



California Commissioning Collaborative

California Commissioning Collaborative: 2007 Program Plan

Presented by:

Jim Parks, Chair
CCC Board of Directors

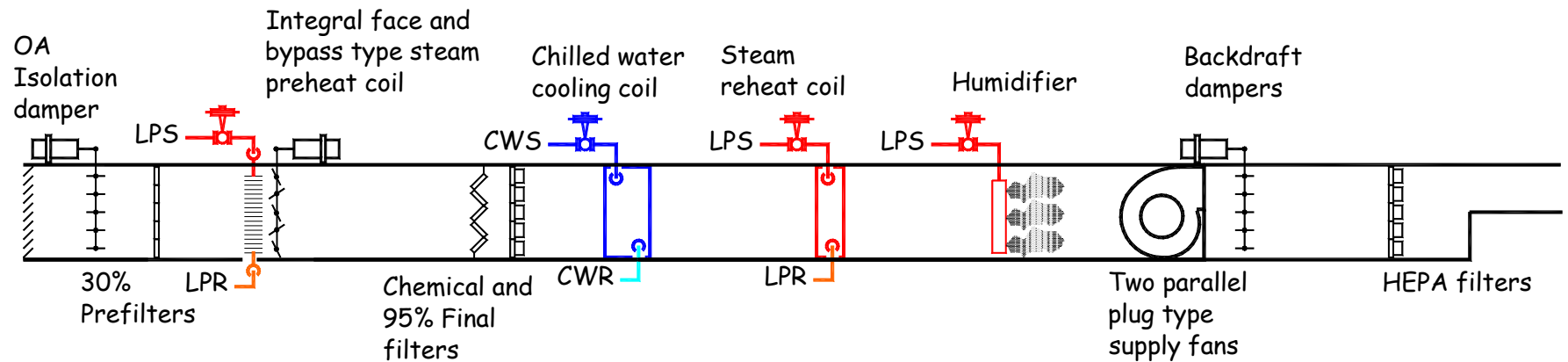
November 1, 2007



Mission and Organization

- Improve building and system performance by developing and promoting viable building commissioning practices in California – Make commissioning standard practice
- Organized in 2000; non-profit status in 2004
- Board of Directors: utilities, state and federal agencies
- Advisory Council: utilities, state and federal agencies, Cx providers, building owners and research institutions

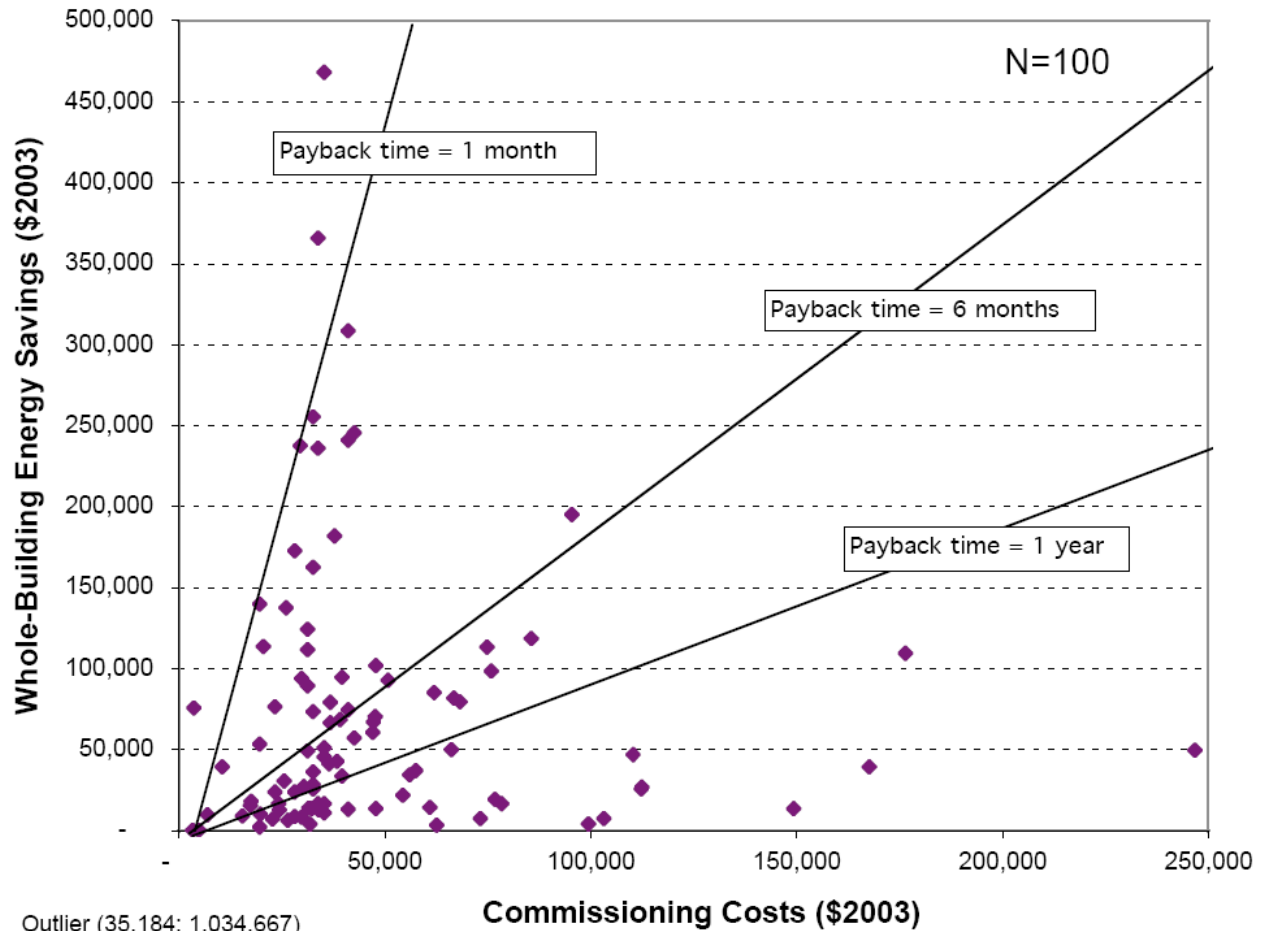
Real-Life Problem in Building



- Cost of corrections: About \$500 in parts, 80-100 hours of labor.
- Reduced operating cost – about \$7,000 per month.

Cost Effectiveness

0.2 to 1.7 year
SPT
(median = 0.7)



Mills, et al. 2004,
“The Cost Effectiveness of Commercial Buildings Commissioning”
LBNL 56637

Supporting Commissioning Industry

- Strengthening the commissioning industry in California through:
 - Technical and market research
 - Resource and tool development
 - Marketing and outreach
- Increasing awareness and adoption of commissioning and retrocommissioning

Supporting Energy Efficiency Initiatives

- California's Green Building Executive Order calls for Cx and RCx as a strategy for meeting efficiency goals
- CCC projects provide support and resources

2007 Program Plan

- Support for Retrocommissioning Programs
 - Verification of Savings
- Retrocommissioning Market Development
 - Market Research
 - Owner Outreach
- Resources for Commissioning New & Existing Buildings
 - Title 24 Acceptance Testing Requirements
 - Toolkit for RCx Projects
- Educational Support for Commissioning Industry
 - Analysis and Development of Educational Opportunities
- Administrative Activities

2007 Program Plan

Project	Estimated Budget		
	2006	2007	2008
Management	\$137,000	\$154,000	\$160,000
Market Research	\$17,200	\$102,800	
RCx Toolkit	\$10,400	\$119,600	
Acceptance Testing	\$53,000	\$57,500	\$40,000
Green Building Committee Report	\$5,600	\$24,400	
Verification of Savings		\$70,000	\$30,000
Owner Outreach		\$25,000	
Analysis of Educational Opportunities		\$20,000	

Market Research

- Qualitative study of the value commissioning presents to owner/decision-makers, and how to communicate these values effectively
- Focused on Class A commercial office and hospital sectors
- Follow-on projects designed to dig deeper into the research findings

Owner Outreach

- Educating owners about commissioning opportunities in California
- Activities:
 - Development and distribution of marketing and reference materials
 - Presentations to building owner groups (e.g. BOMA)
 - Publish article/case studies to provide real-world example of commissioning benefits

RCx Toolkit

- Development of tools and resources to assist commissioning leads:
 - Templates
 - Sample documents
 - Energy savings calculation spreadsheets
 - Analysis tools

Verification of Savings

- **Phase 1:** Review and evaluate existing methods for verifying the benefits of retrocommissioning projects
- **Phase 2:** Propose improved methods for M&V; develop a plan to influence future guidelines

Acceptance Testing Requirements

- Develop modifications for Title 24 2008 requirements for acceptance testing of key building systems prior to occupancy

Analysis and Development of Educational Opportunities

- Identify ideal commissioning provider skills/experience
- Analyze how current training offerings meet the needs of the industry
- Recommend ways in which the CCC can help to close any identified gaps in training

Administrative Activities

- Website resources, online library, newsletters
 - Distribution of tools, guides and reference material
 - Free online provider listing
- 4-5 meetings/year
 - Project reports
 - Guest speakers
- Conference presentations and papers

Priorities for the CCC

Policies & Standards

- Ensure the commissioning industry is prepared for California's "green wave" with increased involvement in policy and codes committees
- Identify avenues for the CCC to streamline and/or accelerate policy development processes

Priorities for the CCC

Measurement & Verification

- Participate in setting standardized validation procedures for retrocommissioning programs

Priorities for the CCC

Comprehensive Service Delivery Model

- Develop service delivery model that streamlines the processes of selling, implementing and maintaining retrocommissioning activities

Priorities for the CCC

Training & Education

- Consider long and short-term solutions for providing the education and training to ensure an adequate workforce of service providers

Opportunities for Participation

- Join the CCC e-mail distribution list
- Use our website as a resource
- Attend meetings

- Contact us for more information

info@cacx.org

<http://www.cacx.org/>