



Goal 2: Commercial Quality Maintenance Committee Tuesday June 14, 2016 Meeting Notes

Call to Order

The meeting was called to order at 10:07 am PDT by Don Langston, Chair and President of Aire Rite AC and Refrigeration. Meetings are normally scheduled for 60 minutes.

Roll Call

Quorum for voting organizations = 7 of 12. 9 voting members, 8 non-voting members and 6 guest and staff attended this meeting. A total of 21 members, guests and staff attended.

P = present at meeting

A = absent voting member; if proxy has been assigned it will be noted below.

WHPA Goal 2: CQM Committee VOTING Members				Roll Call
ACCA (Air Conditioning Contractors of America)	Donald	Prather	Contractor Association	P
Aire Rite AC & Refrigeration	Don	Langston	Contractor (Nonresidential)	P
CLEAResult	Monica	Thilges	Energy Efficiency Program Consultant	P
FDSI (Field Diagnostic Services Inc.)	Dale	Rossi	Third Party Quality Assurance Providers	P
Honeywell ECC (Commercial Buildings, Trade Sales)	Mike	Lawing	Controls (Manufacturer or Distributor)	P
HSGS (Honeywell Smart Grid Solutions)	Shayne	Holderby	Energy Efficiency Program Consultant	P
Marina Mechanical	Denny	Mann	Contractor (Nonresidential)	
PG&E (Pacific Gas and Electric Company)	Jeanne	Duvall	California IOU	P
SCE (Southern California Edison)	Scott	Higa	California IOU	P
SDG&E (San Diego Gas and Electric Company)	Jeremy	Reefe	California IOU	
Tre' Laine Associates	Pepper	Hunziker	Energy Efficiency Program Consultant	P
Western Allied Corporation	Mike	Gallagher	Contractor (Nonresidential)	
WHPA Goal 2: CQM Committee NON-VOTING Members				Roll Call
Adrienne Thomle, Consulting **	Adrienne	Thomle +		
ASHRAE			Engineering Society	
BELIMO Aircontrols, Inc	Darryl	DeAngelis	Controls (Manufacturer or Distributor)	
Brownson Technical School	Bill	Brown	Educator, Trainer	P
BuildingMetrics Inc. (BMI)	Pete	Jacobs	Energy Efficiency Program Consultant	
Clean Energy Horizons	Norm	Stone	Energy Efficiency Program Consultant	P
CLEAResult (formerly PECE)	Michael	Blazey	Energy Efficiency Program Consultant	
CLEAResult (formerly PECE)	Steve	Clinton	Energy Efficiency Program Consultant	
CLEAResult (formerly PECE)	Phil	Jordan	Energy Efficiency Program Consultant	P
CLEAResult (formerly PECE)	Paul	Kyllo	Energy Efficiency Program Consultant	
CLEAResult (formerly PECE)	Mike	Withers	Energy Efficiency Program Consultant	P
Richard Danks Consulting	Richard	Danks	Other Stakeholder	
SDG&E (San Diego Gas and Electric Company)	Jeremy	Reefe	California IOU	
SDG&E (San Diego Gas and Electric Company)	Robert	Nacke	California IOU	
Sacramento Municipal Utility District	Bruce	Baccei	Publicly Owned Utility	
SCE (Southern California Edison)	Steve	Clinton	California IOU	P
SCE (Southern California Edison)	Andres	Fergadiotti	California IOU	
Transformative Wave	Joe	Schmutzler	Controls (Manufacturer of Distributor)	P
Transformative Wave	Justin	Sipe	Controls (Manufacturer of Distributor)	
XCSpec	Jeff	Aalfs	Controls (Manufacturer of Distributor)	P



Goal 2: Commercial Quality Maintenance Committee Tuesday June 14, 2016 Meeting Notes

XCSpec	Janet	Peterson	Controls (Manufacturer of Distributor)	P
WHPA Goal 2: CQM Committee Invited Guests and Staff				Roll Call
AHRI	Garrett	McGuire	HVAC Manufacturer Association	
AirTest Technologies	Mike	Schell	HVAC Manufacturer	P
American Commissioning Group	Craig	Hofferber	Third Party Quality Assurance Provider	
California Public Utilities Commission (CPUC) - Energy Division	Carmen	Best	California PUC	
California Public Utilities Commission (CPUC) - Energy Division	Pete	Skala+	California PUC	
CLEARresult	Richard	Waite	Energy Efficiency Program Consultant	P
Galawish & Associates	Elsia	Galawish	Energy Efficiency Program Consultant	
Honeywell Smart Grid Solutions (HSGS)	Steve	Varnum	Energy Efficiency Program Consultant	
ICF (ICF International)	James	Jackson	Energy Efficiency Program Consultant	
LAUSD (Los Angeles Unified School District)	Steve	Granados	Government (Other than CPUC)	
Mark Cherniack Emeritus	Mark	Cherniack	Emeritus	
NADCA (National Air Duct Cleaners Association)	Dan	Stradford	Contractor Association	P
NCI (National Comfort Institute)	Rob	Falke	Educator / Trainer	
Pax-Sun Engineering, Inc.	Tom	Paxson	Other Stakeholder	P
PG&E (Pacific Gas and Electric Company)	Robert	Davis	California IOU	
PG&E (Pacific Gas and Electric Company)	Christian	Weber +	California IOU	P
SCE (Southern California Edison)	Tara	Becnel	California IOU	
Service All-Stars	Shaheda	Lodhi	Contractor (Nonresidential)	
UC Davis Energy Efficiency Center	Kristin	Heinemeier	Research Organization	
STAFF				
BBI (Better Buildings Inc.)	Mark	Lowry	WHPA Executive Advisor/BBI COO	
BNB Consulting/WHPA Staff, host, admin. support & scribe	Bob	Sundberg	WHPA Staff	P
Empowered LLC	Shea	Dibble	WHPA Co-Director	
CLEARresult	Paul	Kyllo+	WHPA Senior Advisor	

** Organization is Not a Member of the WHPA; + Individual is NOT Registered with the WHPA;

(P) after last name = Member/Registrant is Pending Approval from the WHPA Executive Committee

AGENDA		
Topic	Discussion Leader	Desired Outcome
Welcome, roll call, review agenda, approve past meeting minutes and ACTION items	Don Langston and Bob Sundberg/staff	Record meeting attendees, finalize past meeting minutes, review status of meeting action items.
Welcome new members & guests, review new candidates	Don Langston	New members and invited guests welcomed. Decision made on suggested revisions to candidate options and the review process.
CQM Program Updates SCE/PG&E/SDG&E	Paul Kyllo, Shayne Holderby	Gain a current understanding of IOU CQM program status, progress, developments and issues.
CQM STD 180 User Guide Working Group	Dale Rossi	Members updated on WG status and progress



**Goal 2: Commercial Quality Maintenance Committee
Tuesday June 14, 2016 Meeting Notes**

CQM Committee 2016 Goals	Don Langston	Share goals and milestones submitted to Executive Committee for approval
IOU Business Plan Development	Don Langston – IOU Representatives	IOU planning status & issue raised by CPUC guidance to IOUs regarding stakeholder participation
Committee name – quality	Don Langston	Member comments to support move toward name for committee changing to Commercial Maintenance Committee (CM C.) from Commercial Quality Maintenance Committee (CQM C.)
CQM Committee plan for revision of CQI WG standardized data spec. for maintenance application	Don Langston	Data specification, performance evaluation protocol plan for CQM Committee
Review meeting Action Items, set next meeting date/time, adjourn	Don Langston	Set next meeting date and confirm time.

Approve Minutes of Previous Meeting

The May 10 meeting draft notes were distributed May 18. Approved meeting notes would be finalized and posted to the CQM Committee site.

Review Status of Action Items from Previous Meeting

May 2016 ACTION: Scott Higa, SCE, would provide Dale Rossi, Don Langston and Bob Sundberg with SCE staff contact information for the right parties who worked on development of their HVAC Optimization, CQM program plans, plan goal development and methods of evaluation and reporting.

May ACTION: Dale Rossi requested each IOU program manager (Jeanne Duvall/P&G&E, Scott Higa/SCE, Jeremy Reefer/SDG&E) provide relevant IOU staff contact information for those responsible for Standard 180 based maintenance program design, implementation and evaluation. It would help to have any staff participate who had been responsible for contract/agreement maintenance plan development, maintenance plan goals and evaluation metrics established and goal progress reporting. Also, that those staff members be directed to participate and support efforts of the Standard 180 User Manual Working Group by providing current program background information and input to the user guide development.

April 2016 ACTION: Don Langston asked that representatives of P&G&E, SCE and SDG&E be prepared at the next meeting to inform committee members how they might best be able to assist the IOUs with their business plan development. Completed.

March 2016 ACTION: Scott Higa committed to providing CQM program existing customer comments at a future meeting. Ongoing.

PAST ACTION ITEMS:

September 2015 ACTION: Scott Higa, SCE, would report progress on the testimonials and access to and analysis of customer energy data at the next monthly meeting. Ongoing.



**Goal 2: Commercial Quality Maintenance Committee
Tuesday June 14, 2016 Meeting Notes**

Welcome New Members and Guests; Consider Pending Members

- Steve Granados, facility manager for Los Angeles Unified School District, joined the WHPA and requested becoming a member of this committee. Not in attendance at the April or May meetings.
- Dan Stradford, National Air Duct Cleaners Association (NADCA) Board Director/Member, requested joining the committee. He will initially be an invited guest.
- Garrett McGuire, AHRI, agreed to represent the manufacturer research organization on the committee. He will look into additional AHRI staff participating regarding the technical and educational focus of this group. He will initially be an invited guest.
- Christian Weber, PG&E, requested to attend as guest by Jeanne Duvall, PG&E.

New Business - Don Langston

None.

IOU CQM Program Updates

SCE CQM program summary (Monica Thilges of CLEAResult):

Monica Thilges, CLEAResult, provided the monthly update. She'd just returned from her leave and didn't have comments regarding May other than the reported metrics. They were tracking pretty high volume in several of the listed categories and it looked like 2016 would show strong growth. They were continuing efforts to make the program more efficient and effective for all parties.

SCE CQM HVAC – May

	May-16	2016 YTD
New contractors	0	3
New customers - application received	10	38
New buildings – check cut	0	52
% of units w/ economizers	N/A (no new units)	56%
New tonnage – check cut	0	3,624
Units w/ CSA – check cut	330	841
Units w/ DCV/VFD – check cut	161	377
Units w/ ADEC w/ CSA – check cut*	236	430
kWh – check cut	2,048,192	4,540,975
kW – check cut	782.6381	1749.055

*does not count units with ADEC pre-existing at CSA or units where ADEC is installed at DCV



**Goal 2: Commercial Quality Maintenance Committee
Tuesday June 14, 2016 Meeting Notes**

PG&E CQM Program Summary (Jeanne Duvall of PG&E & Shayne Holderby of HSGS)

Shayne Holderby, HSGS, indicated that they had seen the expected substantial improvement and increase in new contractors and in units enrolled in April followed by a strong May. They'd seen a big jump in DCV (demand controller ventilation – economizer systems) participation. They anticipated a decline during July and August because of the focus on emergency services.

PG&E CQM HVAC

	April 2016	May 2016	2016 YTD
New/Active Contractors	2	1	47
New customers – Paid	12	22	15
New buildings – Paid	13	54	72
% of units w/ economizers	72%	56%	61%
New tonnage – Paid	-		-
Units w/ CSA - Paid	83	562	799
Units w/ DCV/VFD - Paid	57	2	129
Units w/ ADEC w/ CSA - Paid	60	316	452
kWh - app submitted	524946	1836957	2694807
kW - app submitted	52	234	35190

SDG&E CQM Program Update

No update.

CQM Committee 2016 Goals and Implementation Plan – Don Langston

Don Langston provided an overview of the goal and implementation plan submitted to the Executive Committee and subsequently approved at their June 15 meeting.

Goal #1: Launch 2016 CQM Committee				
Milestone	Owner	Deliverable	Due Date	Dependencies

Done.

Goal #2: Define Key Performance Objectives for Commercial Maintenance Incorporating AB 802 Elements and Translate into Customer Value Propositions. This would be captured in a matrix posted to the WHPA website by December 31, 2016.				
Milestone	Owner	Deliverable	Due Date	Dependencies

Don indicated that the primary goal here was to define key performance objectives and condition indicators and how accomplishing those goals would validate the value of a Standard 180 based maintenance program for owners. He intended to capture things like actual rooftop unit field measured metrics that could substantiate energy savings rather than building modeling, energy use projections and the current deemed savings approach. Their goal was to



**Goal 2: Commercial Quality Maintenance Committee
Tuesday June 14, 2016 Meeting Notes**

summarize those methods for delivery of value propositions into a matrix and submit it to the Executive Committee as their work product by the end of the year.

Goal #3: Support a working group focused specifically on supporting the development of an ANSI/ACCA/ASHRAE STD 180 User Guide to inform the ANSI/ACCA/ASHRAE STD 180 User Manual sub-committee.

Milestone	Owner	Deliverable	Due Date	Dependencies
-----------	-------	-------------	----------	--------------

Don indicated that the User Guide Working Group was already making good progress under the leadership of Dale Rossi who was a real champion of the need to produce such a product.

Goal #4: In light of AB 802, Provide Review and Input into IOU CM Work Paper. Develop Question and Answer document capturing conversations throughout the year and post to the WHPA website by December 31, 2016.

Milestone	Owner	Deliverable	Due Date	Dependencies
-----------	-------	-------------	----------	--------------

Don wanted to make sure that this group could provide its input for how AB802 could be operationalized the best way. That included how to embed those processes into better work practices. IOU claimed energy savings work papers provided the foundational funding for the program. But, it would take more than just improvements in energy efficiency within a program to attain successful market transformation.

Scott Higa, SCE, commented that the methodology for estimated savings calculations, modeling and all would be the responsibility of their engineering groups. But, he wanted the methodology described in those work papers aligned with expectations of what would be done in the field. That way, when they reached a program evaluation stage, how the program was being implemented should produce the expected savings.

Don Langston added that unlike their experience with Work Order 32's earlier evaluation of the CQM programs, there should be an advantage to come alongside the program revisions based on SCE's new approach to claiming energy savings. The program should benefit if the group could provide input as it was developing and unfolding.

IOU Business Development Planning Process & recent CPUC/ED Guidance – IOU Representatives

Jeremy Reeve was unable to attend from SDG&E.

Jeanne Duvall, PG&E, stated that they had not received any further guidance from their leadership.

Scott Higa, SCE, indicated that his team was at the same point as Jeanne had indicated for PG&E. He mentioned that the CPUC deadline for plan submittal had been postponed from September 1 to November 1.

Bob Sundberg, WHPA staff, shared that there had been a fairly extensive discussion on this subject at the recent RQI Committee May meeting. Jeremy Reeve of SDG&E attended that meeting and indicated that with the new deadline for business plans and the ensuing CPUC/ED review and approval process, it was unlikely that the IOUs would be working in detail on any program planning until well into 2017.

The RQI Committee also discussed the recently released CPUC guidance document for IOUs which contained concerns about potential stakeholder conflicts of interest developing through participation in the planning process. He suggested members read through this document to gain a better understanding about concerns certain kinds of participation might constitute a conflict of interest. The RQI Committee initiated an action item to request that this issue be raised to the Executive Committee (EC) at their June meeting for review and guidance since it might have impact on WHPA members and committees. See the following URL for links to the original document (.doc Word file) and a revised one.

<http://eecoordinator.info/correction-released-by-cpuc-on-business-plan-guidance/#more-2918>

Bob Sundberg commented further that the guidance to IOUs was provided to help them reduce or eliminated this risk through how they conducted discusses and sought input during planning processes.



Goal 2: Commercial Quality Maintenance Committee Tuesday June 14, 2016 Meeting Notes

At the RQI Committee June meeting Jeremy Reefe, SDG&E, had commented that he thought certain kinds of participation could well constitute a conflict of interest but indicated that he would need to refer this concern to SDG&E legal and sourcing groups for further guidance.

Don Langston, Chair, had read through this document already. He commented that although the WHPA had been formed so that industry stakeholders could provide input during the IOU planning process. He didn't quite understand the concerns because most WHPA industry members attended meetings and provided their input as volunteers. He suggested they carry on as usual for now but stay tuned for further developments as what constituted a conflict of interest related to WHPA activities.

Jeanne Duvall, PG&E, added that she believed that the concern related to those who would potentially respond to IOU requests for proposals of work and their participation would be considered insider knowledge. IOU staff was already talking with their legal, sourcing, regulatory and policy staff as Bob had indicated of Jeremy Reefe. With so many other and prior high priorities, she was finding it difficult to get answers. She indicated understanding some of the concern but also the importance of industry stakeholder input. She wanted the process to be transparent so that the people who might be effected by this concern would know in advance, which was only fair. She would be participating at the upcoming EC meeting.

CQM STD 180 User Guide Working Group Update – Dale Rossi

Dale Rossi, FDSI and WG Chair, said that the WG was beginning their work on an outline for the user guide. Producing an actual user guide would be attempted at some time in the future. They had started first reading through Sections 1 through 4 trying to gain a better and common understanding about the intent of the standard, especially in Section 4 Implementation. There was a parallel effort being undertaken by the ASHRAE/ACCA Standard 180 Committee which had formed a Standard 180 Section 4 Subcommittee led by Kristin Heinemeier where similar topics were being discussed.

The group had elected to research five topics:

1. Understanding performance objectives and condition indicators
2. Making a maintenance plan
3. Investigating unacceptable conditions and performance
4. Communicating the value proposition
5. Customer facing reporting

They'd held 6 hours of meetings to date out of a resource support for 20 meetings. They had were now working on topic 2, making a maintenance plan. He expected that some of their output would be efforts to clarify and make suggestions about the current 2012 standard. They'd discovered some key terms which had not been defined and others which seemed contradictory or confusing which would make implementing the standard open to several interpretations.

Dale provided an example.

- Were the three statements in Section 1 Purpose to be considered performance objectives?
- Were the purposes actual goals?
- Were those the only allowable goals or performance objectives?
- Were they umbrella goals under which more specific ones could be developed?
- What was meant by "acceptable" thermal comfort, indoor air quality and Goals?
- Were those three purposes the only ones the standard required?
- Could other goals and objectives be part of the maintenance program?



Goal 2: Commercial Quality Maintenance Committee Tuesday June 14, 2016 Meeting Notes

- And, it wasn't clear whether those performance objectives needed to be reviewed. If they did, what kinds of reviews would meet this somewhat vague requirement? Was there an implied requirement to determine whether anyone was actually achieving their performance objective goals?
- What constituted an inventory?

These were the sorts of questions that had come up after a careful reading of the standard. He expected that after another meeting they would move on to topic 4.

Don Langston stated that he personally struggled with getting customers to set some goals even before getting them signed up with maintenance agreements. Very few owners or property managers he'd encountered thought in terms of setting actual goals for maintenance services. He'd succumbed to providing a prepared list of some very valid ones to prime the pump for those discussions which helped on the front end. But, it was an ongoing struggle to get their attention to circle back to those goals to determine whether they were being met. He'd had only mixed success. You had to measure performance against a baseline in order to determine whether goals were being met or not. In the utility programs he thought it was critical to be evaluating energy usage to see whether the program's approach was having any impact.

Dale Rossi responded that, in his opinion, if you didn't review those objectives and make an effort to determine whether you were meeting them and modifying the maintenance program if not, the standard implemented that way would have no meaning. He thought that goal setting, review and modification process was at the heart of the standard. He thought that if a customer was unwilling to participate in goal setting and reviews, he was highly skeptical that there would be any market transformation with them. If they were not interested in pursuing evidence that this approach to maintenance was achieving anything, once the incentives stopped, he believed they'd revert back to their previous approach. Providing evidence that goals were being achieved was not only important for energy savings, it was critical to achieving market transformation which really was the point of the utility program.

California Legislative Assembly Bill 802 & Senate Bill 350

No discussion.

Closing Comments/Adjournment

Don Langston suggested the next meeting be scheduled for their normal 2nd Tuesday of each month. That would be Tuesday July 12 at the usual 10:00 am PDT.

Tentative agenda items:

- New business – ASHRAE/ACCA STD 180 Committee & Subcommittee June meeting reports
- IOU program monthly updates
- CQM User Guide Working Group update
- CQM Committee detailed goals and progress milestones
- Progress on a selected goal
- Check on SCE report of program customer energy usage and analysis and
- IOU business plan development – committee/individual involvement and committee input update

The meeting was formally adjourned at 11:07 am PDT.

* * * * *

ACTION Items List – next page



Goal 2: Commercial Quality Maintenance Committee Tuesday June 14, 2016 Meeting Notes

Summary of NEW Action Items and Key Decisions

May 2016 ACTION: Scott Higa, SCE, would provide Dale Rossi, Don Langston and Bob Sundberg with SCE staff contact information for the right parties who worked on development of their HVAC Optimization, CQM program plans, plan goal development and methods of evaluation and reporting to participate on the User Guide WG.

May ACTION: Dale Rossi requested each IOU program manager (Jeanne Duvall/P&G&E, Scott Higa/SCE, Jeremy Reeve/SDG&E) provide relevant IOU staff contact information for those responsible for Standard 180 based maintenance program design, implementation and evaluation. It would help to have any staff participate who had been responsible for contract/agreement maintenance plan development, maintenance plan goals and evaluation metrics established and goal progress reporting. Also, that those staff members be directed to participate and support efforts of the Standard 180 User Manual Working Group by providing current program background information and input to the user guide development.

March 2016 ACTION: Scott Higa committed to providing CQM program existing customer comments at a future meeting. Ongoing.

PAST ACTION ITEMS:

September 2015 ACTION: Scott Higa, SCE, would report progress on the testimonials and access to and analysis of customer energy data at the next monthly meeting. Ongoing.