

**Building EQ Committee
Las Vegas Winter Meeting
January 29, 2017**

Members Present: Hoy Bohanon (chair), Hugh Crowther (vice-chair), Esteban Baccini, Darryl Boyce, Nate Boyd, Hywel Davies, Charles Eley, Jaap Hogeling, Bruce Hunn, Julia Keen, Kushagra Juneja, Ross Montgomery, Dan Nall, Edward Tsui (coordinating officer)

Not available: Harry Misuriello

Staff: Lilas Pratt (staff liaison), Claire Ramspeck, Vanita Gupta, Joslyn Ratcliff, Jodi Scott, Lauren Walters, Emily Sigman, Jim Scarborough

Guests: Stefen Bangert, Dieter Bartel, Michael Brandemuehl, Wade Conlan, Blake Ellis, John Field, Ron Gagnon, David Handwork, Frank Mesicek, Ron Nelson, David Palty, Ron Peters, Chuck Scott, Terry Sharp, Pete Strazdas, Nora Wang

Principal Motions¹

Motion 1: Crowther moved and Eley seconded that the minutes of the September 20, 2016 meeting of the Building EQ committee be approved.

Vote: Approved by voice vote (6-0-0, CV)

Motion 2: Crowther moved and Boyce seconded that the minutes from the monthly web meetings of the Building EQ committee be approved.

Vote: Approved by voice vote (6-0-0, CV)

Motion 3: Crowther moved and Keen seconded to approve a program for the ASHRAE Annual Meeting in June and for the APPA annual meeting.

Vote: Approved by voice vote (6-0-0, CV)

New and Open Action Items

January 29, 2017 Las Vegas Winter Meeting

- **AI 1: Building EQ Committee** to develop a median EUI for laboratory buildings.
 - **1a: Bohanon and Eley** to coordinate with TC9.10 and TC 9.7 to develop questions on laboratory variables affecting energy use.
 - **1b: David Handwork** of TC9.7 and **Wade Conlan** of TC9.10 to survey their TCs for laboratory variables affecting energy use.
 - **1c: Bruce Hunn** to track progress on development of laboratory variables affecting energy use

¹ All votes are recorded as yes-no-abstain.

- **1d: Methodology Subcommittee** to request a survey by APPA of membership to report back with energy data and critical variables for laboratory energy use.
- **1e: Methodology Subcommittee** (or designee) to analyze the data on laboratory energy use via regression analysis to determine significant energy factors and establish equation for determining median by September 2017 for use by initial participating campuses in the Adapt bEQ course.
- **AI 2: Crowther** to develop a list of target sales channels
- **AI 3: Crowther and Keen** to develop a targeted marketing program
- **AI 4: Pratt** to request a proposal from Carmel Software on the cost/time needed to add other languages to the web portal
- **AI 5: Crowther, Bohanon, and Keen** to develop a proposed plan on the “products” of the Building EQ program for review by the committee.
- **AI 6: Building EQ Committee** to work with Adapt bEQ Adhoc and APPA to identify 4 to 6 campuses to pilot Building EQ and the Adapt bEQ course in Fall 2017 or Spring 2018.
 - **6a: Brandemuehl** to identify and send to APPA (Chuck Scott and Pete Strazdas) a list of 15 to 20 universities with both ASHRAE Student Branches and APPA participation.
 - **6b: APPA** (Chuck Scott and Pete Strazdas) to identify facilities on the list from Brandemuehl with the strongest APPA support.
 - **6c: Building EQ** to communicate and coordinate with identified facilities to create a pilot implementation plan for each campus.
- **AI 7: Crowther and Keen** to develop a one pager ASAP with talking points on the benefits of Building EQ for:
 - **7a:** use by APPA to explain Building EQ to APPA members on the short list developed by with the Adapt bEQ Adhoc.
 - **7b:** use by GGAC to explain Building EQ to Chapter RVCs
- **AI 8: Bohanon** to put together a seminar proposal for Long Beach on the bEQ roll out and APPA program by the February 6, 2017 deadline. Seminar outline to be forwarded to Jeff Littleton to coordinate with Lander Medlin (APPA).
- **AI 9: Bohanon** to coordinate through Jeff Littleton with Lander Medlin (APPA) on a presentation for APPA’s annual meeting in San Francisco July 21-23.
- **AI 10: Building EQ Committee** to develop presentation/training material on Building EQ and upcoming changes for use at the Spring & Summer CRCs.
 - **10a: Pratt** to provide list of Spring CRCs and DRCs to Bohanon and Crowther.
 - **10b: Bohanon and Crowther** to coordinate with DRCs regarding Spring CRC presentations.
 - **10c: Bohanon and Crowther** to attend DRC meeting in Long Beach to coordinate presentation with CRC agendas for Summer CRCs
- **AI 11: Bohanon** to update DL slides for DLs presenting Building EQ.

December 2, 2016 Monthly Web Meeting

- **AI 1: Reports and Sales Subgroups** to review products to see if there are other products/reports that can be sold to users (e.g., certificates).
- **AI 2: Sales subgroup** to determine pricing strategy for reports and labels, considering volume, users, location, selected partners, etc.

- **AI 3: Bohanon, Crowther** to address production and quality control as the process moves from worksheets to on-line data entry.

October 7, 2016 Monthly Web Meeting

- **AI: Pratt** to get final approved budget amounts from **Craig Wright** to report back to committee.

September 20-21, 2016 Atlanta Interim Meeting:

- **AI 4: Eley/Bohanon** to finalize the ventilation rate data for the COMNET website.
- **AI 8: Pratt** to send **Boyd** a copy of the workbooks for the first full IO/AD awarded to city of Orlando buildings for use in determining web portal outputs.
- **AI 12: Davies** to send **Pratt** name of CIBSE contact for Q&A.

May 6-7, 2016 Atlanta Interim Meeting:

- **AI 2: Pratt** to make a list of all fields in each rating workbook (IO and AD), noting mandatory and optional fields as well as all pull down menus, help, & validation information already identified. (Ongoing)

January 24, 2016 Orlando Winter Meeting:

- **AI 3: Methodology Subcommittee** to explore the DOE Asset Score and report back to the full committee. (On-going)

June 29, 2014 Seattle Annual Meeting

- **AI 1: Eley/Pratt** to lead an effort to document the bEQ In Operation process and methodology. (On Hold)

Meeting Minutes

1. Call to Order (Bohanon) – **Meeting convened at 11:34am PST**
 - a. ASHRAE Code of Ethics
(<https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>)
 - b. [Committee purpose and scope](#)
 - c. [Committee structure and roster](#)
 - d. Introductions
 - e. Welcome new committee members
 - f. Review of agenda
2. Coordinating Officer Report – Edward Tsui
 - Mr. Tsui thanked the committee for their efforts and reported that while there was much discussion on Building EQ at the October BOD meeting and a lot of focus on the financial aspect of the program, that is because the BOD thinks that this is a very important program and they want it to succeed.

3. New Business

- a. Approval of minutes from September 20, 2016 meeting

Motion 1: Crowther moved and Eley seconded that the minutes of the September 20, 2016 meeting of the Building EQ committee be approved.

Vote: Approved by voice vote (6-0-0, CV)

- b. Approval of minutes from monthly calls ([Appendix A](#))

Motion 2: Crowther moved and Boyce seconded that the minutes from the monthly web meetings of the Building EQ committee be approved.

Vote: Approved by voice vote (6-0-0, CV)

4. Methodology Subcommittee Report ([Appendix B](#))

- Mr. Eley gave an oral report of the Methodology subcommittee meeting from the day before and noted that most of the meeting was spent updating progress on the web portal.
- The subcommittee meeting notes are shown in [Appendix B](#).

a. Online portal project update

- The Web Portal vendor, Stephen Roth, demonstrated the wire frames of the both the registration process and the In Operation input screens.
- Features such as navigation, validation, and error checking were discussed.
- It was noted that the project started about 2 months late, so it was not possible to have a prototype of the portal by this meeting. However, the project is making good progress and is scheduled to be launched around the summer meeting.
- An Alpha test will be held Mar 15-apr 15 and a beta test in May 2017.
- In order to meet the launch date, several less critical items will be postponed until after the launch such as the mapping to Building Sync.
- There will need to be some coordination with the update of the ASHRAE website. The style theme of the web portal will be as close as possible to the website feel, and the theme can be changed at a later date as needed when the new ASHRAE website is launched.
- The website will be set up with a resource file that will be in English for the first launch. All the labels and text will be read from that file so that it will be possible to exchange that for another language at a future time.
- The committee discussed CHP and cogeneration campuses which offer more complexities in terms of data entry. It was noted that the web portal will probably not be able to model CHP and cogeneration in this first release, but should be able to deal with it in the future.
- The committee discussed submetering vs. full campus metering and noted that more campuses are starting to install submetering on their campuses.

b. How to rate Lab Buildings

- It was noted that current procedures have one median EUI for all laboratory types, but that labs vary widely based on the energy use intensity of the equipment and the airflow/ventilation requirements.
- The committee will start a process to review and hopefully update the median EUI calculation for labs at some point in the future.
- If ASHRAE can figure out what questions to ask regarding labs (type of lab, how many hoods, type of equipment, etc), APPA could poll their members to start to determine the drivers for energy use.
- TC 9.10 deals with laboratories and TC 9.7 deals with education facilities and those TCs will be happy to work with their members on this process.

AI 1: Building EQ Committee to develop a median EUI for laboratory buildings.

- **1a: Bohanon and Eley** to coordinate with TC9.10 and TC 9.7 to develop questions on laboratory variables affecting energy use.
- **1b: David Handwork** of TC9.7 and **Wade Conlan** of TC9.10 to survey their TCs for laboratory variables affecting energy use.
- **1c: Bruce Hunn** to track progress on development of laboratory variables affecting energy use
- **1d: Methodology Subcommittee** to request a survey by APPA of membership to report back with energy data and critical variables for laboratory energy use.
- **1e: Methodology Subcommittee** (or designee) to analyze the data on laboratory energy use via regression analysis to determine significant energy factors and establish equation for determining median by September 2017 for use by initial participating campuses in the Adapt bEQ course.

c. DOE Building Energy Asset Score

- The use of Building Sync will allow for reading/writing information between the DOE Asset Score and Building EQ – where there is overlap of information.

d. Updates to COMNET website

- The current values for the schedules of operation and default ventilation rates on COMNET are not consistent with Standard 62.1.
- A procedure was identified to make them more consistent, but the table proposed for Standard 62.1 that would address this failed to be approved for publication. Building EQ can still use this information and an approach is being developed.
- The multi-family default plug load numbers in COMNET will also be updated to match the EPA default numbers.
- Nora Wang reported that DOE has switched to using the modeling inputs from NREL's Standard 90.1 modeling. However, in bEQ all the modeling is done at the space level rather than at the building level and that would seem to address any discrepancies.

5. Marketing Subcommittee Report

- Mr. Crowther gave a general overview of the approach that the committee is following to identify customers and determine how to target those customers.

- He noted that the committee's challenge is not making good products but determining how to sell those products.
- a. Rollout Building EQ Subgroup Update (Appendix X – attach report)
 - This subgroup looked at priorities in order to do a few things very well at the start.
 - One target is groups with many facilities such as APPA.
 - Also targeting Latin America where there is already interest, engaged committee members, and less competition.
 - There will need to be some transition between the workbooks and the web portal especially considering the ongoing language translation of the workbooks.
- b. Drive the Sales Plan Subgroup Update
 - This group is looking to identify sales channels to reach the audiences identified above. The plan is to identify a couple of organizations to start.
 - There have been roughly 26 organizations or municipalities that have reached out to ASHRAE asking about using bEQ including two large groups where there are immediate opportunities: APPA and Hydro Quebec.
 - The plan is to get the word out at the CRC's, but there will be a bit of challenge getting the right information to the spring CRCs.
- c. Marketing Input to Web Portal Subgroup Update
 - This group is poised to help the web portal development in regards to the output from that tool. It is important that whatever report comes out of the program is clearly delineated as an ASHRAE Building EQ report.
 - The indications right now are that the tool is pretty flexible in regards to output.
- d. Licensee Program Business Plan Subgroup Update
 - This is a business development project at this time to see if there is a viable business plan for a licensee program. This program will follow the development of the web portal.
 - The idea is to take this portal/tool to utilities and/or municipalities and see if they want to collect information for their jurisdiction and have a tool customized for their application even though it would be based on the bEQ platform.
 - Questions are: what is the value of that service and would they be willing to pay for those changes along with a nominal fee for ASHRAE to host/maintain the site.
 - Other considerations for this business plan include staffing questions and costs.
- e. General Discussion
 - There is agreement that the end game is not the rating or the report, but the collaboration with practitioners to make the building better that occurs after the rating and report.
 - Different customers have different levels of resources and different levels of commitments to sustainability.
 - Building EQ is in a position to go look at buildings and identify how well they are doing and then provide the information to make those buildings better.

- ASHRAE has built their reputation on the quality of data and should be able to get traction for the program on that reputation.
 - There is agreement that a plaque in the building lobby is not the main focus of the program.
- f. Label vs. Award
- A small working group will be put together to work through the issues identified in the subcommittee meeting. The result of that working group will be brought back to the full committee for review and discussion.

AI 2: Crowther to develop a list of target sales channels

AI 3: Crowther and Keen to develop a targeted marketing program

AI 4: Pratt to request a proposal from Carmel Software on the cost/time needed to add other languages to the web portal

AI 5: Crowther, Bohanon, and Keen to develop a proposed plan on the “products” of the Building EQ program for review by the committee.

6. What is APPA?

- APPA was formerly known as the Association of Physical Plant Administrators. They are now the Association of Higher Education Facilities Managers.
- APPA has 15,000 members and is focused mostly on educational facilities including some museums and K-12 facilities. Canada and Mexico are also included.
- The relationship with ASHRAE has been two years in the making – MOU with ASHRAE.

7. Building EQ on University Campuses (10:30am)

a. Presidential Ad Hoc on Adapt bEQ for student branches

- Mr. Brandemuehl reported on the work of the Adhoc that is charged with adapting bEQ for use in a university level course on benchmarking and building energy assessment.
- The Adhoc is also charged with developing a model for additional university level courses moving forward. These will be a partnership between universities, student branches, and the local ASHRAE community.
- Course introductory material is available now on the ASHRAE website. The full class content will be available in late February and updated in June-July as the web portal rolls out.
- ASHRAE is looking for a core group of six to twelve facilities where this course could be piloted in the fall. These facilities would be pulled from the list of overlapping facilities that have both ASHRAE student branches and APPA support.
- A bigger push to universities across the country would follow the pilot.
- There may also be opportunity for this to be done as an independent study or for students to engage with a local practitioner directly.
- It is fairly easy to engage students in experiential learning without credits and this approach may be an important first step.
- The fact that this provides real life hands on learning is another factor in its favor.

AI 6: Building EQ Committee to work with Adapt bEQ Adhoc and APPA to identify 4 to 6 campuses to pilot Building EQ and the Adapt bEQ course in Fall 2017 or Spring 2018.

- **6a: Brandemuehl** to identify and send to APPA (Chuck Scott and Pete Strazdas) a list of 15 to 20 universities with both ASHRAE Student Branches and APPA participation.
- **6b: APPA** (Chuck Scott and Pete Strazdas) to identify facilities on the list from Brandemuehl with the strongest APPA support.
- **6c: Building EQ** to communicate and coordinate with indentified facilities to create a pilot implementation plan for each campus.

b. Collaboration with APPA

- APPA may also wish to move forward with Building EQ on facilities in parallel with and outside of the university course – perhaps with a shortened course.
- Building EQ and this course could be a game changer in getting the resources to improve the facilities and getting a more sustainable campus.
- Need some sort of presentation that shows how Building EQ is a program that is of value to the university. Need ½ hour marketing presentation for this effort.
- In the UK there is a movement to get students to rank universities. These rankings now include questions/responses on sustainability.

AI 7: Crowther and Keen to develop a one pager ASAP with talking points on the benefits of Building EQ for:

- **7a:** use by APPA to explain Building EQ to APPA members on the short list developed by with the Adapt bEQ Adhoc.
- **7b:** use by GGAC to explain Building EQ to Chapter RVCs

8. Other Business

a. APPA-Building EQ Program approval

- Program proposals for the ASHRAE Long Beach meeting are due February 6. Responses from CEC to the submitters should got out around March 1.
- Bohanon will work with Lander Medlin on the APPA seminar program.

Motion 3: Crowther moved and Keen seconded to approve a program for the ASHRAE Annual Meeting in June and for the APPA annual meeting.

Vote: Approved by voice vote (6-0-0, CV)

b. ASHRAE Research Project 1771-RP

- Mr. Brandemuehl updated the committee on 1771-RP: Energy Modeling of Typical Commercial Buildings in Support of ASHRAE Building Energy Quotient Energy Rating Program.
- It is a two year, \$200,000 project which is intended to reconcile the baseline schemes of the operational ratings with design standards (90.1, 189.1, CBECS, bEQ, etc).
- The Principle Investigator and team are into the 2nd task. The first interim report is imminent and requires PMS approval. After that the EnergyPlus simulations will be initiated.

- c. NYSERDA National Rating Program Comparison project
 - Nothing to report at this time.
- d. Update on LEED Alternative Compliance Path Proposal
 - Nothing to report at this time.
- e. Translations -
 - The Quebec French translation is almost completed. It is entering final peer review now and will be sent to ASHRAE staff for final review once that is completed. Hydro Quebec is anxious to start using Building EQ this spring.
 - The Argentina chapter will be working on a Spanish translation of the Building EQ materials. The licensing agreement has been signed to initiate the project.
- f. MBO status ([Attachment D](#))
 - Nothing to report at this time.

AI 8: Bohanon to put together a seminar proposal for Long Beach on the bEQ roll out and APPA program by the February 6, 2017 deadline. (Note: Seminar outline to be forwarded to Jeff Littleton to coordinate with Lander Medlin at APPA).

AI 9: Bohanon to coordinate through Jeff Littleton with Lander Medlin (APPA) on a presentation for APPA's annual meeting in San Francisco July 21-23.

AI 10: Building EQ Committee to develop presentation/training material on Building EQ and upcoming changes for use at the Spring & Summer CRCs.

- **10a: Pratt** to provide list of Spring CRCs and DRCs to Bohanon and Crowther.
- **10b: Bohanon and Crowther** to coordinate with DRCs regarding Spring CRC presentations.
- **10c: Bohanon and Crowther** to attend DRC meeting in Long Beach to coordinate presentation with CRC agendas for Summer CRCs

AI 11: Bohanon to update DL slides for DLs presenting Building EQ.

9. Liaison Reports

- a. Standard 90.1 – No report at this time
- b. Standard 189.1 – No report at this time
- c. Standard 100 – No report at this time
- d. Standard 62.1 – No report at this time
- e. Standard 214P (Energy Rating Standard)
 - Public Review scheduled for February 6 to March 12.
- f. Standard 211P (Building Energy Audit Standard)
 - The committee is completing the responses to comments from the 1st Publication Public Review (PPR). At least one more public review is expected.
 - Building EQ is listed as one of the compliance option for benchmarking in the standard.
- g. GGAC – No report at this time
- h. Technical Committees – No report at this time

10. bEQ budget 2016-2017 ([Attachment D](#)) – No report at this time

11. Upcoming Meetings

- a. Monthly web meetings: First Friday of Month, 10am-11am Eastern Time
- Upcoming: March 3, April 7
 - February call will be cancelled.

12. Adjourn – **Meeting adjourned at 11:28am PST**

bEQ Scope, Purpose and Operation

This committee is responsible for the business planning, training and marketing of the programs of this enterprise. This committee has the overall responsibility to determine technical developments that are required to support these activities. This committee has the responsibility for directing the development of marketing programs to determined target audiences.

The committee shall report to the Board of Directors.

This committee is responsible for the operation of the BEQ enterprise as determined by the Board and for coordinating the activities of all three councils regarding the ASHRAE Building Labeling program.

bEQ Committee Structure – FY 2015-2016

bEQ Committee Members (voting): Hoy Bohanon (Chair), Hugh Crowther (Vice-chair), Julia Keen (Tech Council Representative), Darryl Boyce (Pub-Ed Council Representative), Charles Eley (Member-at-Large), Nate Boyd (Member-at-Large), Harry Misuriello (Member-at-Large), Hywel Davies (Member-at-Large),

bEQ Consultants/Others (non-voting): Esteban Baccini, Jaap Hogeling, Bruce Hunn, Kushagra Juneja, Ross Montgomery, Dan Nall, Shanta Tucker, Edward Tsui (Coordinating Officer)

Methodology subcommittee: Charles Eley (chair), Hoy Bohanon, Harry Misuriello, Dan Nall, Bruce Hunn, Shanta Tucker

Marketing Subcommittee: Hugh Crowther (chair), Darryl Boyce, Julie Keen, Nate Boyd, Hywel Davies, Jaap Hogeling, Kushagra Juneja, Ross Montgomery, Edward Tsui

Web Rollout Subgroup:

Julia Keen (Lead), Esteban Baccini, Hywel Davies, Jaap Hogeling

Sales Plan Subgroup:

Darryl Boyce (Lead), Nate Boyd, Hugh Crowther

Web Portal Reports Subgroup:

Kushagra Juneja (Lead), Esteban Baccini, Nate Boyd, Jaap Hogeling, Ross Montgomery

Licensee Program Business Plan Subgroup:

Nate Boyd (Lead), Hugh Crowther

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Attachment A: Minutes from Monthly Web Calls

RECAP of 10/7 MONTHLY WEB MEETING:

Participants: Hugh Crowther, Julia Keen, Kushagra Juneja, Jaap Hogeling, Esteban Baccini, Hoy Bohanon, Hywel Davies

Liaisons: Bruce Hunn

Staff: Lilas Pratt, Joslyn Ratcliff, Lauren Walters, Jodi Scott, Jim Scarborough, Claire Ramspeck

Meeting Notes:

1. Review of MBO's
 - Look at the specific tabs for each MBO, direct any questions to Hugh Crowther.
 - Each tab has a mission statement and some deliverables.
 - Subgroup leads work with Lilas to set up conference calls or to get technical details on the progress of the web portal project.

2. Update on methodology
 - Ventilation rates still in process – Hoy will connect
 - Matching bEQ with Energy Star – this will take some time
 - Want to decide the method for indicating the ratings (stars, medals, etc) and then finalize the mapping to work with that.

3. Feedback from BOD meeting in Bangkok
 - Questions about the revenue. Focus was on the financials rather than the content of what was being presented.
 - Need to clarify and adjust the message moving forward. Committee leadership will reach out to the BOD to get more feedback.
 - The committee provided an information item. At what point does it become an action item and at what point is additional money requested?
 - What is the next step? Need to judge the mood of the BOD before deciding how to report the results of the RFP for the web portal – do we report the contractor selection as an information item or engage the BOD in the final decision prior to signing the contract?
 - No other fiscal requests are expected this year. There is some money in the budget for things that may come out of the Marketing MBOs.
 - The sense is that there is confusion at the Board about the licensing program and that the Building EQ committee report to the Las Vegas meeting of the Board should aim to explain what the licensing program is about, why we think it is a potential revenue stream, and what basis we have for thinking that it might deliver the currently projected levels of revenue
 - Claire would encourage those who are comfortable doing so to have some one on one conversations with BOD members in order to get honest feedback and to communicate the direction of the program.
 - What is the ultimate goal of the program? Originally it was driving buildings to net zero. Not sure that is the main goal now; however, there is a market for energy reduction in buildings

- Is Building EQ is trying to get into a market that is losing momentum – how get people to want to certify buildings again?
- Need a strong business case in order to get the BOD to buy into this. The BOD members are not using Building EQ – if they strongly supported the program, the feeling is that they would be using it.
- The more delay moving forward, the more differentiation between Building EQ and other programs decreases. If the planned progress (on web portal, licensee, etc) is slowed down, then the timeline that has been presented to the BOD will change and they will need to be informed of that change.

4. Other updates – Web Portal

- The PES needs to do the review in two stages. Need to work out which bids are responsive, and once completed, then look at the remaining ones with a financial analysis so the PES can understand what would be paid for the various options.

AI: Pratt to get final approved budget amounts from Craig Wright to report back to committee.

AI: Crowther to reach out to BOD members to gauge their current feelings on the Building EQ program

RECAP of 11/4 MONTHLY WEB MEETING:

Participants: Jaap Hogeling, Kushagra Juneja, Julia Keen, Hywel Davies, Hoy Bohanon, Hugh Crowther, Charles Eley, Darryl Boyce

Staff: Lilas Pratt, Claire Ramspeck, Vanita Gupta, Jodi Scott, Jim Scarborough, Joslyn Ratcliff, Lauren Walters, Megan Joyce

Others: Bruce Hunn

Meeting convened at 10:03am EDT

Meeting Notes:

2. Marketing Staff Award/label options
 - Attachment: *Award Concepts Copy.pdf*
 - Discussion on award versus label
 - Give an award for good performance – want to recognize buildings that perform well.
 - How many levels needed? Consensus on seven levels
 - The building design with seven levels seems kind of busy.
 - The consensus is that the leaves on the stem is the preferred design. More leaves indicate higher level of performance.
 - Suggestion is to only provide the award for the top four levels, so no one would get an award with only one or two leaves filled in.
 - Color has not really been discussed
 - Scale has not been discussed yet

- There may be a need for a straw man to sort out what the committee wants to do on a label vs. award, etc.
3. Final word from Marketing Staff on the Concept and Brand guides
 - Attachments: *BrandGuide Marketing 11.3.2016.pdf* and *ConceptG Marketing 11.3.2016.pdf*
 - Additional updates from Marketing are attached to this email.
 - Committee to review the final guides with Marketing's additional suggestions
 - A letter ballot will be sent out mid-week next week
 4. Voting on purchasing the artwork (\$1200-\$1500) on page 3 of the Concept Guide (Attachments: *ashr5238-01ConceptGde-D5h.pdf*)
 - Marketing recommends purchasing this in order to be able to use it.
 - It was not included in the materials from Godfrey as they did not create the artwork themselves.
 - Marketing could create something similar, but it would be preferable to have the license for this design before they do that.

Motion: Hugh Crowther moved and Darryl Boyce seconded that ASHRAE purchase the license to use the Building Genius artwork.

Vote: 6-0-0, CV motion passes

5. Web Portal project update (vendor, contract, timing)
 - All vendors have been notified of the final vendor selection decision.
 - The contract has been sent to Carmel Software and we are awaiting their response.
 - The project timeline dates in the contract are from Nov 15, 2016 through Jun 15, 2017
 - The project payment schedule will follow the procedures used by RAC for research projects.
6. Update from Marketing MBO Subgroups
 - Web Portal Roll out (Julia Keen) – The subgroup is organizing information and will meet soon.
 - Sale Plan (Darryl Boyce) – Things that will affect this sub group's work include interaction with the higher education facilities officers (APPA) and the Adapt bEQ Adhoc. A meeting will be set up soon.
 - Web Portal Reports (Kushagra Juneja) – The subgroup met earlier this week and is meeting again next week. Subgroup members are reviewing existing bEQ reports (Forms, Certificate, Dashboard) as a starting point.
 - Licensee Program (Nate Boyd) – Nate Boyd has met with City of Orlando and the OUC regarding their interest in and the feasibility of the licensee program.
7. Business Plan
 - One question is whether the business plan be updated and re-presented to the BOD in Las Vegas.
 - It is unclear specifically what is needed, but some presentation will certainly be expected.

- FAQs on the business plan were sent to BOD and are attached to these notes (specific email will be forwarded as well).
8. Information Items
- bEQ- LEED update – The LEED Steering Committee was meeting on November 1. A follow up email regarding the outcome of that meeting was sent to Brendan on 11/4
 - APPA Meeting on December 1 – Hoy Bohanon will attend this meeting in person and additional people will attend by phone (including Michael Brandemuehl and Lilas Pratt). Bohanon will coordinate with Brandemuehl on what is to be presented from the Building EQ perspective.
 - NYSERDA Rating Comparison work – Lilas Pratt will confer with Maria Karpman and put out Doodle Poll for a meeting with her and the Methodology Group & Michael Brandemuehl to discuss the results to date

Meeting Adjourned at 10:58am EDT

RECAP of 11/4 MONTHLY WEB MEETING:

Participants: Baccini, Hogeling, Bohanon, Davies, Keen, Juneja

Staff: Ramspeck, Gupta, Ratcliff, Scarborough, Pratt, Scott, Walters

Guests: Hunn, Montgomery

AI 1: Reports and Sales Subgroups to review products to see if there are other products/reports that can be sold to users (e.g., certificates).

AI 2: Sales subgroup to determine pricing strategy for reports and labels, considering volume, users, location, selected partners, etc.

AI 3: Bohanon, Crowther to address production and quality control as the process moves from worksheets to on-line data entry.

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Attachment B: Methodology Subcommittee Notes

Building EQ Committee - Methodology Subcommittee Las Vegas Winter Meeting January 28, 2017

Subcommittee Participants: Charles Eley (subcommittee chair), Dan Nall

Other committee members present: Darryl Boyce, Nate Boyd, Hugh Crowther, Jaap Hogeling, Kushagra Juneja, Julia Keen, Ross Montgomery

Staff: Lilas Pratt, Emily Sigman

Guests: Stephen Roth, Mike Brandemuehl, Alamelu Brooks, Supriya Goel, Michele Sim

1. Call to Order (Eley) – **Meeting convened at 11:00am PST**
2. Review of Agenda (Eley)
3. Online Portal Project Update
 - a. Overview of Progress to date
 - b. bEQ Web Data Model (graphic)
 - c. bEQ Web Wireframes
 - d. Preliminary Alpha of Account Mgmt portion of Website
 - e. Schedule Moving Forward
 - f. Q&A
 - Mr. Stephen Roth of Carmel Software showed the committee the database schema which demonstrates the relationship between all the fields and data items in the database.
 - The importance of using Building Sync in naming conventions and BEDES (standard data dictionary) was discussed. Building Sync is an XLM schema that is the manifestation of BEDES.
 - Mr. Roth reviewed the preliminary wire frames and discussed the look and feel of input and output screens.
 - The plan is to have some canned reports that can be seen on the screen and printed as PDFs. Subscribers would also have access to custom reporting. The intent is to have dynamic report generating capability
 - The scheduled was reviewed: An alpha test is scheduled for April 15 to May 15, 2017 and a beta test schedule for in May 30 to June 30, 2017.
 - Standardized canned report can come later – this would be a standardized report that looks the same regardless of who does the work.
4. How to rate Lab Buildings
 - Standard 100 has a lab value, but the CBECS data is sparse and represents a wide variety of lab types. There is a need for a more precise measurement.

- It might be possible to apply additional neutral values such as number of hoods to deal with some of the differences.
- There are two separate issues with labs: equipment energy use (ovens, etc) and air flow. These are two very different issues and driven by very different issues.
- This will not likely be solved for the launch of the first web portal iteration.
- Europe decided to stay away from buildings where the process/use of the building is dictating the energy use. However, some pretty spectacular things can be done in labs in regards to energy savings in the building design.
- To some extent, this issue exists with almost every building type in CBECS -- where the building type has a distribution of building uses/types.
- The committee agreed to use the current Standard 100 number for now and use the interaction with APPA to see just how accurate that number is.
- Hooks will be included in the web portal to allow for future adjustments to median EUI calculations.

5. DOE Building Energy Asset Score

- Supriya Goel from PNNL is a technical lead on the DOE Asset Score.
- ASHRAE would like to be able to send data back and forth between DOE Asset Score and bEQ As Designed rating in the future. There is lots of opportunity to work together.

6. Updates to bEQ Information on COMNET website

- a. This issue will be discussed offline.
- b. The 62.1 addendum on ventilation rate data was not approved for publication, but bEQ could still use the numbers.

7. New Business (Eley)

8. Adjourn – **Meeting adjourned at 1:00pm PST**

Methodology Subcommittee Members:

Charles Eley (chair), Hoy Bohanon, Harry Misuriello, Dan Nall, Bruce Hunn, Shanta Tucker

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Attachment C: Marketing Subcommittee Notes

Building EQ Committee - Marketing Subcommittee Las Vegas Winter Meeting January 28, 2017

Subcommittee Participants: Hugh Crowther (subcommittee chair), Esteban Baccini, Darryl Boyce, Nate Boyd, Hywel Davies, Jaap Hogeling, Kushagra Juneja, Julia Keen, Ross Montgomery

Other committee members present: Charles Eley, Dan Nall, Edward Tsui (coordinating officer)

Staff: Lilas Pratt, Claire Ramspeck, Vanita Gupta, Jodi Scott, Emily Sigman, Lauren Walters,

Guests: Billy Austin, Mike Brandemuehl, Jose Correa, Supriya Goel, Karine Leblanc, Nicholas Long, Dave Palty, Stephen Roth, Michele Sim

1. Call to Order – **Meeting convened at 1:25pm PST**
2. Review of Agenda (Crowther)
3. Marketing Subgroup Reports
 - a. Rollout Building EQ Subgroup (Keen)
 - Who are customers and what are sales channels to reach those customers?
 - The thinking of the subgroup was that getting information to the members hasn't been working so far. The need is to get information to the owners to provide a reason why they would want to use Building EQ.
 - Until ASHRAE members are comfortable using the Building EQ system, it will be difficult for them to sell it. But ASHRAE members are an easy group to reach.
 - TC 7.6 will be pursuing an energy audits best practices document after Standard 211 is published, and they intend to use Building EQ to augment those practices.
 - Latin America was identified as a good place to start international efforts. The process has already begun with promotion in various conferences and events.
 - The cost of utilities in South America is variable and so owners are asking for things to help them save energy /costs.
 - It was suggested that Asia also be included in one of these priorities. They look to the US to setting standards, and now is a good time to get into this market while they are just starting to set these standards.
 - It was noted that translated workbooks may need some additional transition considerations with the web portal.
 - b. Label/Awards
 - The committee discussed whether these are two different things:
 - A school grade is like a label in that it provides a piece of information, and Nutritional labels provide information/data. However, when a student makes the

honor role, they get a certificate for making that grade level which is more of an award.

- In bEQ terms, the label tells how a building relates to other buildings. Some additional information on the scale would be helpful. But an award would not recognize bad performance.
 - GGAC feels that the award piece recognizes high performers, and they have some heartburn over the letter grades.
 - Building EQ may be too early in the process for an award – it should not be ruled out, but it may be premature at this point.
 - The award was envisioned as an alternative to the letter grades, but only for the top levels of performance on the current label.
 - Is ASHRAE looking for this tool to be a technical resource tool or for ASHRAE to be a certifying agency? This could be an important distinction.
 - Recognizing well performing buildings is excellent and should be done, but a well done label will do that.
- c. Drive the Sales Plan Subgroup (Boyce)
- APPA is a potential partner for Building EQ. APPA presidents (past and current) will be at the main Building EQ committee meeting on Sunday.
 - There is a big opportunity with APPA as they are hugely interested and they could be ambassadors and a sales force for the program. There is also an opportunity to test the program with APPA.
 - Case studies are needed to help demonstrate what Building EQ can do.
 - The partnership with APPA ties into the Adapt bEQ Adhoc university course. There is a need to identify a few strong student branches that marry up with really active APPA campuses so the first attempts are a win-win.
- d. Marketing Input to Web Portal Subgroup (Juneja)
- The information reported in the Methodology subcommittee suggests that the tool will be more powerful in terms of reporting than original envisioned.
- e. Licensee Program Business Plan Subgroup (Boyd)
- Governments/Utilities are one of the groups that is targeted as licensees to use a version of the portal that has been customized for their use.
 - GGAC targets these entities, but ASHRAE members will be needed to do the outreach
 - Utilities will bear the burden of the energy audit piece in regulations.
 - Nate Boyd is talking with the Orlando Utility Commission (municipally owned utility) and the City of Orlando about what they would want in a licensee agreement and what the market value would be for that.
 - These licensees could possibly bring in revenue of \$10,000 for the customization plus long term maintenance revenue for the licensed sites. The goal is have costing information by Long Beach.
 - With increasing versions of Building EQ created through customization, is there risk of losing the identity of the program?

- GGAC would like a 2-page fact sheet on the program (see example) so that they can start talking to municipalities
4. New Business (Crowther)
 - a. Web Site Location/Design Considerations
 - Discussion deferred.
 5. Adjourn – **Meeting adjourned at 3:00pm PST**

Marketing Subcommittee Members:

Hugh Crowther (chair), Darryl Boyce, Julie Keen, Nate Boyd, Hywel Davies, Jaap Hogeling, Kushagra Juneja, Ross Montgomery, Edward Tsui

Web Rollout Subgroup: Julia Keen (Lead), Esteban Baccini, Hywel Davies, Jaap Hogeling

Sales Plan Subgroup: Darryl Boyce (Lead), Nate Boyd, Hugh Crowther

Web Portal Reports Subgroup: Kushagra Juneja (Lead), Esteban Baccini, Nate Boyd, Jaap Hogeling, Ross Montgomery

Licensee Program Business Plan Subgroup: Nate Boyd (Lead), Hugh Crowther

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Attachment D: MBO Status

Strategic Direction 3- ASHRAE will position itself as an essential resource for optimizing the performance of building and energy systems throughout their life cycles.

Assigned to: [bEQ Committee](#)

Item #	Objective	Status	Date Due	Assigned To Lead Efforts	MBO Comments
1	Implement bEQ marketing plan	Ongoing	6/30/2016	Marketing	Selected recommendations from marketing plan will be implemented beginning July 2016.
2	Establish framework for coordinating and collaborating with EPA Energy Star	Complete	6/30/2016	Chair	Alignment of methodologies approved in Orlando.
3	Establish a framework for coordinating and collaborating with USGBC	Complete	6/30/2016	Chair	EBOM ACM under consideration by USGBC
4	Develop communication framework with GGAC	Complete	1/1/2016	Marketing	Communication improved. GGAC RVCs have effectively coordinated bEQ opportunities.
5	Develop plan for implementing bEQ online	Complete	1/1/2016	Methodology	Functional specification completed.
6	Develop educational offerings for bEQ training	Ongoing	1/1/2016	Methodology	eLearning under development. Presidential Ad Hoc for university course.
7	Initiate bEQ research project	Complete	4/1/2016	Methodology	Work underway.
8	Double the number of buildings with bEQ ratings	Ongoing	6/30/2016	Committee	Submissions up 177% as of 21-Jun-2016

Strategic Direction 3- ASHRAE will position itself as an essential resource for optimizing the performance of building and energy systems throughout their life cycles.
Strategies

3.1 Aggressively market ASHRAE to enhance its image with the industry, policy makers, and other stakeholders through advocacy, public relations, association relations and dissemination of its products and services.

3.2 Expand ASHRAE's marketing focus to target all stakeholders in building and energy systems design and operation such as contractors, building owners, and architects.

3.3 Make ASHRAE's products and services useful, desirable, and accessible to both existing and prospective customers by strengthening and adding focus to the ASHRAE brand as a key resource.

3.4 Provide tools to enable chapters to become a local focus for education and community outreach.

3.5 Help ASHRAE regions and chapters provide appropriate and timely information to state and local government bodies.

3.6 Establish and maintain effective relations with key government agencies so that ASHRAE is recognized as a resource for regulatory and legislative development and for program implementation.

3.7 Conduct periodic market research and environmental scans to understand and act upon the needs of current and prospective members.

3.8 Target selected industry media to present ASHRAE and its activities.

3.9 Promote availability of appropriate products and services to markets outside the ASHRAE membership.

Rationale

1. Public interest in HVAC&R related issues is growing and ASHRAE has the technical knowledge to meet this need.

2. Policy makers and other stakeholders need to be aware of ASHRAE's expertise.

3. Increasing competition requires ASHRAE to distinguish itself as the leader in the field. ASHRAE needs to be recognized as the building and energy systems design and performance experts.

4. The utilization of ASHRAE's knowledge base can directly lead to gains in worker productivity and efficiency of industrial processes.

5. Appropriate commissioning through the life cycle of a building promotes optimum performance.

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