California Commissioning Collaborative
December Meeting Agenda Detail

Driving Demand for EBCx

Context
- Goal is to have property owners and/or EBCx providers driving program demand, and to be able to reduce the indirect costs for running programs (field staff, marketing, project management & coordination). This discussion will explore the market barriers and develop actionable plans for addressing them.

Initial discussion points
- Can you think of an example to illustrate a specific barrier in getting an owner to take on an EBCx project?
- Can you think of an example of a property owner who has performed EBCx outside of a utility program – what were the decisive factors?
- What lessons can be learned from past program initiatives or programs in other regions that have seen indirect costs fall as the market transforms over time? (eg. BCHydro’s Continuous Optimization Program1)
- What other market initiatives could be leveraged to promote EBCx? (eg. LEED)

Desired Outcome
- Recommendations from Advisory Council on ways to drive demand for EBCx that can be incorporated into program plans

Application of Monitoring Systems within EBCx Programs

Context
- Energy/System monitoring tools are becoming ever more sophisticated and user-friendly. While their capabilities are well aligned with the needs of utility EBCx programs, they are not yet widely used. How can they be incorporated into programs to aid investigation, M&V, and persistence?

Initial discussion points
- What can be learned from the programs that have used monitoring systems? (eg. California’s MBCx partnership, PG&E’s MBPCx Program, BC Hydro’s Continuous Optimization Program)
- What are the key benefits of monitoring systems, and how could that translate into dollars or kBu?
  - Eg. If the tool is used to support M&V, what savings can be made on EBCx provider costs?
  - Eg. If the monitoring system is left in place after project end, will that result in increased realizations rates for program EM&V? Extended EUL?
- What are the main barriers to using monitoring systems, and what needs to be done to demonstrate their applicability/cost-effectiveness?

1 See BC Hydro presentation at http://www.cee1.org/cee/mtg/09-10mtg/Presentations/Thu_CommEnergy1+2_Henderson.pdf - also relevant to discussion on monitoring systems
**Desired Outcome**
- Recommendations from Advisory Council on ways to incorporate monitoring systems into program plans

**EBCx program approaches for small commercial sector**

**Context**
- Over half of buildings’ energy usage in California is tied up in buildings smaller than 100,000sq.ft. and yet there is little/no EBCx program activity for those buildings. Effort is needed to address the cost-effectiveness challenges of applying EBCx in this area.

**Initial discussion points**
- Which market sectors would you consider highest priority for targeting small commercial EBCx, based on potentially high savings or ease of penetrating the market? (eg. Grocery, lab, hotel, office, medical, etc)
- Can you think of examples of programmatic features that could be transferred to EBCx to make it more cost-effective for smaller commercial buildings?
- What best examples exist for applying EBCx for small commercial on a project or program basis (eg. NYERDA program utilizing Northwrite’s “Energy Expert Plus” tool²)

**Desired Outcome**
- Recommendations from Advisory Council on ways to address programmatic barriers to applying EBCx for smaller buildings

**EBCx for Industrial / Agricultural**

**Context**
- EBCx is not a term used in the industrial & agricultural sectors, although system optimization is not a new concept. What lessons can be transferred from commercial EBCx programs to the industrial & agricultural sectors?

**Initial discussion points**
- How would the EBCx process need to be adapted to suit industrial or agricultural applications?
- What are the biggest barriers that would need to be overcome in developing successful programs?
  - M&V can be challenging due to inadequate submetering
  - Energy usage typically has a strong correlation with production volume & product mix, and data can be hard to track
  - Persistence of process improvements and behavioral impacts
- What sectors would benefit most from the learnings of commercial EBCx?
  - Cleanroom manufacturing would likely have high HVAC energy usage, so would utilize many EBCx techniques common to commercial
  - Paper mills would likely have lesser impact from HVAC improvements.

**Desired Outcome**
- Recommendations from Advisory Council on ways to launch industrial and agricultural EBCx programs.

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² See Northwrite presentation at [http://www.cee1.org/cee/mtg/09-10mtg/Presentations/Thu_CommEnergy1+2_Kessler.pdf](http://www.cee1.org/cee/mtg/09-10mtg/Presentations/Thu_CommEnergy1+2_Kessler.pdf) - also applicable to discussion on monitoring systems