



# Cracking the Code: The Path to Claim Savings From Codes (and Standards)

Kate Drexler  
July 31, 2012

# Pioneers

## Claiming Savings

- Arizona
- City of Austin
- British Columbia
- California
- The Pacific Northwest

## On Their Way?

- Ohio
- Colorado
- Massachusetts
- Minnesota
- New York

# Attribution Approaches

- Approach #1: Rigorous Methodology, Attribution With No Cap (California)
- Approach #2: Less Rigor, Partial Attribution, Savings Cap (Arizona)
- Approach #3: No Attribution, Full Savings Claimed (Pacific Northwest, British Columbia, Austin Energy)

# Background on California

- Starting claiming savings in 2006-2008 program cycle
- 9% of IOUs' portfolios came from C&S
- Activities included:
  - State Advocacy Programs –
    - Identify efficiency technologies and strategies, evaluate market readiness and when appropriate support adoption of new code or standard , CASE Studies
  - Federal Advocacy Programs
    - Influence outcomes of federal standards procedures
  - Extension of Advocacy (NEW)
    - Support implementation and enforcements of codes, training
- CPUC is allowing IOUs to claim savings and include the C&S program in risk/reward mechanism for 2010-2012 cycle, which will require a documentation of cost-effectiveness

# Attribution Approach #1 (California)

## Rigorous Methodology, Attribution With No Cap

- 1) Ex ante gross savings are calculated from incremental savings
- 2) Compliance assumptions are applied
- 3) Ex ante savings adjusted for naturally occurring market adoption (NOMAD)
- 4) Attribution estimates are applied based on percentage of influence programs had on:
  - Promoting market readiness of the measure (or appliance);
  - Conducting testing and research;
  - The innovativeness of the proposed standard
  - Preparing the CASE report;
  - Promoting a public process including stakeholder outreach.
- 5) Each IOU is credited a portion of the net energy savings from C&S

# Assessment of Attribution Approach #1

## Advantages

- Rigorous attribution appeases regulators
- Rigorous attribution attempts to pinpoint direct cause and effect

## Drawbacks

- Costly - \$3 million last program cycle
- We're sometimes driven to what we can't measure
- Uncertainty for utilities

# Background on Arizona

- Prompted by EERS that set the goal for IOUs to achieve cumulative savings of 22% from efficiency by 2020
- Arizona Corporation Commission allowed IOUs to claim savings for supporting building codes starting in August 2010
  - Only gas utilities can claim savings from appliance standards
- Salt River Project followed suit in 2011 to claim up to 50% of savings from new building codes and appliance standards
- Home rule state means major focus on advocacy of local municipalities and code compliance

# Attribution Approach #2: (Arizona)

## Less Rigor, Partial Attribution With Cap

- Can claim up to 1/3 of savings from buildings built to new code
- Each IOU must hire third party evaluators to independently evaluate and attribute savings
- IOUs must document their activities to support codes and submit an evaluation report that assesses program's cost-effectiveness and achieved energy savings
- To date, no IOUs have filed to claim savings, but IOUs are rolling out programs
  - APS 2012 Codes Budget: \$100,000
  - TEP 2011 Codes Budget: \$50,000 and 2012 Codes Budget: \$75,000



# Arizona Approach

## Advantages

- Inexpensive
  - TEP budgeted only \$1,898 for evaluation of its Codes Program in 2012
- Simpler methodology than California approach

## Drawbacks

- Will it work in all regulatory environments?
- Will it work in all code policy environments?

# Background on Pacific Northwest (Idaho, Oregon, Montana, Washington)

- Efficiency goals are set by the Northwest Power and Conservation Council through a regional integrated resource plan (currently the 6<sup>th</sup> Power Plan)
- Northwest Energy Efficiency Alliance (NEEA) carries out most C&S activities on behalf of utilities in the region
- Activities largely revolved around advancing new C&S and enhancing compliance through training

# Attribution Approach #3: (Pacific Northwest) No Attribution, Full Savings Claim

- Multiply the kWh savings estimate per home by the number of homes built to the new code
- Multiply this by the compliance rates
- Compliance rates are calculated on a per measure basis rather than with a whole-house approach
- For commercial buildings, the same formula is used by applying a square footage rate rather than basing on the number of new homes built
- BC Hydro and Austin Energy use a similar methodology whereby the utility gets full credit for savings

# Are These Approaches Replicable?

	ADVANTAGES	DRAWBACKS
California Approach	<ul style="list-style-type: none"><li>-Rigor Appeases regulators</li><li>-Attempts to identify and quantify cause and effect</li></ul>	<ul style="list-style-type: none"><li>-Expensive (\$3 million in last program cycle)</li><li>- Are we sometimes driven to what we can't measure?</li></ul>
Arizona Approach	<ul style="list-style-type: none"><li>-Inexpensive</li><li>-Flexible</li></ul>	<ul style="list-style-type: none"><li>-Would it suffice in all regulatory environments?</li><li>-Uncertainty</li></ul>
Pacific Northwest Approach	<ul style="list-style-type: none"><li>-Least cumbersome</li><li>-High degree of certainty</li><li>-Fully fosters collaboration</li></ul>	<ul style="list-style-type: none"><li>- Less replicable, need regional model or strong public commitment to codes</li></ul>

# On the Path

- Colorado
- Ohio
- Minnesota
- Massachusetts

# Lessons Learned

- Marry Policies With Programs
- Demonstrate a Need
- Highlight the Utilities' Niche
- Consider Micro- and Macro-opportunities
- Collaborate With Stakeholders

# Further Reading

- [California 2010-2011 Process Evaluation](#)
- [California IOU Codes & Standards Impact Evaluation 2006-2008](#)
- [Pacific Northwest National Laboratory Building Code Compliance Template](#)
- [Tucson Electric Power 2011-2012 Energy Efficiency Implementation Plan](#)



## Save the Date

Oct. 15-17, 2012

AESP's Fall Conference  
Long Beach, CA

Jan. 28-31, 2013

AESP's 23<sup>rd</sup> National  
Conference & Expo  
Orlando, FL

Apr. 29-May 1, 2013

AESP's Spring Conference  
Dallas, TX

For more information - [www.aesp.org](http://www.aesp.org)

