



Goal 2: Residential Quality Installation Committee December 14, 2016 Meeting Notes

Call to Order

The meeting was called to order at 10:05 am PST by Buck Taylor, Chair, Roltay, Inc.

Roll Call

5 of 9 voting members are needed for a quorum. 5 of 9 voting members, 5 non-voting members and 6 guests/staff attended. There were 16 total attendees at this meeting. Bob Sundberg facilitated the online Webex and call conference, recorded the meeting and produced summary meeting notes.

WHPA Goal 2: RQI Committee VOTING Members				Roll Call
ACCA (Air Conditioning Contractors of America)	Wes	Davis	Contractor Association	P
Benningfield Group	Russ	King	Third Party Quality Assurance Provider	P
DNV GL Energy Services (formerly KEMA)	Zachary	Connolly	Energy Efficiency Program Consultant	
Energy Analysis Technologies	Chris	Ganimian	Third Party Quality Assurance Provider	P
Mechanical Systems Design & Consulting (MSDC)	Jeff	Henning	Educator, Trainer	P
NCI (National Comfort Institute)	Scott	Johnson	Educator, Trainer	
Henry Bush Plumbing, Heating and Air Conditioning and Home Energy Solutions (Redlands Plumbing & Heating & AC)	Tyler	Miner	Contractor (Residential)	
Roltay Inc.	Buck	Taylor (Chair)	Other Stakeholder	P
Superior Air	Larry	Kapigian	Contractor (Residential)	
WHPA Goal 2: RQI Committee NON-VOTING Members				
Air Conditioning Contractors of America (ACCA)	Glenn	Hourahan	Contractor Association	
Air Conditioning Contractors of America (ACCA)	Donald	Prather	Contractor Association	
Air Conditioning Contractors of America (ACCA)	Todd	Washam	Contractor Association	
ASHRAE			Engineering Society	
BuildingMetrics	Pete	Jacobs	Energy Efficiency Program Consultant	P
Building Performance Institute	Jeremy	O'Brien	Certifying Body	
CEC (California Energy Commission)	Jeff	Miller	Government	
CPUC/ED (California Public Utilities Commission - Energy Division)			California PUC	
Clean Energy Horizons, LLC	Norm	Stone	Energy Efficiency Program Consultant	
Davis Energy Group	David	Springer	Energy Efficiency Organization	
EPA/ENERGY STAR	Chandler	Von Schrader	Government (Other than CPUC)	
ICF International	Casey	Murphy	Energy Efficiency Program Consultant	
Misti Bruceri & Associates, LLC	Misti	Bruceri	Energy Efficiency Program Consultant	
PG&E (Pacific Gas and Electric Company)	David	Bates	California IOU	
PG&E (Pacific Gas and Electric Company)	Marshall	Hunt	California IOU	
PG&E (Pacific Gas and Electric Company)	Swapna	Nigalye	California IOU	
Quinn-Murphy Consulting LLC	Patrick	Murphy	Educator, Trainer	



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Sacramento Municipal Utility District (SMUD)	Ravi	Patel	Publicly Owned Utility	
SDG&E (San Diego Gas & Electric)	Collin	Smith	California IOU	
SDG&E (San Diego Gas & Electric)	Jeremy	Reefe	California IOU	
SCE (Southern California Edison)	Lori	Atwater	California IOU	P
SCE (Southern California Edison)	Anne Marie	Blankenship	California IOU	
SCE (Southern California Edison)	Scott	Higa	California IOU	P
SCE (Southern California Edison)	Steve	Clinton	California IOU	P
SCE (Southern California Edison)	Jarred	Ross	California IOU	
SoCalGas (Southern California Gas Company)	Harvey	Bringas	California IOU	P
ZONEFIRST	Richard	Foster	Controls (Manufacturer or Distributor)	
WHPA Goal 2: RQI Committee Pending Candidates				
WHPA Goal 2: RQI Committee NON-VOTING Guests				
Aire Rite Air Conditioning and Refrigeration	Don	Langston	Contractor (Nonresidential)	
Benningfield Group	Lynn	Benningfield		
Building Performance Institute	John	Jones	Certifying Body	
California Public Utilities Commission (CPUC) - Energy Division	Pete	Skala	California PUC	
CDH Energy	Hugh	Henderson	Energy Efficiency Organization	
CLEAResult (formerly PECE)	Michael	Blazey	Energy Efficiency Program Consultant	
CLEAResult (formerly CSG)	Mike	Withers	Energy Efficiency Program Consultant	P
Field Diagnostic Services	Dale	Rossi	Third Party Quality Assurance Provider	
Galawish Consulting	Elsia	Galawish	Energy Efficiency Program Consultant	P
ICF International	Ben	Bunker	Energy Efficiency Program Consultant	
Johnson Consulting**	Katherine	Johnson+		
Johnson Controls Inc. (JCI)	Bryan	Rocky	HVAC Manufacturer	P
National Comfort Institute	Rob	Falke	Educator, Trainer	P
NIST (National Institute of Standards and Technology)	Piotr	Domanski** +		
NIST (National Institute of Standards and Technology)	Vance	Payne**+		
PG&E (Pacific Gas and Electric Company)	Mary	Anderson+	California IOU	
PG&E (Pacific Gas and Electric Company)	Sam	Choe+	California IOU	
PG&E (Pacific Gas and Electric Company)	Robert	Davis	California IOU	
PG&E (Pacific Gas and Electric Company)	Leif	Magnuson	California IOU	
Research Products (Aprilaire)	Eric	Brodsky	HVAC Manufacturer	
SCE (Southern California Edison)	Joseph "Dario"	Moreno	California IOU	
SCE (Southern California Edison)	Andres	Fergadiotti+	California IOU	
SCE (Southern California Edison)	Sean	Gouw	California IOU	
Tre' Laine Associates	Pepper	Hunziker	Energy Efficiency Program Consultant	P
WHPA Staff				
BBI (Better Buildings Inc.)	Mark	Lowry	WHPA Executive Advisor/BBI COO	
BNB Consulting/WHPA staff support	Bob	Sundberg	Energy Efficiency Program	P



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			Consultant	
Empowered LLC	Shea	Dibble	WHPA Co-Director	
WHPA emeritus staff	Mark	Cherniack		

*** Organization is Not a Member of the WHPA; + Individual is NOT Registered with the WHPA
(P) following last name = Member/Registrant is Pending Approval from the WHPA Executive Committee
To avoid repetition, the name of the member organization will not be repeated in the body of the minutes; the individual names of meeting participants will be used.*

Approve Minutes of Previous Meeting

October 19 meeting draft notes were distributed October 30. Revisions received were incorporated into the notes. Finalized meeting notes would be posted to the WHPA site under the RQI Committee.

AGENDA

Topic	Discussion Leader	Desired Outcome
Welcome, roll call, previous meeting minutes, welcome new members/candidates and guests, approval of past meeting notes, new business topics, meeting agenda	Buck Taylor and Bob Sundberg	Produce an accurate record of all attendees, finalize and approve past meeting minutes, welcome new members and guests, identify new business.
Review previous Action items and meeting agenda	Buck Taylor	Resolve older items, determine status of current action items, finalize meeting agenda items.
RQI Committee 2016 Work Product	Buck Taylor	Decide whether to vote on committee approval for code-to-ACCA 5/9 standards comparison work product. Vote.
Report on SCE RQI forum at IHACI Nov. 16	Attending Members	Gain understanding of discussion regarding SCE RQI program status/future efforts
WHPA In-Person Meetings Nov. 17 & 18	Buck Taylor	Gain an overview of topics discussed, impressions and any outcomes
RQI Committee future plans	Buck Taylor and Lori Atwater	Keep committee members aware of WHPA related subjects and issues
RQI Committee meeting format	Buck Taylor and Bob Sundberg	Decide whether to continue with 1.5 hour meetings or consider moving to 1 hour meetings with additional resource requested for a working group
Set next meeting date, time and tentative agenda items	Buck Taylor and Bob Sundberg	Meetings are normally scheduled the third Wednesday of each month.

Welcome New Members and New Guests; consider new member candidates

- Research Products (Aprilaire), Eric Brodsky, Engineering, HVAC Manufacturer. Eric was not able to attend in October due to another meeting commitment. He would be welcomed at the next committee meeting.

Review past Action items

NEW ACTION ITEMS:

August 2016 ACTION: Buck Taylor volunteered to draft an explanatory introductory paragraph for the proposed code/standards informative comparison table the committee would develop. Completed.



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PREVIOUS ACTION ITEMS:

July 2016 ACTION: WHPA staff would like to request CEC staff assistance for this committee in locating where at the CEC site a case initiative report could be located which would reveal the cost attributed to a HERS inspection for a new residential system. Samuel Lerman and Jeff Miller were asked for assistance. Ongoing.
STATUS: No response to date.

July ACTION: Jeff Miller, CEC, would help identify other staff members more involved with policy and implementation based on AB 802 and provide the Chair and committee staff with contact information. Ongoing.

April 2016 ACTION: Lori Atwater, SCE, committed to having the IOU leads provide the RQI Committee members with a summary of the IOUs HVAC ResQI strategy. Completed.

April 2016 ACTION: IOU program leads (Lori Atwater/SCE, Swapna Nigalye and Leif Magnuson/PG&E, Collin Smith/SDG&E) would provide committee chair and staff with IOU HU program manager and HU Working Group contact information as well as other key HU representatives (ICF or another implementer staff) going forward. Ongoing.

April 2016 ACTION: Once provided with HU/Advanced HU contact information, Chris Ganimian would contact the HU Working Group co-directors to request attending a future RQI Committee meetings and coordinate RQI Committee members possibly attending HU program related meetings. Pending

New Business & Regulatory or Legislative Updates

The latest version of the Conflict of Interest (COI) Policy was approved and adopted by the Coordinating Committee during the December 7 meeting. All future CAEECC events and participation must be conducted in accordance with these policies and procedures. Announcement of the policy update was made as part of the CAEECC weekly update notifications. Follow the link below to access and/or download a copy of the revised policy. The weekly update notification also provided a link for those who wanted to sign up to receive all weekly announcements.

New policy posted here:

http://media.wix.com/ugd/0c9650_5e3a1176d3ff43658180125096e1b9f9.pdf

CAEECC weekly update notifications sign up link:

[Sign up to join our subcommittee email lists!](#)

Report – SCE RQI Forum at IHACI Nov. 16 - Lori Atwater & Attendees

Chris Ganimian, Energy Analysis Technologies - Lori Atwater spoke about how highly she regarded their RQI program and the work of the participating contractors. Contractors commented on how they thought it was unfortunate that the program was being terminated. Comments of recognition and awards followed. Tyler Miner was recognized for his participation within the EUC/Home Upgrade program offering the advanced home upgrade option. He thought it was a bit of an anticlimax.

Glenn Hourahan, ACCA – Lori Atwater had invited him to attend and speak about their RQI program and standard. Contractors were reminded that they could continue to offer QI and would be provided with the EPA/ENERGY Star certificate for a verified quality installation no longer tied to any utility program. Lori was asked by contractors about future QI advertising and some coordination with the SDG&E QI continued efforts. She'd replied that she would have to look into that.



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Jeff Henning, MSDC – he heard from several contractors who were concerned with how they would complete and offer the SCE RQI type installation. Other forms are going to offer Energy Star certified installations without RQI requirements being met.

Lori Atwater, SCE - when SCE decided not to continue with the current RQI program, they didn't really have an alternative for contractors. Utility program development moved very slowly. Studies had to be conducted and the codes and standards group would need to examine education needs. She estimated that any new program ramp up would not occur until 2018. She was delighted that ACCA chose to do something during this interruption. Something would be available to contractors in the absence of a program from SCE.

Jeff Henning asked Glenn Hourahan to comment about a level of compliance with ACCA 5 & 9 that would occur under the EPA/ENERGY STAR ESVI program approach. One verification was a desktop application. The other he'd understood to be a third-party verification. RQI Contractor concerns were about how could they compete with another with another contractor who could offer the ESVI certification but was not required to do anywhere near the same amount of work as contractors who completed installations which complied with ACCA 5 & 9. Had ACCA looked at that and addressed that concern?

Glenn Hourahan thought that the numbers in the apps used for compliance under the ESVI installation would not line up with those needed for compliance with ACCA 5 & 9 installations like those guided under the SCE program.

Buck Taylor thought that Jeff's point was that the contractors who put out \$10,000 or more in the software and training required under the SCE program to be positioned to deliver an ACCA 5 & 9 compliant installation. If another contractor came along and paid \$600 to ACCA, how would you be able to guarantee that contractor had the same tools and software and had completed the same level of training to insure they were using them correctly in the field on jobs? The SCE trained contractors were concerned that the other lesser trained contractors would "paint the market" with claims for the same level of installation and not really be delivering it and offer their installations are far lower costs.

Glenn Hourahan didn't have a full answer about that concern but knew it was something they would have to watch. Another thing still missing in the market was installations where a set of measurements taken was documented. Another contractor coming later would be able to review those baseline measurements. It would make it easier for a home owner to know whether the contractor on the initial installation had done a bad job or not. They could try to determine whether there had just been a mistake in taking a measurement and possibly see if the installer had purposely falsified those installation measurements. The ACCA QI standard required that a document with the installation measurements would be left on the job.

Buck Taylor – that installation job documentation was one of the main points of recent ACCA standard revisions. There should be all of that commissioning data available to later contractors for any future assessment of service. The big question was where to put market transformation resources. Into education or enforcement. But, enforcement, ideally, would be a part of the whole educational process. The reality had been that in utility programs, the dollar resources had to follow energy savings. Buck asked members to hold their thoughts around this important issue for when they moved forward. AB802 and other legislation had, in his opinion, really muddied the waters around how the utilities could proceed and it might take a couple years before RQI related programs could again be launched.

Lori Atwater, SCE, viewed AB802 as a new opportunity and something that industry had been talking about for a long time. Good contractors had been going into homes for a long time and knew that most hadn't complied with Title 24 requirements which was the current CPUC assumption of baseline. AB802 might allow another approach to addressing the large baseline issue. She thought that this committee could help address how existing energy usage differed from what was assumed in that current baseline which IOUs had to use for claimed savings work papers. With IOU access to billing data, they could examine and analyze pre- and post-installation RQI program home installation



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energy use. She wanted to have the RQI Committee continue and be available to provide SCE with feedback during their entire program development process. She thought that this committee should be pushing the IOUs on how they could be developing more cost-effective programs that complied fully with the ACCA 5 & 9 standards.

Buck Taylor thanked Lori for her committee support when she had to depart the meeting. He wanted the group to next get an update on the WHPA annual November meetings held this year in Pasadena.

Report - WHPA In-Person Meetings November 17 and 18

Buck Taylor asked Bob Sundberg, WHPA staff, to provide an overview of the meetings structure. Bob walked the group through the meeting agenda for both days. He also let all attendees know that a record of the meeting could be accessed at the WHPA website for further details and copies of key presentations.

<http://www.performancealliance.org/2016InPersonMeeting/tabid/2588/Default.aspx>

DAY 1

WHPA Annual In-Person Leadership Meeting Agenda Hilton Hotel, Pasadena, California Day #1, Thursday, November 17, 2016		
Thursday, November 17, 2016 7:45am – 5:15pm PT		
<i>Note: Breaks will be provided as needed throughout the day!</i>		
Executive Committee, Council of Advisors, Committee & Working Group Chairs, and Guests		
7:45am – 8:45am	Registration, Break fast, and Networking	San Gabriel Room
8:45am – 8:55am	Welcome	Carmen Best, CPUC
8:55am – 9:05am	Leadership Recognition	Mark Lowry
9:05am – 9:20am	EC Call to Order, COA Call to Order, Introduction, Meeting Purpose, Agenda Review	Jeanne Duvall and Ron Jarnagin, EC Co-Chairs, and Dominick Guarino, COA Chair
9:20am – 10:35am	CA Regulatory Legislative Landscape Review Select Regulatory Updates (e.g. AB 802, SB 350, SB 1414)	Carmen Best, CPUC, and Martha Brook, CEC
10:35am – 11:00am	Break	
11:00am – 12:00pm	Commissioner McAllister	Andrew McAllister, Commissioner CEC
12:00pm – 1:00pm	Lunch and Networking	San Gabriel Room/Patio
1:00pm – 1:30pm	Business Plan/Implementation Plan Timelines/ CAEECC Future	Lara Etenson, NRDC
1:30pm – 2:15pm	EBEE HVAC Action Plan	Martha Brook, CEC
2:15pm – 3:30pm	EBEE Breakout Sessions	Barbara Hernesman, EBEE Co-Chair
3:30pm – 3:45pm	Break	
3:45pm – 5:00pm	Breakout Session Report-Out	Barbara Hernesman, EBEE Co-Chairs
5:00pm – 5:15pm	Recap and Next Steps – Setting the Stage for Day #2	Jeanne Duvall and Ron Jarnagin, EC Co-Chairs, and Dominick Guarino, COA Chair
5:15pm – 7:30pm	Networking Social with Appetizers	San Gabriel Room Courtyard
Thursday, November 17, Agenda DRESS CODE: Business Casual		

Buck Taylor – the morning on Day #1 provided attendees with an overview of the regulatory and legislative landscape. Presentations were provided by Carmen Best, CPUC, Martha Brook, CEC and Andrew McAllister, CEC



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Commissioner. It was interesting to hear about each of their goals and perspectives and that some of the CEC goals seemed to be contrary to how the CPUC regulated utilities. It was both interesting to hear directly from these agencies but also somewhat confusing since, as an organization, the WHPA was really a consultant to and a program run by the utilities, the WHPA was not a direct voice from industry to the regulators and he thought the WHPA, technically, was not supposed to be speaking directly with regulators. All of the business activities on both days, in his opinion, seemed to be about how to better serve the utilities and how it looked to regulators. There was no time devoted to committees or working groups, what were their concerns, issues like the unresolved “conflict of interest” one or how they got along and worked with the utilities. The meetings were more focused on the utilities, how they would interact with regulators and how they were to move forward, not at a level focused on how the committees were doing and how they could improve and move forward.

Pepper Hunziker, Tre’ Laine Associates, interjected that she’d just seen a CPUC/CAEECC announcement a day or so before where a revised conflict of interest document had been publicly posted which most attendees might not yet be aware of.

Buck Taylor thanked Pepper and agreed that they should all review the December announcement.

Buck then mentioned another subject that he thought members should be aware of. There had been recent legislation which would require closure of new installation permits before utilities could pay out any rebates. He’d become aware that there were some industry members who supported this legislation. This was an example of the types of issues which he thought the WHPA might be great at addressing and moderating. He thought that some WHPA members were, again, talking past each other and might, in some instances, have organizational benefits from taking the position they’d chosen. He’d concluded that the WHPA was being used to come up with free guidance and advise in the form of the expected “work products” without being provided any resources except for meeting facilitation. Even in the “how to optimize the WHPA” it seemed to him that regulators were far more concerned with how the WHPA could respond more quickly, after being provided with only a one to two week notice period, rather than what greater resources did the WHPA need in order to provide the IOUs with greater value. There was no time spend on addressing barriers and issues which committees had raised and attempted to deal with as volunteers or about IOU programs or energy savings.



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DAY 2

WHPA Annual In-Person Leadership Meeting Agenda Hilton Hotel, Pasadena, California Day #2, Friday, November 18, 2016		
Friday, November 18, 2016 7:45am – 4:30pm PT		
<i>Note: Breaks will be provided as needed throughout the day!</i>		
Executive Committee, Council of Advisors, Committee & Working Group Chairs, and Guests		
7:45am – 8:45am	Registration, Breakfast, and Networking	San Gabriel Room
8:45am – 9:00am	Honor Bob Baker	Rick Danks, ASHRAE, and Don Langston, ACCA
9:00am – 9:15am	Introduction, Meeting Purpose, Agenda Review	Jeanne Duvall and Ron Jarragin, EC Co-Chairs, and Dominick Guarino, COA Chair
9:15am – 9:30am	Setting the Stage: Gap Analysis and Stakeholder Action Plan	Dominick Guarino, COA Chair, and Mel Johnson, Gaps Analysis WG Chair
9:30am – 10:30am	Breakout Sessions: Gaps Analysis Input <ul style="list-style-type: none"> • Industry, IOUs, Regulatory • Top 5 Things They Need from Each Other 	Dominick Guarino, COA Chair, and Mel Johnson, Gaps Analysis WG Chair
10:30am – 10:45am	Break	
10:45am – 11:45am	Review of Breakout Session Outputs	Dominick Guarino, COA Chair, and Mel Johnson, Gaps Analysis WG Chair
11:45am – 12:45pm	Lunch and Networking	San Gabriel Room/Patio
12:45pm – 1:00pm	Setting the Stage: Optimizing the WHPA	Jeanne Duvall, EC Co-Chair, and Scott Higa, COA Vice Chair
1:00pm – 2:00pm	Breakout Sessions: Optimizing the WHPA <ul style="list-style-type: none"> • How do we optimize our work to ensure Industry, IOUs, and Regulatory stakeholders are getting what they need? 	Jeanne Duvall, EC Co-Chair, and Scott Higa, COA Vice Chair
2:00pm – 2:30pm	Break	
2:30pm – 4:15pm	Review of Breakout Session Outputs	Jeanne Duvall, EC Co-Chair, and Scott Higa, COA Vice Chair
4:15pm – 4:30pm	Meeting Summary and Next Steps: <ul style="list-style-type: none"> • 2016 Year-End Activities • 2017 Activity Launch 	Jeanne Duvall and Ron Jarragin, EC Co-Chairs, and Dominick Guarino, COA Chair
WHPA 2016 In-Person Leadership Meeting Adjourned		
Friday, November 18, Agenda		DRESS CODE: Business Casual

Buck Taylor commented on the Day 2 session regarding optimizing the WHPA. When the CEC’s new goal of doubling energy savings was raised, he’d asked directly whether the TRC (IOU program cost-effectiveness evaluation ratio) would then be raised from 1 to 2, attendees were informed that programs evaluated to score < 1 were likely to be dropped from future funding. According to the CPUC’s Work Order 32 conclusions, all current HVAC “quality” programs in California had TRCs of < 1. According to that logic, all current “quality” installation and maintenance programs would have to be terminated. And, a full year after AB802 was passed by the legislature, there still was no clear path on how it might be implemented by IOUs in their program designs. Since the DEER assumptions regarding energy efficiency measures and baseline and Title 24 code requirements had not been addressed or resolved, it was not at all clear how IOUs could propose energy savings (program claimed savings work papers – ex ante) any differently now than they’d done for years with program TRCs almost always falling below 1.



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From what Lori Atwater had shared with the committee, the SCE program had to be shut down because it wasn't even close to delivering a TRC near or at a ratio of 1. Buck had concluded that the other IOUs were unlikely to put any more resources behind their RQI programs either because, from a business perspective, it just wasn't worth the challenge how those programs were being evaluated.

Buck indicated that they needed to consider how the committee would operate in the future. They'd have to consider a frequency for their meetings and what sort of work product, or working group effort to develop one, made the most sense given the environment they were in. Or, was it worth this committee volunteer's time to tackle any of this right now. It didn't seem to him that there was any sort of clear path for the committee.

Jeff Henning, MSDC, advised the group that SDG&E intended to maintain their RQI effort, although it was at a much smaller volume than SCE's program had been. He'd been informed that the SDG&E program budget had been cut by about 50% and in the future, they would have to enforce the new closed permit for rebate ruling. He wondered whether that permit ruling alone might end the program.

Buck Taylor – if the EUC/Home Upgrade competition didn't end it, he thought that the new permit closure might. He thought this was just “gap” programming unless there was some breakthrough in how IOU program energy savings would be treated and evaluated. Requiring permit closure would just add to the administrative cost without any additional savings since the RQI programs already closely supervised and evaluated every installation. Industry supporters might have thought that by supporting the required permit closure they were effectively punishing competitors. But, the underlying assumption by the originating legislature was that Title 24 code resulted in energy savings and applied to all installations in the state, which had been reported by regulators to the legislature and the public for years, inaccurately. There was an obvious collision between code and the new AB802 legislation since both claimed to produce or confirm energy savings.

RQI Committee Future Plans – Buck Taylor

Buck Taylor, Chair, requested member comments on whether the committee should continue.

Chris Ganimian – the committee should continue, but probably not meet on a monthly basis. Maybe every other month or once a quarter until or unless there is a change

Pepper Hunziker – were there subjects or issues outside of the utility programs which the committee could pursue? Other areas that would support market transformation or other committee goals? Could we use another lens, perspective for problem solving to effect change?

Buck Taylor – he was convinced that for market transformation to occur, it would take much more than just a utility rebate program. There had to be “free market” efforts as well. He didn't know how committee volunteers could continue to justify their volunteer time going forward when there didn't seem to be either utility program support or “free market” forces at work. In his over twenty years in the industry he'd seen this pattern. Every three to seven years there seemed to be a changeover in utility staff personnel, the utilities by their nature tended to take the paths of least resistance and cost to reach their energy efficiency savings goals, the regulatory framework and market barriers didn't change, the conversations and efforts to effect change cycled back at square one, again. WHPA committees are essentially servants to the utilities. Even when program managers would like their programs to continue, if the utility management decision-makers didn't want to continue supporting a residential QI program,

Buck had considered throwing out the idea of meeting quarterly to explore other options like seeing if the IOUs would consider the committee seeking out other state-wide RQI program options, not ones tied to each single utility. If there was no single IOU to fund such a program, what is it that this committee could do where the WHPA itself is funded by those same IOUs. There's no resources to take out advertising or staff to coordinate the necessary communications, placement and payment. The committee couldn't provide free training for contractors. There's no free software or



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mentor in the field to support them. Those are the barriers that would exist for this committee and which were outlined in the 2012 white paper. The WE&T Committee and other educational efforts like those of the IOUs themselves have not, in over seven years, succeeded in having state community college and other HVAC programs train the ACCA 5 & 9 QI standards.

Pepper Hunziker – the chancellor of the state community college system was a champion for improving HVAC training programs. Their first efforts were toward incorporating some of Standard 180 practices into their commercial training programs and curriculum like more extensive training on economizer systems. It had taken longer than expected to locate champions to move forward. But, she thought those efforts would open the door for the expansion of residential training opportunities on QI, in time. They were also trying to influence trade schools, four year HVAC programs, on the job training and other post-secondary WE&T pathways.

Buck Taylor – Lori wanted the committee to continue but he'd concluded that because the program was being shut down, that her bosses didn't. He wanted to have the committee continue if it could add value but it wasn't clear when that might be. The committee clearly didn't have a direct voice with the regulators nor did the WHPA itself. From the recent In-Person meetings, he wasn't even sure that the WHPA as an organization was positioned to deal with the issues and barriers which this committee had raised for years.

Bryan Rocky, Johnson Controls Inc. (York Unitary Products) – he endorsed everything which Buck had just stated. They didn't have a large staff in their government affairs group which dealt with industry activities. This discussion about activity value and results was precisely what had been occurring within his company over the last six months. He'd been asked why he was even involved with this organization and the RQI Committee. How was this helping them sell more equipment or help their distribution partners? Right now, he was having a hard time justifying even the time for the monthly meeting calls.

RQI Committee 2016 Work Product: Code to Standards Comparison Table – Buck Taylor

The work product had been distributed along with the meeting notice less than one week before the monthly meeting. There was insufficient time to conduct an email vote prior to the Dec. 9 deadline for submission for the Dec. 14 Executive Committee meeting. Bob Sundberg, WHPA staff, thought there was a real benefit for the committee to submit their work product in its present state to the Executive Committee so that there would be a record of their progress to day. The work product might also be beneficial to IOUs for their efforts to revised claimed savings work papers. The committee could choose to continue the effort in 2017.

Also, since Lori had suggested that SCE had access to RQI program and non-program residential installation meter data, the IOU could conduct preliminary analysis and provide the committee with the organized data and preliminary analysis for committee review and comment in the IOU's efforts to revise their RQI claimed energy savings work paper based more on AB802 meter data rather than deemed savings, DEER based energy efficiency measure and the Title 24 compliance rate assumptions. Lori and SCE's challenge would be to devote resources to selecting, accessing and analyzing that meter data which this committee had been advocating since late 2015. Obtaining RQI data, EUC/Home Upgrade installation data and general marketplace non-SCE program data would be quite a challenge with very limited RQI dedicated resources. But, that would be the challenge for a utility in order to take a different approach regarding program claimed savings.

Buck Taylor added, he estimated that even if they could access the right meter data by January, it would take at least two years for the IOU to analyze the data and complete a program claimed savings work paper which would then need to be negotiated with the CPUC for approval before a revised RQI program could be designed. But, tackling meter data to get at current baseline assumption barriers was a great suggestion which the committee would need to consider for 2017.



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Bob Sundberg, WHPA staff, shared the code to standards comparison tables online for attendees. There were rows on each table where significant gaps existed – especially, elements included in ACCA Standard 5 & 9 based installations which CA code did not address. The group discussed how complete the table was, some suggestions for improvements and explanatory text.

Buck Taylor – suggested that members needed to decide whether to vote on the current effort as an interim work product for 2016. It would help clarify why regulator and utility staff were talking past each other as they discussed program claimed savings. It would be a foundational document, a context within which to hold those conversations. It was a good goal at the beginning of the year but now had limited value since the utilities didn't have a program within which to discuss and challenge current baseline assumptions. Five of nine committee voting members were in attendance which met the requirement for a quorum. Buck suggested they take a verbal vote.

A verbal vote was taken on the motion to approve the current interim work product and have it delivered to the Executive Committee for consideration at their January 2017 meeting.

Aye votes were provided by: ACCA; Bennington Group; Energy Analysis Technologies; Mechanical Systems Design & Consulting; Roltay, Inc. The motion passed.

Next Steps/Closing Comments/Adjournment

The group discussed whether to meet quarterly or every other month. They agreed that it was difficult to make progress on any work product within the context of whole committee meetings.

Bob Sundberg, WHPA staff, suggested they consider reducing the committee meeting to one hour, meet bi-monthly and request WHPA resources to support a volunteer working group dedicated to developing the committee's work product.

Glenn Hourahan, ACCA, suggested Buck schedule a late February meeting. The meeting agenda could include reporting on the Executive Committee's response to the 2016 work product, any direction the EC provided for 2017 committee efforts and how committee members thought they should move forward. Chris Ganimian, Jeff Henning, Russ King and Wes Davis all agreed with the suggestion.

Buck Taylor said that he'd check his availability for either February 15 or 22 and advise Bob Sundberg about a date to schedule the next meeting. Meetings are normally scheduled for the 3rd Wednesday of each month.

ACTION: Buck Taylor would advise Bob Sundberg when the February meeting should be scheduled.

Buck Taylor adjourned the meeting at 11:36 am PST.

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Summary of Action Items and Key Decisions (from above)

December 2016 **ACTION:** Buck Taylor would advise Bob Sundberg when the February meeting should be scheduled.

PREVIOUS ACTION ITEMS:

July 2016 **ACTION:** WHPA staff would like to request CEC staff assistance for this committee in locating where at the CEC site a case initiative report could be located which would reveal the cost attributed to a HERS inspection for a new residential system. Samuel Lerman and Jeff Miller were asked for assistance. Ongoing.

STATUS: Dropped due to termination of SCE RQI program.



Goal 2: Residential Quality Installation Committee December 14, 2016 Meeting Notes

July ACTION: Jeff Miller, CEC, would help identify other staff members more involved with policy and implementation based on AB 802 and provide the Chair and committee staff with contact information. Ongoing.

April 2016 ACTION: IOU program leads (Lori Atwater/SCE, Swapna Nigalye and Leif Magnuson/PG&E, Collin Smith/SDG&E) would provide committee chair and staff with IOU HU program manager and HU Working Group contact information as well as other key HU representatives (ICF or another implementer staff) going forward. Ongoing. Dropped due to termination of SCE RQI program.

April 2016 ACTION: Once provided with HU/Advanced HU contact information, Chris Ganimian would contact the HU Working Group co-directors to request attending a future RQI Committee meetings and coordinate RQI Committee members possibly attending HU program related meetings. Dropped due to termination of SCE RQI program.