bEQ Committee Orlando Winter Meeting January 24, 2016

Members Present: Michael Brandemuehl (chair), Hoy Bohanon (vice-chair), Hugh Crowther, Larry Markel, Tim McGinn, Nate Boyd, Harry Misuriello, Dan Nall, Hywel Davies, Charles Eley, Jaap Hogeling, Ben Skelton, Jim Vallort (Coordinating officer),

Staff: Lilas Pratt (staff liaison), Claire Ramspeck, Mark Ames, Jim Scarborough

Guests: Ahmed Alaa El Din, Chris Baker, Chris Balbach, Kristin Cokce, Audrey Dupuis, John Field, Philip Haves, Bruce Hunn, Randy Jones, John Karakash, Nicholas Long, Ross Montgomery, Ron Nelson, Terry Sharp, Aaron Smith, Annie Smith, Branislav Todorovic, Paul Torcellini, Nora Wang

Principal Motions¹

Motion #1: Hoy Bohanon moved and Larry Markel seconded that the minutes of the December 4-5, 2016 meeting in Atlanta be approved.

Vote: Motion passed with unanimous voice vote – 6-0-0, CNV (Boyd not in room)

Motion #2: Larry Markel moved and Tim McGinn seconded that the minutes of the January 4, 2016 conference call be approved.

Vote: Motion passed with unanimous voice vote – 6-0-0, CNV (Boyd not in room)

Motion #3: Marketing Subcommittee moved that the bEQ committee approve Godfrey to proceed with Concept 2 as the marketing concepts (used in conjunction with Concept 0) for the marketing implementation plan.

Vote: Motion passed 7-0-0, CNV

Motion #4: Methodology subcommittee moved that bEQ shift to existing ENERGY STAR (ES) methodology for median EUI calculation for ES qualified buildings with the timeframe for implementation to be determined.

Vote: Motion passed 7-0-0, CNV

Motion #5: Methodology subcommittee moved that the full committee approve the LEED Alternate Compliance Path Proposal for submission to USGBC.

Vote: Motion passed 7-0-0, CNV

Motion #6: Brandemuehl moved to recommend the selection of the University of Miami as the contractor for 1771-RP *Energy Modeling of Typical Commercial Buildings in Support of ASHRAE Building Energy Quotient Energy Rating Program*

Vote: Motion passed 7-0-0, CNV

New and Open Action Items

January 24, 2016 Orlando Winter Meeting:

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

- Al 1: bEQ Committee to send Nate Boyd suggestions on city of Orlando programs and workshops on rating and disclosure programs.
- Al 2: Dan Nall to follow up with AIA codes and standards staff person to increase awareness of bEQ within AIA.
- Al 3: Methodology Subcommittee to explore the DOE Asset Score and report back to the full committee.
- AI 4: Methodology Subcommittee to develop a functional specification for an on-line data entry system.
- Al 5: Brandemuehl to coordinate with the BPA Ad-hoc committee.

January 4, 2016 Conference Call

• <u>Al 2:</u> Methodology Subcommittee to try to get more information on how to deal with the DOE Energy Asset Score in relation to bEQ.

December 4-5, 2015 Atlanta Interim Meeting:

- Al 4: Pratt to send committee responses to questioners on green power, Malaysia, and outdoor lighting
- Al 7: Pratt to set up Basecamp account for bEQ committee

January 25, 2015 Chicago Winter Meeting:

• AI 8: Brandemuehl to work with Krishnan Gowri on his request to incorporate bEQ into the rapid capture for energy modeling project.

June 29, 2014 Seattle Annual Meeting

• Al 1: Eley to lead an effort to document the bEQ In Operation process and methodology. (On Hold)

Meeting Minutes

Sunday, January 24, 2016; 8:30am-11:00am EST

- 1. Call to Order Meeting convened at 8:35am EST
 - a. ASHRAE Code of Ethics
 - (https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics)
 - b. Committee structure and roster
 - c. Committee purpose and scope
 - d. Introductions
 - e. Review of agenda
- 2. Coordinating Officer Report Jim Vallort
 - Mr. Vallort noted that there has been a lot of buzz about bEQ and one focus being discussed is the international market. Standard 100 is looking to pull in metrics from beyond the US; specifically Canada which has a database very similar to CBECS.
 - The committee noted that bEQ is already international in that it is based on climate zones. The challenge becomes the baseline. A new set of metrics is not really necessary as the score provides a scale and a comparator within in any given market, and the process provides an energy audit with tools to get better.
 - Of the ratings awarded to date, 40% are outside the US and 30% are outside North America.

3. New Business

a. Approval of minutes from December 4 meeting (Sent 1/20/2015)

Motion #1: Hoy Bohanon moved and Larry Markel seconded that the minutes of the December 4-5, 2016 meeting in Atlanta be approved.

Vote: Motion passed with unanimous voice vote – 6-0-0, CNV (Boyd not in room)

b. Approval of minutes from January 4 conference call (Sent 1/20/2015)

Motion #2: Larry Markel moved and Tim McGinn seconded that the minutes of the January 4, 2016 conference call be approved.

Vote: Motion passed with unanimous voice vote – 6-0-0, CNV (Boyd not in room)

- c. bEQ strategic positioning presentation (Attachment A)
 - Mr. Brandemuehl reported on the history leading up to this presentation and reviewed the high points from the presentation.
 - Points to be made by the presentation include:
 - bEQ is still a labeling and rating program, but there is a renewed/increased focus on management and improvement of energy performance in a building.
 - This refocus will also look for opportunities to promote ASHRAE resources and support ASHRAE members with services that they can provide.
 - The committee is looking to refocus the marketing, collaborate with others, develop a web applications/portal, as well as foster the labeling potential.
 - bEQ has not met expectations. EPA dominates the market and there has been a low level of certification, low level awareness, and little to no revenue.
 - Mr. Crowther provided a report from Finances committee.
 - Attachment A shows the final presentation as presented to the BOD.
- d. NYSERDA National Labeling Group developments
 - Mr. Brandemuehl provided an overview of the history of this effort and Nora Wang reported on current developments.
 - NYSERDA has launched a national labeling group in an effort to consolidate labeling efforts
 across the board. While this is very similar to what ASHRAE did with the initial bEQ Adhoc
 committee, the NYSERDA group is comprised largely of municipalities and jurisdictions.
 - The program was initiated by the multifamily sector, but they want to expand to offices.
 - The goal is to put all programs onto a single consolidated label that explains all of the programs and their metrics.
 - Their target completion date is September 30, 2016.
 - There are three subcommittees: marketing, technical, and governanceThe current task underway is to pull information from different programs and do the metrics. They are looking at what should be on that piece of paper that is the "label". One question is how they going to reconcile all the different scales and all the different data requirements.
- 4. Marketing Subcommittee Report
 - a. Recognition program
 - Mr. Markel recognized Ross Montgomery as the #1 Booster of the bEQ program. Mr. Montgomery was presented with a commemorative T-shirt and ribbon.
 - b. Godfrey Phase 2 Concept disposition (Attachment B)

Motion #3: The Marketing Subcommittee moved that the bEQ committee approve Godfrey to proceed with Concept 2 as the marketing concepts (used in conjunction with Concept 0) for the marketing implementation plan.

Discussion:

- The money required for Phase 3 is relatively small and is already budgeted and approved and the marketing plan is likely to help the committee focus on further progress.
- One argument against concept 2 is that it has less relevance to where bEQ is going with the feel good, bright colors, etc. Most of the interest so far has been from municipalities and jurisdictions rather than the general public.
- However, everyone agrees that the message is going to be technical, and that is not going to change with the use of concept 2.
- One argument for concept 2 is that part of ASHRAE's reputation is that nobody understands ASHRAE. So, skewing towards a feel-good style is probably a good thing.
- Mr. Markel reported the results of the subcommittee straw poll (Concept 1- 6 votes, Concept 2 = 8 votes) and subcommittee vote (Concept 2 approved 5,0,0 CNV).

Vote: Motion passed 7-0-0, CNV

- c. Pilot program project proposal to DOE
 - Mr. Markel reported that a concept paper for a city of Orlando pilot program had been submitted to DOE. Their response was to discourage a full paper. The feeling was that DOE was not interested in a comparison between bEQ and DOE asset score
 - Markel will instead work with Nate Boyd to refine the concept so that it can be used to look for other funding sources.
 - City of Orlando is sponsoring utility forums and workshops on rating and disclosure programs. The central Florida chapter of ASHRAE has been asked to participate.
 - The forums will not be promoting bEQ, but rather looking at how bEQ can be used to help them achieve the goals for their program.
 - Suggested topics include how uniform audit procedures support/promote energy performance goals.
 - This is a great opportunity beyond just City of Orlando and the committee may wish to engage GGAC to help with that.
 - There is also value in bringing in AIA to make them more aware of bEQ. Dan Nall has relationship with the AIA staff person on codes and standards and can follow up on this.

<u>Al 1:</u> Committee to send to Nate Boyd suggestions on city of Orlando programs and workshops on rating and disclosure programs.

AI 2: Dan Nall to follow up with AIA codes and standards staff person to increase awareness of bEQ within AIA.

- d. GGAC coordination
 - Deferred until later in the agenda.
- 5. Methodology Subcommittee Report
 - a. EPA Alignment (Attachment C)
 - Mr. Eley provided background on the history of the baseline (median EUI) calculation in the bEQ program using ENERGY STAR (ES) and Standard 100.

- The committee had initiated discussions at their December meeting about going back to using ES Portfolio Manager and/or Target Finder for calculating the median EUI for ES eligible buildings.
- Mr. Eley also noted that ES plans to change their baseline from 2003 to 2012 CBECS.
- The committee reviewed the comparison information in Attachment C.

Motion #4: Methodology subcommittee moved that bEQ shift to existing ENERGY STAR (ES) methodology for median EUI calculation for ES qualified buildings with the timeframe for implementation to be determined.

Discussion:

- Looking at the market, EPA claims that 40% of the commercial building floor area in the US is using Portfolio Manager.
- Under this proposal, buildings that don't qualify for ES would still use Standard 100.
- The discrepancies highlighted in Attachment C could result from both the modeling manipulation of the CBECS numbers in Standard 100 as well as the site-source conversion.
- Part of the fine print here is that we are redefining the baseline and the peers that are included in that baseline.
- EPA normalizes for 6 variables and the first couple of variables are the most important. bEQ could duplicate this within their own calculations.
- In order to make a decision, the committee needs to address the baseline change planned by EPA and why ASRHAE would not want to align with Standard 100.
- There is potential for a lot of back lash by ENERGY STAR users if/when EPA changes the baseline. EPA will sort this out.
- On the other hand, it is likely that there will be little change from the 2003 to 2012 CBECS numbers.
- It would seem to be the right decision to align with EPA. There are opportunities to work with EPA and to add to the national database.

Vote: 7-0-0, CNV

- b. LEED Alternative Compliance Path Proposal
 - This proposal relates to LEED for existing buildings (EBOM or LBOM in v4) and promotes bEQ as an alternative EA points compliance path for non ENERGY STAR eligible buildings.

Motion #5: Methodology subcommittee moved that the full committee approve the LEED Alternate Compliance Path Proposal for submission to USGBC.

Discussion: Some editorial changes were recommended regarding the terminology used (EBOM or LBOM) as well as the energy audit inherent in bEQ that might help to satisfy a portion of prerequisite 1.

Vote: 7-0-0, CNV

c. As Designed Workbooks – Information

- The workbooks look pretty good with just a few details needing to be addressed.
- Modelers are incredibly detailed so the wording in the instructions is fairly critical.
- The city of Orlando is using the methodology outlined in this version of the workbooks even though they don't yet have the workbooks.

- The workbooks will be released to the city of Orlando as a beta test prior to full release to the public.
- d. DOE Building Energy Asset Score Information
 - There was a short discussion in the subcommittee on how to integrate this into bEQ.
 - In the spirit of aligning with EPA, bEQ would also like to align with this program, but it is not quite clear how to do that yet.

AI 3: Methodology Subcommittee to explore the DOE Asset Score and report back to the full committee.

6. Old Business

- a. Action item review (Attachment E)
 - The committee reviewed the open action items.

b. Workbook status

- Minor updates will get rolled in the next revision of the In Operation workbooks.
- An annual release date has been proposed (rather than multiple releases throughout the year). The annual release would seem to fit best following either the winter or annual meeting.
- c. Review of bEQ submissions to-date (Attachment F)
 - The table in Attachment F shows the submissions that have been processed to date.
 - An additional 13 In Operation submissions were received in January 2016 and are still being processed. An additional 17 In Operation submissions are also expected.
 - Each of those 30 buildings will also have an As Designed submission.
- d. On-line data entry and web portal system needs (Attachment G)
 - It was noted that the market expects on-line data entry and that it will be needed for bEQ to be successful. There is a line item request for this in the budget currently.
 - Much work is needed to define the functional specifications for this system. That work needs to start now so that the project is ready to go by June if it is green lighted in St Louis.
 - Mr. Davies noted that CIBSE has systems and knowledge about what has been done in the UK that may be helpful to this effort.

Al 4: Methodology Subcommittee to develop a functional specification for an on-line data entry system.

- e. University course update
 - Mr. Brandemuehl gave a brief report on the status of the university course.
 - The course was originally developed by Tim Wentz for the University of Nebraska and was very well received when it debuted last fall.
 - The course is now being adapted for use by any university and will be available for download from the ASHRAE website once complete.
- f. Training program update
 - Discussion deferred.

7. Other Business

- a. bEQ budget Planning 2016-2017 (Attachment H)
 - Discussion deferred.

- b. GGAC Activities (Attachment I)
 - Mark Ames and Jim Scarborough reported on GGAC activities.
- c. Liaison reports discussion deferred
 - Standard 90.1 (Misuriello)
 - Standard 189.1 (Eley)
 - Standard 100
 - Standard 62.1 (Bohanon)
 - Standard 214P
 - Standard 211P
 - Technical Committees (Brandemuehl)
- d. Global outreach activities update discussion deferred
- e. MBO status (Attachment J) discussion deferred
- 8. Upcoming Meetings
 - Monthly web meetings 2nd Wednesday, 10am-11am EST
 - First web meeting February 10, 2016, 10am EST
 - St Louis Annual Meeting Sunday, June 26, 2016, 8:30am-11:30am (local time)
- 9. Executive Session
 - a. ASHRAE Research Project 1771-RP contractor selection

Motion #6: Brandemuehl moved to recommend the selection of the University of Miami as the contractor for 1771-RP *Energy Modeling of Typical Commercial Buildings in Support of ASHRAE Building Energy Quotient Energy Rating Program.*

Vote: 7-0-0, CNV

AI 5: Brandemuehl to coordinate with BPA Ad-hoc committee.

10. Adjourn - Meeting adjourned at 11:30am EST

bEQ Committee Structure - FY 2015-2016

bEQ Committee Members (voting): Michael Brandemuehl (Chair), Hoy Bohanon (Vice-chair), Hugh Crowther (Members Council Representative), Larry Markel (Tech Council Representative), Tim McGinn (Pub-Ed Council Representative), Nate Boyd (Member-at-Large), Harry Misuriello (Member-at-Large), Dan Nall (Member-at-Large)

bEQ Consultants/Others (non-voting): Hywel Davies, Charles Eley, Jaap Hogeling, Benjamin Skelton, Jim Vallort (Coordinating Officer)

<u>Marketing Subcommittee:</u> Larry Markel (chair), Nate Boyd, Hugh Crowther, Hywel Davies, Tim McGinn, Benjamin Skelton

<u>Methodology subcommittee</u>: Charles Eley (chair), Hoy Bohanon, Michael Brandemuehl, Jaap Hogeling, Harry Misuriello, Dan Nall

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.

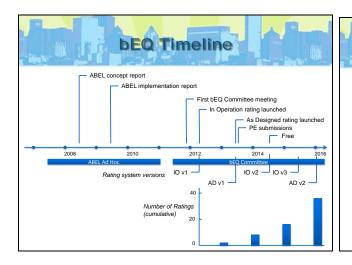
This committee is responsible for the operation of the BEQ enterprise as determined by the Board and for coordinating the activities of all three councils regarding the ASHRAE Building Labeling program.

Attachment A: Strategic Position Presentation

(Note: final presentation attached reflects changes discussed in meeting)







bEQ Rating and Labeling Program

- Commercial and high-rise residential buildings and campuses
- Measure and document current energy performance compared to peers with In Operation rating (benchmarking and labeling).
- Identify potential for improving operational and asset performance with As Designed rating.
- Register building performance for recognition or compliance
- Develop strategies to improve performance (energy audit and asset modeling)
- Performed by trusted professionals (PE, BEAP, BEMP)
 - High quality assessments and recommendations
 - Confirmation that comfort and air quality have not been compromised to achieve energy performance.

bEQ Benefits

- Serves the needs of diverse stakeholders: building owners and operators, engineers, real estate professionals, municipalities, ASHRAE members
- Easy-to-understand rating and label
- Consistent process and presentation from trusted source
- ASHRAE-developed process for building energy performance assessment and improvement
- Integrated platform of ASHRAE products to assess building energy performance

Current Labeling Activities

- EPA ENERGY STAR® (operational benchmarking and label)
- LEED® (new and existing buildings)
- BOMA 360 (building performance rating)
- Green Globes (new and existing, simple)
- DOE Building Energy Asset Score (1-10 score of expected performance)
- Various municipalities enacting Building Energy Reporting and Disclosure Ordinances (BERDO)
- NYSERDA organized National Labeling Group
- EU Energy Performance Directive: 20 million labels on buildings built, sold, or rented
- International programs, including Australia, Malaysia, Hong Kong

Lessons Learned

- Growing interest in benchmarking and energy performance of existing buildings
 - Growing number of municipalities with BERDO policies
 - Inquiries from international organizations
- EPA Portfolio Manager is widely adopted and the tool of choice
 - Over 40% of US commercial building space benchmarked in Portfolio Manager
 - In first 10 months of 2014, EPA spent \$515,000 on advertising for Portfolio Manager
- No surge for voluntary labeling
 - Only 6% of Portfolio Manager users pursue ENERGY STAR® label

Lessons Learned

- Most labels cater to building owners who want a plaque
 - LEED® and ENERGY STAR® plaque for top 25th percentile
- bEQ "B" grade (15-45% less energy than typical) is not appealing
- Mandatory vs. voluntary labeling programs have widely different markets and needs
- Municipalities pursuing mandatory labels want rating for all buildings, especially the poorly performing buildings
- Unmet labeling needs, both US and international
 - NYSERDA has organized National Labeling Group to "Design, develop, and implement a nationally recognized building energy label based on existing rating system(s) that will be applied ubiquitously to multifamily and commercial buildings, to help accelerate consumer demand for energy efficient buildings and facilitate acceptance by jurisdictions nationwide."

Godfrey Market Analysis

- EPA ENERGY STAR® and Portfolio Manager are widely adopted and fill benchmarking needs
- bEQ is uniquely positioned to both recognize high performance buildings and provide actionable recommendations for buildings seeking to improve performance
- bEQ fills a market need with both In Operation rating to assess actual building performance and As Designed rating to identify potential for operation and capital improvements
- The market expects an online portal

Role for bEQ

- · Maintain labeling and rating program
 - Proposal for bEQ as alternative compliance path for LEED EBOM
 - Participating with NYSERDA efforts
 - Growing international interests
 - Opportunities with utilities and efficiency program administrators
- Most impactful opportunities involve bEQ as framework for realizing energy improvements in existing buildings
 - Actionable recommendations for improving building energy performance
 - Standard and consistent process
 - Platform for integrating and promoting ASHRAE standards (e.g., SPC 211P), guidelines, and publications
 - Platform for delivering related education and certification

Next Steps

- Refocus Marketing
 - Message: bEQ is the most comprehensive assessment program providing actionable recommendations for today's commercial buildings
 - Committee approved marketing concept
 - Godfrey developing marketing implementation plan
- Develop Web Portal
 - Online data entry
 - Data exchange with Portfolio Manager and others
 - Connection to other ASHRAE online products and services
 - Generate data on use of bEQ as assessment tool

Next Steps

- Coordination and Cooperation
 - Closer alignment with EPA and DOE
 - Consolidator rather than competitor
 - Opportunity to translate and reconcile disparate set of existing ratings
 - Coordinate with ISO/CEN activities
 - Utilities and energy efficiency program administrators
- Foster Labeling Potential
 - Mandatory US labeling and rating efforts
 - International programs



- bEQ has not met expectations
 - Free EPA tool dominates benchmarking
 - Few BEAP and BEMP certifications
 - Little recognition
 - Very little income
- If bEQ is to continue, the program needs to be repositioned to respond to market needs
- Recommend that bEQ be promoted as framework to deliver improved building energy performance



Attachment B: Godfrey Concepts

Notes from Godfrey:

When reviewing the concepts, start with the descriptive paragraphs, as the execution of the concept can be handled in many different fashions.

- For example, we could easily replace the word "Science" because it is not a key element in the concept, just a word from one execution.
- So, the word "Science" could easily be swapped out for a less controversial or more emotional word.
- We had many different headlines; we can easily provide you with a new option or two.

It is really important that we don't merge the concepts. We do get that request quite often, and while it does appease the masses it makes for truly unremarkable communications.

- That said, there are elements that can float from one concept to the other if they are well-liked.
- Reasonable feedback might be "We chose concept A, but we really latched onto XYZ element from concept B. Could that fit into the concept?"
- In such cases, we will review to make sure that the request would not hurt the marketing. If it does confuse the effort, we will tell you, if not, then we will make the change and provide you with an updated overview for the chosen concept.

Concept 0: Information Design

Examine how bEQ findings and recommendations are conveyed in light of your position as the most actionable program.

- Current graphics are focused on the static present status.
- Is there a way to speak more to future potential?
- Where do future potential numbers come from?
- What ENERGY STAR Portfolio Manager does for a building group in the past, bEQ can do for an individual building in the future.

Concept 1: Empower

Leverage a sophisticated, high-tech aesthetic to introduce the program as a powerful way to take charge of energy use in the built environment.

Art work ideas

- Embrace complex imagery
- Use the graphic equalizer as a symbol for actionable diagnostics
- Impose silhouettes over building photography to represent the individual's mastery over the building

Copy ideas:

- Strike a confident expert tone
- Reinforce the notion of empowerment by using terms like power, control, and science.
- Position the customer as the true change-agent

Concept 2: Advance

Take on a bright, optimistic tone and a friendly visual presence to introduce a program that actively helps people get better performance form the spaces they manage.

Art work ideas

- Use bright colors and info-graphic-style illustrations
- Represent the service as comprehensive yet approachable
- Adopt a visual sensibility that's readily associated with energy savings and sustainability

Copy ideas:

- Take on a voice of optimism and encouragement
- Use terms of personal advancement like smart, genius, and better
- Communicate complex ideas with simple terms

Attachment C: EPA Alignment – ENERGY STAR Comparison

Building	Building	Bldg	E	S Median (ol	d)	Std 2	Energy Star		
Type	Size	CZ	Med EUI	Score	Rating	Med EUI	Score	Rating	Score
Office	75,157	4A	178.3	96	С	157	99	С	
Office	126,000	3B-C	262.6	80	В	114	177	F	
K-12 School*	47,000	5A	181	59	В	174	59	В	
Office	354,209	3A	351	65	В	151	142	D	82
Office	34,721	3A	242	50	A-	151	74	В	77
Office	199,707	2A	257	99	С	146	173	F	51
Office	1,586	3	148	19	А	151	16	А	

 $[\]hbox{* Note: The new score for K-12 schools was calculated using the Elem/Middle School building type.}$

Attachment E: Action Item List

January 24, 2016 Orlando Winter Meeting:

- Al 1: bEQ Committee to send Nate Boyd suggestions on city of Orlando programs and workshops on rating and disclosure programs.
- Al 2: Dan Nall to follow up with AIA codes and standards staff person to increase awareness of bEQ within AIA.
- AI 3: Methodology Subcommittee to explore the DOE Asset Score and report back to the full committee.
- <u>AI 4:</u> Methodology Subcommittee to develop a functional specification for an on-line data entry system.
- AI 5: Brandemuehl to coordinate with the BPA Ad-hoc committee.

January 4, 2016 Conference Call

- ✓ <u>Al 1:</u> **bEQ Committee** to review the LEED Alternative Compliance Path Proposal for discussion in Orlando.
- <u>AI 2:</u> Methodology Subcommittee to try to get more information on how to deal with the DOE Energy Asset Score in relation to bEQ.

December 4-5, 2015 Atlanta Interim Meeting:

- Al 4: Pratt to send committee responses to questioners on green power, Malaysia, and outdoor lighting
- ✓ <u>AI 5:</u> Brandemuehl and Pratt to contact Godfrey about the committee's current plans and how that affects their work.
- Al 7: Pratt to set up Basecamp account for bEQ committee

May 21-22, 2015 Atlanta meeting:

- ✓ AI 8: Marketing subcommittee to develop a recognition program for submitters.
- ✓ Al 12: Methodology subcommittee to look at mapping ENERGY STAR Portfolio Manager against bEQ scores.

January 25, 2015 Chicago Winter Meeting:

- ✓ Al 3: Methodology Subcommittee to evaluate the submission review process for further automation and speed. Closed
- Al 8: Brandemuehl to work with Krishnan Gowri on his request to incorporate bEQ into the rapid capture for energy modeling project.

June 29, 2014 Seattle Annual Meeting

• Al 1: Eley to lead an effort to document the bEQ In Operation process and methodology. (On Hold)

Attachment F: bEQ Submissions to Date

#	Submission Type	Country	CZ	Region	Building Type	Building Size	Award	Approval Date
1	In Operation	USA	4	Reg III	Office	75,157	Award - C	11/15/12
2	In Operation	USA	3	Reg X	Office	126,000	Award - B	2/12/13
3	In Operation	USA	5	Reg V	K-12 School	47,000	Award - B	3/8/13
4	In Operation	USA	3A	Reg IV	Office	354,209	Award - B	1/22/13
5	In Operation	USA	2A	Reg XII	Fire Station	13,345	Award - A-	9/17/13
6	In Operation	USA	3A	Reg IV	Office	34,721	Award - A-	11/17/13
7	In Operation	Bermuda	2A	??	Office	199,707	Award - C	9/25/13
8	In Operation	USA	2	Reg XII	Fire Station	7,191	Award - C	11/17/13
9	In Operation	Mexico	3	Reg VIII	Office	1,586	Award - A	11/17/13
10	In Operation	USA	2A	Reg XII	Fire Station	8,221	Award - B	5/30/14
11	In Operation	USA	2A	Reg XII	Fire Station	8,706	Award - C	5/30/14
			Free	submission o	ffer began on July 15	, 2014		
12	In Operation	Canada	6A	Reg II	College	149,826	Award - C	7/28/14
13	In Operation	Philippines	1A	Reg XIII	Office	91,041	Award - C	9/30/14
14	In Operation	China	2A	Reg XIII	Office	329,055	Award - B	12/31/14
15	In Operation	USA	4A	Reg VII	Other Office	15,000	Award - C	12/31/14
16	In Operation	USA	4A	Reg III	Govt Office	33,968	Award - B	1/20/15
17	In Operation	USA	5A	Reg IX	Office	6,268	Award - A-	12/31/14
18	In Operation	Canada	6B	Reg II	College/Unv	110,000	Award - B	1/20/15
19	In Operation	Canada	6A	Reg II	Dormitory	181,593	Award - A-	6/17/15
20	In Operation	USA	5A	Reg IX	Prof Office	32,220	Award - B	2/6/15
21	In Operation	Mexico	3A	Reg VIII	Conv Store	2,332	Award - B	2/6/15
22	In Operation	China	2A	Reg XIII	Mixed Office	577,493	Award - B	2/18/15
23	In Operation	Argentina	3A	Reg XII	College/Unv	30,386	Award - A-	2/18/15
24	In Operation	USA	2A	Reg XII	Bank/Office	34,651	Award - B	2/28/15
25	In Operation	USA	2A	Reg XII	Mixed Office	875,235	Award - C	2/28/15
26	In Operation	USA	2A	Reg XII	Mixed Office	257,536	Award - C	3/31/15
27	In Operation	USA	2A	Reg XII	Mixed Office	870,094	Award - C	3/10/15
28	In Operation	USA	5A	Reg IX	Mixed Office	33,920	Award - C	5/1/15
29	As Designed	USA	5A	Reg IX	Prof Office	19,588	Ineligible S	ubmitter
30	In Operation	USA	5A	Reg IX	Prof Office	19,588	Ineligible S	ubmitter
31	In Operation	Philippines	1A	Reg XIII	Multi-Use	835,418	Award - B	5/28/15
32	In Operation	Canada	6A	Reg II	Multi-Use	1,109,855	Award - D	8/17/15
33	In Operation	USA	3A	Reg VII	Govt Office	109,870	Award - C	8/17/15
34	In Operation	USA	2A	Reg XII	Fire Station	7287	Award - B	8/17/15
35	In Operation	USA	5A	Reg IX	Mixed Office	5615	Award - D	9/30/15
36	In Operation	USA	5A	Reg IX	Mixed Office	52,681	Rating D	enied
37	In Operation	USA	5A	Reg IX	Mixed Office	31,330	Award - C	9/30/15
38	In Operation	USA	6B	Reg IX	Other Office	149,662	Resubmission	n Required
39	In Operation	China	2A	Reg XIII	Mixed Office	45,036	Award - B	8/17/15
40	In Operation	Columbia	2A	Reg VII	Multi-Use	1,486,507	Award - A-	10/9/15
41	In Operation	Argentina	3A	Reg XII	Multi-Use	22,167	Award - A-	12/31/15

Attachment G: Online Data Entry Considerations

In Operation Rating On-line Data Entry System - Considerations

- 1. Automates submission review for all entries with data within expected parameters
- 2. Manual review required only for submissions with data outside of expected parameters
- 3. Reduces the number of FTE needed for staff support of the program (especially as the number of ratings increase)
- 4. Shortens turn-around time for submission review and rating award
- 5. Standardizes the review process (reduces/eliminates variability inherent in a manual review process)
- 6. Automatic generation of all associated documentation (Certificate, Dashboard, Label artwork)
- 7. Current workbook worksheets can be generated in whatever format makes the most sense to the committee and for building owners
- 8. May be able to allow users to generate custom reports of the data in the worksheets
- 9. Allows for the creation of a "bEQ Lite" concept that would allow buildings to enter their own data and do an informal energy audit without a PE or BEAP (no rating would be awarded for this).
- 10. Addresses the issue of people being able to download the worksheets and apply the bEQ process to their building without submitting anything to ASHRAE
- 11. Allows creation of a database and capture of data including:
 - Building type, size, and location
 - Energy usage and EUI
 - Water usage (when provided)
 - Types of energy efficiency measures in buildings at time of assessment (by building type, size, location)
 - Energy efficiency measures suggested in the energy audit (by building type, size, location)
 - Identified IEQ issues (by building type, size, location)

Attachment H: bEQ Budget Planning 2016-17

bEQ Committee Budget Planning - FY 2016-17

PROPOSAL UPDATE 1/11/2016

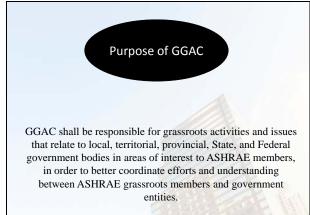
Submission income \$ - \$ - \$ - \$ - \$ - \$ \$ 15,000.00	Budget Line Items		Previous Actual FY 14-15 ¹	(Current Budget (FY 15-16)	(Current Actual 7/15-11/15)		Proposed Budget (FY 16-17)		Proposed ForeCast (FY 17-18)	Notes
Submission Income Submission offer	Revenues/Income											
Salaries and Benefits Salaries 72,900.00 92,000.00 29,000.00 94,700.00 98,500.00 Payroll Taxes and Benefits 20,300.00 24,300.00 8,600.00 28,200.00 27,600.00 Promotion	Submission Income	\$	-	\$	-	\$	-	\$	-	\$	15,000.00	No revenue is expected during free submission offer
Salaries 72,900.00 92,000.00 94,700.00 98,500.00 27,60	Expenditures					<u> </u>						
Payroll Taxes and Benefits 20,300.00 24,300.00 8,600.00 28,200.00 27,600.00 Total \$ 93,200.00 \$ 116,300.00 \$ 37,600.00 \$ 122,900.00 \$ 126,100.00 Promotion Brochures Workshops/Webinars/ Unv Course Marketing Plan Implementation ² Total \$ 2,400.00 \$ 26,000.00 \$ 100.00 \$ 26,000.00 \$ 26,000.00 Committee Transportation Winter, Annual Meetings Interium Meeting (2 days) Committee Presentations Total \$ 10,300.00 \$ 12,000.00 \$ 2,000.00 \$ 1,800.00 Committee Presentations Total \$ 10,300.00 \$ 12,000.00 \$ 2,000.00 \$ 13,800.00 Comference Calls \$ 800.00 \$ 1,500.00 \$ 2,000.00 \$ 1,000.00 \$ 1,000.00 Development Costs \$ - \$ 15,600.00 \$ 15,000.00 \$ 15,000.00 Outside Services \$ 1,200.00 \$ 10,400.00 \$ - \$ 10,000.00 TOTAL REVENUES \$ - \$ - \$ - \$ - \$ 15,000.00 TOTAL EXPENDITURES \$ 107,900.00 \$ 181,800.00 \$ 187,200.00 \$ 191,900.00 NET TOTALS \$ (107,900.00) \$ (181,800.00) \$ (54,900.00) \$ (187,200.00) \$ (176,900.00) Other Items to be considered: Marketing Plan Implementation ² On-line Data Entry & Database ³ Marketing Plan Implementation (5188K)	Salaries and Benefits											
Total	Salaries		,		92,000.00		29,000.00		94,700.00		98,500.00	
Promotion Brochures Workshops/Webinars/ Unv Course Marketing Plan Implementation ² \$ 2,400.00 \$ 26,000.00 \$ 100.00 \$ 26,000.00 \$ 26,000.00							-,	L	-,			
Brochures Workshops/Webinars/ Unv Course Marketing Plan Implementation ² \$ 2,400.00 \$ 26,000.00 \$ 100.00 \$ 26,000.00 \$ 26,000.00	Total	\$	93,200.00	\$	116,300.00	\$	37,600.00	\$	122,900.00	\$	126,100.00	
Brochures Workshops/Webinars/ Unv Course Marketing Plan Implementation ² \$ 2,400.00 \$ 26,000.00 \$ 100.00 \$ 26,000.00 \$ 26,000.00	Descritor											
Total	Brochures Workshops/Webinars/ Unv Course											
Committee Transportation		¢	2 400 00	6	26 000 00	¢	100.00	¢	26 000 00	•	26 000 00	
Winter, Annual Meetings 7,000.00	Total	↓ ⊅	2,400.00	ð	20,000.00	Þ	100.00	ą.	20,000.00	Φ	20,000.00	
Winter, Annual Meetings 7,000.00	Committee Transportation											
Committee Presentations									7,000.00		8,000.00	
Total												
Conference Calls \$ 800.00 \$ 1,500.00 \$ 200.00 \$ 1,000.00 \$ 1,000.00 \$ Development Costs \$ - \$ 15,600.00 \$ 15,000.00 \$ 15,000.00 \$ 15,000.00 \$ Outside Services \$ 1,200.00 \$ 10,400.00 \$ - \$ 10,000.00 \$ 10,000.00 \$ TOTAL REVENUES \$ - \$ - \$ - \$ 15,000.00 \$ 191,900.00 \$ TOTAL EXPENDITURES \$ 107,900.00 \$ 181,800.00 \$ 54,900.00 \$ 187,200.00 \$ 191,900.00 \$ NET TOTALS \$ (107,900.00) \$ (181,800.00) \$ (54,900.00) \$ (176,900.00) \$ Other Items to be considered: Marketing Plan Implementation ² On-line Data Entry & Database ³ \$ \$62,000 \$ \$62,000 \$ 3 yrs depreciation of \$188K								L				
Development Costs \$ - \$ 15,600.00 \$ 15,000.00 \$ 15,000.00	Total	\$	10,300.00	\$	12,000.00	\$	2,000.00	\$	12,300.00	\$	13,800.00	
Development Costs \$ - \$ 15,600.00 \$ 15,000.00 \$ 15,000.00	O	•	200.00	•	4 500 00	•	000.00	•	4 000 00	•	4 000 00	
Outside Services \$ 1,200.00 \$ 10,400.00 \$ - \$ 10,000.00 \$ 10,000.00 TOTAL REVENUES \$ - \$ - \$ - \$ 15,000.00 \$ 107,900.00 \$ 181,800.00 \$ 187,200.00 \$ 191,900.00 \$ 191,900.00 \$ 191,900.00 \$ 107,900.00	Conference Calls	3	800.00	\$	1,500.00	\$	200.00	Þ	1,000.00	Þ	1,000.00	
Outside Services \$ 1,200.00 \$ 10,400.00 \$ - \$ 10,000.00 \$ 10,000.00 TOTAL REVENUES \$ - \$ - \$ - \$ 15,000.00 \$ 107,900.00 \$ 181,800.00 \$ 187,200.00 \$ 191,900.00 \$ 191,900.00 \$ 191,900.00 \$ 107,900.00	Development Costs	\$	_	\$	15 600 00	\$	15 000 00	\$	15 000 00	\$	15 000 00	
TOTAL REVENUES \$ - \$ - \$ - \$ 15,000.00 TOTAL EXPENDITURES \$ 107,900.00 \$ 181,800.00 \$ 54,900.00 \$ 187,200.00 \$ 191,900.00 NET TOTALS \$ (107,900.00) \$ (181,800.00) \$ (54,900.00) \$ (187,200.00) \$ (176,900.00) Other Items to be considered: Marketing Plan Implementation ² On-line Data Entry & Database ³ \$ \$62,000 \$ 62,000 \$ 3 yrs depreciation of \$188K	Development decid	۳		•	10,000.00	Ť	10,000.00	Ť	10,000.00	•	10,000.00	
TOTAL EXPENDITURES \$ 107,900.00 \$ 181,800.00 \$ 54,900.00 \$ 187,200.00 \$ 191,900.00	Outside Services	\$	1,200.00	\$	10,400.00	\$		\$	10,000.00	\$	10,000.00	
TOTAL EXPENDITURES \$ 107,900.00 \$ 181,800.00 \$ 54,900.00 \$ 187,200.00 \$ 191,900.00			,		,				,		<u> </u>	
NET TOTALS \$ (107,900.00) \$ (181,800.00) \$ (54,900.00) \$ (187,200.00) \$ (176,900.00)	TOTAL REVENUES	\$	-	\$	-	\$	-	\$	-	\$	15,000.00	
Other Items to be considered: \$100,000 \$100,000 Estimated costs over 2 years On-line Data Entry & Database³ \$62,000 \$62,000 3 yrs depreciation of \$188K	TOTAL EXPENDITURES	\$	107,900.00	\$	181,800.00	\$	54,900.00	\$	187,200.00	\$	191,900.00	
Other Items to be considered: \$100,000 \$100,000 Estimated costs over 2 years On-line Data Entry & Database³ \$62,000 \$62,000 3 yrs depreciation of \$188K		L		_				Ļ				
Marketing Plan Implementation ² \$100,000 \$100,000 Estimated costs over 2 years On-line Data Entry & Database ³ \$62,000 \$62,000 3 yrs depreciation of \$188K	NET TOTALS	\$	(107,900.00)	\$	(181,800.00)	\$	(54,900.00)	\$	(187,200.00)	\$	(176,900.00)	
Marketing Plan Implementation ² \$100,000 \$100,000 Estimated costs over 2 years On-line Data Entry & Database ³ \$62,000 \$62,000 3 yrs depreciation of \$188K												
Marketing Plan Implementation ² \$100,000 \$100,000 Estimated costs over 2 years On-line Data Entry & Database ³ \$62,000 \$62,000 3 yrs depreciation of \$188K	Other Items to be considered:											
On-line Data Entry & Database ³ \$62,000 \$62,000 3 yrs depreciation of \$188K									\$100,000		\$100,000	Estimated costs over 2 years
on mio bata biniy a batabase	•								. ,			•
Total \$162,000 \$162,000									. ,			

 $^{^1}$ \$35,500 in Opportunity funds were spent in FY 14-15 for the Godfrey Marketing Plan phase 1 work. The second payment of \$15,000 came from the Development costs line item.

² Marketing Plan Implementation Breakdown		
Trade Publication Ads	\$75,000	
Website redesign	\$25,000	
Rebranding (Logo redesign & registration)	\$15,000	
Rebranding (Label & documentation redesign)	\$20,000	
Brochures (develop copy, art, design, & printing)	\$20,000	
Brochure mailing costs	\$10,000	
Social media marketing	\$10,000	
Media and Association Relations	\$25,000	
	Total \$200,000	
³ On-Line Data Entry & Database Breakdown		
Design (4 weeks)	\$38,000	
Development (12 weeks)	\$98,000	
Implementation (3 weeks)	\$32,000	
QA & Deployment (2 weeks)	\$20,000	
	Total \$188,000	

Attachment I: GGAC Activities





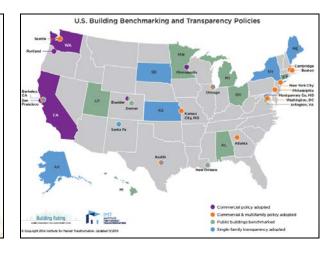
Public Policy Priorities: The Blueprint for the Machine

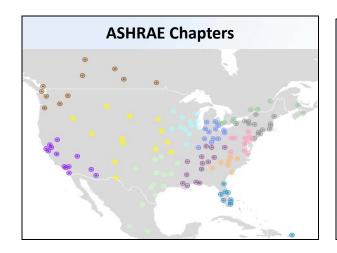
- Building Performance
 - Building labeling/rating
 - bEQ
 - Use of ASHRAE technology in energy disclosure programs
 - Adoption of ASHRAE standards
 - Adoption of energy codes in all jurisdictions
- Workforce Development
 - STEM education
 - Post-secondary curricula
 - Certification
 - Professional development
 - Licensure issues
 - Support licensing of professionals
 - Educational requirements for licensure

Supply & Demand Building energy use disclosure is a hot topic! Orlando, Florida

Cities, counties, and States around the US are adopting building energy benchmarking and disclosure laws.

The Pull of Demand





What do you see?

Potential...

But the power lies with you...

Discussion

What do you need from us? What can we do to help your committee?

Orlando, Florida

Your Contacts in ASHRAE's Government Affairs Office

Mark Ames & Jim Scarborough WashDC@ashrae.org

Attachment J: 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: bEO Committee

	o. DEQ Committee				
Item#	Objective	Status	Date Due	Assigned To Lead Efforts	MBO Comments
1	Implement bEQ marketing plan	Pending	6/30/2016	Marketing	Awaiting completion of Godfrey marketing plan development
2	Establish framework for coordinating and collaborating with EPA Energy Star	Ongoing	6/30/2016	Chair	Alignment proposal considered in Orlando
3	Establish a framework for coordinating and collaborating with USGBC	Ongoing	6/30/2016	Chair	EBOM ACM considered in Orlando
4	Develop communication framework with	Ongoing	1/1/2016	Marketing	Further exploration in Orlando
5	Develop plan for implementing bEQ online	Ongoing	1/1/2016	Methodology	
6	Develop educational offerings for bEQ	Ongoing	1/1/2016	Methodology	
7	Initiate bEQ research project	Ongoing	4/1/2016	Methodology	Contractor approval votes in Orlando
8	Double the number of buildings with bEQ	Ongoing	6/30/2016	Committee	

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.
- ${\it 3.9\,Promote\,availability\,of\,appropriate\,products\,and\,services\,to\,markets\,outside\,the\,ASHRAE\,membership.}$

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.