Introductions
Grant Duohon, CCC Board Chair, welcomed everyone.

Board Responsibilities and Legal Issues
Mark Alcorn, the lawyer assisted the CCC is obtaining 501-(C) (3) status, discussed board roles, responsibilities and legal issues. Below is a summary:

Applicability of Corporate Law. The CCC is a corporation, subject to the corporation code.

Leadership Partnership. The board deals with very high level issues. The staff executes day-to-day operations.

Rule of Limited Authority. Board members’ don’t have authority unless given in Bylaws and/or a CCC policy. Real power comes from the opportunity to influence others at these meetings.

Alter Ego Doctrine. If a board member treats a corporation as if it is him/herself (s/he make all decisions, doesn’t follow board rules), that board member become personally liable for the actions of the corporation.

Ultra Vires Acts. If a board member signs something on behalf of the board without the board’s agreement, s/he is personally liable.

Importance and use of Interim authority. The CCC doesn’t need a board meeting for decisions to be made. Between board meetings, the board can (and should) delegate
power to a committee (the Executive Committee) to make decisions. The Executive Committee then needs to report out on all actionable items at next meeting.

**Role and Authority of Committees.** Committees serve at pleasure of board. They can’t make policy unless authorized and need to report back to board. The board has to rely on committees to get things done and it’s important not to micromanage committees to keep members invested.

**Fiduciary Duties of Care, Inquiry, Loyalty.** Board members have the Duty of Care – to exercise reasonable business judgment and act in good faith. Board members with a self-interest or ignorant on a subject, should abstain from voting on the issue. Board members have the Duty of Inquiry – to challenge things that don’t make sense. And board members have the Duty of Loyalty – to act in the best interest of the corporation, ahead of board member’s self-interest, the interest of employers, and the interest of any subsidiaries. Board members must abstain or disclose all potential conflicts of interest.

**“Representative” Member of the Board.** Agencies sometimes select representatives for board positions. Representatives feel they must represent the interest of their organization but that’s not quite right. Board members can’t decide how to cast their vote back in their office, they need to hear all the sides of the issue. Board members must vote with the utmost loyalty to the CCC even though they don’t forget their background.

**Conflict of Interest.** The board should always disclose potential conflicts to ensure they can always be trusted. The CCC should have a conflict of interest policy. The Executive Director should not resolve conflicts of interest; they should be done peer-to-peer.

**Antitrust Law.** Antitrust is conspiracy among competitors in restraint of trade. If the CCC passes a standard, it needs to be fair and thus not anti-competitive. Everyone needs to be able to conform to it. Unreasonable or unfair standards are not OK. The CCC should have an anti-trust policy and should have an agenda item on anti-trust at every meeting. As the CCC adopts these standards, they need to be promulgated in the open; based on science and reality. Raising the bar is pro-competitive. Also the CCC needs to be careful about publishing costs that fall within a range. Using historical data gathered through independent means may be the best approach. The CCC can write to Department of Justice to ask for prior approval before implementing a policy.

**Immunities and insurance.** Individuals and employers are protected under immunity laws if they act in good faith. But both may need to defend themselves and this can be very expensive. The CCC needs directors and officers insurance and should get the broker to write a letter stating coverage.

**Meetings.** The CCC should always have an agenda and minutes and minutes should be kept on file.

**Executive Session.** Executive Sessions are confidential but they can be subpoenaed.
Unofficial meetings. The CCC needs a quorum to conduct business. There are no unofficial meetings. Action can only be taken during a meeting or through unanimous written agreement.

Private individuals cannot receive direct or indirect benefit from CCC activities.

Signs of a dysfunctional board include: power struggles between members, vote counting prior to a meeting, lack of respect and civility, board micromanagement, pre-occupation of rules and Bylaws, focus of negative attention on the Executive Director, last minute proposals, an overly powerful Executive Director, and directors as representatives of other organizations rather than the CCC.

What if I disagree with the board action? Board members have a responsibility to support, implement and stand behind a board action once it is approved. Board members who can’t live with a board action may need to step down.

How do you get rid of someone? The CCC needs a provision to remove someone in the Bylaws. The board needs to give him notice and have a procedure for removal. Generally the power to elect is the same as the power to remove a board member.

Cost Benefit Study
Norman Bourassa present the LBNL Cost Benefit study, which is soliciting commissioning providers to input projects into their spreadsheet of projects. Projects need to be input by June 15th. Data input will take 1-2 hours if you’re familiar with the data.

PIER Review Ideas Session: Results and Next Steps
Amanda Potter summarized the results from the Review of the PIER Portfolio of Commissioning Projects. Five peer reviewers were selected to review the current portfolio of commissioning-related research. The five reviewers were Ken Gillespie, Tudi Haasl, Malcom Lewis, Eric Jeanette, and Chad Dorgan. The reviewers also participated in a one-day Ideas Session. The objective of the review was to direct commissioning-related research to areas that will be most useful in growing the commissioning industry.

The review of Fault Detection & Diagnostic Tools (FDD) tools came up with the following recurring themes: the value of conducting market studies; the importance of extending projects from research to practice both in their planning and also their execution – this specifically focused on the need for increased data reliability, compatibility with EMS, reduction of false alarms, increased user-friendliness, wider applications for tools, and more field testing; the need for increased cost-effectiveness and demonstration of cost-effectiveness; and, the opportunity for integrating tools into manufacturer’s product lines.

The reviewers’ comments on PIER commissioning-related guides concentrated around the need for a clear strategy for bringing guides to the market and ensuring they are used.
The strategy could include trainings that incorporate the guides, the on-line library, incorporating the guides into Cx and RCx programs, and links to the guides from the Cx Assistant. Reviewers also indicated that guides on the following topics would be helpful: how to sell commissioning, construction observation, and design review.

The following ideas were suggested by reviewers as valuable projects for the growing commissioning industry:

- **RCx Toolkit**: The Toolkit would include investigation guidelines, rules of thumb for typical energy savings calculations, sample documents and forms, and other information that would be useful for both building owners and commissioning providers for clarifying expectations and creating industry standards.
- **LEED Reference Documents**: Materials would support owners and providers undertaking LEED commissioning and retrocommissioning projects.
- **Market Research**: Market studies would determine the demand for research products and could help PIER projects generate marketable products.
- **Third Party Testing of FDD Tools**: 
- **Design Review Guide/Tool**: The tool would help designers and commissioning providers understand how to complete a good design review.
- **Technical Cx Training Curriculum**: The training could include training on BAS Programming.

CCC board members and advisory council members are encouraged to send Amanda comments on this list of high priority projects and suggestions for other potential PIER commissioning projects.

**California Cx Forum for Owners**

Phil Welker discussed the options for hosting a *California Commissioning Forum for Building Owners*. The forum would be directed specifically at building owners, facility decision-makers and facility managers, but will offer sessions of interest to other members of the commissioning team, and would be held in 2005. The forum could include any combination of formal presentations, expert panels, roundtable discussions, hands-on trainings, and field trips to nearby buildings. The name of the conference still needs to be worked out; it will not be just for owners and could be broader than commissioning to include other performance assurance strategies.

Phil presented three options for the group to consider: a two-day event in a central California location; three one-day events held throughout California; or a half-day event following the BOMA conference, held in 2005 over June 25-28 in Anaheim, California. The group felt that in order to ensure high participation from owners the best option is to have three one-day events held throughout California. Another option proposed was to work with BOMA to integrate commissioning presentation into their conference.

The cost of the forum will vary greatly depending on the scale and breadth that the CCC decides upon. Generally, the most significant expenses are direct costs, which include: site fees, catering, all printed materials, A/V equipment, marketing, and phone and postage. Labor costs also accrue for logistical planning, agenda setting, and event
coordination. An estimate for projecting costs for similar conferences is $350 per person per day. The cost of three single-day forums is estimated to be approximately $84,000.

The CCC could garner financial and marketing support from the California utilities to sponsor the forum. Already, Southern California Edison, Pacific Gas & Electric, Southern California Gas, and Sacramento Municipal Utility District have expressed interest in supporting a commissioning event targeted for commercial building owners. The CCC could also raise revenue through forum registration fees. For three one-day events, sponsoring costs could be $48,000 while registration costs could total $36,000 ($150 per attendee).

Phil asked the group to send comments to PECI. Specifically, he requested input on how to reach owners and what items should be included on the conference agenda.

**Next CCC Projects**
Amanda Potter presented a summary of the current scopes of work the CCC is considering for funding. Below is a summary:

**Develop Case Studies**
Marketing case studies have been identified as one of the most useful tools for moving commissioning services forward in California. Many demonstration projects are in progress throughout the state but the data is being collected in different formats and is not being written up into marketing case studies. In this project, the CCC will develop a standard marketing case study format (2-4 pages). Following approval of the case study format, the CCC will develop standardized case studies using data from the commissioning final reports. Four case studies will be developed (2 new building and two existing building commissioning). At a minimum, case studies will include both schools and office buildings.

**Budget**
$15,000 - $20,000 (This budget does not include printing)

**Revise, Populate and Analyze the Commissioning Database**
The Cx database is a very valuable tool for analyzing and demonstrating the costs and benefits of commissioning. However, the database is now in need of a revision to work out various bugs found during the alpha testing. In addition, a front end is needed for query analysis of raw data and the cost savings estimates portion of the database needs to be revised.

The CCC should consider nominal funding for inputting the first 20 projects into the database. Data input is estimated at 6-8 hours/building. Therefore $500/building (or $10,000) may be adequate to offset commissioning providers’ costs. The CCC will also need to budget time to administer the database, especially to help providers become familiar with the tool and data requirements.
Once enough projects have been input into the database, the CCC will complete an initial cost benefit study of the projects input into the database. This will involve assessing the data that has been input into the database, utilizing the data analysis queries, and determining how any gaps in the data could be filled. Following the study, the CCC will make the changes to the commissioning database.

**Budget**

$40,000 - $55,000

**Study the Persistence of Commissioning**

The value of new and existing building commissioning is highly dependent on the persistence of the benefits of commissioning and yet this aspect of commissioning is not well understood. To address this need, the CCC will develop an analytical framework for studying the persistence of commissioning benefits. This framework will outline the data that needs to be collected in order to study commissioning benefits, how the Commissioning Case Study Database will be used to collect this data, and how the data will be analyzed to assess whether commissioning has persisted.

The study will assess the benefits of commissioning by looking at overall building energy use and of individual commissioning measures. The methodology set forth will be tested using 6 buildings retrocommissioned at least 2 years ago, and these buildings will be entered into the Case Study Database as a part of the development of the data collection methodology.

**Budget**

$70,000

**Create a Retrocommissioning Building Screening Tool**

Building owners in California need guidance on which of their buildings are the best candidates for retrocommissioning. In an effort to address this need, the CCC will study existing building screening tools in the marketplace and develop a standardized building screening tool.

**Budget**

$9,000

**Update CCC Website**

The CCC will expand and reorganize the website to provide maximum utility to users. This effort will involve updating the look and feel of the website, consolidating duplicative information (such as current project and resources), and ensuring the most current information is on the website. As part of this effort, the CCC will informally survey the CCC and advisory council to better understand website users needs’ and desires for the website.

**Budget**

$5,000
**Commissioning Charette**

On April 6, more than 40 school facilities directors, commissioning experts, and California policymakers met at Southern California Edison’s Irwindale facility to participate in a commissioning charrette. Sponsored by CHPS, Southern California Edison, the California Commissioning Collaborative, and the Division of State Architect, the charrette was held to explore ways to better incorporate commissioning into California schools.

Through interactive breakout sessions, interdisciplinary groups discussed issues including barriers to commissioning, building components that have been most likely to need commissioning, and developed suggestions for improving the way CHPS addresses commissioning.

Activities also included case study presentations and a school district panel discussion on the use of, or lack of, commissioning in some schools being currently designed or constructed. School District administrators included Kurt Weaver, Los Altos School District; Bob Vanderwall, South Pasadena Unified School District; Rob Koster, Tahoe Truckee Unified School District; Jim Watts, San Diego Unified School District; and Jack Rollow, Los Angeles Unified School District.

The afternoon panel discussion allowed experts from the California Commissioning Collaborative (Erik Jeannette; Pete Keithly; Holly Townes; Don Little; and Ken Gillespie) to make suggestions for commissioning three current school projects: Golden Hill Elementary (Orange County); Saddleback Elementary (Wilsona School District, Lake Los Angeles); and Elkhorn Village Elementary (West Sacramento).

The day concluded with a breakout group discussion. Issues discussed included: why are CA schools not presently being commissioned, do CHPS criteria adequately address commissioning, what is the best method for commissioning CA K-12 schools, which systems or equipment are in greatest need of commissioning, who is most likely to oppose commissioning, what resources or tools could CHPS, CCC, or others provide to help school districts with commissioning?

There is a lot of interest in having another charrette in PG&E’s territory. PG&E has funding for the event and it could be held at the Pacific Energy Center. CHPS is interested in doing it and would like to partner with the CCC and make it another joint program. CCC members also expressed interested in the event. The same committee will look at making minor improvements. The intent will be to go a little deeper, use the resources and lessons learned from the first charrette, and test the recommendations that came out of last charrette.

**Announcements**

1. LBNL is conducting a survey of the FT Guide. This project will start soon and will involve CCC members.
2. PG&E’s Cx Assistant is completed.
3. The National Conference of Building Commissioning will take place on May 18th – 20th.

**Board Only Meeting**

The CCC Board approved the following:
- Revised Bylaws
- Revised Management Agreement
- Strategic Plan
- Glenn Friedman to the Advisory Board

The board identified the following alternates:

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<td>Nancy Jenkins</td>
<td>Martha Brook</td>
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<td>Greg Ander</td>
<td>Tony Pierce</td>
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<td>Grant Duhon</td>
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**Action Items**

1. Obtain conflict of interest and antitrust sample policy documents from Mark Alcorn and revise as necessary.
2. Form a committee to work out the details of the market model scope of work.
3. Form a committee to review various commissioning certification programs and make recommendations on which programs meet CCC approval.
4. Update the funding percentages to reflect the latest PGC funding breakdown.
5. Amend the Bylaws to clarify how to get rid of a board member.
6. Send CHPS a description about the CCC for posting on the CHPS website.
7. Obtain directors and officers insurance. Double check that advisory council is covered under director and officers insurance. Double check if the CCC needs a separate errors and omissions policy.
8. Follow up on whether the board that oversees professional engineering licensing should also regulate commissioning providers.
9. Apply to have a poster at the USGBC conference.