



California Commissioning Collaborative Advisory Council Meeting Minutes

June 9, 2011

San Ramon Valley Conference Center

9:30 a.m. – 3:45 p.m.

Attendees

Advisory Council

John Beck, Eaton/EMC Engineers
Greg Cunningham, Enovity
Erik Emblem, 3E International, Inc.
Don Frey, LightLouver
Ed Jerome, EnerNoc
David Jump, QuEST
Wesley Morgan, California State University
Shane Schroeder, Target

Board of Directors

Glenda Towns, So Cal Gas
Josaphine Tichel, PG&E

CCC Staff and Consultants

Phil Welker, California Commissioning Collaborative
Kirstin Pinit, California Commissioning Collaborative
Eliot Crowe, California Commissioning Collaborative

Guests

Josh Alban	Scientific Conservation
Tom Arnold	
Aaron Berndt	PG&E
Dick Bourne	Integrated Comfort
Bradley Brooks	PECI
Karl Brown	CA Institute for Energy & Environment
Steve Clarke	Newcomb Anderson McCormick
Joan Connolly	Certified Sustainable Building + Designer
Dave Dias	SMW 104
Erik Dyrr	KEMA
Christian Grzywinski	ACCO Engineered Systems
Mark Hamilton	Sacramento City College
Bruce Herzer	Pulse Energy
Joe Huber	Pulse Energy
James Koepfel	friendly building inspections
Ann McCormick	Newcomb Anderson McCormick
Andy Mitchell	Commissioning Agents, Inc.
Natalie Nguyen	PG&E
Dave O'Connor	Airco Commercial Services
Amanda Potter	PECI
Tom Riley	EnerNoc
Leonard Rozek	E Cube, Inc.
Carlos Santamaria	Glenborough LLC
Matt Smizer	PG&E
Doris Tang	Pulse Energy

Welcome, Introductions, and Announcements

Don Frey called the meeting to order at 9:30 a.m. Attendees introduced themselves. During introductions, Carlos Santamaria offered a brief overview of the activities and priorities of BOMA California's Energy Committee.

Don Frey announced the 2011 National Conference on Building Commissioning to be held on August 10-12 in Cincinnati, Ohio. More information is available at: www.peci.org/ncbc

Benefits of Retrofitting Dual Evaporative Cooling for RTUs

Richard Bourne, Integrated Comfort

Mr. Bourne spoke about the options, history, technology, and benefits of dual evaporative cooling units. In relation to commissioning these systems have an effect on the economizer cycle and settings, blower speed, condenser fans, and compressors.

A Two-Step Roadmap to High Performance

Carlos Santamaria, Glenborough, LLC

Mr. Santamaria represented the perspective of a large real estate and property management firm, Glenborough, LLC. He presented the successful best practices used at two of their high performance buildings, one in La Jolla, California and one in Arlington, Virginia. He presented the criteria Glenborough uses to evaluate the energy loads in a building, what tools they utilize in this process. Mr. Santamaria then presented the energy successes that their process and tools brought them at these two buildings.

Perspective on the Installation and Use of Energy Monitoring in a Commissioning Program

Bruce Herzer and Doris Tang, Pulse Energy

Mr. Herzer presented on Pulse Energy's involvement with the BC Hydro Continuous Optimization initiative which has a focus on continuous improvement using energy monitoring. This program currently has over 80 customers enrolled with 450 buildings and initial savings results of 8% electric and 15% gas. Ms. Tang noted the lessons learned as a vendor in the program including how to work with the customer and the user and the need to keep the baseline period short.

Monitoring-Based Commissioning: An Update

Karl Brown, California Institute for Energy & Environment

Mr. Brown presented a history of the California UC/CSU monitoring-based commissioning program since 2004. He gave details of program structure, scope, goals, results, and incentive structure. Mr. Brown also described the approach to verifying savings, incorporating the IPMVP Option C method for quantifying whole-building savings using interval data modeling. This whole building M&V approach has been shown to be effective, although special treatment has been required for projects where retrofits were installed alongside commissioning measures.

CCC PIER Program Advisory Committee Meeting

Eliot Crowe, CCC

Mr. Crowe provided a brief overview of three of the five projects ongoing under the CCC PIER Research Program. More information on these projects is available at: www.cacx.org/pier

- **Project 2: Improving transparency of energy performance for commercial real estate transactions.** Project research and pilots are complete, and final project has been drafted.
- **Project 3: Development of tools to support EBCx.** Energy Charting and Metrics (ECAM) spreadsheet tool has been updated, and is undergoing external testing. EBCx calculation spreadsheet tool is 75% complete, and is undergoing ongoing internal testing as new measures are added to the tool. Tool will eventually be capable of calculating savings for nine common EBCx measures
- **Project 4: Building Performance Tracking.** Research is complete, Building Performance Tracking Handbook has been published online (www.cacx.org/pier/handbook) and hard copies will be available in the next two weeks. Handbook has been downloaded more than 400 times so far.

Mr. Crowe then introduced two deeper project highlights: The verification of savings guideline (Project 5) and the Title 24 evaluation (Project 6). He emphasized that the CCC is seeking feedback from the Advisory Council and other meeting attendees, particularly relating to outreach plans for these two projects.

PIER Project Highlight: Verification of Savings Guideline

David Jump, QuEST

Mr. Jump presented a summary of the new verification of savings guideline, including a description of the purpose of the guideline and its relationship to other formal guidelines. Each of the four featured methods were described, along with discussion of the factors involved in selecting an appropriate method. He then asked the attendees to provide feedback and additional ideas on the outreach plan, including workshops, web-based training, outreach to key organizations such as the Efficiency Valuation Organization (EVO), and conference presentations.

PIER Project Highlight: Title 24 Acceptance Testing

Eliot Crowe, CCC

Mr. Crowe noted in summary the current results of the Title 24 Acceptance Testing project. He also solicited feedback from attendees about strategies for outreach and distribution of the results of this research. Outreach discussion concerned how to reach and motivate the key stakeholders in addition to the building permitting departments, such as building owner/developers, design engineers, architects, and contractors. The role of commissioning providers was also seen as potentially beneficial, especially as CALGreen green building code mandates commissioning.

In closing the Program Advisory Committee meeting, Mr. Crowe invited attendees to contact him for more information on any of the projects (ecrowe@peci.org).

Wrap up

The group was reminded of upcoming 2011 CCC meetings.

- August 4 – Phone & web meeting
- October 13 – Phone & web meeting
- December 8 – In person, hosted by SCE

The meeting adjourned at 3:45 p.m.