Fellow</td>
<td>FBSE</td>
<td>10.000</td>
<td>40.000</td>
</tr>
<tr>
<td>2 Active Member</td>
<td>MBSE</td>
<td>10.000</td>
<td>35.000</td>
</tr>
<tr>
<td>3 Graduate</td>
<td>None</td>
<td>10.000</td>
<td>25.000</td>
</tr>
<tr>
<td>4 Affiliate</td>
<td>None</td>
<td>10.000</td>
<td>15.000</td>
</tr>
<tr>
<td>5 Student</td>
<td>None</td>
<td>00.000</td>
<td>05.000</td>
</tr>
<tr>
<td>6 Honorary</td>
<td>None</td>
<td>------</td>
<td>----</td>
</tr>
</tbody>
</table>
N.B. In case of change from a student membership class to another membership class, the entrance fees and annual subscription fees must be paid as specified above.
Report to Executive Committee
from Technology Council
Thursday, January 29, 2015

RECOMMENDATIONS FOR EXCOM APPROVAL:

1. Technology Council recommends that the Executive Committee approve a request to develop three new Energy position documents (PD):

   - Energy Efficiency in Buildings
   - On-Site Renewable Energy Generation in Buildings
   - Sustainable Energy Sources for Buildings

MOTION PASSED TechC: 10-0-0 CNV

BACKGROUND: The intent is that these PDs would be developed sequentially and would replace the retired ASHRAE Energy PD. The PD proposal forms with each PD title, purpose and scope (TPS), possible membership and timeframe are included as Attachment TC-6C-1. A draft executive summary for the proposed Energy Efficiency in Buildings is included as Attachment TC-6C-2.
Request Form for a new ASHRAE Position Document

To: TECHNOLOGY COUNCIL Document Review Subcommittee

Originator: Rick Hermans  Date: 9/16/2014

Title: Energy Efficiency in Buildings

Purpose for the Position Document:

To inform ASHRAE members, policymakers, regulators and the public at large about ASHRAE’s positions on energy issues related to the built environment as a contribution toward the development of sound public policy.

Scope proposed for the Position Document:

Articulate ASHRAE’s positions on building energy issues as they relate to energy efficient and sustainable design and construction practices in buildings, including positions on:

- Energy consumption related to the built environment;
- Improved indoor environmental quality (IEQ) in high performing buildings;
- Building energy codes and standards;
- Research and education of building designers, owners and operators.

ASHRAE Members, Committees with topic interest (if known):

ET-MTG, TC 7.6, possibly members from Standards 90.1, 100 and 105.

Desired Time Frame: Request 1 year from start of work.

Notes:

- The Title conveys a description of the proposed Position Document, differentiating it from any other Position Documents
- The Purpose includes notation of any anticipated or current government action, covered by the Position Document.
- The Scope includes as much specificity as possible, also broadly describing the Position Document coverage expected.
- ASHRAE Members and Committees should include those 1) technically knowledgeable, 2) who may have interest and 3) who may have direct knowledge of government actions, either current or anticipated.

Revised 2011-10-13
Request Form for a new ASHRAE Position Document

To: TECHNOLOGY COUNCIL Document Review Subcommittee

Originator: Rick Hermans Date: 9/16/2014

Title: On-Site Renewable Energy Generation

Purpose for the Position Document:

To inform ASHRAE members, policymakers, regulators and the public at large about ASHRAE’s positions on energy issues related to the built environment as a contribution toward the development of sound public policy.

Scope proposed for the Position Document:

Articulate ASHRAE’s positions on building energy issues as they relate to energy efficient and sustainable design and construction practices, including positions on:

- The relationship between the built environment and the energy supply infrastructure;
- Research and education in on-site renewable energy generation;
- The role of solar and wind energy sources at the building level;
- Air-exchange and geo-exchange heating and cooling sources.
- Provide ASHRAE commitments to action in the areas of high performing building design guidance, research and technology development, public policy interactions, education and outreach.

ASHRAE Members, Committees with topic interest (if known):

ET-MTG, TC 7.6, possibly TC 1.10, 6.7 and 6.8.

Desired Time Frame: Work to start after completing Energy Efficiency in Buildings PD

Notes:

- The Title conveys a description of the proposed Position Document, differentiating it from any other Position Documents
- The Purpose includes notation of any anticipated or current government action, covered by the Position Document.
- The Scope includes as much specificity as possible, also broadly describing the Position Document coverage expected.
- ASHRAE Members and Committees should include those 1) technically knowledgeable, 2) who may have interest and 3) who may have direct knowledge of government actions, either current or anticipated.

Revised 2011-10-13
Request Form for a new ASHRAE Position Document

To: TECHNOLOGY COUNCIL Document Review Subcommittee

Originator: Rick Hermans

Date: 9/16/2014

Title: Sustainable Energy Sources for Buildings

Purpose for the Position Document:

To inform ASHRAE members, policymakers, regulators and the public at large about ASHRAE’s positions on energy issues related to the built environment as a contribution toward the development of sound public policy.

Scope proposed for the Position Document:

Articulate ASHRAE’s positions on building energy issues as they relate to energy efficient and sustainable design and construction practices, including positions on:

• Maintaining a secure, affordable energy supply;
• Environmental and health impacts of energy source development;
• Research and education in sustainable energy sources;
• Sustainable energy production, transmission, and distribution.

ASHRAE Members, Committees with topic interest (if known):

ET-MTG, TC 7.6, possibly TC 2.8, 6.2, 7.5, 7.4

Desired Time Frame: Work to start after completing On-Site Renewable Energy Generation PD

Notes:

• The Title conveys a description of the proposed Position Document, differentiating it from any other Position Documents
• The Purpose includes notation of any anticipated or current government action, covered by the Position Document.
• The Scope includes as much specificity as possible, also broadly describing the Position Document coverage expected.
• ASHRAE Members and Committees should include those 1) technically knowledgeable, 2) who may have interest and 3) who may have direct knowledge of government actions, either current or anticipated.

Revised 2011-10-13
EXECUTIVE SUMMARY

In the United States, residential and commercial buildings account for approximately 40% of total primary energy use and over 70% of electricity use. ASHRAE has a direct interest and concern with energy issues. ASHRAE has a direct interest and concern with energy issues. ASHRAE is one of the few organizations with the expertise, membership, and mission to directly affect the energy use efficiency in current and future buildings. ASHRAE’s positions on energy issues are based on three principles: Energy Conservation and Efficiency; Environmental Stewardship; Sustainable Energy Supply. Part 1 of this Position Document is focused on Energy Efficiency in Buildings.

ASHRAE’s position at the present is that:

- Policy development should recognize that energy efficiency and conservation strategies in both new and existing buildings are the most cost effective and sustainable methods of reducing the environmental and health impacts of building energy use.
- Regulators, policy makers and building industry participants should address barriers to improved energy efficiency, health and safety in buildings.
- Performance-based energy codes and standards should provide continuous feedback to the buildings industry, and thus minimize the economic impact of buildings on the community.
- Government and regulated utility research and development (R&D) programs should be provided with robust and sustained funding to identify and bring into use high-priority, advanced building energy efficiency technology.
- Policies should encourage water conservation and efficiency to save energy and energy conservation and efficiency to save water.

ASHRAE is committed to:

- Advancing technologies through R&D that enable the design and application of high efficiency and environmentally responsible Heating, Ventilation, Air-Conditioning and Refrigeration (HVAC&R) equipment and systems.
- Providing a range of educational opportunities to the professional community, including handbooks, guidelines, certification programs, publications, online education and websites, chapter programs and satellite broadcasts, technical seminars, and technical conferences.
- Updating standards that provide minimum compliance requirements for building energy efficiency.
- Developing and updating high performance building standards and advanced building design guides to facilitate designs that significantly exceed the criteria in minimum efficiency standards.
- Working with other organizations to improve energy efficiency through building codes, incentives and other mechanisms, and to ensure that building codes and energy standards are used in developing nations.
- Working with educators and school board administrators to improve science, technology, engineering and math (STEM) and building science education across all grade levels to raise scientific literacy and public recognition of energy-related issues.
Background

I attended the Systems Efficiency Initiative (SEI) meeting sponsored in part by the Alliance to Save Energy (ASE) in Washington, DC on February 23.

The meeting was extremely well attended, with over 40 industry leaders in attendance. The conference room at the American Gas Association was packed, which demonstrates quite a bit of passion for the topic. The principle thrust of the SEI is to gain significant energy savings by focusing on a systems approach, as opposed to a component approach. My first thought is that this fits well with some of the issues we have been grappling with in some of our standards and publications, such as 90.1 and 189.1. The prescriptive approach to energy savings is yielding proportionally fewer savings, as we approach a physical limit to that approach.

The SEI is envisioned to be a two-year project. The total funding needed for the project is estimated at $500,000. The first year is fully funded by corporate sponsors (Note: That is my assumption). A portion of the second year is also funded. My take on the discussion was that corporate sponsors would also underwrite the second year of funding. Funding requests from the attendees was not mentioned.

There were numerous ASHRAE volunteers in attendance, representing other organizations. I found it fascinating, and quite gratifying, that most of those individuals talked more about ASHRAE than the organization they were representing. We do have awesome volunteers. Some examples include Laura Petrillo-Groh (AHRI and President-Elect of the Capital Hill ASHRAE Chapter), Steve Rosenstock (Edison Electric Institute) and Richard Lord (Carrier/United Technologies). It was very important for ASHRAE to be represented by an officer with so many of our volunteers in attendance. I thanked each of them after the meeting for supporting ASHRAE so eloquently.

Observations

The stated goal of the SEI was to produce the following:

- A well-documented assessment of energy saving potential for building systems;
- A roadmap of specific opportunities, priorities, and near-term actions to achieve them;
- An inventory of policy and program strategies to support systems energy
efficiency; and,

- A proposed plan of action to better incorporate systems-level efficiency in current government and utility programs, and in federal or state legislation.

I do have some concerns about how the SEI plans on reaching the above goals. My notes from the meeting contain the following observations and questions:

1. What is the intended product to reach the stated goals? [Note: I don’t have a clear understanding of what they intend to produce as a product. This is somewhat worrisome. Several attendees mentioned the items below.]
   a. Policy?
   b. Software?
   c. Training?
   d. Education?
   e. Standard?

2. Who are you planning to sell the product to? [Note: Because the product wasn’t clear, the target audience also wasn’t clear.]
   a. Legislators?
   b. Building owners?
   c. Designers?
   d. Contractors?
   e. Technicians?

3. What is the marketing plan or strategy envisioned to target the audience with the product? [Note: It follows that without a product identified, or a target audience, the delivery mechanism is also unclear.]
   a. ‘Hit the ball where they ain’t’
      i. Building Scope?
      ii. Small buildings?
      iii. Large Buildings?
         1. High-rise multi-family [Note: I think there was a consensus to start with this type of structure. It should narrow the scope a bit. High-rise residential should be applicable to a wide of buildings.]
         iv. Schools
         v. Renovation projects?
         vi. New construction?
         vii. Retrofits projects?
         viii. Hospitals?

4. Then the technology approach to produce the above. [Note: This is where the meeting spent most of its time. Most of the people in attendance represented the technical side of their organizations, which explains the depth of this topic area.]
   a. Review of literature
      i. Systems versus a component view
b. Case studies
   i. Focus on sub-systems

c. Barriers
   i. Silos in building a building (TC contractor, HVAC contractor, etc. are all given separate contracts)
   ii. How we do business
   iii. Policy barriers
   iv. Not metered or sub-metered spaces or energy consumption

d. Opportunities
   i. Supply chain issues

e. Policy changes or ramifications

f. Financial analysis

Recommendations

Although I have concerns about the strategic focus of the initiative, there is clearly enough interest and potential here to require ASHRAE’s continued participation.

I made no commitments on behalf of ASHRAE, although I think it was clear that we are expected to provide people with appropriate technical backgrounds to one or more of the subcommittees (Mechanical, Lighting, Policy Constraints and Opportunities, Integration, perhaps one more). Based upon the discussion, I think likely sources of appropriate individuals would come from the following committees, ad hoc committees or steering committees:

- AEDG Steering Committee
- bEQ
- Standard 90.1
- Standard 189.1
- Residential ad hoc

In interesting thought, at least in my opinion, is to incorporate the currently inactive Building Performance Alliance (BPA) into this process. The BPA hasn’t had a mission since it published its findings on commissioning. I had two members of the BPA ask me in Chicago ‘What’s next?’ making it clear that the don’t want to lose that vehicle due to its uniqueness. It is the only time that group of organizations set down in a room at the same time.

I would be pleased to answer any specific questions on the meeting.

Respectfully submitted,

Tim Wentz
Global Refrigerant Management Initiative

GENERAL DESCRIPTION AND INITIAL AREAS OF CONCENTRATION

The Global Refrigerant Management Initiative (GRMI) is an industry-led global refrigerant management initiative. This initiative seeks to identify and explore opportunities to educate the HVACR industry’s global supply chain on ways to improve the management of refrigerants to reduce leak and service emissions, and to promote the re-cycling, recovery, reclamation, and end of life destruction of refrigerants and foam blowing agents.

The impetus behind the formation of the GRMI is the potential growth of HFCs use and emissions. Although comprising only about one (1) percent of global greenhouse emissions, HFCs are expected to increase to greater than 10 percent of greenhouse gas emissions by 2015. The current bank of fluorocarbons in the installed base of air-conditioning/heating equipment is approximately 20 GtCO2eq (CFCs, HCFCs, HFCs). It has been estimated that more than 85 percent of emissions occur from equipment leaks or during servicing, repair, or disposal of equipment.

Reducing CO2 equivalent emissions from our industry’s equipment is a significant opportunity. Regulation and legislation that address improvements in energy efficiency and promote low-GWP refrigerant technology only address new equipment entering the market place. A much larger opportunity exists to make significant reductions in the equivalent emissions from the existing installed base through effective refrigerant management practices. These practices also ensure energy efficiency is maintained within a piece of equipment and operated in a safe manner.

Areas initially identified for the Initiative’s focus, but subject to amendment of the GRMI Steering Committee when formed, are the following:

1. Industry supply chain practices/guidelines that reduce/eliminate refrigerant emissions;
2. Industry developed certification of training, relying on the global code of good refrigerant management practices;
3. Potential research on cost-effective end-of-life programs for refrigerants and foam blowing gases;
4. Opportunities for capacity-building assistance for the development of an effective reclamation industry.

Original Proposal Supporters: The Brazilian Association of Refrigeration, Air-conditioning, Ventilation and Heating (ABRAVA), the Air-conditioning, Heating, and Refrigeration Institute (AHRI), and the Alliance for Responsible Atmospheric Policy (The Alliance)
Global Refrigerant Management Initiative

The initiative may wish to consider other tasks, such as developing potential policy initiatives to be considered by national governments that will facilitate effective service practices, and/or the development of a voluntary reporting regime in order to provide ongoing information on the success of the initiative.

GRMI will also identify technology and/or equipment, as well as other issues, including the modifications of building codes and standards that would facilitate more effective refrigerant management.

GRMI PURPOSE AND AFFILIATION

The initial, primary purpose of the GRMI is to improve global education, training and certification (ETC) of the service industry associated with air conditioning and refrigeration industries.

The GRMI is intended to be a focal point to develop common approaches among national, regional actors to achieve global success.

GRMI will be housed under the umbrella of the International Climate Change Partnership/Business Institute for Sustainability Solutions, a non-profit, UN recognized business NGO. ICCP is an observer in the Climate and Clean Air Coalition (CCAC).

MEMBERSHIP

Members of the GRMI are key industry associations and other private interests (to be defined by the GRMI Steering Committee) from around the world representing the industry’s manufacturers, wholesalers, retailers and contractors. Membership is approved by the Steering Committee. Membership is voluntary.

A list of those organizations who have expressed a strong interest in being a member are found in the Attachment.

ORGANIZATION

The Steering Committee

GRMI programs will be managed by a Steering Committee composed of 20 members. The committee will be composed of the key supporting industry organizations, and associate memberships of individual member companies, as approved. Steering Committee members will be asked to contribute financial or in-kind support for the GRMI operation.

Steering Committee Chair
Global Refrigerant Management Initiative

The Steering Committee will be chaired by a member of the Steering Committee on a rotating two year basis.

GRMI Secretariat

GRMI’s Secretariat will be located in the ICCP office, located in Arlington, Virginia, a suburb of Washington, DC.

Steering Committee Tasks

The Steering Committee will develop a budget for program initiation, as well as a dues budget for these organizations and private sector interests according to the capability of such entities to participate.

The Steering Committee will:

- be responsible for identifying existing ETC programs around the globe and establishment of a work team to consider and develop a uniform ETC program and modules;
- develop and disseminate a uniform ETC program that will be made available to regional and national industry programs; and
- be responsible for identifying potential modifications of the ETC initiatives that may be necessary to adapt the program to unique local services;
- assemble a coalition of allied industry and NGO organizations;
- develop online education and certification programs;
- develop model policy that could be considered and adopted at the local, state, and national levels;
- coordinate with implementing agencies (IBRD, UNEP) to encourage use of ETC products;
- pursue a communications program, including speaking engagements, written materials, and other internet based products;
- participate in/or develop regional training programs, including those sponsored by UNEP OzoneAction.

Budget and Finance

GRMI will operate on an annual budget. The budget year is January 1 to December 31 the following year. An annual budget will be developed by a Budget Subcommittee of the Steering Committee and assisted by Secretariat staff.

A proposed annual budget will be presented to the Steering Committee for approval no later than October 15 of each year.

Commented [A4]: How many FT staff will the GRMI Secretariat have?

Commented [A5]: Is the goal to prepare a budget by Oct. 15th of this year and continue to solicit members until that time? Two levels of dues are proposed, program initiation and dues budget, so we would have to evaluate costs moving forward and who would represent ASHRAE at this organization. Would REF be the primary body within ASHRAE that coordinates activities from GRMI to ASHRAE? Other TC members should be involved, such as TC 3.8. Maybe a separate committee within ASHRAE is appropriate?
Global Refrigerant Management Initiative

Funding for the annual budget will come from all GRMI members. In-kind contributions are acceptable but the annual budget must have on hand funds necessary to meet projected expenditures and a reserve fund equaling six (6) months expenditures at a minimum and 12 months expenditures at a maximum.

The secretariat will draft rules and procedures for the expenditure of funds for approval by the Steering Committee.

Commented [A6]: Scope is large and I would prefer to see more detail on suggested committees or capacity to work on all of the items. For example, how much effort will come from organizations like UNEP vs. individual organizations where volunteer efforts are the key driver.
ASHRAE FOUNDATION LEARNING CENTER
GUIDELINES FOR RESERVING MEETING ROOMS

Goals

1. Use the ASHRAE Foundation Learning Center (AFLC) to advance ASHRAE's mission and strategic goals.
2. Promote ASHRAE as a focal point for leading, organizing, or hosting meetings influential in the built environment.
3. Use the AFLC to build relationships with other organizations.
4. Provide a top-tier educational facility and advance the professional development of ASHRAE members.
5. Provide a top-tier meeting facility for ASHRAE volunteers.
6. Recoup operating costs.

AFLC Facilities

The ASHRAE headquarters building is a LEED Platinum 'living lab' that demonstrates the potential of sustainable technologies and design in the built environment. The facility hosts 107 of ASHRAE's 110-member staff.

The AFLC at ASHRAE headquarters features three main rooms, which can be subdivided into a total of seven smaller rooms. An expansive pre-meeting function area provides room for breaks and catered buffet meal service. A coffee bar area provides easy access to coffee services. Wireless Internet access is provided throughout the entire AFLC. All AFLC rooms feature extensive floor-based electrical outlets to support the use of laptops during meetings (computers not provided).

Conference Room 1

Conference room 1 is the largest of the three AFLC rooms. It can accommodate 120 individuals seated classroom style with small tables for each participant, or 200 people theater style (no tables).

The room features three ceiling-mounted projectors and adjoining wall-mounted screens. The three projectors can be used to project the same image concurrently when the room is not sub-divided. The three projectors can also be used...
individually when the room is sub-divided into three smaller rooms. A single wireless microphone system and lectern is available for use in large meetings.

Small 1.5 by 4 ft tables may be configured for classroom-style seating (two chairs per table). The tables can also be combined to create the effect of a single large conference room table.

Conference Room 1 can be configured as follows:

1. One large meeting room – Capacity of 120 classroom style; 200 theater style; 3 projectors/screens.
2. One medium meeting room and one small meeting room
   a. Medium meeting room – Capacity of 65 classroom style; 110 theater style; 2 projectors/screens
   b. Small Meeting room – Capacity of 30 classroom style; 55 theater style; 1 projector/screen
3. Three small meeting rooms – Each with a capacity of 30 classroom style, 55 theater style 1 project/screen each.

Conference Rooms 2 and 3

Conference rooms 2 and 3 are identical. Like conference room one, they feature ceiling mounted projectors and adjoining screens. The two projectors can be used to project the same image concurrently when the room is not sub-divided. The two projectors can also be used individually when the room is sub-divided into two smaller rooms. Conference rooms 2 and 3 can each be divided into two smaller rooms.

1. One large meeting room – Capacity of 60 classroom style 100 theater style; 2 projectors/screens.
2. Two small meeting rooms – Capacity of 25 classroom style; 4 theater style; one projector

Reservations

Use of the AFLC by any party is at the exclusive discretion of ASHRAE. Reservations must be made at least two weeks in advance. Reservation forms and information on meeting facility availability is available from:

Tracy Keller
ASHRAE, Inc.
Tel: 404-636-8400; Email: tkeller@ashrae.org

Meal Services

Meal catering may be provided by third-party catering services. ASHRAE staff can provide recommendations. Coffee services will be provided by ASHRAE for a nominal fee. Meeting organizers are responsible for arranging and paying caterers and for ensuring caterer’s clean-up after meal services.

Internet Access

Complimentary wireless Internet access is provided for all meetings.
ASKRAE FOUNDATION LEARNING CENTER
REQUEST FOR MEETING SPACE

NAME OF MEETING:  

DATE(S) OF MEETING: ______________________  ESTIMATED ATTENDANCE: ______________________

TIME MEETING BEGINS/ENDS:  

CONTACT: ______________________

ADDRESS: ______________________

PHONE: ______________________

EMAIL: ______________________

ROOM SET:  
Classroom (tables/chairs facing front of room)  
Theatre (chairs facing front of room)
Conference (table with chairs around table)  
Hollow square or U-Shape

Number of meeting rooms needed and room set for each:  

Estimated number of parking spaces needed:  

Do you need registration or display tables set up in the foyer?  

Provide any further information that would help in setting up this meeting:  

Meal functions:  YES  NO  If yes, provide name/phone of caterer:  

Tour of the building?  YES  NO  If so what time?  

What kind of tour – general overview or in depth?  

Send request to:
Lizzy Seymour, Assistant Manager Specialty Conferences
lseymour@ashrae.org  direct line:
ASHRAE FOUNDATION LEARNING CENTER
USAGE POLICY
January 2009

Goals
1. Use the ASHRAE Foundation Learning Center (AFLC) to advance ASHRAE’s mission and strategic goals.
2. Promote ASHRAE as the focal point for leading, organizing, or hosting meetings influential in the built environment.
3. Use the AFLC to build relationships with other organizations.
4. Provide a top-tier educational facility and advance the professional development of ASHRAE members.
5. Provide a top-tier meeting facility for ASHRAE volunteers.
6. Recoup operating costs and generate revenue for ASHRAE.

AFLC Usage Issues
- Facility rental fees during regular business hours (8:00 a.m. to 6:00 p.m.).
- Facility rental fees on evenings and weekends. An ASHRAE staff representative must be in the building any time it is used by an outside party. The overtime staffing cost should be paid by the meeting organizer.
- Usage policy differences by category of user.
- Catering policies – Who organizes, who is responsible. Coffee services.
- Parking – Large meeting room can accommodate 200 people theater style, but the parking lot cannot accommodate 200 cars.
- Insurance – An insurance policy must be maintained that covers use of the facility by third-parties.
- Contract – A facility usage contract is needed that clarifies fee and liability issues.
- Alcohol – An alcohol policy is needed.
- UB/IT – All income from use of the facility is taxable as ‘unrelated business income tax’.

AFLC Fees

ASHRAE EVP shall have the right to waive or alter fees.

1. Renovation Sponsors
   a. Business Hours Usage Fees – No usage charges for three years beginning January 2009. After three years, usage charges fall under the commercial firms policy below.
   b. Evenings and Weekends -- $25/hour
   c. Catering – Responsibility of meeting organizer

2. ASHRAE Chapters
   a. Business Hours Usage Fees – No usage charges
   b. Evenings and Weekends -- $25/hour
   c. Catering – Fees and logistics responsibility of Chapter organizer. Approved by ASHRAE staff.
   i. Coffee Services – No charge. Provided by ASHRAE.

3. ASHRAE Society-level Functions (committees, education events, BoD)
   a. Business Hours Usage Fees – No usage charges
   b. Evenings and Weekends – No charges
   c. Catering – No charges. Organizing by ASHRAE meeting staff

4. Commercial Firms (manufacturers)
   a. Business Hours Usage Fees -- $250/half day for conference room 1; $250/half day for both rooms 2 & 3.
   b. Evening and Weekends – Business hours usage fees plus $25/hour.
   c. Catering – Responsibility of meeting organizer.
   i. Coffee services -- $25/half day

5. Built Environment Societies (AIA, USGBC, etc.)
a. Business Hours Usage Fees -- $250/half day for conference room 1; $250/half day for both rooms 2 & 3. Often waived at the discretion of EVP.
b. Evening and Weekends — Business Hours Usage Fees plus $25/hour.
c. Catering — Responsibility of meeting organizer.
   i. Coffee services -- $25/half day

6. Other organizations
   a. Business Hours Usage Fees -- $250/half day for conference room 1; $250/half day for both rooms 2 & 3. May be waived at the discretion of EVP.
   b. Evening and Weekends — Business Hours Usage Fees plus $25/hour.
   c. Catering — Responsibility of meeting organizer.
      i. Coffee services -- $25/half day

Other Issues
- Insurance — ASHRAE’s liability insurance policy is sufficient to cover the operation of the AFLC.
- Contract — ASHRAE staff will work with attorneys to develop a simple facility use agreement. That agreement will spell out responsibilities and liabilities, cancellation policies, payment timeframe, etc.
- Alcohol — As a general rule, alcohol may not be served in the AFLC. Exceptions may be granted by the EVP only when a third-party bartender/caterer is hired.
- UBIT — Rental income is classified as unrelated business income. ASHRAE will only pay taxes to the extent that all unrelated business income results in a net profit. Due to the carry-forward of unrelated business income losses from ASHRAE Journal.
# INTERIM MEETINGS 2013

**AS OF 12-16-13**

Meetings reserved by outside groups are shaded

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Committee</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-Jan</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>11:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>9-Jan</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>7-Feb</td>
<td>Thurs</td>
<td>Red &amp; Green Planning Committee</td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>12-Feb</td>
<td>Tues</td>
<td>Atlanta Chapter -BOD</td>
<td>10:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>12-Feb</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>11:00am-1:30pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>13-Feb</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>15-Feb</td>
<td></td>
<td>AIA Group</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>21-Feb</td>
<td></td>
<td>GA-Solar</td>
<td>3:00pm-5:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>21-Feb</td>
<td></td>
<td>IES</td>
<td>5:00pm-7:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>27-Feb</td>
<td>Wed</td>
<td>Ref Cx Project Committee</td>
<td>8:00am-5:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>28-Feb</td>
<td>Thurs</td>
<td>Ref Cx Project Committee</td>
<td>8:00am-5:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>7-Mar</td>
<td>Thurs</td>
<td>BOD Orientation</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>8-Mar</td>
<td>Fri</td>
<td>BOD Orientation</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>9-Mar</td>
<td>Sat</td>
<td>BOD Orientation</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>8-Mar</td>
<td>Fri</td>
<td>CEC Committee</td>
<td>8:00am-5:00pm</td>
<td>CK Conf. Room</td>
</tr>
<tr>
<td>8-Mar</td>
<td>Fri</td>
<td>SSPC 90.1</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>9-Mar</td>
<td>Sat</td>
<td>SSPC 90.1</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>12-Mar</td>
<td>Tues</td>
<td>ABEP Webcast Rehearsals</td>
<td>1:00pm-8:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>13-Mar</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>14-Mar</td>
<td>Thurs</td>
<td>Red &amp; Green Planning Committee</td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>--------------------------------------------</td>
<td>------------</td>
<td>-----------</td>
</tr>
<tr>
<td>18-Mar</td>
<td>Mon</td>
<td>HVAC Design Workshop</td>
<td>8am-5pm</td>
<td>HQ - 1 A-C</td>
</tr>
<tr>
<td>19-Mar</td>
<td>Tues</td>
<td>HVAC Design Workshop</td>
<td>8am-5pm</td>
<td>HQ - 1 A-C</td>
</tr>
<tr>
<td>20-Mar</td>
<td>Wed</td>
<td>HVAC Design Workshop</td>
<td>8am-3pm</td>
<td>HQ - 1 A-C</td>
</tr>
<tr>
<td>21-Mar</td>
<td>Thurs</td>
<td>HVAC Design Workshop</td>
<td>8am-5pm</td>
<td>HQ - 1 A-C</td>
</tr>
<tr>
<td>22-Mar</td>
<td>Fri</td>
<td>HVAC Design Workshop</td>
<td>8am-3pm</td>
<td>HQ - 1 A-C</td>
</tr>
<tr>
<td>21-Mar</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>4-Apr</td>
<td>Thurs</td>
<td>Red &amp; Green Planning Committee</td>
<td>9:00am-11:00am</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>4-Apr</td>
<td></td>
<td>bEQ committee</td>
<td>8am-5pm</td>
<td>Trane</td>
</tr>
<tr>
<td>5-Apr</td>
<td></td>
<td>bEQ committee</td>
<td>8am-5pm</td>
<td>Trane</td>
</tr>
<tr>
<td>10-Apr</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>16-Apr</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>2:00pm-8:30pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>16-Apr</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td>9:00am-5:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>17-Apr</td>
<td>Wed</td>
<td>ABEP Webcast</td>
<td>1:00pm-8:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>18-Apr</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>23-Apr</td>
<td>Tues</td>
<td>90.4 Meeting</td>
<td>8:00am-5:00</td>
<td></td>
</tr>
<tr>
<td>26-Apr</td>
<td>Fri</td>
<td>IFMA - Cancelled 04/24</td>
<td>10:00am-2:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>8-May</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>16-May</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>16-May</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>6:00pm-8:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>16-May</td>
<td>Thurs</td>
<td>IES</td>
<td>4:00pm-8:00pm</td>
<td>HQ 3 A-B</td>
</tr>
<tr>
<td>18-May</td>
<td>Sat</td>
<td>Region VII Planning</td>
<td>8:00am-4:00pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>6-Jun</td>
<td>Thurs</td>
<td>Red &amp; Green Planning Committee</td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>6-Jun</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>--------------------------------------------</td>
<td>------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>12-Jun</td>
<td>Wed</td>
<td><strong>BEC Group</strong></td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>14-Jun</td>
<td>Friday</td>
<td><strong>USGBC</strong></td>
<td>8:00am-10:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>11-Jul</td>
<td>Thurs</td>
<td><strong>Red &amp; Green Planning Committee</strong></td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>12-Jul</td>
<td>Friday</td>
<td><strong>USGBC</strong></td>
<td>8:00am-10:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>18-Jul</td>
<td>Thurs</td>
<td><strong>GA-Solar</strong></td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>18-Jul</td>
<td>Thurs</td>
<td><strong>GA-Solar</strong></td>
<td>6:00pm-8:30pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>26-Jul</td>
<td>Fri</td>
<td><strong>IES Board Meeting</strong></td>
<td>11:30am-1:30pm</td>
<td>Trane</td>
</tr>
<tr>
<td>1-Aug</td>
<td>Thurs</td>
<td><strong>Red &amp; Green Planning Committee</strong></td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>14-Aug</td>
<td>Wed</td>
<td><strong>BEC Group</strong></td>
<td>4:00pm-5:30pm</td>
<td>Trane</td>
</tr>
<tr>
<td>16-Aug</td>
<td>Fri</td>
<td><strong>IES Board Meeting</strong></td>
<td>11:30am-1:30pm</td>
<td>Trane</td>
</tr>
<tr>
<td>5-Sep</td>
<td>Thurs</td>
<td><strong>Red &amp; Green Planning Committee</strong></td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>10-Sep</td>
<td>Tues</td>
<td><strong>Atlanta Chapter - BOD</strong></td>
<td></td>
<td>Trane</td>
</tr>
<tr>
<td>10-Sep</td>
<td>Tues</td>
<td><strong>Atlanta Chapter</strong></td>
<td></td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>11-Sep</td>
<td>Wed</td>
<td><strong>BEC Group</strong></td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>12-Sep</td>
<td>Fri</td>
<td><strong>IES Board Meeting</strong></td>
<td>11:30am-1:30pm</td>
<td>Trane</td>
</tr>
<tr>
<td>3-Oct</td>
<td>Thurs</td>
<td><strong>Red &amp; Green Planning Committee</strong></td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event Description</td>
<td>Time</td>
<td>Location</td>
</tr>
<tr>
<td>-------</td>
<td>--------</td>
<td>-----------------------------------------</td>
<td>-----------------</td>
<td>----------</td>
</tr>
<tr>
<td>8-Oct</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td></td>
<td>Trane</td>
</tr>
<tr>
<td>8-Oct</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td></td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>9-Oct</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>16-Oct</td>
<td>Wed</td>
<td>JM Pleasant</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>17-Oct</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>17-Oct</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>6:00pm-8:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>30-Oct</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>7-Nov</td>
<td>Thurs</td>
<td>Red &amp; Green Planning Committee</td>
<td>9:00am-11:00am</td>
<td>Trane</td>
</tr>
<tr>
<td>7-Nov</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>12-Nov</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td></td>
<td>Trane</td>
</tr>
<tr>
<td>12-Nov</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td></td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>12-Nov</td>
<td>Tues</td>
<td>Daikin AC -VRF design workshop - Setup</td>
<td>8:00am-5:00pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>13-Nov</td>
<td>Wed</td>
<td>Daikin AC -VRF design workshop</td>
<td>8:00am-5:00pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>14-Nov</td>
<td>Thur</td>
<td>Daikin AC -VRF design workshop</td>
<td>8:00am-5:00pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>15-Nov</td>
<td>Fri</td>
<td>Daikin AC -VRF design workshop - Cleanup</td>
<td>8:00am-5:00pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>13-Nov</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>15-Nov</td>
<td>Fri</td>
<td>IES Group</td>
<td>12:00pm-1:30pm</td>
<td>Trane</td>
</tr>
<tr>
<td>21-Nov</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>21-Nov</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>6:00pm-8:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>------------------------</td>
<td>-----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>5-Dec</td>
<td>Thurs</td>
<td>JM Pleasant</td>
<td>7:00-3:00pm</td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>5-Dec</td>
<td>Thurs</td>
<td>GA-Solar</td>
<td>3:00pm-6:00pm</td>
<td>Trane</td>
</tr>
<tr>
<td>10-Dec</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td></td>
<td>Trane</td>
</tr>
<tr>
<td>10-Dec</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td></td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>11-Dec</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00pm-5:30pm</td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>13-Dec</td>
<td>Fri</td>
<td>USGBC</td>
<td>8:00am-9:30am</td>
<td>Trane</td>
</tr>
</tbody>
</table>

**2014**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-Jan</td>
<td>Fri</td>
<td>USGBC</td>
<td>8:30-10:00</td>
<td>Trane</td>
</tr>
<tr>
<td>14-Jan</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td></td>
<td>Trane</td>
</tr>
<tr>
<td>14-Jan</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td></td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>14-Jan</td>
<td>Tues</td>
<td>IES</td>
<td></td>
<td>HQ 3 A/B</td>
</tr>
<tr>
<td>11-Feb</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td></td>
<td>Trane</td>
</tr>
<tr>
<td>11-Feb</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td></td>
<td>HQ 1 A-C</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>-------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>03/</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td>Trane</td>
<td></td>
</tr>
<tr>
<td>03/</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>HQ 1 A-C</td>
<td></td>
</tr>
<tr>
<td>04/</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td>Trane</td>
<td></td>
</tr>
<tr>
<td>04/</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>HQ 1 A-C</td>
<td></td>
</tr>
</tbody>
</table>
# INTERIM MEETINGS 2014

Last Updated: 3/23/2015 11:53

Meetings reserved by outside groups are shaded

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Name</th>
<th>Time</th>
<th>Room</th>
<th>Expected Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-Jan</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>10-Jan</td>
<td>Fri</td>
<td>USGBC</td>
<td>8:30-10:00</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>14-Jan</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td>9:30-11:30am</td>
<td>Trane</td>
<td>12</td>
</tr>
<tr>
<td>14-Jan</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>11:00-1:30pm</td>
<td>HQ 1 A-C</td>
<td>100</td>
</tr>
<tr>
<td>14-Jan</td>
<td>Tues</td>
<td>IES</td>
<td>11:30-1:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>23-Jan</td>
<td>Thurs</td>
<td>Red &amp; Green Team Meeting (ATL ASHRAE)</td>
<td>9:00-11:00am</td>
<td>Trane</td>
<td>8</td>
</tr>
<tr>
<td>30-Jan</td>
<td>Thurs</td>
<td>GA Solar</td>
<td>3:00-5:00pm</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>5-Feb</td>
<td>Wed</td>
<td>TechStreet</td>
<td>11:00am-1:00pm</td>
<td>Logo</td>
<td></td>
</tr>
<tr>
<td>5-Feb</td>
<td>Wed</td>
<td>TechStreet</td>
<td>10:30am-3:00pm</td>
<td>Trane</td>
<td></td>
</tr>
<tr>
<td>11-Feb</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD - CANCELLED due to inclement weather</td>
<td>9:30-11:30am</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>11-Feb</td>
<td>Tues</td>
<td>Atlanta Chapter - CANCELLED due to inclement weather</td>
<td>11:00-1:30pm</td>
<td>HQ 1 A-C</td>
<td>80</td>
</tr>
<tr>
<td>12-Feb</td>
<td>Wed</td>
<td>BEC Broup - CANCELLED due to inclement weather</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>14-Feb</td>
<td>Fri</td>
<td>US Green Building Council</td>
<td>8:30-10:00am</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>20-Feb</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>2:00-5:00pm</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>27-Feb</td>
<td>Thurs</td>
<td>Red &amp; Green Scene Committee Meeting (ATL ASHRAE)</td>
<td>9:00-11:00am</td>
<td>Trane</td>
<td>8</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Room</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>--------------------------------------------</td>
<td>---------------</td>
<td>------------</td>
<td>------</td>
</tr>
<tr>
<td>11-Mar</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td>9:30-11:30am</td>
<td>Trane</td>
<td>12</td>
</tr>
<tr>
<td>11-Mar</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>11:00-1:30pm</td>
<td>HQ 1 A-C</td>
<td>100</td>
</tr>
<tr>
<td>11-Mar</td>
<td>Tues</td>
<td>IES Atlanta Chapter</td>
<td>11:30am-1:30pm</td>
<td>HQ 2 A/B</td>
<td>35</td>
</tr>
<tr>
<td>12-Mar</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>27-Mar</td>
<td>Thurs</td>
<td>Red &amp; Green Scene Committee Meeting (ATL ASHRAE)</td>
<td>9-11am</td>
<td>Trane</td>
<td>8</td>
</tr>
<tr>
<td>8-Apr</td>
<td>Tues</td>
<td>Atlanta Chapter - BOD</td>
<td>9:30-11:30am</td>
<td>Trane</td>
<td>12</td>
</tr>
<tr>
<td>8-Apr</td>
<td>Tues</td>
<td>Atlanta Chapter</td>
<td>11:00-1:30pm</td>
<td>HQ 1 A-C</td>
<td>100</td>
</tr>
<tr>
<td>9-Apr</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>11-Apr</td>
<td>Fri</td>
<td>USGBC</td>
<td>8:30-10am</td>
<td>3 A/B</td>
<td>15</td>
</tr>
<tr>
<td>9-May</td>
<td>Fri</td>
<td>USGBC</td>
<td>8:30 - 10 a.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>13-May</td>
<td>Thurs</td>
<td>Red &amp; Green Team Selection Committee</td>
<td>9:00-11:00am</td>
<td>Trane</td>
<td>8</td>
</tr>
<tr>
<td>14-May</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Room(s)</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>--------------------------------------------</td>
<td>---------------</td>
<td>-------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>17-May</td>
<td>Sat</td>
<td>Region VII President-Elect Training</td>
<td>7:30-4:30</td>
<td>HQ 3 A/B</td>
<td>14</td>
</tr>
<tr>
<td>19-May</td>
<td>Mon</td>
<td>IES Meeting (Outside Group)</td>
<td>10am-2pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>22-May</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>4:00-6:00pm</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>22-May</td>
<td>Thurs</td>
<td>GA Solar Member Meeting</td>
<td>6:00-8:00pm</td>
<td>HQ 1 A-C</td>
<td>80</td>
</tr>
<tr>
<td>10-Jun</td>
<td>Tues</td>
<td>Red &amp; Green Team Selection Committee</td>
<td>9:00-11:00 a.m.</td>
<td>Trane</td>
<td>8</td>
</tr>
<tr>
<td>11-Jun</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>17-Jun</td>
<td>Tues</td>
<td>R&amp;D Roadmap for HVAC Technologies (DOE)</td>
<td>8:00am-5:00pm</td>
<td>HQ 1 A/B, 1C, 2B, 3A, 3B</td>
<td>110</td>
</tr>
<tr>
<td>19-Jun</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3:00pm-5:00pm</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>23-Jun</td>
<td>Mon</td>
<td>ASE (Alliance to Save Energy) 2030 Campaign</td>
<td>7:00am-2:00pm</td>
<td>1A-C, 2B, Trane</td>
<td>110</td>
</tr>
<tr>
<td>22-Jul</td>
<td>Tues</td>
<td>Red and Green Team Committee Meeting</td>
<td>9:00am-11:00am</td>
<td>Trane</td>
<td>8</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Code</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>-------------------------------</td>
<td>---------------</td>
<td>----------</td>
<td>------</td>
</tr>
<tr>
<td>1-Aug</td>
<td>Friday</td>
<td>IES</td>
<td>11:30am-1:30pm</td>
<td>Trane</td>
<td>35</td>
</tr>
<tr>
<td>7-Aug</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3:00-6:00 pm</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>19-Aug</td>
<td>Tues</td>
<td>Red and Green Team Committee Meeting</td>
<td>9:00-11:00 am</td>
<td>Trane</td>
<td>8</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Code</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>------------------------------------------------</td>
<td>-----------------</td>
<td>----------------</td>
<td>------</td>
</tr>
<tr>
<td>Sept. 4</td>
<td>Thurs</td>
<td>GA Solar</td>
<td>3:00pm-6:00pm</td>
<td>HQ Trane</td>
<td>15</td>
</tr>
<tr>
<td>9-Sep</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Executive Committee</td>
<td>10:00am-11:00am</td>
<td>HQ Trane</td>
<td>12</td>
</tr>
<tr>
<td>9-Sep</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Meeting</td>
<td>10:30am-2:00pm</td>
<td>HQ 1 A/B/C</td>
<td>100</td>
</tr>
<tr>
<td>10-Sep</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>8-Oct</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Capacity</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>--------------------------------------------</td>
<td>--------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>14-Oct</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Executive Committee</td>
<td>10:00am-11:00am</td>
<td>HQ Trane</td>
<td>15</td>
</tr>
<tr>
<td>14-Oct</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Meeting</td>
<td>10:30am-2:00pm</td>
<td>HQ 1 A/B/C</td>
<td>100</td>
</tr>
<tr>
<td>21-Oct</td>
<td>Tues</td>
<td>Georgia Society of Professional Engineers Meeting</td>
<td>6:00-8:00pm</td>
<td>HQ 1 A/B/C</td>
<td>60</td>
</tr>
<tr>
<td>11-Nov</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Executive Committee</td>
<td>10:00am-11:00am</td>
<td>HQ Trane</td>
<td>15</td>
</tr>
<tr>
<td>11-Nov</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Meeting</td>
<td>10:30am-2:00pm</td>
<td>HQ 1 A/B/C</td>
<td>100</td>
</tr>
<tr>
<td>12-Nov</td>
<td>Wed</td>
<td>BEC Broup</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
<tr>
<td>13-Nov</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>4:00-6:00pm</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>13-Nov</td>
<td>Thurs</td>
<td>GA Solar Member Meeting</td>
<td>6:00-8:00pm</td>
<td>HQ 1 A-C</td>
<td>80</td>
</tr>
<tr>
<td>5-Dec</td>
<td>Fri</td>
<td>Atlanta IES Board of Managers</td>
<td>11:30am-1:30pm</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Capacity</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>10-Dec</td>
<td>Wed</td>
<td>BEC Group</td>
<td>4:00-5:30pm</td>
<td>HQ 3 A/B</td>
<td>35</td>
</tr>
</tbody>
</table>
# INTERIM MEETINGS 2015

Last Updated: 3/23/2015

Meetings reserved by outside groups are shaded

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Name</th>
<th>Time</th>
<th>Room</th>
<th>Expected Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-Jan</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Board Meeting</td>
<td>10-11 a.m.</td>
<td>Trane</td>
<td>12</td>
</tr>
<tr>
<td>13-Jan</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Meeting</td>
<td>10:30 a.m.-2 p.m.</td>
<td>1ABC</td>
<td>80</td>
</tr>
<tr>
<td>14-Jan</td>
<td>Wed</td>
<td>The BEC Group</td>
<td>4-5:30 p.m.</td>
<td>3AB</td>
<td>40</td>
</tr>
<tr>
<td>15-Jan</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>20-Jan</td>
<td>Thurs</td>
<td>IES</td>
<td>5 p.m. - 8 p.m.</td>
<td>3AB</td>
<td>35</td>
</tr>
<tr>
<td>10-Feb</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Board Meeting</td>
<td>10-11 a.m.</td>
<td>Trane</td>
<td>12</td>
</tr>
<tr>
<td>10-Feb</td>
<td>Tues</td>
<td>ASHRAE Atlanta Chapter Meeting</td>
<td>10:30 a.m.-2 p.m.</td>
<td>1ABC</td>
<td>80</td>
</tr>
<tr>
<td>11-Feb</td>
<td>Wed</td>
<td>The BEC Group</td>
<td>4-5:30 p.m.</td>
<td>3AB</td>
<td>40</td>
</tr>
<tr>
<td>19-Feb</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>19-Feb</td>
<td>Thurs</td>
<td>GA Solar Chapter Meeting</td>
<td>6-8 p.m.</td>
<td>1ABC</td>
<td>80</td>
</tr>
<tr>
<td>24-Feb</td>
<td>Tues</td>
<td>BCA Training</td>
<td>8 a.m. - 5:30 p.m.</td>
<td>3AB</td>
<td>15</td>
</tr>
<tr>
<td>24-Feb</td>
<td>Tues</td>
<td>BCA Training Lunch</td>
<td>11 a.m. - 1:30 p.m.</td>
<td>2AB</td>
<td>15</td>
</tr>
<tr>
<td>25-Feb</td>
<td>Wed</td>
<td>BCA Training</td>
<td>8 a.m. - 5:30 p.m.</td>
<td>3AB</td>
<td>15</td>
</tr>
<tr>
<td>25-Feb</td>
<td>Wed</td>
<td>BCA Training Lunch</td>
<td>11 a.m. - 1:30 p.m.</td>
<td>2AB</td>
<td>15</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Notes</td>
</tr>
<tr>
<td>------------</td>
<td>--------</td>
<td>------------------------------------------</td>
<td>--------------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>26-Feb</td>
<td>Thurs</td>
<td>BCA Training</td>
<td>8 a.m. - 5:30 p.m.</td>
<td>3AB</td>
<td>15</td>
</tr>
<tr>
<td>26-Feb</td>
<td>Thurs</td>
<td>BCA Training Lunch</td>
<td>11 a.m. - 1:30 p.m.</td>
<td>2AB</td>
<td>15</td>
</tr>
<tr>
<td>27-Feb</td>
<td>Fri</td>
<td>BCA Training</td>
<td>8 a.m. - 5:30 p.m.</td>
<td>3AB</td>
<td>15</td>
</tr>
<tr>
<td>27-Feb</td>
<td>Fri</td>
<td>BCA Training Lunch</td>
<td>11 a.m. - 1:30 p.m.</td>
<td>2AB</td>
<td>15</td>
</tr>
<tr>
<td>10-Mar</td>
<td>Tues</td>
<td>IES Atlanta</td>
<td>5:30-7:30 p.m.</td>
<td>3AB</td>
<td>35</td>
</tr>
<tr>
<td>11-Mar</td>
<td>Wed</td>
<td>The BEC Group</td>
<td>4-5:30 p.m.</td>
<td>3AB</td>
<td>25</td>
</tr>
<tr>
<td>12-Mar</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>4-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>12-Mar</td>
<td>Thurs</td>
<td>GA Solar Quarterly Meeting</td>
<td>6-8 p.m.</td>
<td>1ABC</td>
<td>80</td>
</tr>
<tr>
<td>21-Apr</td>
<td>Tues</td>
<td>IES</td>
<td>11 a.m.-2 p.m.</td>
<td>3AB</td>
<td>25</td>
</tr>
<tr>
<td>23-Apr</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>16-May</td>
<td>Sat</td>
<td>Region VII President Elect Training</td>
<td>7:30 a.m.-4 p.m.</td>
<td>3AB</td>
<td>14</td>
</tr>
<tr>
<td>21-May</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>4-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>21-May</td>
<td>Thurs</td>
<td>GA Solar Quarterly Meeting</td>
<td>6-8 p.m.</td>
<td>1ABC</td>
<td>80</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Notes</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>-------------------------------</td>
<td>--------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>18-Jun</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>23-Jul</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>4-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>23-Jul</td>
<td>Thurs</td>
<td>GA Solar Quarterly Meeting</td>
<td>6-8 p.m.</td>
<td>1ABC</td>
<td>80</td>
</tr>
<tr>
<td>20-Aug</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Event</td>
<td>Time</td>
<td>Location</td>
<td>Duration</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------------------------------------------</td>
<td>----------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>24-Sep</td>
<td>Thurs</td>
<td>American Ground Water Trust</td>
<td>8 a.m.-5 p.m.</td>
<td>1ABC</td>
<td>60</td>
</tr>
<tr>
<td>15-Oct</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>3-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>7-Nov</td>
<td>Sat</td>
<td>YEA Technical Weekend</td>
<td>8 a.m. - 5 p.m.</td>
<td>3AB</td>
<td>35</td>
</tr>
<tr>
<td>8-Nov</td>
<td>Sun</td>
<td>YEA Technical Weekend</td>
<td>8 a.m. - 5 p.m.</td>
<td>3AB</td>
<td>35</td>
</tr>
<tr>
<td>19-Nov</td>
<td>Thurs</td>
<td>GA Solar Board Meeting</td>
<td>4-6 p.m.</td>
<td>Trane</td>
<td>15</td>
</tr>
<tr>
<td>19-Nov</td>
<td>Thurs</td>
<td>GA Solar Quarterly Meeting</td>
<td>6-8 p.m.</td>
<td>1ABC</td>
<td>80</td>
</tr>
</tbody>
</table>
ASHRAE Proposal:

Bahrain Energy Efficiency Standards

World Bank Project:
   Mr. Waleed S. Alsuraih
   Senior Energy Specialist
   Middle East and North Africa Region-MNSSD

Submitted:  July 10, 2013
**Contractor Contact Information of Record:**

ASHRAE, Inc.
1791 Tullie Circle, NE
Atlanta, GA 30329
Tel: 404-636-8400
Fax: 404-321-5478
Online: [www.ashrae.org](http://www.ashrae.org)

Custodial Contact:

Mr. Jeff Littleton  
Executive Vice President  
ASHRAE, Inc.  
Direct Tel: 678-539-1100  
Email: [jlittleton@ashrae.org](mailto:jlittleton@ashrae.org)

Secondary Contact:

Mr. Lois Benedict  
Executive Assistant  
ASHRAE, Inc.  
Direct Tel: 678-539-1120  
Email: [lbenedict@ashrae.org](mailto:lbenedict@ashrae.org)

Officer of Record:

Mr. Bill Bahnfleth  
President, ASHRAE  
C/O Pennsylvania State  
University 104 Engineering Unit A  
University Park, PA 16802-1416  
Tel: 814-863-2076  
Email: [wbahnfleth@psu.edu](mailto:wbahnfleth@psu.edu)
Contractor Profile

ASHRAE is a leading not-for-profit global technical society founded in 1894. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration (HVAC&R) to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

Membership: ASHRAE’s technical foundation is built by its 53,000 volunteer members and a professional staff of 108. Across more than 130 countries, ASHRAE’s membership in 176 chapters and 327 student branches includes consulting engineers (34%), contractors (10%), manufacturers (8%), manufacturing representatives/sales (6%), and architects (5%).

Expertise: ASHRAE’s areas of expertise include energy efficiency, indoor air quality, codes and standards and guidance for a safe environment during extraordinary incidents.

Standards: ASHRAE – with more than 120 standards and guidelines that establish recommended design and operation practice – is one of only five standards-developing organizations in the U.S. that can self-certify that its standards have followed American National Standards Institute’s (ANSI) standards development procedures.

Research: ASHRAE’s research program, established in 1912, currently supports more than 70 active research projects with a combined value of more than $12 million. Research focus includes energy and resource efficiency, indoor environmental quality, design and operation and management tools, alternative technologies and materials and equipment. Through scholarships, grants and awards, the Society supports engineering education for undergraduate students and research projects for graduate engineering students and new post-doctoral scholars.

Technical Oversight: ASHRAE has some 100 technical committees that drive the ASHRAE research program, develop standards, sponsor the technical program at ASHRAE meetings, develop technical articles, special publications and educational courses and write the ASHRAE Handbook.

Publications: ASHRAE produces hundreds of publications, including the ASHRAE Handbook, the bible of the HVAC&R industry, books on specialized topics within the field, and various CDs and DVDs. The Society also publishes the peer-reviewed monthly ASHRAE Journal, quarterly High Performing Buildings and bimonthly HVAC&R Research,
the most prestigious reporting of archival research in the fields of environmental control for the built environment.

**Continuing Education:** Through the ASHRAE Learning Institute, ASHRAE offers courses in a variety of formats, including eLearning, professional development seminars (in locations around North America or online), short courses (seminars offered during ASHRAE meetings) and self-directed learning courses (home study courses).

**Conferences:** The 2014 Winter Meeting is held Jan. 18-22 in New York, NY, in conjunction with the International Air-Conditioning, Heating, Refrigerating Exposition (AHR Expo), Jan. 28-30. The 2014 Annual Conference is held June 28th to July 1st in Seattle, WA.
**Introduction**

World Bank programs in Bahrain have been substantial since the Bahrain joined the World Bank in 1972. Activities have focused on pension system analysis, privatization support and alternative energy review and analysis. Domestic energy consumption is becoming unsustainable in many countries. Bahrain wishes to improve the energy efficiency of its built environment to become more sustainable and to protect the environment.

**Scope of the Project**

ASHRAE would develop the following:
- Residential (90.2-Bahrain) and commercial (90.1-Bahrain) building energy efficiency standards
- User’s Guides to accompany the above standards
- Training Programs to accompany the above standards

**Approach including activities**

In very general terms, a team of ASHRAE and Bahrain/World Bank officials would collaborate to draft each standard. A public review workshop for each standard would be organized by Bahrain/World Bank and led by ASHRAE to solicit input and comments about the draft standards from materially affected parties. (Bahrain/World Bank would be responsible for soliciting input from other groups in Bahrain outside of the workshop.) The standard would be revised based on those comments and finalized, and then submitted to Bahrain/World Bank for final approval. Once approved, User’s Guides and Training Programs would be implemented to support rapid implementation in Bahrain. The goal is to improve the energy efficiency of the Bahrain built environment as quickly as possible.

The work in the SOW should be grouped according to the scope of each standard:
- Residential Energy Efficiency Standard 90.2-Bahrain
  1. Standard 90.2-Bahrain
  2. Standard 90.2-Bahrain User’s Manual
  3. Standard 90.2-Bahrain training and education program

- Commercial Energy Efficiency Standard 90.1-Bahrain
  1. Standard 90.1-Bahrain
  3. Standard 90.1-Bahrain training and education program
Delivery of residential energy Standard 90.2-Bahrain and the related User’s Manual and Training program would be first, followed by the commercial building energy efficiency standard 90.1-Bahrain.

Both standards will have the following target characteristics:

- Will be simple and easily understood. Target is less than 25 pages, plus appendices for 90.2-Bahrain. 90.1-Bahrain may be larger due to the complexities of commercial mechanical systems, but again the focus will be on simplicity.
- Will reflect Bahrain construction practices and climate characteristics.
- Will draw from other ASHRAE standards as needed to create a single resource for design and construction practices covering both energy efficiency and indoor environmental quality (i.e. Standard 62.1 ventilation requirements; Standard 90.1 construction requirements).
- To simplify and expedite compliance and enforcement, both residential and commercial standards will be based on ‘prescriptive’ criteria only, thus neither standard will include an optional ‘performance’ path to compliance.

Bahrain/World Bank officials may wish to expand the standard in the future to include ‘performance’ path options.

**Deliverables**

ASHRAE proposes a three-phase development process for each document (outline, draft, final copy), with Bahrain/World Bank review after the first two phases and a public review workshop for each standard. Consequently, the deliverables for Standard 90.2-Bahrain would be as follows:

1. Standard 90.2-Bahrain
   a. Outline, followed by Bahrain/World Bank Review
   b. First Draft
      i. Public Review Workshop held in Bahrain
      ii. Bahrain/World Bank Final Review
   c. Completed Standard
2. Standard 90.2-Bahrain User’s Manual
   a. Outline, followed by Bahrain/World Bank Review
   b. First Draft, followed by Bahrain/World Bank Final Review
3. Standard 90.2-Bahrain training and education program
   a. Outline, followed by Bahrain/World Bank Review
   b. First Draft, followed by Bahrain/World Bank Review
   c. Completed Training Program
   d. Delivery of training programs in Bahrain at frequency determined by Bahrain/World Bank.
      i. Train-the-trainer programs
The same pattern would apply to commercial building energy efficiency Standard 90.1-Bahrain.

Intellectual property rights for use of the content of existing ASHRAE standards, User’s Guides and training programs would be built into the project pricing structure. A simple licensing agreement granting Bahrain global rights to use the standards will be included. All documents will be provided electronically. Printing options will be quoted to Bahrain/World Bank separately upon request. No translation services are included.

**Timeline / Milestones**

Delivery of the entire package of standards, training programs and user’s manuals for both residential Standard 90.2-Bahrain and commercial standard 90.1-Bahrain would be accomplished in approximately 24 months.

ASHRAE proposes the following schedule (all predicated by timely review and responses from Bahrain/World Bank officials):

- **Residential Standard 90.2-Bahrain:**
  - Complete final residential Standard 90.2-Bahrain: 90 days from execution of contract
  - Complete 90.2 user’s manual and training program: 90 days after completion of the 90.2 standard (180 days after execution of contract)
  - Conduct 90.2 training program in Bahrain: TBD

- **Commercial Standard 90.1-Bahrain:**
  - Complete final Commercial Standard 90.1-Bahrain: 9 months after execution of contract
  - Complete 90.1 user’s manual and training program: 90 days after completion of the 90.1 standard (12 months after execution of contract).
  - Conduct 90.1 training programs in Bahrain: TBD

**Team formation structure**

ASHRAE envisions one team will write the standards and develop/conduct the training program for each standard. A second team will write the user’s manual for each standard.

Team members will be noted ASHRAE experts in building energy efficiency with a working knowledge of ASHRAE 90.1 and 90.2.
Total Fees

Assumptions for the fees quoted below:

- All fees listed below include intellectual property rights for use of content from ASHRAE standards. An intellectual property rights agreement will need to be signed by Bahrain officials. ASHRAE shall retain copyright, but grant the World Bank and Bahrain a global license to use and reproduce the Bahrain standards for any purpose.
- All fees are in U.S. dollars, flat rate.
- Any expansion in the scope of the project will have a corresponding adjustment to the fee structure.
- Once the project is agreed upon, a calendar will be establish that contains the actual completion dates for each component of the project listed based on the timelines below.
- The project shall be driven according to the following guidelines:
  - ASHRAE 90.2-Bahrain shall be simple and easily understood with total number of pages not to exceed 25 pages. All other tables and necessary information shall be included in Normative Appendices.
  - ASHRAE 90.1-Bahrain may be larger due to the complexities of commercial mechanical systems; however every attempt shall be made to ensure simplicity.
  - All standards shall reflect Bahrain construction practices, climate characteristics, materials, local know-how and culture.
  - All standards shall draw from other ASHRAE standards as needed to create a single resource for design and construction practices covering both energy efficiency and indoor environmental quality (i.e. Standard 62.1 ventilation requirements; Standard 90.1 construction practices, etc.).
  - All standards shall be based on the "prescriptive path" compliance criteria only. Neither standard will include an optional "performance path" compliance criterion for this scope. Bahrain officials may wish to expand the standard in the future to include ‘performance’ path options.

Bahrain officials shall be responsible for the following:

- Assignment of a single Bahrain project coordinator to liaise with ASHRAE for the entire project
- Collection of technical data as needed within Bahrain.
- Coordination and circulation of Bahrain officials document reviews.
- Timely circulation and accurate review of all draft documents.
- Organization and hosting of all meetings held in Bahrain.
- Organization and hosting of public review workshops for each standard to ensure all materially affected stakeholders are represented.
1. ASHRAE 90.2-Bahrain
   a. Outline, followed by Bahrain officials Review
   b. First Draft
      i. Public Review: Workshop held in Bahrain
      ii. Bahrain officials Final Review
   c. Completed Standard

   **Delivery:** 90 days from execution of agreement  **Fee:**
   Single Climate Zone: $30,000 U.S. flat fee
   Two Climate Zones, no heating: $38,500 U.S. flat fee
   **Travel:** Business class travel for three individuals to participate in Public Review workshop. All other work to be completed electronically. Billed at cost.

2. ASHRAE 90.2-Bahrain User's Guide
   a. Outline, followed by Bahrain officials Review
   b. First Draft, followed by Bahrain Final Review
   c. Completed User's Guide

   **Delivery:** 90 days after completion of Standard 90.2. Delivered in electronic form only. Printing quotes available upon request.
   **Fee:** $20,000 U.S. flat fee
   **Travel:** All work to be completed electronically.

3. ASHRAE 90.2 Bahrain training
   a. Outline, followed by Bahrain officials Review
   b. First Draft, followed by Bahrain officials Review
   c. Completed training and certification Programs

   **Delivery:** Training materials (presentations and accompanying speaker notes) completed 90 days after completion of standard 90.2. Used together with Users Guide
   **Fee:** $5,000 U.S. flat fee
   **Courses:** $10,000 total per week of instruction for 2 instructors. Business cost travel billed at cost.

**TOTAL 90.2 Packaged Cost Example:**
- 90.2 Standard: $30,000 + travel
- 90.2 User's Guide: $20,000
- Training Materials: $5,000
- Two Training Weeks: $20,000 + travel
- **TOTAL** $75,000 + travel
4. ASHRAE 90.1 Bahrain
   a. Outline, followed by Bahrain officials Review
   b. First Draft
      i. Public Review: Workshop held in Bahrain
      ii. Bahrain officials Final Review
   c. Completed Standard

   Delivery: 9 months after execution of agreement. Delivered in electronic form only. Printing quotes available upon request.
   Fee: Single Climate Zone: $110,000 U.S. flat fee
        Two Climate Zones, no heating: $115,000 U.S. flat fee
        Travel: Business class travel for three individuals to participate in Public Review workshop. All other work to be completed electronically. Billed at cost.

5. ASHRAE 90.1 Bahrain User’s Guide
   a. Outline, followed by Bahrain officials Review
   b. First Draft, followed by Bahrain Final Review
   c. Completed User’s Guide

   Delivery: 120 days after completion of Standard 90.1. Delivered in electronic form only. Printing quotes available upon request.
   Fee: $35,000 U.S. flat fee
   Travel: All work to be completed electronically.

6. ASHRAE 90.1 Bahrain training
   a. Outline, followed by Bahrain officials Review
   b. First Draft, followed by Bahrain officials Review
   c. Completed training and certification Program

   Delivery: Training materials (presentations and accompanying speaker notes) completed 90 days after completion of standard 90.1. Used together with Users Guide
   Fee: $15,000 U.S. flat fee
   Courses: $10,000 total per week of instruction for 2 instructors. Business cost travel billed at cost.

TOTAL 90.1-Bahrain Packaged Cost Example:
   o 90.1 Standard: $110,000 + travel
   o 90.1 User’s Guide: $35,000
   o Training Materials: $15,000
   o Two Training Weeks: $20,000 + travel
   o TOTAL $180,000 + travel
Required input and support from Bahrain/World Bank

In general terms, Bahrain/World Bank would be responsible for the following:

- Assignment of a single project coordinator to be the liaison with ASHRAE for the entire project
  - Collect technical data as needed on Bahrain construction materials and practices
  - Coordinate circulation of document reviews
- Timely circulation and review of all draft documents
- Organization and hosting of all meetings held in Bahrain
- Organization and hosting of public review workshops for each standard to ensure all materially affected parties are represented.

Travel and Workshop Requirements

- 3 business class flights for three people for Standard 90.2-Bahrain development project.
  - Two business class flights for two people for training program. (total five flights)
- 3 business class flights for three people for Standard 90.1-Bahrain project
  - Two business class flights for two people for training program. (total five flights)
- Workshop requirements
  - Working kickoff meeting in Bahrain for three ASHRAE developers along with Bahrain/World Bank officials.
  - Large-scale 90.2 public review workshop for materially affected parties
  - Large-scale 90.1 public review workshop for materially affected parties
  - Training workshop
  - Train-the-trainer workshop
- NOTE: Webinars may be used for some of these meetings.

Other Issues

- Continuous Maintenance – A great advantage of using 90.1 and 90.2 is harnessing the ongoing evolution of the standard and applying that knowledge to future revisions of Bahrain standards. Though it may be outside the scope of this agreement, some thought should be given to future periodic review and updating of the standards.

- Retrofit of Existing Buildings – Major retrofits should be included in the scope of both standards.
Reprint License (DRAFT)


WHEREAS, Licensor owns and has copyright of the Work;

WHEREAS, Licensee wishes to work with the Licensor to come up with a modified standard from the Work in response to the Bahrain’s intent to re-issue its building code;

WHEREAS, Licensee wishes Licensor to develop training materials based on use of the Work in the Code;

THEREFORE, Licensor and Licensee agree as follows:

ARTICLE I GRANTING OF RIGHTS. Licensor grants to Licensee the non-exclusive right to use, modify and reproduce portions of the Work in printed and digital form as part of the Code. Licensee’s use of the Work is subject to approval by representatives of the Licensor as appointed by the Publisher. The granting of these rights extends only to the Code and to associated training materials for the Code developed jointly by Licensee and Licensor. Licensee may not reproduce nor distribute the Work except as specified in this License.

ARTICLE II OWNERSHIP. Licensee accepts Licensor’s exclusive right to ownership of the Work, and no terms of this License shall be understood by Licensee to transfer ownership of the Work to Licensee or to any individual, firm, organization, customer, subcontractor or government agency who may obtain access to the Work through this License to Licensee. Training materials to support the Code that draw upon the Work developed, in whole or in part, by the Licensor’s representatives shall become the exclusive property of Licensor.

ARTICLE III TRADEMARKS. Nothing contained in this License shall be construed as licensing either party to use any trademark or trade name owned or used by the other party without its prior written consent except as allowed for in this License. Licensee shall have the right to use Licensor’s trademarks or trade names as they are included in the Work but this right does not extend beyond the publication of the Code.
ARTICLE IV IDENTIFICATION. Licensee shall include in a conspicuous location of the Code a statement that references use of the Work by name.

ARTICLE V LICENSE FEE AND ROYALTIES. There are no license fees or royalties associated with this agreement. However, execution of this agreement requires prior execution of a Standards Development Agreement between ASHRAE and Bahrain that includes intellectual property rights fees.

ARTICLE VI ELECTRONIC FILES. In consideration of the License Fees agreed to by the Licensee in Article V, Licensor agrees to provide to the Licensee and the Licensor’s representatives at no cost electronic files of the Work for the exclusive use preparing the Code. Licensee acknowledges that the Licensor retains the exclusive copyright for these files. Use of such files is solely restricted to the purpose specified in this License.

ARTICLE VII PAYMENTS. There are no license fees or royalties associated with this agreement. However, execution of this agreement requires prior execution of a Standards Development Agreement between ASHRAE and Bahrain that includes intellectual property rights fees.

ARTICLE VIII TERM. This granting of rights by the Licensor to the Licensee extends from the time of its acceptance by both parties until the submission of the Code by the Licensee to Bahrain and the second of two training programs specified in this License is presented.

ARTICLE IX AUTHORIZATION TO COPY AND DISTRIBUTE. Only the Licensor may authorize others to copy, reproduce, modify, and/or distribute the Work in the English language or in other languages, and in print, electronic or any other media now known or yet to be invented except as specified in this License.

ARTICLE X VALIDATION. This License is not valid until signed by both parties.

IN WITNESS WHEREOF, the duly-authorized representatives of the Licensor and Licensee agree to the terms and conditions of this License as dated above.

<table>
<thead>
<tr>
<th>LICENSOR</th>
<th>LICENSEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature: __________________________</td>
<td>Signature: __________________________</td>
</tr>
<tr>
<td>Name: __________________________</td>
<td>Name: __________________________</td>
</tr>
<tr>
<td>Title: __________________________</td>
<td>Title: __________________________</td>
</tr>
</tbody>
</table>
Appendix A. CVs of Technical Team Leaders

Wayne R. Reedy

Experience

2001-2006  Carrier Corporation, Indianapolis, Indiana  
            Engineering Manager, Small Packaged Products

            Responsible for engineering development and sustaining activities for small packaged products.

1997-2001  Carrier Corporation, Syracuse, New York  
            Director, Light Commercial Engineering

            Responsible for engineering development and sustaining activities for the Light Commercial Products Group, Including the Syracuse and Tyler technical support teams.

1989-1997  NORDYNE Inc., St. Louis, Missouri  
            Vice President, Engineering

            Responsible for all research, design and product development for multiple lines of residential electric air conditioners and heat pumps, and gas furnaces.

            Vice President, Engineering

            Responsible for both product development and manufacturing for start-up company specializing in residential heat pumps featuring integrated heat recovery for heating potable water.

1969-1987  Carrier Corporation, Syracuse, New York

            Director, Corporate Advanced Technology (1985-1987)  
            Responsible for component and system advanced technology program, including programs funded by DOE and EPRI.

            Responsible for product design and development for hermetic, semi-hermetic and open-drive compressors.

            Manager, Corporate Compressor Technology (1983-1984)
Established new department and initiated programs to develop scroll, screw and novel design compressors.

Manager, Residential Product Development (1982-1983)
Responsible for new product development including split-system, packaged and thru-the-wall air conditioners and heat pumps.

Manager, Program Management, Electronic Controls (1981-1982)
Responsible for program management of all new electronic controls. Developed Carrier’s first microprocessor-based electronic heat pump control.

Manager, Special Project Group (1978-1981)
Responsible for corporate research in thermal systems, electronic controls, equipment monitoring and outside contracts. Developed and deployed the HVAC industry’s first instrumentation to quantify field performance of installed systems. Initiated program to develop Carrier’s first microprocessor-based electronic heat pump control.

Engineer, Sr. Engineer and Project Leader, Research Division (1969-1978)

1966-1969 Reedy Refrigeration – Inherited and operated long-time family owned Carrier dealership selling and servicing residential HVAC and commercial refrigeration equipment.

Education
B.S.M.E. Purdue University, 1969
M.S.M.E. Course Work, Syracuse University

Other
Member ASHRAE (Fellow 2005)
Member IIHR; Vice President, Commission E1, 2000-2008
Member US National Team, IEA Heat Pump Program
ASHRAE Member Refrigerant Management Program
Committee ASHRAE representative to NATE Board of Directors
2011 - ASHRAE Chairman SPC206 2011-
ASHRAE Director-at-Large 2008-2011
ASHRAE SAC Chairman 2009-2010
ASHRAE Distinguished Service Award 2009
ASHRAE RAC Chairman 2005-2006
ASHRAE Past member of RAC, SSPC90.2, TAC, PDC, and RAP
ASHRAE Member Standard 90.2-Kuwait
ASHRAE Member SPC 137
ARI Board of Directors 2004-2006
ARI USE Section Head 2004-2006
ARI Schulze Award 2006
ARI Committee Chairman for development of Standard 290
Von Rittinger International Heat Pump Award, IEA
2005 Outstanding Mechanical Engineer, Purdue University
1996 Holder of seventeen patents
Author of fifteen technical papers
WALID CHAKROUN  
Kuwait University  
College of Engineering and Petroleum  
Department of Mechanical Engineering  
P.O. Box 5969, Safat,  
13060 - KUWAIT.

Phone: (965) 24985804  
Mobile : (965) 99587712  
Fax : (965) 24847131  
E-mail:  wchakroun@gmail.com

RESEARCH INTERESTS


EDUCATION

Ph.D.: Mechanical Engineering, Mississippi State University,  
Minor: Computational Fluid Dynamics


MS.: Mechanical Engineering Virginia Polytechnic Institute and State University, Blacksburg, Virginia, March 1987.

Thesis Research: United States Air Force Sponsored project entitled "Time - Resolved Measurements in the Wake of a Cylinder Cross Flow".

B.S.: Mechanical Engineering, Youngstown State University, Youngstown, Ohio, March 1986.

PROFESSIONAL EXPERIENCE

Visiting Scholars (Sabbatical from Kuwait University)  
Purdue University of Beirut, School of Mechanical Engineering, West Lafayette, USA (August 2012-August 2013).
Full Professor
Kuwait University, Mechanical Engineering Department, Kuwait
(April 2005-Present).

Visiting Scholars
American University of Beirut, Department of Mechanical Engineering, Beirut, Lebanon (July 2010 -August 2010).

Visiting Scholars
Purdue University, School of Mechanical Engineering, West Lafayette, IN 47906 (June 2008-September 2008).

Department Chair
Kuwait University, Mechanical Engineering Department, Kuwait. The department includes 42 faculty members and 80 supporting staff (May 2005-June 2008).

Associate Professor
Kuwait University, Mechanical Engineering Department, Kuwait (December 1996, April 2005).

Visiting Associate Professor
Mississippi State University, Mechanical Engineering Department, Mississippi State University (June 2000, August 2000)

Visiting Associate Professor
Mississippi State University, Mechanical Engineering Department, Mississippi State University (June 1997, January 1998)

Assistant Professor
Kuwait University, Mechanical Engineering Department, Kuwait (September 1993-December 1996).

Visiting Assistant Professor
Mississippi State University, Mechanical Engineering Department, Mississippi State, Mississippi (May 1992-August 1993).

Full Time Instructor
Mississippi State University, Mechanical Engineering Department, Mississippi State, Mississippi (August 1989-May 1992).
Research Assistant,
- Supervised undergraduate research students.
- Developed FORTRAN programs for data reduction.
- Performed wind tunnel experiments.

Full Time Instructor
American University of Beirut, Mechanical Engineering Department, Beirut, Lebanon (Sep. 1987 - November 1988).

Graduate Research and Teaching Assistant

COURSES TAUGHT

Undergraduate Courses:
Mississippi State University: Engineering Analysis, Heat Transfer, Thermodynamics I, Thermodynamics II.

Graduate Courses:
American University of Beirut: Standards in Building on Energy Conservation and Indoor Air Quality.
Mississippi State University: Experimental Techniques, Advanced Convection.

ADMINISTRATION AND COMMITTEE ASSIGNMENTS

Departmental Level

Standing Committees
Research Committee Chair
Safety and Security Committee Coordinator
Thermal Science Lab Committee Chair
Graduate Committee Member
Undergraduate Program Committee  Member
Advising Committee  Member
Practical Training Committee  Member
Social Committee  Chair
Budget Committee  Member
Appointment and Contract Renewal  Chair
Promotion Committee  Chair
Scholarship  Chair

Ad-hoc Committees

Distance Learning Committee  Chair
ICERD Organizing Committee  Chair, Scientific Committee

College Level

Standing Committees

Safety and Security Committee  Chair
Research Scholar Award  Chair
College Promotion Committee  Member
Engineering Research Committee  Member
Scholarship Committee  Member
College Promotion Committee  Member

Ad-hoc Committees

Lab Committee  Member
Common Courses  Member

University Level

University Promotion Committee  Member

Ad-hoc Committees

Establishing New Government University  Member
Dean’s Search Committee  Member

CONFERENCES ORGANIZATION
Chair of the Scientific Committee and Member in the Organizing Committee for the “Fifth International Conference on Energy Research and Development,” 9-11, April, 2012, Kuwait.


Chair of the Scientific Committee and Member in the Organizing Committee for the “Road to Climate Friendly Chillers,” International Conference, Organized by the United Nation Environmental Program and The American Society of Heating Refrigerating, and Air-Conditioning Engineers, September 30-October 1, 2010, Cairo, Egypt.

Member in the International Advisory Committee for the “10th International Conference for Enhanced Building Operations (ICEBO 2010)”, 26-28 of October 2010, Kuwait

Chair of the International Advisory committee for the “Alternative Energy Applications: Option or Necessity?” 2-6 of November, 2009, Kuwait.

General Chair of the XIII European Conference “The Latest Technologies in Refrigeration and Air-Conditioning,” 12-13 June, 2009, Milan, Italy.

Chair of the Scientific Committee and Member in the Organizing Committee for the “Fourth International Conference on Energy Research and Development,” 17-19, November, 2008, Kuwait

Member in the International Advisory Committee for the “Middle East Mechanical Engineering Conference, MEMEC,” 4-7, November, 2007, Bahrain

Member in the Organizing committee for the “Second International Conference on Engineering Education and Training, ” 9-11, April, 2007, Kuwait

Chair of the Scientific Committee and Member in the Organizing Committee for the “Third International Conference on Energy Research and Development,” 21-23, November, 2005, Kuwait

Chair of the Scientific Committee and Member in the Organizing Committee for the “Second International Conference on Energy Research and Development,” 8-10, April, 2002, Kuwait.

Member in the International Advisory Committee for “The Fifth International Conference on New Energy System and Conversions,” 22-25 August, 2001, China.


CONSULTATIONS

United Nations Environnemental Programme (UNEP)
- Provide Consultations on Environmental and Energy related issues

Office of Career Development, Kuwait University
- Testing the performance of air-conditioning units and refrigerators.
- Perform calibration for temperature and pressure measurements.
- Consultant on district cooling application.
- Leading team on developing ASHRAE 90.2-Kuwait.

- Has delivered different short courses and workshops to Professional Engineers:
  
  Engineering Fundamentals
  Pipe Course Design
  Pump Technology
  Industrial Ventilation
  A/C Maintenance and Trouble Shooting
  Measurement Techniques and devices in Industries
  Training Program for Mechanical Engineer (Ministry of Public Works)
  Promoting Effective Learning in Laboratory Courses for Faculty
  Promoting Effective Learning in Laboratory Courses for Engineers

PROFESSIONAL AFFILIATIONS

- Member at Large, Publishing and Education Council (PEC), ASHRAE, June 2011-Present
- Director for Region At Large, June 2008 - June 2011, ASHRAE Society, The region composed of 24 chapters and 5400 members, covers all the countries that are outside North America and the Far East.
- Member of Board of Directors, ASHRAE Society 2008-2011. - Sub-regional Chair A, Region At Large, ASHRAE Society, 2004-2007
- Member of Chapter Technology Transfer Committee, ASHRAE Society, 2005-2007
- Member of Membership Committee, ASHRAE Society, 2004-2005
- Member on TC 1.3, ASHRAE Society 2001-Present
- President of ASHRAE Kuwait Chapter June 2001-2003
President Elect of ASHRAE Kuwait Chapter 1999-June 2001
Secretary of ASHRAE Kuwait Chapter 1998-1999
Treasurer of ASHRAE Kuwait Chapter 1997-1998
Member in AIAA, ASME, ASHRAE, Pi Tau Sigma, Sigma XI,
Registered Professional Engineer in Lebanon since 1987.

EDITORIAL BOARD:

Member - Editorial Board, Kuwait Journal of Science and Engineering, 2008-
Present.

ACHIEVEMENTS

-Fellow, ASHRAE, January 2011.
-Distinguished Service Award, ASHRAE, June 2011.
-Regional Award of Merits, ASHRAE Society, 2009.
-John James International Award, Given to an ASHRAE member who has done
the most to enhance the society’s International Presence, 2008.
-Outstanding Service @ Leadership, Focus on Teaching Faculty Development
Center, Mississippi State University, August 1991.
-AEE-ERM Apprentice Faculty Grant Award, 1990 and 1991.
-Marquis WHO’S WHO America in the South and Southwest since 1992.
-Marquis WHO’s WHO in the World since 1997.

ADDITIONAL QUALIFICATIONS

Experience programming in FORTRAN, BASIC, AND PASCAL
Languages Familiar with CAD/CAM, and DOS operating systems.
Fluent in French and Arabic.

PERSONAL

Citizenship: American Citizenship
Marital Status: Married with two sons Nadim (20 years) and Rami (17 years) and one
daughter Leah (7 years)
Birth: 7/09/63, Height: 6 feet, Weight: 93 kg, Excellent Health.

PEER REVIEW JOURNAL ARTICLES

Available upon request
MEMORANDUM OF UNDERSTANDING
between
American Society of Heating, Refrigerating and Air-Conditioning Engineers ASHRAE
and
Facility Guidelines Institute

PURPOSE
In recognition of shared technical interests, the American Society of Heating, Refrigerating, and Air-Conditioning (ASHRAE) and the Facility Guidelines Institute (FGI) agree to support this Memorandum of Understanding to advance and promote the mutual interests of architecture, engineering and healthcare facility professionals. We are committed to work together toward the following goals:

OBJECTIVES
• Maintain effective communication between ASHRAE and FGI to optimize efforts in areas of mutual interest without duplication.
  − Identify opportunities for shared operation services.
  − Identify opportunities for shared promotion and sales of products and services.
• − Share products prepared by both ASHRAE and FGI with its their members and users of the Guidelines.
  − Where mutually beneficial, jointly promote educational programs.
  − Where mutually beneficial jointly identify, create and identify new products and services.
  − Where mutually beneficial, jointly collaborate with other professional organizations in the development of products and educational programs.
• Encourage continuing dialogue between ASHRAE and FGI at national, regional and local levels on issues of importance to architects, engineers and healthcare facilities' professionals
• Encourage collaborative and cooperative activities to promote continuing professional development and professional certification programs.
• ASHRAE and FGI agree each organization shall cross-market, where appropriate, each other's products and services and that an appropriate compensation/commission be negotiated to compensate both organizations for such cross-marketing efforts.
• Encourage collaborative and cooperative activities in research activities that support the development of products and educational programs that are of mutual benefit to the members of each organization.

Operational Elements
• In accordance with a fully executed Reprint License, ANSI/ASHRAE/ASHE Standard 170-2008-2013 and any superseded or reaffirmed versions of this document available at the time of publishing the 2010-2018 edition of the Guidelines will be fully incorporated as a separate part of each of the 2010-2018 Guidelines.
• During the course of maintaining the ANSI/ASHRAE/ASHE Standard 170-2008-2013 all errata and addenda through 2014-2018 will be made available to FGI for publishing on the FGI website.
• An official appointment of one ASHRAE member, approved by FGI, to the Health Guidelines Revision Committee Steering Committee shall be made by ASHRAE.
• An official appointment of one ASHRAE member to the Health Guidelines Revision Committee shall be made by ASHRAE.
• ASHRAE shall schedule a maintenance meeting of ANSI/ASHRAE/ASHE Standard 170 at each of the "all hands" meetings of the Health Guidelines Revision Committee.
• ASHRAE shall appoint some voting members of the ANSI/ASHRAE/ASHE Standard 170 maintenance committee to the Health Guidelines Revision Committee membership.

Each organization recognizes the unique and varying concerns of the other and neither organization will interpret or impose conditions herein to prevent the other organization from fulfilling its mission. Each
organization will give proper recognition to each other for individual and joint efforts in reporting to their respective membership and to the general public.

This Partnership Agreement provides the framework for action and guidelines for interaction between ASHRAE and FGI. This agreement should be reviewed on a periodic basis in order to (1) measure progress being made to accomplish the objectives of the agreement, and (2) to consider expanding the partnership relationship between FGI and ASHRAE.

Furthermore, it is understood that this Memorandum of Understanding is conceived as a dynamic document, meant to change as circumstances and priorities warrant, that it is a beginning point and that any protocol of specific projects and activities developed is intended as an integral part of this understanding.

Executed this ___________ day of ___________.

_____________________________________
President, FGI

_____________________________________
President ASHRAE

_____________________________________
Executive, Vice President, ASHRAE
February 28, 2015

Richard D. Hermans, PE, HFDP
Director of Applications
Daikin International
13600 Industrial Park Blvd
Minneapolis, MN 55441-3743

Dear Mr. Hermans:

On behalf of the Facility Guidelines Institute, we thank you for agreeing to participate as a Steering Committee member for the 2018 Guidelines revision cycle. We appreciate your willingness to share your expertise and lend your leadership to the development of this highly utilized and important series of documents. The Steering Committee is the core of the revision process, and with your participation we can be assured of the continued quality work and focus of the Health Guidelines Revision Committee.

As you are aware, the FGI Board of Directors and the 2014 Executive Steering Committee met several times over the past year to establish a recommended strategic plan for the 2018 cycle. With the 2018 strategic vision in place, we are ready to kick off the new cycle. Having attended your first official 2018 Steering Committee meeting on February 5 and 6, you should fully understand the roles and responsibilities and workload associated with being a part of this elite group.

The success and reputation of the Guidelines are now in your hands, and the FGI Board is very confident the 2018 cycle under your leadership will produce high-quality, cost-effective standards.

If you have any questions or would just like to talk about how FGI is supporting this effort, please drop one of us a line.

Sincerely,

Kurt Rockstroh, FAIA, FACHA
President, Facility Guidelines Institute
617-305-7106
kurtr@steffian.com

Douglas Erickson, FASHE
Chair, Health Guidelines Revision Committee
314-800-7896
doug@fgiguide.org
Motions to the Board of Directors:

1. Foundation Trustees recommend the ASHRAE Board of Directors approve the Dallas Chapter Peanut Vinther Endowed Scholarship Fund.

Background
The Foundation Trustees approved by letter ballot. The total gift amount transferred to the Foundation $106,930.13 received on Wednesday, February 4, 2015 and was added to the Foundation’s endowment as an irrevocable gift. This scholarship is to be awarded to an undergraduate engineering student, preferably but not limited to mechanical and architectural engineering and is to be selected each year by the Dallas Chapter.

2. Foundation Trustees recommend the ASHRAE Board of Directors approve the Kansas City Chapter Endowed Scholarship Fund.

Background
The Foundation Trustees approved by letter ballot. The total gift amount to the Foundation of $30,000 was received on Monday, March 9, 2015 and was added to the Foundation’s endowment as an irrevocable gift. The Scholarship is to be selected each year by the Kansas City Chapter.

Wednesday, March 18, 2015
Date

James E. Wolf, Chair
Summary and Background

As ASHRAE’s Government Affairs Office continues to seek opportunities for improving service to the Society’s membership, several needs have become apparent. These include:

- Tracking federal, state, and municipal legislation and regulations of interest to the Society.
- Providing the means to easily connect ASHRAE members to policymakers and enabling them to quickly take action on issues deemed important by Society leadership.
- Enabling Chapters and members to easily coordinate their government affairs activities to maximize effectiveness.
- Analyzing the success rates of government affairs activities, providing valuable feedback to Society leadership and staff, and facilitating continuous improvement.

One of the primary tools for meeting these goals is government affairs software. In past years, ASHRAE has used StateScape to track federal and state legislation. However, the confluence of several factors has prompted ASHRAE Government Affairs to interview several vendors to consider as possible alternatives to StateScape. These factors include:

- ASHRAE’s contact with StateScape is due up for possible renewal or cancellation this June.
- Both the Advocacy Committee and the Grassroots Government Activities Committee have requested expanded government affairs software capabilities.
- The Board of Director’s approval of a motion to consolidate the Advocacy Committee and Grassroots Government Activities Committee into a new, broader Grassroots Government Advocacy Committee.

The goal of exploring alternatives is to find a single or a small number of vendors who are able to meet ASHRAE’s government affairs needs – including expanding the Society’s presence to the municipal level, which we have not systematically covered in the past.

ASHRAE staff grouped the Society’s government affairs software needs into the following categories:

Contacting Elected Officials

- Ability to Contact Federal Elected Officials
- Ability to Contact State Elected Officials
- Ability to Contact Municipal Elected Officials
Legislative and Regulatory Tracking

- Federal Regulatory Tracking
- State Regulatory Tracking
- Municipal Regulatory Tracking
- Federal Legislative Tracking
- State Legislative Tracking
- Municipal Legislative Tracking

Membership Interaction

- Ability to Post Sample/Draft Letters or Talking Points for ASHRAE Members to Use When Contacting Elected Officials
- Attractive & Smooth Graphic User Interface
- Ability to Provide Metrics on Which ASHRAE Members Make Contacts When Requested to Gauge the Effectiveness of ASHRAE’s Advocacy Efforts
- Reporting/Note Sharing Mechanism for ASHRAE Members/Chapters Who Hold Meetings Independent of Gov’t Affairs Office Requests
- Integration with NetForum
- Seamless Mobile Phone Integration
- Social Media Capabilities

Technical Support

- 24/7 Technical Support

Staff conducted an exhaustive review of software vendors, and conducted interviews and demos with the following eight companies:

1. Vocus Government Relations
2. StateScape
3. VoterVoice
4. Bloomberg Government
5. Stateside Associates
6. CQ Roll Call
7. Multistate Associates
8. Phone2Action
9. KnowWho
10. Votility-Bill Track 50

The results of these interviews are presented in the table below, which compares the strengths and weaknesses of each service, relative to ASHRAE’s needs.
| Ability to Contact Federal Elected Officials | ✓ | X | ✓ | ✓ | X | X | ✓ | ✓ | ✓ | ✓ |
| Ability to Contact State Elected Officials | ✓ | X | ✓ | X | ✓ | ✓ | X | ✓ | ✓ | ✓ |
| Ability to Contact Municipal Elected Officials | X | ✓ | Some | X | X | X | X | ✓ | X | Some |
| Federal Regulatory Tracking | ✓ | ✓ | ✓ | ✓ | ✓ | X | ✓ | X | ✓ | ✓ |
| State Regulatory Tracking | ✓ | ✓ | X | X | ✓ | ✓ | X | ✓ | ✓ | ✓ |
| Municipal Regulatory Tracking | ✓ | ✓ | X | X | ✓ | ✓ | X | ✓ | ✓ | ✓ |
| Federal Legislative Tracking | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| State Legislative Tracking | ✓ | ✓ | X | X | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Municipal Legislative Tracking | X | ✓ | X | X | ✓ | ✓ | X | ✓ | ✓ | ✓ |
| Ability to Post Sample/Draft Letters or Talking Points for ASHRAE Members to Use When Contacting Elected Officials | ✓ | X | ✓ | ✓ | X | X | ✓ | ✓ | ✓ | ✓ |
| Attractive & Smooth Graphic User Interface | ✓ | X | ✓ | ✓ | X | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ability to Provide Metrics on Which ASHRAE Members Make Contacts When Requested to Gauge the Effectiveness of ASHRAE’s Advocacy Efforts | ✓ | X | ✓ | X | ✓ | ✓ | X | ✓ | ✓ | ✓ |
| Reporting/Note Sharing Mechanism for ASHRAE Members/Chapters Who Hold Meetings Independent of Gov’t Affairs Office Requests | ✓ | X | ✓ | X | ✓ | ✓ | X | ✓ | ✓ | ✓ |
| Integration with NetForum | ✓ | X | X | X | X | ✓ | ✓ | ✓ | ✓ | ✓ |
| Seamless Mobile Phone Integration | ✓ | X | ✓ | X | X | ✓ | X | ✓ | ✓ | ✓ |
| Social Media Capabilities | ✓ | X | ✓ | X | X | ✓ | ✓ | ✓ | X | ✓ |
| 24/7 Technical Support | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **ANNUAL COST** | $16,475 | $5,000 | $9,000 | $5,700 | $30,000* | ** | ** | $14,000 | $25,896 | $10,000*** |

*Regulatory monitoring would be add’l fee.
**Provided range of services but never provided a bid.
***Plus a one-time start-up fee of $1,000.
Conclusion and Recommendation

Based on the analysis, Votility-Bill Track 50 is the only company whose software meet most of ASHRAE’s current and potential future government affairs needs. Votility-Bill Track 50 would allow ASHRAE to systematically track legislation and regulations at the federal and state with some very limited ability at the municipal levels. At this point, no vendor we have contacted have any capabilities outside the United States though Votility-Bill Track 50 may in the near future. Action alerts can be created for the federal and state governments (with some limited ability at the local level), enabling ASHRAE members to easily make their voices heard to policymakers through email or phone calls on issues deemed important to the Society. The software includes social media capabilities, including Twitter and Facebook, enabling ASHRAE’s members to contact policymakers on these platforms, and also more easily organize, share information, and increase their effectiveness. It may also be possible for the software to integrate with the ASHRAExCHANGE.

The cost to ASHRAE for a one-year contract with Votility-Bill Track 50 is $11,000 the first year (includes a one-time set-up fee), again making a minor adjustment to the line item already included in the ASHRAE budget.

Based on this review of services, vendors, and affordability, ASHRAE Government Affairs staff recommends that the Society begin a one-year or two-year contract with Votility-Bill Track 50, beginning July 1, 2015, which would coincide approximately with the time the StateScape contract would either have to be cancelled or renewed (June 15, 2015).

ASHRAE’s Government Affairs staff welcome questions on this matter, and can be reached at WashDC@ashrae.org or 202-833-2810.
Now that the Advocacy and GGAC ExComs have approved a motion to recommend to ASHRAE ExCom the purchase of a subscription to the Votility – Bill Track 50 government affairs software, what are the next steps?

FYI, Votility and Bill Track 50 are two separate companies, but they work hand-in-glove, and presented together when Jim and me demoed their software. The contracts ASHRAE signs would be separate, but they would function seamlessly together for ASHRAE staff and volunteers.

Following up on two action items from the last Advocacy-GGAC ExCom meeting...

1) Multiyear contracts:
Both Bill Track 50 and Votility offer 10% discounts for two-year contracts. The approximate total for Votility – Bill Track 50 per year for a two-year contract would be: $9,280 for the first year, and $8,280 for the second year (the first year includes a $1,000 set-up fee). The approximate savings over the two-year contact would be $1,840. Here’s the breakdown:

Votility: $4,200 (retail)/year; $3,780 (2-year contract)/year
Bill Track 50: $5,000 (retail)/year; $4,500 (2-year contract)/year
Plus a $1,000 first-year start-up fee.

2) The current clients of Votility – Bill Track 50 includes:
· Now that the Advocacy and GGAC ExComs have approved a motion to recommend to ASHRAE ExCom the purchase of a subscription to the Votility – Bill Track 50 government affairs software, what are the next steps?

FYI, Votility and Bill Track 50 are two separate companies, but they work hand-in-glove, and presented together when Jim and me demoed their software. The contracts ASHRAE signs would be separate, but they would function seamlessly together for ASHRAE staff and volunteers.

Following up on two action items from the last Advocacy-GGAC ExCom meeting...

1) Multiyear contracts:
Both Bill Track 50 and Votility offer 10% discounts for two-year contracts. The approximate total for Votility – Bill Track 50 per year for a two-year contract would be: $9,280 for the first year, and $8,280 for the second year (the first year includes a $1,000 set-up fee). The approximate savings over the two-year contact would be $1,840. Here’s the breakdown:

Votility: $4,200 (retail)/year; $3,780 (2-year contract)/year
Bill Track 50: $5,000 (retail)/year; $4,500 (2-year contract)/year
Plus a $1,000 first-year start-up fee.
2) The current clients of Votility – Bill Track 50 includes:

· U.S. Green Building Council

· Apple

U.S. Green Building Council

· Apple
March 12, 2015

Mr. Jeff H. Littleton, Exec. V. P.
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle, N.E.
Atlanta, GA 30329

Mr. Stephen R. Yurek, Pres.
Air-Conditioning, Heating & Refrigeration Institute
2111 Wilson Blvd., Suite 500
Arlington, VA 22201-3001

Dear Jeff & Steve,

The following is our final accounting for the 2015 AHR Expo® as of March 10, 2015. The amount due at this time is based on the following:

486,500 square feet of total space occupied
  -3,010 square feet complimentary space for Sponsors and Endorsing Associations
  -3,655 square feet of space traded for advertising
479,835 square feet of total space sold

Rental Income @ $36.60/per square foot $17,561,961.00
Less Uncollected Accounts -$163,935.00
Adjusted total income $17,396,026.00
Total Royalty @ 48.5% $8,437,072.61

<table>
<thead>
<tr>
<th>ASHRAE @ 39%</th>
<th>ASHRAE RESEARCH @ 22%</th>
<th>AHRI @ 39%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Royalty due $3,290,458.32</td>
<td>$1,856,155.97</td>
<td>$3,290,458.32</td>
</tr>
<tr>
<td>Paid 5/22/2014 $1,038,433.50</td>
<td>$585,783.00</td>
<td>$1,038,433.50</td>
</tr>
<tr>
<td>Paid 12/30/2014 $1,916,867.66</td>
<td>$1,081,309.96</td>
<td>$1,916,867.66</td>
</tr>
<tr>
<td>Due Now $335,157.16</td>
<td>$189,063.01</td>
<td>$335,157.16</td>
</tr>
</tbody>
</table>

We are enclosing the appropriate checks and as uncollected funds are received, we will forward the additional royalty payments. In an effort to conserve, we are emailing the final detailed report to you as a PDF.

Very Truly Yours,

INTERNATIONAL AIR-CONDITIONING, HEATING, REFRIGERATING EXPOSITION – 2015 – AHR EXPO®

CGS:jtc

Clay G. Stevens, Manager

Encs
### Key Performance Indicators Snapshot

**Compare to last year**

<table>
<thead>
<tr>
<th>Publication Type</th>
<th>Print</th>
<th>Electronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books/papers/articles</td>
<td>3,299</td>
<td>10,730</td>
</tr>
<tr>
<td>Standards</td>
<td>882</td>
<td>4,112</td>
</tr>
</tbody>
</table>

**ASHRAE.org Visits**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>527,967</td>
<td>26,058</td>
<td>462,983</td>
<td>488,833</td>
<td>2,626,297</td>
<td>2,369,168</td>
<td>123,327</td>
<td>127,343</td>
</tr>
</tbody>
</table>

**PR Activity**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Releases</td>
<td>5</td>
<td>11</td>
<td>33</td>
<td>44</td>
</tr>
<tr>
<td>Pitches</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Inquiries</td>
<td>2</td>
<td>13</td>
<td>42</td>
<td>81</td>
</tr>
<tr>
<td>Placements</td>
<td>995</td>
<td>319</td>
<td>5,374</td>
<td>2,478</td>
</tr>
</tbody>
</table>

**Advertising Sold - Journal/HPB/ASHRAE.org**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Print ads</td>
<td>167</td>
<td>173</td>
<td>509</td>
<td>514</td>
</tr>
<tr>
<td>Digital ads</td>
<td>267</td>
<td>142</td>
<td>1,877</td>
<td>898</td>
</tr>
</tbody>
</table>

**2015 Winter Conference**

<table>
<thead>
<tr>
<th>Member Paid</th>
<th>Non-Mem. Paid</th>
<th>Reduced fee</th>
<th>Comp</th>
<th>Total</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 2015</td>
<td>557</td>
<td>109</td>
<td>361</td>
<td>124</td>
<td>1,151</td>
</tr>
<tr>
<td>Jan. 2014</td>
<td>385</td>
<td>115</td>
<td>360</td>
<td>94</td>
<td>954</td>
</tr>
</tbody>
</table>

**Key Dates**

- **ASHRAE Webcast**
  - 23-Apr

- **International Conference on Energy and Environment in Ships**
  - May 22-24
  - Greece

- **2015 Annual Conference**
  - June 27-July 1
  - Atlanta

---

**Non-Dues Revenue (in thousands)**

- **FISCAL YEAR 2014-15**
  - **Jan. actual**
  - **Jan. budget**
  - **% of budget**

<table>
<thead>
<tr>
<th>Publication Type</th>
<th>Jan. actual</th>
<th>Jan. budget</th>
<th>% of budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications (All Sold)</td>
<td>5,131</td>
<td>$5,414</td>
<td>99%</td>
</tr>
<tr>
<td>ASHRAE.org Visits</td>
<td>123,327</td>
<td>$5,469</td>
<td>99%</td>
</tr>
<tr>
<td>Education Registration</td>
<td>1,147</td>
<td>$5,414</td>
<td>99%</td>
</tr>
<tr>
<td>Certification Applications</td>
<td>55</td>
<td>$5,469</td>
<td>99%</td>
</tr>
<tr>
<td>Media Placements</td>
<td>995</td>
<td>$10,335</td>
<td>95%</td>
</tr>
<tr>
<td>Ads Sold (All)</td>
<td>434</td>
<td>$10,879</td>
<td>95%</td>
</tr>
<tr>
<td>Conference Attendance</td>
<td>818</td>
<td>$10,335</td>
<td>95%</td>
</tr>
</tbody>
</table>

---

**Print**

- **Jan. 2015**
  - **Jan. 2014**
  - **YTD 2014-15**
  - **YTD 2013-14**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Books/papers/articles</td>
<td>3,299</td>
<td>10,730</td>
<td>14,046</td>
<td>481</td>
</tr>
<tr>
<td>Standards</td>
<td>882</td>
<td>4,112</td>
<td>4,717</td>
<td>469</td>
</tr>
</tbody>
</table>

---

**Certification**

<table>
<thead>
<tr>
<th>Applications Received</th>
<th>Jan. 2015</th>
<th>Jan. 2014</th>
<th>LTD % passage</th>
<th>Exams Taken YTD 14-15</th>
<th>Exams Taken YTD 13-14</th>
<th>Certs. Earned YTD 14-15</th>
<th>Certs. Earned YTD 13-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare design (HFDP)</td>
<td>10</td>
<td>8</td>
<td>83</td>
<td>254</td>
<td>230</td>
<td>173</td>
<td>143</td>
</tr>
<tr>
<td>High performance building (HBDP)</td>
<td>3</td>
<td>7</td>
<td>69.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations/maintenance (OPMP)</td>
<td>0</td>
<td>1</td>
<td>56.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commissioning (CPMP)</td>
<td>22</td>
<td>24</td>
<td>84.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building energy modeling (BEMP)</td>
<td>14</td>
<td>13</td>
<td>68.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building energy assesstmt. (BEAP)</td>
<td>6</td>
<td>10</td>
<td>79.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>55</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**2015 Winter Conference**

- **Member Paid**
  - **Non-Mem. Paid**
  - **Reduced fee**
  - **Comp**
  - **Total**
  - **Cumulative**

<table>
<thead>
<tr>
<th>2015 Winter Conference</th>
<th>Jan. 2015</th>
<th>Jan. 2014</th>
<th>Reduced fee</th>
<th>Comp</th>
<th>Total</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>557</td>
<td>109</td>
<td>361</td>
<td>124</td>
<td>1,151</td>
<td>3,119</td>
</tr>
<tr>
<td></td>
<td>385</td>
<td>115</td>
<td>360</td>
<td>94</td>
<td>954</td>
<td>2,777</td>
</tr>
</tbody>
</table>
Marketing/PR Dashboard Legend

All activities reflect comparisons by month and year for current fiscal year vs. previous fiscal year

**LTD:** life-to-date

**Non-dues revenue:** comparison of non-dues revenue (in thousands) actual to budget.

**Publications:** comparison of sales (print and electronic download) of publications (books, papers and articles) and standards.

**ASHRAE.org Site Traffic:** Views represents the number of times pages on ASHRAE.org are viewed; visits represent the number of visits to ASHRAE.org.

**ALI Student Count:** The number of attendees at courses offered under ASHRAE Learning Institute; eLearning reflects the monthly number of courses purchased (which may include individuals who purchased more than one course)

**PR Activity:** A release is a news release issued by ASHRAE. A pitch is a contact by ASHRAE to a reporter regarding a possible story angle. An inquiry is a contact by a reporter to ASHRAE seeking information on an activity. Placements refer the number of times ASHRAE is mentioned in magazines and newspapers (both print and electronic).

**Certification Applicants:** Indicates number of applications received for specific certification programs. Does not include individuals who earned a certification by virtue of serving on an examination development subcommittee.

Healthcare Facility Design Professional (HFPD)- launched June 2007
High Performance Building Design Professional (HBDP) - launched June 2008
Commissioning Process Management Professional (CPMP) - launched June 2009
Building Energy Modeling Professional (BEMP) - launched Jan. 2010
Building Energy Assessment Professional (BEAP) - launched Jan. 2011

**Advertising:** Reflects number of ads sold in ASHRAE Journal, HPB and ASHRAE.org, both print and digital formats.
Executive Committee

Reference Manual

March 16, 2014
Executive Committee Reference Manual

TABLE OF CONTENTS

ASHRAE Speaker’s Guide for Officers
Opportunity Fund Procedure
Media Guide for Spokespersons
ExCom Minutes Posted on ASHRAE Website

* * * * *

DEFINITION

(ROB 1.100.002)

Each council or committee may establish a Reference Manual, which may contain guidelines, procedures, sample documents and other tools that the council or committee uses in its day-to-day operation. The Reference Manual ensures consistency in the operation of the council or committee and serves as an educational tool for new members. The Reference Manual is an internal document of the council or committee and requires the approval of that council or committee only.
ASHRAE Speaker’s Guide for Officers

ASHRAE Officer Involvement
In Commercial Speaker Invitations
(Approved by ExCom 2007-11-12)

Most speaking engagements give ASHRAE officers the opportunity to build relationships and publicize ASHRAE in a positive way. Occasionally, speaking invitations will come directly from or be closely allied to commercial firms. Guidance is needed to avoid ASHRAE officer speaking engagements from being used to inappropriately imply ASHRAE’s endorsement of companies or products.

Commercial firms and even the media can sometimes ‘spin’ an otherwise innocent and non-commercial appearance into an implied endorsement of a firm or products in corporate newsletters, meeting announcements, press releases, and all forms of electronic communications. Hence, ASHRAE officers must avoid putting themselves in the position where the ‘spin’ can occur.

ASHRAE officers should not speak at:

- Closed corporate events – Examples include distributor conferences, company-wide management meetings, headquarters grand openings, etc. Note that this restriction applies only to firms active in built environment and related markets. It does not apply to not-for-profit organizations.
- Conference events named for a company – Examples include the “Bry-Air Awards” tied to ACREX (“Bry-Air has instituted the “Awards for Excellence in HVAC&R” to encourage, motivate and award excellence in innovative thinking…”). The line between an event named for a company and sponsored by a company is thin. It would be appropriate, for example, for ASHRAE officers to speak at “ACREX Innovation Awards” which happens to be sponsored by Bry-Air but not to speak at the “Bry-Air Awards”.
- Political events that support one particular political party or politician – Examples include fund-raising events.
- Paid speaking engagements – All events in which an ASHRAE officer receives compensation for speaking. The appearance can be made if the payment is turned down and if the appearance does not otherwise imply endorsements.

Because the commercialism involves many ‘gray’ areas, officers should consult with EVP if they are not sure about whether the speaking opportunity is appropriate.
Opportunity Fund Procedure

ExCom Procedure for Prioritizing Requests of Opportunity Funds
Approved by ExCom 06-01-26

1. Decisions on use of Opportunity Funds will be considered at any time of a Society year other than at Society annual meetings.

2. All council chairs will report their requests to ExCom at its Wednesday meeting at Society winter meetings.

3. ExCom requests will be submitted to the Board of Directors.*

*See ROB 2.407.003.4 (below)

2.407.003.4
The Executive Committee is responsible for prioritizing and setting funding amounts of requests for funds from the Opportunity Fund prior to submitting the requests to the Board of Directors.
ASHRAE
Media Guide
for
Spokespeople

January 2011

ASHRAE Communications Staff
Jodi Scott, jscott@ashrae.org
Amanda Dean, adean@ashrae.org
Media Procedures for Publicizing ASHRAE

Media calls received by members or other staff should be forwarded to communications staff to ensure that the most appropriate spokesperson is interviewed and to ensure that ASHRAE’s key messages are delivered.

The ASHRAE president is the chief spokesperson for the Society. When external contacts occur, the ASHRAE staff will identify the appropriate spokesperson for that topic. (ROB 1.201.036)

Guiding Principles

ASHRAE, as the worldwide leader in advancing the arts and sciences of HVAC&R, is in a position to create many opportunities to obtain media coverage. To take advantage of these opportunities, ASHRAE has developed clear media procedures that can be utilized by the Society’s volunteer and professional leadership. The policy is supported by resources, training and the commitment of ASHRAE leadership.

There are three guiding principles that form the basis for ASHRAE’s approach to working with the media to deliver its messages.

1) Communicating to the public has important benefits to ASHRAE
   - Member recruitment
   - Member retention
   - Building support for ASHRAE standards and the process by which they are developed
   - Maintaining its status as the leading HVAC&R organization
   - Public education
   - Increased sales of products and programs

2) Communicating with the media is a very efficient (and inexpensive) way to communicate to ASHRAE key audiences:
   - Current members
   - Potential members
   - Government officials (local/regional/state/federal)
   - Opinion leaders
   - General public
   - Model code officials
   - Building owners and managers
   - Industry stakeholders
3) Communicating with the media must follow the basic rules of the trade:

- Meet the reporter’s deadline (missing the deadline destroys media relationships and diminishes ASHRAE’s value to the public and its own members)
- Speak with positive clarity, have a clear message and deliver it with conviction
- Build relationships with reporters, especially those that will cover ASHRAE related issues over time.
- When organizations refuse to speak to the press, the organization loses credibility and reporters assume there is something being avoided, some uncomfortable issue or angle that the group does not want to disclose. Either way, it is a very bad policy.
- There is always something positive to say on any issue. With just a little training this is easy to do.

**Media Procedures**

The intent of these procedures is to address these communication challenges.

**Procedures.** Media calls are handled by the communications staff. Media calls received by members or other staff should be forwarded to this section to ensure that the most appropriate spokesperson is interviewed and to ensure that ASHRAE’s key messages are used. Communications staff talks to media to determine the subject of the story being written or produced, the deadline and any additional materials that reporters may be interested in (such as studies or position documents). Staff then contacts the most appropriate spokesperson. Our goal is to provide a spokesperson’s name and contact information on the same day of the media call and for the spokesperson to speak to reporters in advance of their deadlines.

**Media contact.** ASHRAE encourages its officers and spokespeople to speak with the media. This document, in large part, was prepared to offer guidelines on how best to work with the media in order to advance ASHRAE’s mission and continued growth. The answer to the question, “Is it okay to talk with the media?” is yes, absolutely.

**When The Press Calls.** All media contacts should be reported to the ASHRAE Communications office. This allows the entire organization to benefit from the media interest and it allows for a more strategically executed media plan.

**Authorization.** While it is helpful to have ASHRAE represented in the general and trade press as a leader in the field of standards development and industry expertise, it is also useful to calibrate how members speak to reporters. Based on ASHRAE’s organizational structure, a system of using members trained in media contact makes the most sense. This approach enables reporters to report on ASHRAE activity more accurately and assists ASHRAE in providing to the media messages that advance the Society’s mission. Two tiers of media contact are used by ASHRAE:

**Tier One**
The first tier utilizes pre-determined spokespersons, including members of the Executive Committee, to respond to media requests. Spokespersons will be identified by Communications staff based on past media experience with those members. Topics include:

- Role of ASHRAE (standards, research, professional development)
• Current issues of interest to the general public and media (indoor air quality, energy design guidelines, etc.)
• Positions on more specific technical topics that generate media interest, such as air craft cabin indoor air quality, office productivity, etc.

**Tier Two**
The second tier outlines messages limited to the current president and Executive Committee of ASHRAE. Topics would include everything in the first tier and sensitive issues related to specific ASHRAE activities. In these cases, the ASHRAE Communications staff can prepare tightly designed message points that will allow ASHRAE to have a voice in media coverage without taking a conflict-causing position. Examples would be Society positions on specific challenges to standards or research projects.

**The Interview Process**

**Pre-Interview.** When a reporter calls for information, there are a few questions that ASHRAE’s professional staff asks to help make the subsequent interview more successful. These questions may include:

1) Asking for the reporter’s deadline (when they have to turn the story in to their editor).
2) Asking the reporter about the story. What is it about? Who have they spoken to already? What do they see as the key issues of interest to their readers? What does the reporter know about ASHRAE?
3) Asking if their questions can be made available ahead of time. Don’t expect they will comply (the more sophisticated the publication, the less likely you are to see any questions in advance).
4) Asking if the spokesperson can fact-check their portion of the story once it is completed. Again don’t expect a yes every time.

**Interview.** Keep in mind that this is an ASHRAE interview. You should identify your ability to talk on the reporter’s topic by citing your ASHRAE qualifications, your past or current committee membership, for example. There is no benefit to ASHRAE if your company name and affiliation are used to identify you in articles.

**Key Messages.** Your goal in talking to the media is to share the important work that ASHRAE is doing. Reporters have only so many inches or seconds in which to tell a story. Your focus should be on sharing the Society’s work and how it positively impacts the industry. Try to avoid providing too much background or too many details about the inner-workings of ASHRAE – readers don’t care how a committee is established – they just want to know how the committee’s work impacts them.

**Follow-up.** Once an interview is over, there is still important work to be done. Make sure the ASHRAE media interview procedures have been followed. If the reporter typically covers issues related to ASHRAE’s mission, it may be useful to establish a relationship with the reporter in order to encourage further interaction. ASHRAE professional staff can provide guidance in this regard. Follow-up is also called for once the story is published to either compliment the reporter on a job well done or to correct misinformation if the reporter got it wrong.
Post-Interview Perception. It is not uncommon to feel disappointment once the final story is published. Reporters can get the facts wrong; they can misquote you or take your quote out of context. While media training can help to minimize these challenges, they do happen and spokespersons should know that ASHRAE professional staff and elected officers understand that there is always some risk when speaking to the media. On balance, however, ASHRAE has decided that the overall benefits of a more proactive media policy far outweigh the occasional misquote or misinformation.

Rehearse. Practice the procedures using simulations. Do they work well? What adjustments are necessary? Also, once an interview is scheduled, have someone play the role of the reporter and ask the tough questions. Everyone benefits from this kind of preparation.

Collateral material. ASHRAE has a number of fact sheets, issues papers and other background materials specifically designed for reporters that can answer many of their basic questions. These materials are supplements to, not a replacement for, a media interview. Reporters want to be able to quote a person, not a piece of paper.

Communication Assistance Contact List. When ASHRAE members have questions or need help with media related issues they should contact:

- Jodi Scott at jscott@ashrae.org
- Amanda Dean at adean@ashrae.org
ExCom Minutes
Posting on ASHRAE Website

On March 16, 2014, ExCom passed the following motion:

That approved Executive Committee open minutes and attachments be posted to the website within 30 days after approval and that this motion be placed in the Executive Committee’s Reference Manual.

The motion was reported to the Board of Sunday, June 29, 2014.

On July 14, 2011, ExCom passed the following motion:

That approved Executive Committee minutes and attachments be posted on the ASHRAE website within 30 days after approval and that this motion be placed in the Executive Committee’s Reference Manual.

The motion was reported to the Board on July 21, 2011.
## CRC Schedule 2014-2015

### Fall 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Host Chapter Location</th>
<th>Alternate Chapter Location</th>
<th>Target Week / Target Dates (1st, 2nd, 3rd week, etc.)</th>
<th>Actual CRC Dates</th>
<th>Official Visitor</th>
<th>Staff</th>
<th>CRC Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region I</td>
<td>Bi-State White Plains, NY</td>
<td>Central New York Syracuse, NY</td>
<td>August 3rd Week August 10-16</td>
<td>August 14-16</td>
<td>Underwood Boyce</td>
<td>Ramspeck</td>
<td>Mike Circosta</td>
</tr>
<tr>
<td>Region III</td>
<td>Richmond, Richmond, VA</td>
<td>Johnstown, Johnstown, PA</td>
<td>August 2nd Week August 3-9</td>
<td>August 21-23</td>
<td>Underwood Gullede</td>
<td>Simmons</td>
<td>Christopher Larry</td>
</tr>
<tr>
<td>Region IV</td>
<td>Charleston, Charleston, SC</td>
<td></td>
<td>August 3rd Week August 10-16</td>
<td>August 14-16</td>
<td>Wentz Gullede</td>
<td>Pettigrew</td>
<td>Randy Jones</td>
</tr>
<tr>
<td>Region V</td>
<td>Detroit, Detroit, MI</td>
<td>Evansville, Evansville, IN</td>
<td>August 2nd Week August 3-9</td>
<td>August 7-9</td>
<td>Underwood Vallort</td>
<td>Ratcliff</td>
<td>Andy McIntyre</td>
</tr>
<tr>
<td>Region VII</td>
<td>New Orleans, New Orleans, LA</td>
<td>Memphis, Memphis, TN</td>
<td>August 1st Week July 27-August 2</td>
<td>July 31 - August 2</td>
<td>Phoenix Vallort</td>
<td>Littleton</td>
<td>Michael Cooper</td>
</tr>
<tr>
<td>Region VIII</td>
<td>Wichita, KS</td>
<td>Black Hills, Rapid City, SD</td>
<td>August 1st Week July 27-August 2</td>
<td>July 31-August 2</td>
<td>Wentz Boyce</td>
<td>Gurlery</td>
<td>Ken Stoppel</td>
</tr>
<tr>
<td>Region IX</td>
<td>Hawaii, Honolulu, HI</td>
<td>San Diego, San Diego, CA</td>
<td>August 2nd Week August 3-9</td>
<td>August 7-9</td>
<td>Phoenix Gullede</td>
<td>Ramspeck</td>
<td>Marites Calad</td>
</tr>
<tr>
<td>Region XI</td>
<td>Jacksonville, Jacksonville, FL</td>
<td>Gold Coast, Fort Lauderdale, FL</td>
<td>August 1st Week July 27-August 2</td>
<td>July 30 - August 2</td>
<td>Underwood Olesen</td>
<td>Read</td>
<td>Joe Nagy</td>
</tr>
<tr>
<td>Region XII</td>
<td>Taiwan, Taipei, Taiwan</td>
<td>Danube, Timisoara, Romania</td>
<td>August 4th Week August 17-23</td>
<td>August 15-16</td>
<td>Phoenix Olesen</td>
<td>Abrams</td>
<td>Yie Zu &quot;Robert&quot; Hu</td>
</tr>
<tr>
<td>RAL</td>
<td>Spain, Madrid, Spain</td>
<td></td>
<td>September 3rd Week September 14-20</td>
<td>September 19-21</td>
<td>Phoenix Boyce</td>
<td>Comstock</td>
<td>Enrique Yotti</td>
</tr>
</tbody>
</table>

### Spring 2015

| Region VI  | Missouri S. Valley, Davenport, IA | Madison, Madison, WI | May 1st Week April 26-May 2 | April 30 - May 2 | Wentz Vallort | Comstock       | John Schaub     |
| Region VIII| Fort Worth, Fort Worth, TX       | East Texas, Tyler, TX   | April 4th Week April 19-25   | April 23-25      | Underwood Olesen | ABRAMS         | Patty Parrish   |
| Region XI  | Southern Alberta, Calgary, AB    | Saskatoon, Saskatoon, SK | May 2nd Week May 3-9         | April 30 - May 2 | Underwood Olesen | LITTLETON      | ERICH BINDER    |

NOTE: All target week/dates are final and cannot be changed. If there is a conflict in the schedule, the region must resolve.

Additions and/or revisions are shaded.

Revised: February 5, 2015

Distribution: ExCom, DRCs, Littleton, Townsend, Comstock, Simmons, Abrams, Ramspeck, Gupta, Adelmann, Pettigrew, Gurlery, Loomis, Scarborough, Grant, Keller, Ratcliff, Owen
# CRC Schedule 2015-2016

## Fall 2015

<table>
<thead>
<tr>
<th>Region</th>
<th>Host Chapter Location</th>
<th>Alternate Chapter Location</th>
<th>Target Month/Week (1st, 2nd, 3rd week, etc.)</th>
<th>Actual CRC Dates</th>
<th>Official Visitor</th>
<th>Staff</th>
<th>CRC Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region I</td>
<td>Central New York</td>
<td>Syracuse, NY</td>
<td>Rochester ROCHESTER, NY</td>
<td>AUGUST 3rd WEEK AUGUST 9-15</td>
<td>AUGUST 20-22</td>
<td>OLESEN GULLEDGE</td>
<td>STEVE SILL</td>
</tr>
<tr>
<td>Region II</td>
<td>Hamilton</td>
<td>Hamilton, ON</td>
<td>NB/PEI MONCTON, NB</td>
<td>AUGUST 4th WEEK AUGUST 16-22</td>
<td>AUGUST 21-23</td>
<td>VALLORT CHAKROUN</td>
<td>DAVE RASMUSSEN</td>
</tr>
<tr>
<td>Region IV</td>
<td>Triangle</td>
<td>Raleigh Durham, NC</td>
<td>Atlanta Atlanta, GA</td>
<td>AUGUST 2nd WEEK AUGUST 2-8</td>
<td>AUGUST 6-8</td>
<td>UNDERWOOD VALLORT</td>
<td>JIMMY LEONIDA</td>
</tr>
<tr>
<td>Region V</td>
<td>Evansville</td>
<td>Evansville, IN</td>
<td>Dayton Dayton, OH</td>
<td>AUGUST 2nd WEEK AUGUST 2-8</td>
<td>AUGUST 6-8</td>
<td>OLESEN CHAKROUN</td>
<td>SHAWN MOWERY</td>
</tr>
<tr>
<td>Region VII</td>
<td>Memphis</td>
<td>Memphis, TN</td>
<td>Birmingham Birmingham, AL</td>
<td>AUGUST 1st WEEK JULY 26-AUGUST 1</td>
<td>JULY 23-25</td>
<td>WENTZ GRAEF</td>
<td>MIKE BILDERBECK JIM MORGAN</td>
</tr>
<tr>
<td>Region IX</td>
<td>Black Hills Area</td>
<td>Rapid City, SD</td>
<td>Nebraska Omaha, NE</td>
<td>AUGUST 1st WEEK JULY 26-AUGUST 1</td>
<td>JULY 23-25</td>
<td>UNDERWOOD CHAKROUN</td>
<td>ALLEN FREELAND MIKE MUELLER</td>
</tr>
<tr>
<td>Region X</td>
<td>San Jose</td>
<td>San Jose, CA</td>
<td>Southern California Los Angeles, CA</td>
<td>AUGUST 2nd WEEK AUGUST 2-8</td>
<td>AUGUST 13-15</td>
<td>UNDERWOOD GULLEDGE</td>
<td>JOSEPH CHIN</td>
</tr>
<tr>
<td>Region XI</td>
<td>Gold Coast</td>
<td>Fort Lauderdale, FL</td>
<td>SouthWest Florida Fort Meyers, FL</td>
<td>AUGUST 1st WEEK JULY 26-AUGUST 1</td>
<td>AUGUST 6-8</td>
<td>WENTZ GULLEDGE</td>
<td>DANNY DENARO ROBIN BRYANT</td>
</tr>
<tr>
<td>Region XII</td>
<td>Philippines</td>
<td>Makati City, Philippines</td>
<td>Thailand Bankok, Thailand</td>
<td>AUGUST 4th WEEK AUGUST 16-22</td>
<td>AUGUST 21-22</td>
<td>UNDERWOOD RAL GUEF</td>
<td>EMMANUEL PUNASLAN</td>
</tr>
<tr>
<td>Region XIII</td>
<td>Turkish</td>
<td>Istanbul, Turkey</td>
<td>ASHRAE Falcon Dubai, UAE</td>
<td>SEPTEMBER 3rd WEEK SEPTEMBER 13-19</td>
<td>OCTOBER 1-4</td>
<td>UNDERWOOD VALLORT</td>
<td>MEHMET BARIŞ</td>
</tr>
</tbody>
</table>

### Spring 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>Host Chapter Location</th>
<th>Alternate Chapter Location</th>
<th>Target Month/Week (1st, 2nd, 3rd week, etc.)</th>
<th>Actual CRC Dates</th>
<th>Official Visitor</th>
<th>Staff</th>
<th>CRC Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region VI</td>
<td>Madison</td>
<td>Madison, WI</td>
<td>St Louis St Louis, MO</td>
<td>MAY 1st WEEK</td>
<td>APRIL 28-30</td>
<td>OLESEN VALLORT</td>
<td>CAROL MORI</td>
</tr>
<tr>
<td>Region VIII</td>
<td>East Texas</td>
<td>Tyler, Texas</td>
<td>Central Oklahoma Oklahoma City, OK</td>
<td>APRIL 4th WEEK</td>
<td>APRIL 28-30</td>
<td>WENTZ GUEF</td>
<td>RHAMY MORRISON</td>
</tr>
<tr>
<td>Region XI</td>
<td>Saskatoon</td>
<td>Saskatoon, SK</td>
<td>Puget Sound Seattle, WA</td>
<td>MAY 2nd WEEK</td>
<td>MAY 11-14</td>
<td>WENTZ GULLEDGE</td>
<td>BILL DEAN</td>
</tr>
</tbody>
</table>

**Note:** All target week/dates are final and cannot be changed. If there is a conflict in the schedule, the region must resolve.

Additions and/or revisions are shaded.

Revised: February 18, 2015

Distribution: ExCom, DRCS, Littleton, Townsend, Comstock, Simmons, Abrams, Ramspeck, Gupta, Adelmann, Pettigrew, Gurley, Loomis, Scarborough, Grant, Keller, Ratcliff, Owen
Dear Tom,

I attended the ASHE PDC meeting on March 22-25, 2015. This report is the same as my past reports on ASHE activities. ASHE conducts two meetings each year, their Annual Meeting of the membership and the PDC (Planning, Design and Construction Summit). The PDC is an ASHE event which is different from their annual meeting in that it is intended for a wider audience than their direct membership of facility managers. This event has been referred to as a “Summit” in the last few years which implies a meeting of disparate segments of the health care facility industry. This year the summit attracted design engineers, architects, contractors, facility managers, hospital administrators, and non-government organizations of all stripes in the industry.

As you may recall from my previous reports, ASHE membership is restricted to employees of AHA member hospitals and other health care organizations. Individuals like me and all those who have an interest in the affairs of their Society are known as Associate Members. Historically, Associate Members have had little or no influence on the operation of the Society but that is slowly changing. ASHE claims 11,000 members, most of which are Associate Members.

There were approximately 3000 attending this meeting in San Antonio including the exposition exhibitors. The headquarters was the Grand Hyatt. All but a few events were held at the nearby Convention Center. Their welcome party was quite impressive in terms of numbers of people. [See the attached photo]

Their EXPO, which they refer to as a Technical Exhibition, was in one hall within close proximity to the concurrent technical sessions. The Technical Exhibition was about the same as last year. ASHE does not schedule any official events or programs during the expo times. The expo hours were 10:45am to 1:45pm on two of the three days. A box lunch was provided to all Full Registration attendees. Lunch tickets were provided in the registration packet. The opening session, awards, keynote address, and three other general sessions for all attendees were held in the convention center. Unlike last year, the final plenary session, held at 7:00am on the last day, was not well attended. The speaker at the final plenary was Dr. Robert Robbins, President and CEO of the Texas Medical Center. TMC is a 1500 acre campus of semi-independent medical institutions, many of which are well known in their own right such as MD Anderson Cancer Center, Rice Hospital, Baylor Hospital, and Memorial Hermann. Altogether they comprise over 7000 patient beds and over 50 million square feet. Dr. Robbins was hired away from Stanford Hospital’s cardiology department to attempt to bring these disparate institutions together for a common cause.

Tom Phoenix, President
Executive Committee

March 23, 2015
The PDC Summit has two forms of participation for organizations, Sponsors and Collaborators. Collaborators include ACHA, The American College of Healthcare Architects; FGI, The Facility Guidelines Institute; AIA/AAH, the American Institute of Architects/Academy of Architecture for Health. Two collaborators from last year, The American Academy of Healthcare Interior Designers and the Associated General Contractors of America, were not collaborators this year. Sponsors include: PLATINUM – Schneider Electric, Specified Technologies, Inc., Trane; GOLD – Allegion, Caterpillar (generators) and Mortenson Construction; SILVER – HSI Hospital Headwall Systems, and Z-Band RF video systems. Four sponsors from last year, Lend Lease; LS Climate Solutions, Inc., URS and Balfour Beatty were not sponsors this year.

This year there were two events which dealt with Legionellosis: A paid preconference workshop and a concurrent session. Both were presented by Steven Cutter, an alternate organizational member of Std 188 representing ASHE, and Linda Dickey an organizational member representing APIC (infection control practitioners). Steven requested the approved talking points from Tom Watson prior to this summit and I assisted Tom in preparing a list of talking points that could be used. I attended the concurrent session and it went very well with few questions from the audience. One attendee specifically asked about the progress in revising our Guideline 12 on Legionellosis.

The atmosphere was generally good among the attendees. The conference continued past themes of innovation in the face of uncertainty in health care reform. Most presentations were concerned with the business of health care and very little on patient care. One plenary speaker reported that 50% of hospital reimbursements are now from government sources, up from 40% last year. Revenues are still growing but the growth is predominantly from mergers and acquisitions and not operations. The average age of the health care infrastructure is increasing from 9.8 to 10.4 years (from 2011 to 2013) as provider systems have slowed or stopped both new construction and remodeling. Cash reserves are increasing as a result. Average margins from operations are very slim and are projected to go negative in the next few years.

Energy conservation and efficiency are still very big topics and all of the speakers advised the architectural and engineering community to approach proposals as investments with strong returns rather than expansion of services. The ASHE program called Energy to Care continues to grow in subscriptions. One program highlighted the Carolinas Health Care System and their efforts to improve their energy efficiency. The physical plant director emphasized that they use the EPA portfolio (which is required in Energy to Care) but do not pay attention to the Energy Star Score. They prefer to concentrate on their site based EUI for all of their facilities.

Once again there was an entire track of the educational program dedicated to the 2014 FGI Guidelines for Design and Construction of Health Care Facilities and the new Guidelines for Design and Construction of Residential Health, Care, and Support Facilities. This track included one General Plenary Session. ASHRAE Standard 170-2013 was a part of the discussion as always in these events. The attitude towards 170 has become one of acceptance and respect due in large part to the advocacy efforts of ASHE and the obvious spirit of collaboration with them on the continuing development of the Standard. Even the architectural community appears to consider 170 as the authoritative source of expertise for health care ventilation.

I wish to thank you for allowing me to continue to represent ASHRAE at ASHE, I find the work enjoyable and educational.
Best Regards,

[Signature]

CC: Claire Ramspeck, DOT