

# 17<sup>th</sup> NATIONAL CONFERENCE ON BUILDING COMMISSIONING



EFFICIENCY • PERSISTENCE • PERFORMANCE

## Programmatic Approaches to Infrastructure Development – Introduction

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# AIA Quality Assurance



## Learning Objectives

1. Identify key aspects of market transformation programs that have worked to move building commissioning to “business as usual”
2. Describe recent and planned efforts, lessons learned, and challenges programs need to address
3. Explain how programs led by speakers are working to address those challenges in the future

# Agenda

## Session Introduction

- Market transformation for EBCx
- Panel overview
- Quick summary of market transformation aspects of PECl's RCx Programs

## On to Our Speakers (20-25 minutes w/ question time)

- Ian Meredith – Natural Resources Canada
- Holly Townes – Puget Sound Energy
- *10 minute Break*
- Stan Price – Northwest Energy Efficiency Alliance
- Keith Forsman – Pacific Gas and Electric Company

# Market Transformation a Definition

## Market Transformation:

- Market transformation is a strategic intervention to achieve a lasting, significant share of energy-efficient products and services in targeted markets.
- Like marketing strategies in the private sector, it often requires ongoing measures to achieve and sustain desired market outcomes.
- For example, market transformation will occur in the U.S. clothes washer market when energy-efficient washers become the norm as they already are in Europe.

# Market Transformation for EBCx

EBCx = business  
as usual

End-customer and utility buy-in reaches levels similar to lighting retrofits (EBCx proven as a reliable, cost-effective, EE “no brainer”)

Industry has capacity to meet demand with quality product

Technical standards created, accepted, developed, and deployed

Industry adopts consistent approaches, definitions, and goals

Market recognition as an important EE vehicle

**Where are we?**

# Focus of this Panel

## Objectives:

- Identify and describe key barriers to market transformation (MT)
- Present approaches to addressing the barriers
- Illustrate how some of the barriers are being torn down by:
  - Utilities
  - Governments
  - Industry Consultants

# Part I – Canadian Government's Approach

## ***Development of a Building Cx/RCx Program:***

- Ian Meredith from Natural Resources Canada will discuss:
  - The Canadian Government's life-cycle approach
  - NRCan's case for RCx
  - A proposed framework for addressing key market transformation barriers

# Part 2 – PSE's RCx Program Approach

## ***Program Approaches for Energy Savings Performance:***

- Holly Townes from Puget Sound Energy will discuss program design considerations for:
  - Realization of low-cost/no-cost ECMs
  - Incentivizing maintenance of ECMs
  - Building engineering capacity to support utility programs

# Part 3 – Putnam Price Group's Strategic Approach

## *Roadmap for Energy Management:*

- Stan Price from the Putnam Price Group and the Northwest Energy Efficiency Council will discuss aspects EE strategy development, including:
  - Measurement & reporting
  - Building the business case
  - Goal setting, benchmarking, and accounting

# Part 4 – PG&E's Delivery & Standardization Approach

## ***The Future of RCx Program Delivery from California's Largest Utility:***

- Keith Forsman from Pacific Gas and Electric Company will discuss:
  - Program delivery approaches public utilities are employing to deliver large-scale RCx programs
  - The opportunities and challenges associated with large-scale programs
  - Best-practices and innovations in program processes and verification of energy savings

# What We Will See Today

## **Four different market players driving toward the same goal...transforming the market:**

- Federal Government driving adoption on a national scale
- Utility launching a new program with innovative design features targeting key MT roadblocks
- Industry consultant helping market players develop thoughtful EE strategies that feature EBCx
- Utility delivering large scale programs and driving toward increased standardization

# Market Transformation for EBCx - Revisited

EBCx = business  
as usual

End-customer and utility buy-in reaches levels similar to lighting retrofits (EBCx proven as a reliable, cost-effective, EE “no brainer”)

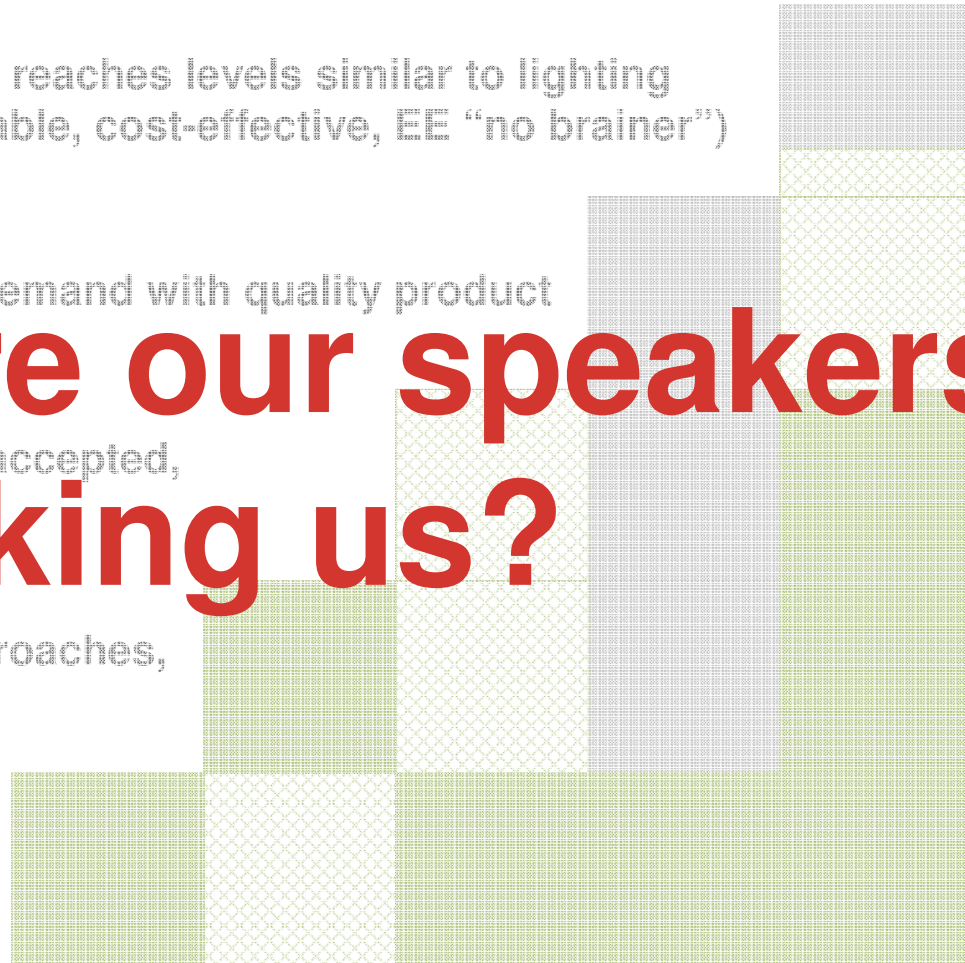
Industry has capacity to meet demand with quality product

Technical standards and tools accepted, developed, and deployed

Industry adopts consistent approaches, definitions, and goals

Market recognition as an important EE vehicle

**Where are our speakers  
taking us?**



# Portland Energy Conservation, Inc. (PECI)

## PECI offers services in the following areas:

- Commissioning and Retrocommissioning research & engineering
- Tools & resource development
- Energy efficiency policy & standards development
- Program design, implementation & marketing

## PECI Retrocommissioning Programs:



Funded by PG&E



# 2006-2008 Program Solutions

## Roadblock

- Lack of market awareness of RCx benefits and scope
- Inconsistent approaches to RCx created uneven results in the past

## Solution

- Deploy Field Energy Analyst (FEA) to local industry players to build market awareness and educate prospective customers, providers, and contractors
- Pre-qualify pool of RCx providers
- Develop streamlined process and toolkit
- Provide third-party engineering reviews of technical deliverables

# 2006-2008 Program Solutions

## Roadblock

- RCx entails operational changes requiring buy-in from various levels of an organization
- Cost of investigation typically a big hurdle

## Solution

- Engage all players in process from start to finish
- Design toolkit and deliverables that speak to all levels of the organization
- Facilitate meetings with decision makers throughout the project
- Investigation fully covered by program incentives
- Owner obligated to implement measures with <1 year payback

# 2006-2008 Program Solutions

## Roadblock

- RCx is a long-term (9-18 month) endeavor
- RCx measures can be easily undone

## Solution

- Obtain owner commitment up front
- Provide incentives to keep owner engaged
- Define clear roles, processes, deliverables and schedules to coordinate the players
- Deploy FEA to manage project from start to finish
- Deliver focused training and measure documentation to building operators during handoff
- Provide an ongoing performance tracking option and incentives

# Future Program Enhancements

## **Build on successes and lessons from 2006-2008 Program Cycle, and:**

- Refine & streamline processes and tools
- Integrate retrofits, links to DR programs
- Leverage momentum behind LEED
- Evolve & expand performance tracking
- Develop new go-to market relationships

# On With The Show!

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# AIA Quality Assurance



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