California Commissioning Collaborative Advisory Council Meeting

December 6, 2012

Hosted by Southern California Gas Company
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<tr>
<td>9:00 AM</td>
<td>Welcome, Introductions, and Announcements</td>
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<tr>
<td>9:15 AM</td>
<td>LADWP's RCx Express Program Overview</td>
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<tr>
<td>9:35 AM</td>
<td>University of California, Irvine Retrocommissioning and Energy Monitoring Strategy</td>
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<tr>
<td>10:20 AM</td>
<td>Break</td>
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<tr>
<td>10:35 AM</td>
<td>Group Discussion: Total Cost of Ownership after RCx</td>
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<tr>
<td>10:55 AM</td>
<td>Commercial Building RCx – Lessons Learned</td>
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<tr>
<td>11:40 AM</td>
<td>Lunch</td>
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<tr>
<td>12:40 PM</td>
<td>PG&amp;E Core Retrocommissioning – Lessons Learned &amp; Updates</td>
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<tr>
<td>1:25 PM</td>
<td>Group Discussion: Commissioning Practices during a Retrofit</td>
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<td>1:50 PM</td>
<td>Wrap-up</td>
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<td>2:00 PM</td>
<td>Break – General Public Meeting Adjourns</td>
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<tr>
<td>2:10 PM</td>
<td>Board &amp; Advisory Council Only: CCC Market Research Recommendations</td>
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<tr>
<td>2:40 PM</td>
<td>Board &amp; Advisory Council Only: 2013 CCC Work Plan Presentation</td>
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<td>3:00 PM</td>
<td>Advisory Council Meeting Adjourns</td>
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Introduction & Announcements

- NCBC 2013 in Denver, Colorado May 6-8, 2013
  www.bcxa.org/ncbc
- CCC welcomes 4 new Advisory Council Members:
  - Mangesh Basarkar, PG&E
  - Matt Berbée, California Institute of Technology
  - Leo Carrillo, PG&E
  - Charles Fletcher, EMCOR Service / Mesa Energy Systems
LADWP’s RCx Express Program
Overview

Armen Saiyan,
Los Angeles Department of Water & Power
University of California, Irvine
Retrocommissioning and Energy Monitoring Strategy

Matt Gudorf,
University of California, Irvine
Break

15 minutes…
Group Discussion: Total Cost of Ownership after RCx

Group discussion about how O&M costs are affected after existing building commissioning.
Group Discussion: Total Cost of Ownership after RCx

Is there a “maintenance tail” after RCX?

• Do some repairs result in increased HVAC costs?
• Building may be more sophisticated. Are on-going maintenance costs greater?
• What are maintenance efficiencies that may decrease costs?
Commercial Building RCx – Lessons Learned

Robert Austin,
Eaton Energy Solutions
Lunch

11:40 AM – 12:40 PM
PG&E Core Retrocommissioning – Lessons Learned & Updates

Mangesh Basarkar, PG&E
Group Discussion: Commissioning Practices during a Retrofit

Group discussion about what the scope of commissioning activities should be after major components are retrofit.
Group Discussion: Commissioning Practices during a Retrofit

- What are common commissioning practices when retrofits are performed?
- Should related systems be commissioned?
  - How do you define related systems?
Wrap-up
Thank you for participating!

2013 Meeting Dates Coming Soon…

Thanks to SoCal Gas for hosting the meeting today!

www.cacx.org