Program Administrator Role in Advancing Codes & Standards

June 12, 2012
Objective

- Encourage adoption and compliance of more stringent building energy codes and appliance standards, taking into account the value added by PA involvement
- PAs see this as an opportunity to be strategic and address customer barriers
- PAs would only seek to claim the additional savings generated through unique efforts attributable to PA efforts
- PAs not seeking to claim savings that are not attributable to PA efforts
Agenda

• Three Questions to Consider:
  • What: Building energy code and appliance standards
  • Why: Reasons/motivation for PA participation, value add of PA participation
  • How: PA process and overview of initiatives

• Ongoing Issues

• Next steps/Timelines
What: Building Energy Codes & Appliance/Equipment Standards (C&S)

Innovation Cycle of Energy Efficiency in Buildings

- Programs
- Emerging Tech
- Energy Efficiency in Buildings
- Evaluation
- Research
- Codes & Standards
**Why: PA Role in the Codes Ladder**

<table>
<thead>
<tr>
<th>Net Zero Buildings!!</th>
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<td>Getting to 50%</td>
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<td>EE Programs</td>
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<td>Stretch Code</td>
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<td>Base Code 2</td>
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<td>EE programs</td>
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<tr>
<td>Stretch Code</td>
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<td>Base Code 1</td>
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- **Energy Efficiency Incentive programs and C&S programs** work hand-in-hand to bring buildings to this point!
- Codes are becoming increasingly stringent. Construction Community struggling to interpret requirements.
- If projects are not 100% in compliance with base/stretch code, some opportunities lost in energy efficiency.

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- How do we move the market to Net zero or even 50% more stringent than IECC 2006?
- EE programs get updated. Stretch code gets updated.
- Another round of code, X% > 1st round.
- For the early adopters/innovators who want to go beyond.
- For the early adopters/innovators.
- Mandatory—the law: Base minimum building can build in MA.
Why PA Involvement?

- PAs have innovative ideas to support advancement of codes and meet energy goals with large impacts
- Customers and trade allies reach out to PAs for technical guidance
  - Close contact with building industry through incentive programs
  - In-house technical expertise
  - State needs to meet ARRA targets (90% compliance)
National Studies Show Efforts are Cost-Effective and Successful

- C&S programs have been cost-effective in other states, including CA, where C&S accounted for 20% of DSM savings.
  - While CA’s focus of initiatives is not exactly comparable to the ones MA may select, this is a clear indication that EE efforts in C&S can be successful
    - CA focus is development of Title 24 Energy Code; MA focus is compliance support
  - Development of methodology slow, but was ultimately proven successful
- PAs researched AZ, Northwest, BC Hydro, NYSERDA, etc.
- Institute of Market Transformation states that the national potential of C&S is high, based on the assumption that 100% of projects comply with code
How: Program Planning- PA Work in Progress

- PAs following a thorough and organized process
- Awaiting results of many ongoing studies
- Work in progress includes:
  - Collaborative PA effort, both residential and C&I
  - Hired consultant team
  - Working to identify & prioritize initiatives
  - Identified stakeholders
  - Ongoing research efforts
  - Coordination with Commonwealth (DOER/BBRS)
  - Ongoing savings/attribution/evaluation discussions
  - 2013 three-year program planning preparation
How do we Prioritize Initiatives?

- Need
- Current status
- Overlap with state programs
- Rationale for PA involvement
- Approximate budgets, energy savings potential
How: Paths to Savings through Codes & Standards Efforts

- PAs are reviewing the following potential paths to assist through codes/standards initiative:
  - **Code Compliance**: Assist the State to help construction community comply with code
  - **Stretch Code Development**: Assist State with technical assistance/ market potential/benefit cost analysis of stretch code development
  - **Appliance standards support**: Strategically pursue technical analysis of appliance efficiencies, and provide advocacy at state/regional/federal level
Energy Code Initiatives

- Base Energy Code: IECC
  - Compliance support for Stretch Code
  - Compliance support for Base code
  - Stretch Code Development Support
  - R&D
  - Tech assistance
  - Cost analysis
  - 3rd party inspection protocols
  - Compliance documentation tools

- Advocacy
- Tech/market assessment
- Cost analysis
- 3rd party inspection protocols
- Compliance documentation tools
- Code Ambassadors
- Tech Assistance Circuit Riders
- Trainings
Appliance Standards Initiative

Understanding standards setting process

Identify handful appliances to pursue

Tech/market/savings potential

Tech. studies/ market potential

Advocacy: Federal/State

Appliance Standards

Vetting Process
Ongoing Issues

- **Savings Potential & Quantification**
  - Long-term outlook
  - Savings may not be realized until later
  - Quantifying savings through code compliance support--challenge
  - Program cost-effectiveness
  - Challenge is to work with communities that may not have the resources to fully enforce the code, as well as manufacturing community

- **Attribution to PA effort**
  - Less rigorous approach than California?
  - Agreed upon percent, based on set achieved goals?
  - Low impact, medium impact, high impact?

- **Evaluation of C&S**
  - Fairly new methodology (especially code compliance)
  - Qualitative, quantitative analysis (what does it look like?)
## Ongoing efforts with Timelines

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<tr>
<th>Topics</th>
<th>Timelines</th>
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<tr>
<td>Active C&amp;S planning by PA Implementation team</td>
<td>April 2011 onwards</td>
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<td>Initial meetings—BBRS/NEEP/ASAP</td>
<td>Jan 2011 onwards</td>
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<tr>
<td>Code compliance studies (Started 2011)</td>
<td>June 30, 2012</td>
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<tr>
<td>1\textsuperscript{st} draft proposal on C&amp;S to DOER/BBRS</td>
<td>Sept 2011</td>
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<tr>
<td>Series of meetings with DOER</td>
<td>Oct 2011-Jan 2012</td>
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<tr>
<td>Evaluation sub group meetings</td>
<td>Feb 2012 onwards</td>
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<tr>
<td>2nd draft proposal on C&amp;S to DOER/BBRS</td>
<td>April 2012</td>
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<tr>
<td>Ongoing attribution study by NEEP</td>
<td>October 2012</td>
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<tr>
<td>Savings/Attribution/Evaluation proposal to DOER/BBRS</td>
<td>June 30 2012</td>
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<tr>
<td>PAs internal decision on 2013 program planning</td>
<td>August 1, 2012</td>
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Key Takeaways

- Through this initiative, PAs have an opportunity to be more “strategic” towards a long-term EE plan that supports more stringent codes/standards and supports ongoing incentive programs.
- A good opportunity for PAs to address customer barriers in the world of codes/standards.