



P E C I™

Energy for Change™

California Energy Commission's Comprehensive Energy Efficiency Program for Existing Buildings ('AB 758')

Eliot Crowe

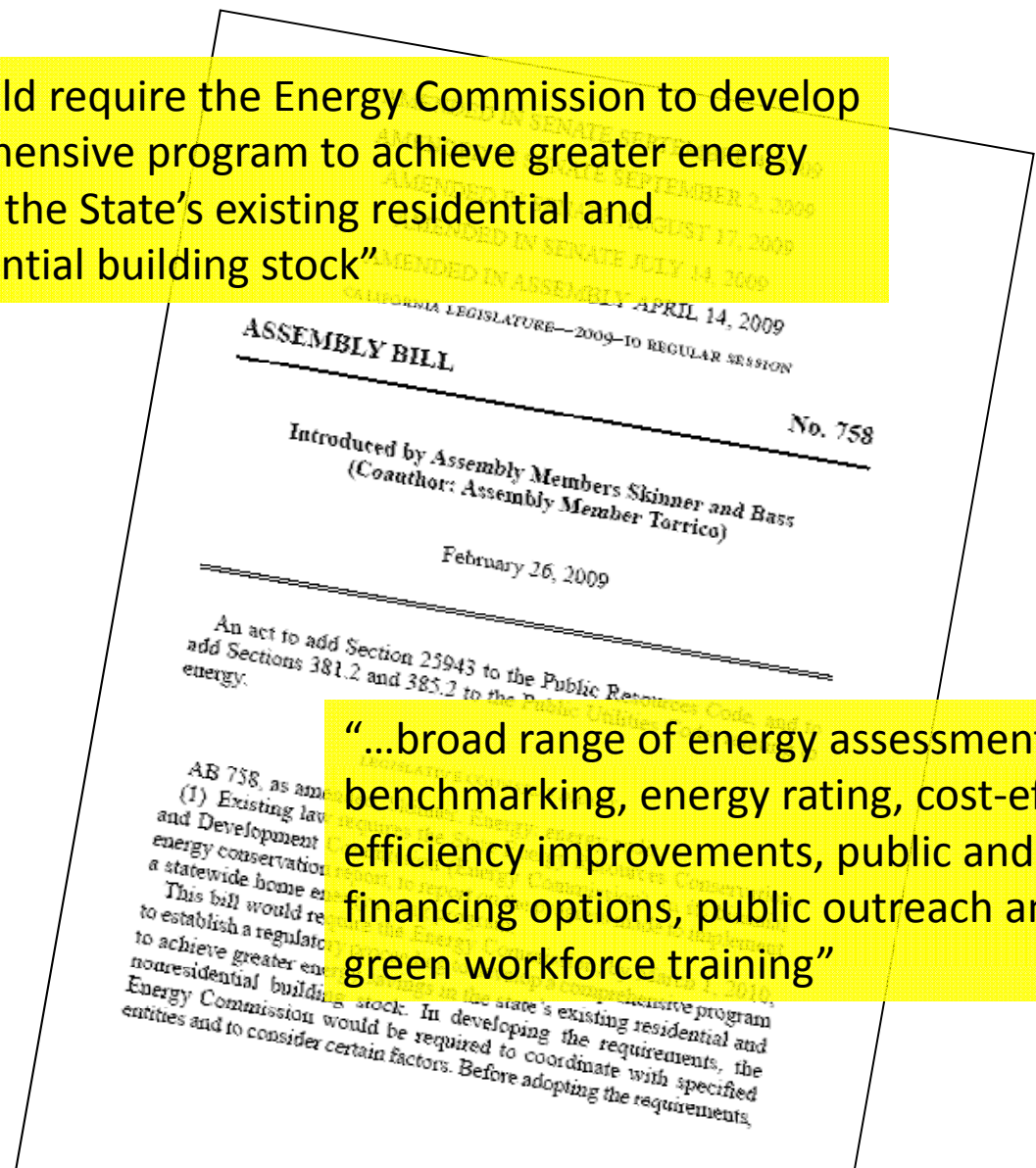
Senior Program Manager

Agenda

- Origin & Scope
- The Team
- Implementation phases
- Tasks (Commercial)
- Needs Assessment
- Commissioning

Assembly Bill 758

“This would require the Energy Commission to develop a comprehensive program to achieve greater energy savings in the State’s existing residential and nonresidential building stock”



“...broad range of energy assessments, building benchmarking, energy rating, cost-effective energy efficiency improvements, public and private sector financing options, public outreach and education, green workforce training”

Technical Support Team



Prime: P E C I

Non-Residential Subcontractors

Architectural Energy Corporation (AEC)

New Buildings Institute (NBI)

Institute for Market Transformation (IMT)

CCC to provide
assistance on asset
rating development

Residential Subcontractors

Benningfield Group

Earth Advantage Institute

Association for Energy Affordability (AEA)

CalCERTS

Bruce Wilcox

Doug Beaman & Associates

Heschong Mahone Group (HMG)

Robert Brown Company

Bedrosian & Associates

Phased Approach

Phase 1: Infrastructure
Development &
Implementation Plan

Phase 2: Market
Development & Partnerships

Phase 3: Statewide Ratings
& Upgrade Requirements

2011

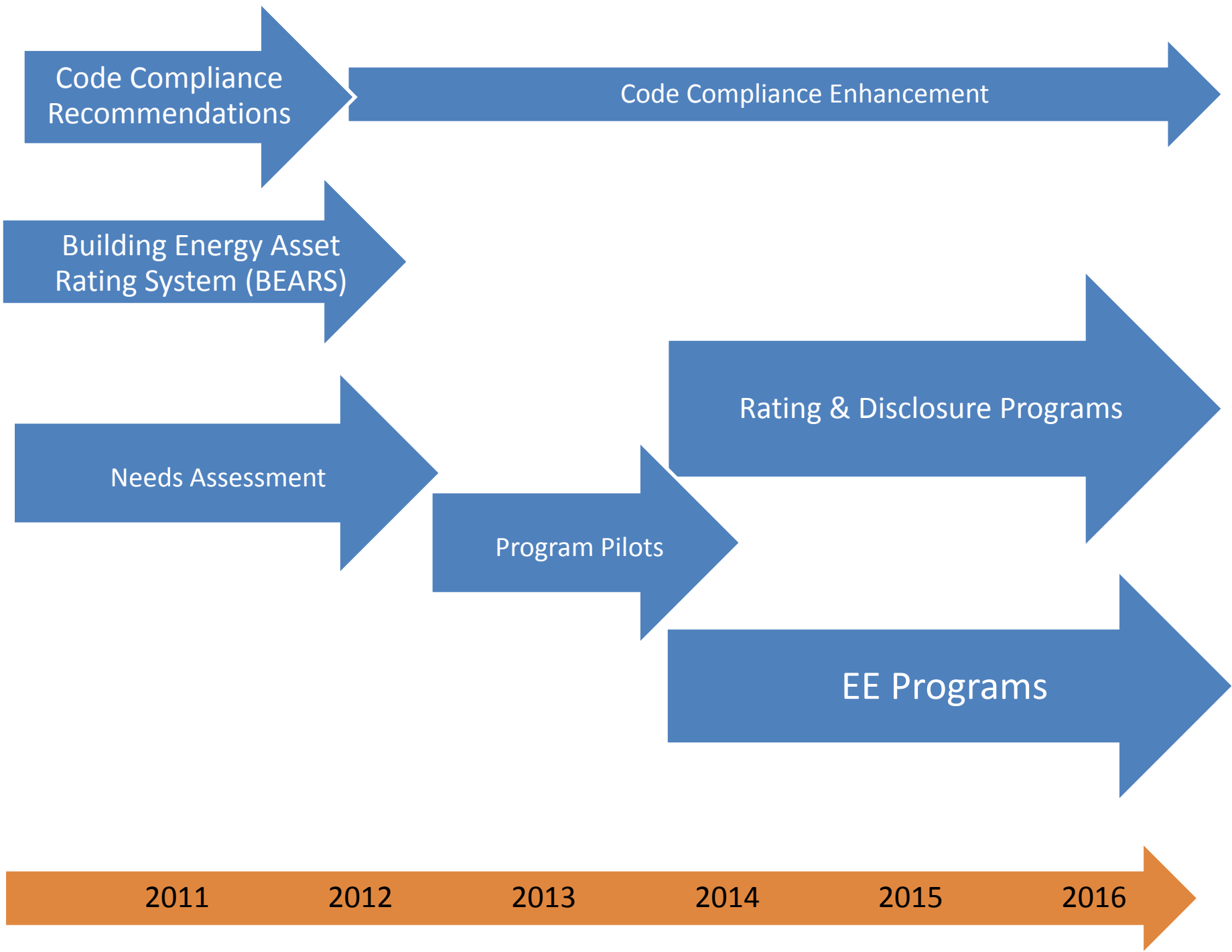
2012

2013

2014

2015

2016



Code Compliance Recommendations

Code Compliance Enhancement

Building Energy Asset Rating System (BEARS)

Needs Assessment

Program Pilots

Rating & Disclosure Programs

EE Programs

2011

2012

2013

2014

2015

2016

Needs Assessment

- **Needs Assessment Report**
- **Market Data Summary**
- **Action Plan**

Needs Assessment Report

- **20 Expert Interviews**
- **Expertise across all program areas**
- **1-Hour Phone Interviews**
- **Report Drafted**
- **Public Workshop & Review (TBD)**

Selected Findings

- **Capital availability**
- **Value beyond cost savings**
- **PACE**
- **“Green” jobs**
- **“Functional alignment” of workforce ed**
- **CALCTP**
- **Value of ratings**
- **Disclosure at time of sale**
- **Small commercial underserved**

Commissioning?

“Far and away the biggest challenge is the regulatory cycle.”

Commissioning?

“Commissioning and retrocommissioning are activities that the industry still doesn’t understand the value proposition of at all.”

“We have done commissioning programs. It is not cheap, but we think that we get very useful information out of it and it helps us get to the next level and improve.”

Commissioning?

“if you go to a site through a retro-commissioning program or any kind of audit and find out that the linkage is missing, why are we talking to that client?

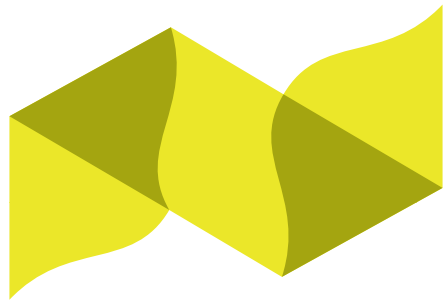
If they don't have that level of PM ... you feel guilty just picking that low-hanging fruit. I mean do I really want to take credit for just identifying the obvious?”

Commissioning?

“There are two kinds of holes in buildings. There are holes you can drop a cat through, and then there are holes that don’t appear big because they’re a tenth of an inch wide, but they’re seven hundred feet long.”

“...285,000 square foot high school and a blower door test where we're pulling that building negative and using theatrical smoke and infrared camera and then turning those fans the other way and pressurizing and seeing where the smoke comes out”

“...problems can happen in the gaps between the trades ”



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