

Call to Order

Mark Lowry (BBI COO) called the meeting to order at 12:05 p.m. PDT.

Roll Call – Attendance

A quorum (eight or more) of the Executive Committee (EC) was present or represented by proxy.
To avoid repetition, the abbreviation for the name of the member organization will be used in the body of the minutes.

Organization	First Name	Last Name	WHPA Category	P=Present
Executive Committee				
ACCA (Air Conditioning Contractors of America)	Don	Langston	Contractor (Nonresidential)	P-has standing proxy for IHACI
AHRI (Air-Conditioning, Heating, and Refrigeration Institute)	Garrett	McGuire	HVAC Manufacturer Association	P
ASHRAE	Ron	Jarnagin (Co-Chair)	Engineering Society	
CEC (California Energy Commission)	Lea	Haro	Government (Other than CPUC)	P
CPUC (California Public Utilities Commission) Energy Division	Carmen	Best	CPUC	P
HARDI (Heating, Airconditioning & Refrigeration Distributors International)	Talbot	Gee	Distributor Association	P
IHACI (Institute of Heating and Air Conditioning Industries)	Bob	Wiseman	Contractor Association	
JCEEP (Joint Committee on Energy and Environmental Policy) Western States Council	Dave	Dias	Organized Labor	P
NCI (National Comfort Institute)	Dominick	Guarino	Educator, Trainer	
PG&E (Pacific Gas and Electric Company)	Jeanne	Duvall (Co-Chair)	California IOU	P
SCE (Southern California Edison)	Scott	Higa	California IOU	P
SDG&E (San Diego Gas & Electric)	Jeremy	Reefe	California IOU	P
SoCalGas (Southern California Gas Company)	Harvey	Bringas	California IOU	P
UA (United Association)	Don	Tanaka	Organized Labor	P
Guests				
CALBO (California Building Officials)	Bob	Barks	Codes & Standards (Association or Jurisdiction)	P
CHF-CIRB (California Homebuilding Foundation, Construction Industry Research Board)	Allison	Paul	Research Organization	P
CPUC (California Public Utilities Commission) Energy Division	Steve	Rickert	CPUC	P
SDG&E (San Diego Gas & Electric)	Paul	Thomas	California IOU	P
Staff				
BBI (Better Buildings, Inc. COO)	Mark	Lowry	Energy Efficiency Program Consultant	P
BJGustavson Consulting (WebEx)	Bonnie	Gustavson	Other Stakeholder	P
CLEAResult (Staff Support)	Paul	Kyllo	Energy Efficiency Program Consultant	P
Empowered Solutions (COA Support)	Shea	Dibble	Energy Efficiency Organization	P
Key SEO/Key Marketing Group (Scribe)	Judy	Johnson	Other Stakeholder	P
Opinion Dynamics (Presenter)	Ellen	Steiner	Energy Efficiency Program Consultant	P

Agenda

Topic	Discussion Leader
Roll Call	Bonnie Gustavson
Approval of February 15, 2017, Meeting Minutes	Mark Lowry
New Member Applications	Mark Lowry
Announcements	Mark Lowry
Compliance Committee Work Product: HVAC COMPLIANCE DEFINITION MATRIX	Bob Barks, Committee Chair
OPWG (Online Permitting WG) Insight Curation	Allison Paul, Working Group Chair Ellen Steiner, Staff
Industry Perspectives	Talbot Gee
New Business and Adjourn	Mark Lowry

Approval of February 15, 2017, Meeting Minutes – posted on WHPA website

MOTION made by Don Tanaka (UA) and seconded by Dave Dias (JCEEP) to approve the EC Meeting Minutes of February 15, 2017. All EC members present or represented by proxy voted in favor of passing the motion except CPUC (Carmen Best) who abstained. Motion **CARRIED**.

New Member Applications

COMMENT by Mark Lowry (BBI) – Daniel Jones represented Honeywell and Pelican Wireless previously on the WHPA. He has now formed his own energy efficiency program consulting company. He intends to continue his activity within the WHPA.

1. **BMA Mechanical+**: Other Stakeholder Category; Dustin Lane, Energy Analyst (<http://www.bmaslo.com/>)
2. **Daniel Jones Consulting**: Energy Efficiency Program Consultant Category; Daniel Jones, Principal

MOTION made by Jeremy Reeve (SDG&E) and seconded by Don Tanaka (UA) to approve the two applications for membership. All EC members present or represented by proxy voted in favor of passing the motion except CPUC (Carmen Best) who abstained. Motion **CARRIED**.

Announcements

ANNOUNCEMENT by Jeremy Reeve (SDG&E) – He announced that he has a new position at SDG&E as lead of the Codes and Standards team. He will be leaving the WHPA effective in early April. Paul Thomas (SDG&E) will be the new Executive Committee lead for SDG&E. *“I want to thank everyone for this amazing journey in the WHPA starting with the kickoff of the WHPA in 2009.”* A new SDG&E program person will be named to backfill Jeremy on the EC.

COMMENT by Paul Thomas (SDG&E) – *“I’d like to express my thanks to Jeremy for his contributions to the WHPA and for Jeremy’s coaching me since I joined SDG&E in January 2017. I invite people to contact me if you have any questions”* (858-636-3931, pthomas@semprautilities.com).

ANNOUNCEMENT by Carmen Best (CPUC) – She is leaving ED and the CPUC on March 30. *“I want to thank everyone for their hard work. There is no replacement for my position at the CPUC at this time, but Steve Rickert will fill in for me on the WHPA EC and COA until a replacement is named. I will send an alternate email address and would like to stay in touch.”*

COMMENT by Mark Lowry (BBI) – Carmen, thank you for your leadership and participation. It has been very valuable to have your honesty and clarity on the Executive Committee. We will miss that.

ANNOUNCEMENT by Mark Lowry (BBI) – To better balance Staff’s workload, Elsia Galawish (Staff) will now be supporting RQI and CQI Committees and Working Groups, which have in the past been supported by Bob Sundberg (Staff). Elsia has knowledge of the work and the personnel in both Committees, so the transition should be smooth. Bob will continue to support the CQM Committee and Working Groups.

Compliance Committee Work Product: HVAC COMPLIANCE DEFINITION MATRIX

Scribe Note: This Work Product Presentation is an updated version of the Compliance Definition Matrix originally presented to the WHPA Executive Committee in January 2017. Due to comments that were received from the EC at that meeting, a number of changes were made, including the following primary updates:

- Addition of an Owner Definitions tab to further define “Owner,” “Shared,” and “Factor” color coding.
- Market Actor column changes (for Utility, Certifying Body, Third Party Quality Assurance Provider, and Educator/Trainer) on the Residential and Nonresidential HVAC Compliance tabs.
- Cross-referencing of Compliance Items to the Components of the HVAC Installation Process on the Component Definitions tab for consistency with the Residential and Nonresidential HVAC Compliance tabs.
- Adjustment to the representative WHPA member organizations listed under the Third Party Quality Assurance Provider column on the Market Actor Glossary tab.

PRESENTATION by Bob Barks (CALBO), Chair of the Compliance Committee – The EC’s comments from its January meeting were referred back to the Compliance Committee. Each Committee team responsible for each column did another review of the content on the matrix and the definitions, and all comments and changes were discussed and consolidated at our Compliance meeting last week. The motion was made and the vote passed to present the revised Work Product to the EC and to ask them to vote to adopt the Work Product. That motion was supported by the majority of the Committee participants.

COMMENT by Jeanne Duvall (PG&E) – Thank you for this work; I see there is a lot of hard work in it. Can you show us what the major changes were between last time and this time?

RESPONSE by Paul Kylo (Staff) – At the last EC review of this matrix, Jeanne Duvall (PG&E) and Jeremy Reeve (SDG&E) raised questions about the roles of the IOUs. We made modifications to the document based on that feedback from the IOUs and CALBO, and then the modifications were reviewed in detail by the Compliance Committee. There were also changes in the areas of market actors and third-party providers; and we ended up removing some names from the list, including some that are not currently approved by the CEC or are not registered with the WHPA as a third-party provider.

COMMENT by Jeremy Reeve (SDG&E) – The IOUs are not in the role of code enforcement. The utilities have taken a deep dive into this process to implement SB 1414. I don’t think the utilities can be on the list even in the green zone on ownership definition. I have a problem with the word “influence.” The IOUs are only on the receiving end of compliance; we are not in the role of influencing compliance. The word “factor” is more binding than I was hoping for. I would be concerned if this goes public. When we enroll customers in our programs, we (simply) receive documents from the customers, property managers, and building owners. I would like to red line this a little bit more. I would like them all to be white.

RESPONSE by Bob Barks (CALBO) to Jeremy Reeve (SDG&E) – The wrong version of this Work Product has been shown. The Committee did make the decision to display the Utility column on the Residential and Nonresidential Compliance charts as white, which is the status that the IOUs are seeking.

ACTION for Bonnie Gustavson (Staff) to email the correct final chart along with a version that shows tracked changes and to request an email vote by EC members to adopt or not adopt the Work Product. (**NOTE** by Mark Lowry (Staff) – This will be done at a later date.)

COMMENT by Bob Barks (CALBO) – I do expect this to be a living document. It became a much more significant project than we expected when we started the work in 2016. Compliance is constantly changing, and we are just *taking a snapshot*, which does accomplish our goal to show the interrelationship of everybody in the market and show how they all rely and depend on each other to achieve compliance. Hopefully, we will create some understanding across boundaries.

OPWG (Online Permitting WG) Insight Curation – Input from Executive Committee

INTRODUCTION by Allison Paul (California Homebuilding Foundation), Chair of the Online Permitting Working Group – I am the lead research analyst for the building permit service that tracks all the building permits in California, and as Chair of the Online

Permitting Working Group, we report to the Compliance Committee. The Working Group started working on the creation and implementation of an online permitting system that can be used by both building departments and contractors.

We are looking for a system that could span the entire state. We created two surveys (one for the California building department and one for the California contractors) asking questions regarding a proposed online permitting system and asking what they would want if one were created and implemented. Since the beginning of 2017, the Working Group has had numerous rounds of brainstorming and editing in creating this survey, and we are almost ready to deploy it. We'd like to ask the members of the EC who represent a broad cross section of industry to provide their input before we deploy the online surveys.

QUESTION #1 from the Working Group for members of the Executive Committee – **What do you see as the opportunities/benefits to a statewide online permitting process?**

ANSWER #1 by Don Langston (ACCA) – Here are some thoughts from me as a commercial contractor in Southern California and the as incoming Chair for the Air Conditioning Contractors of America (ACCA). We do a lot of rooftop changeouts; I have project managers and superintendents who are routinely going to different city halls waiting for hours at a time. Anything that we (contractors) can do online (to get permits) will save us hundreds of unproductive hours every year. I will offer any resources that I can bring to bear to help with this. There would be tremendous benefits if we could have a standardized approach that could be done online throughout most of the governmental agencies through the state.

ANSWER #2 by Don Langston (ACCA) – Time is critical, but also important is consistency in what the forms look like. There are so many different types of forms; for example, how they approach different lines of sight. They are all different. Jurisdictions are like snowflakes; they are all unique. We would like (the requirements by the jurisdictions) clearly stated in advance:

- This is what is expected
- Submit these documents
- Submit these pictures

Because there are currently so many double and triple visits, it would be a massive paradigm shift in improving efficiency and improving compliance.

QUESTION by Ellen Steiner (Staff) – Can you further explain your use of the term “line of sight”?

ANSWER by Don Langston (ACCA) – There are two things: (1) there is “line of sight” for the documentation that is required and (2) there is a physical “line of sight” (which is if you can see a physical AC unit above a parapet on a roof). Some jurisdictions are more lenient than others; some cities are more strict than others; and even within a single city, the contractor might hear different positions. The only thing consistent is the inconsistency.

COMMENT by Jeanne Duvall (PG&E) – As a former architect, I'd say to take Don's comments and flip them backwards. It would be an extremely tough effort to get all the jurisdictions to agree to a standard; there are so many jurisdictions. For this to happen would be a large undertaking.

COMMENT by Dave Dias (JCEEP) – Some small jurisdictions don't have the capability or the technology to go online—for example, Modoc County. What I am getting at is that you can't get every jurisdiction in the state (to participate). They don't have any money and there is very little building going on in those jurisdictions.

COMMENT by Carmen Best (CPUC) – I agree with Jeanne Duvall (PG&E) that standardization (among all the jurisdictions) would be a big challenge. Also, in terms of garbage-in-garbage-out, you need quality control to ensure that the data being entered has a way to be cleaned up, validated, and/or corrected. It takes time to ensure quality, and that can cost money. You also need to consider that maintenance of the whole system needs to be part of this proposal. Who would fund it? What would be the contracting structure? Would it be state funded? Would it be a collaborative? They don't have consistent funding for maintenance. However, on the benefit side, if you did all this right, it could be a helpful way to do measurement, verification, and follow-up on samples and comparison groups to understand the effects of permitting.

COMMENT by Don Langston (ACCA) – If we imagine this as Version 1.0 and we do a distribution map to see where the activity is and we knew that 80% of the activity is done in 15 counties, then we could take that approach. If we had a “coalition of the willing” and this is Version 1.0 and we said “What are the top 15 things we have in common?” then at least we could agree on that common ground and have common language.

COMMENT by Dave Dias (JCEEP) – I agree that a pilot program is the way to go.

COMMENT by Allison Paul (CHF) – These are all good points. Thank you for your advice and insights.

QUESTION #2 from the Working Group for members of the Executive Committee – **What do you think is the feasibility of building departments willingly adopting a statewide online building system? Some already have their own and others may be technology challenged, so what do you think is the likelihood that they would take this into their department and use it?**

ACTION by Dave Dias (JCEEP) – I deal with building departments all the time because I sit on the IAPMO national board. I can bring this up at the next meeting.

COMMENT by Don Langston (ACCA) – Time is money (for contractors). Perhaps you could have a subscriber fee for contractors to help pay for this new online system.

COMMENT by Bob Barks (CALBO) – As Compliance Committee Chair, I am trying to stay neutral; but from the jurisdictions viewpoint, jurisdictions are looking for anything that is going to help them, but they will be limited by a number of elements. Some are political, some are financial, some are educational, and some are experience related. Some members are not up to speed on the latest technology and others are ahead of the curve, which tends to be the larger and better funded jurisdictions. Some would be all in (accepting a new system), and those would be the ones who have the best political support from their leaders. Others you would have to drag in kicking and screaming, and they would be the ones that do not have the greatest support or they have systems they want to keep; therefore, they have to be shown that there is a better way and that it is going to benefit them. For Modoc and perhaps other jurisdictions, they will need help and they will not be early adopters. For others, if they see a benefit and it will help them do their job faster and easier, they will climb on board. The success of a system of this type is to provide benefits to as many people as possible and make it as simple as possible to implement.

QUESTION #3 from the Working Group for members of the Executive Committee – **Does it make sense to have an HVAC-only online permitting system or to develop a system-wide system? Could rooftop HVAC changeouts be the pilot for such a system?**

ANSWER by Scott Higa (SCE) – There are over 500 building departments in California. There is a high probability that they are looking for a system-wide online permitting process and not just HVAC. Also, there are barriers listed in the HVAC Action Plan that still hold today, so that may be something to review as a reference.

ACTION for the Online Permitting Working Group to review the HVAC Action Plan for relevant information on permitting.

COMMENT by Bob Barks (CALBO) – There will be a crossover into permits for other than HVAC; but the permitting systems within the states (and for any permit system) can be so complex that you don't want to take it on as a single project; you need to test it. If you could get online permitting working for only HVAC changeouts, then you would have the blueprint for extending that to other permits. You will find a lot of roadblocks, gaps, and issues that will come up even in developing a single permit program of that type, but it is the stepping stone to figuring it out for other permits as well. It would be the pilot for something broader, but don't look at the broader picture at this time because I think it would be self-defeating; it is just so big! There are so many variables and it would very quickly become an unmanageable project.

COMMENT by Jeanne Duvall (PG&E) – Depending on how much information is in the system and who has authority, could there be security issues that come up with data in a centralized system?

ACTION for the Online Permitting Working Group in the survey to ask the respondents about permission and access because of confidential information that is provided.

Industry Perspectives

PERSPECTIVES by Talbot Gee, COO of Heating, Airconditioning & Refrigeration Distributors International (HARDI):

- 2016 ended up surprisingly stronger than we were expecting, and this first quarter is off to quite a strong start.
- The unitary market, especially in air conditioners, has rebounded nicely, even with a year of adjustment into the new minimum standards for much of the country. Split system air source heat pumps were in the second full year of the new standards, and they (1) did see a deep volume drop and (2) did not see an uptick in high-end mix.
- A macro takeaway from 2016 is that the air conditioning market fared better in volume than we expected with the standards change, which mostly went from 13 SEER to a 14 SEER. We did not see a significant growth at the 15 and 16+ SEER level even though there is more product available from the manufacturers at those levels than ever before.

- The higher entry cost of heat pumps is dragging that market.
- Ductless is growing at a nice pace year-over-year – high single digit low double digit growth rates.
- In California, one of my biggest concerns remains that the Air Resources Board (ARB) aggressively continues down a path to mitigate greenhouse gas emissions and is taking a long hard look at the refrigerants used in California. Our concern is that this continues to be done in isolation while the California Energy Commission (CEC) continues to work on ways to improve the efficiency of the belt environment.
- The problem is that refrigerant policy does has a role to play in system efficiency. It's easy from a simple greenhouse gas measure to be aggressive against certain types of refrigerants, even without knowing that there is not a great replacement for them with certain mechanical systems or that the only refrigerants that work with them are less efficient. We should not have a myopic black-and-white view that anything that reduces gas emissions in refrigerants is always a good thing, because it can have a net wash or even a net negative impact on system efficiency. The people working with high-end commercial refrigeration are having the toughest time getting their complex systems to work with some of the new refrigerants.
- There are a number of federal regulations, and DOE has been pulled by the new federal administration, so we are on standby.
- On the climate side, nobody knows where the federal administration will go. There is no clear signal on what the President is going to do with the Paris Climate Agreement.
- There are new A2L refrigerants coming up, but it will be difficult to commercialize because there has not been any movement on the codes and standards side.
- But despite all this, there are no major changes to standards, so we think it will be a strong 2017.
- We need help from the utilities to drive the purchase of higher SEER equipment.

QUESTION by Don Langston (ACCA) – If you were to look on the horizon representing the HVAC equipment wholesalers, what would you rank as your top three concerns coming up for our industry in the market place in California?

ANSWER by Talbot Gee (HARDI) – In terms of top concerns for the HVAC industry for the wholesalers:

1. Easily my top concern is the relationship between climate/refrigerant policy and product/energy (efficiency) policy. You could end up with a prolonged prior-of-time where you do not have any viable product option at the time when you have a marketplace that is growing, because California has a very active ARB and CEC who, at the same time, are doing at the state level what the EPA and DOE did at the federal level.
2. More business related, everyone is holding breath on what tax policy will look like. Right now everyone is very confident for big, mid, and small businesses. But, if the signals do not end up positively on tax policy, that will have a pull-back on the industry.
3. Relating to people at the federal level, we are seeing some good signs of a little less difficult regulatory in terms of hiring, employment, and retention; but at the same time, our industry is having difficulty in attracting and retaining the best talent. What combination of policy and expertise can help us backfill the loss of talent as the baby boomers start to exit the workforce? We have a lot of distributors who want to open more locations, but their single biggest concern is that they can't staff them adequately. We are hearing that contractors are turning away business because they don't have the labor to install the equipment.

COMMENT by Don Langston (ACCA) – My (commercial HVAC) company is in that boat. In my new position as incoming Chair of ACCA, staffing is the #1 thing I am going to talk about. How do we recruit people into our industry?

RESPONSE by Talbot Gee (HARDI) – If we get an amazing tax policy, such as 100% expensing of capital investment and lift the weird exclusion that HVAC equipment has always had in the tax code, then we could see an explosion on the commercial side for replacement of legacy HVAC equipment.

QUESTION by Mark Lowry (BBI) – You commented on needing help in promoting the purchasing of high-end efficiency equipment. What kind of help are you thinking of?

ANSWER by Talbot Gee (HARDI) – We always look to the utility energy efficiency community, which can be a driver of high-end equipment sales if the programs are designed and implemented effectively. We really could use support from the programs to drive high-end sales. The entry costs of products went up, which makes it even harder to sell the premium products.

QUESTION by Mark Lowry (BBI) – Regarding technician certification, do you or Garrett McGuire (AHRI) have any insights into if the change in administration might have impact on the modifications to technician certification that are planned in 2017?

ANSWER by Talbot Gee (HARDI) – We do see some opportunities from the administration at the trade level, and we expect some funding shifts to more aggressively promote that side of the education spectrum. Regarding Section 608 expansion (which industry supported), the rule is final but the tests are not yet updated. We don't know when the tests will be ready.

ANSWER by Garrett McGuire (AHRI) – We think there are opportunities with this administration—and at the state level—for a new focus on career and technical education at two-year schools and trade schools to look at what they can provide as alternatives to four-year colleges. One thing we are not encouraged about is that a lot of states are lowering the requirements for technicians because they want to get people jobs. Do you want to grow jobs or keep the high standards for technicians?

New Business and Adjourn

No other new business was presented.

The next Executive Committee Meeting is a conference call on Wednesday, April 19, 2017, at noon Pacific Time.

The meeting adjourned at 1:30 p.m. PDT.

Notes by Judy Key Johnson
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