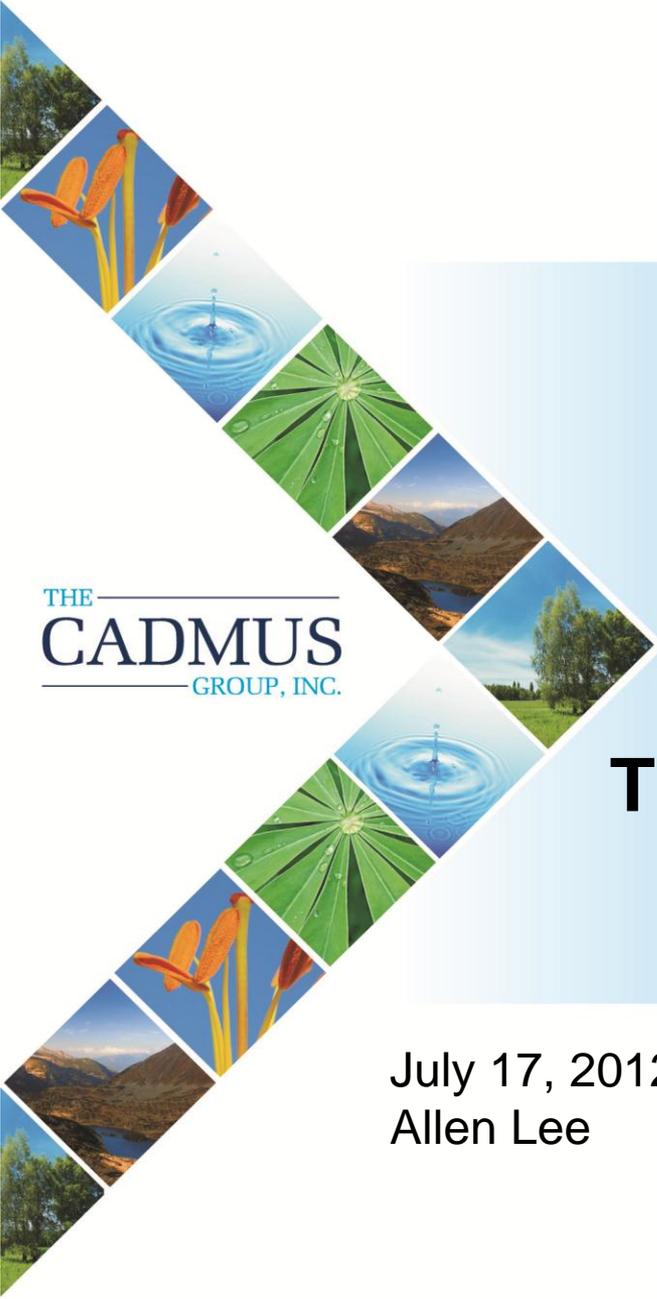


Integrating Building Energy Codes into Utility Energy Efficiency Plans

Moderator: Phyllis Reha, Minnesota PUC

Presenters: Allen Lee, Cadmus
Puja Vohra, National Grid

Respondents: T.J. Poor, VT Dep't of Public Service
Cliff Majersik, Institute for Market Transformation



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Building Code and Energy-Efficiency Programs— The What, Why, Why Not, and How of Utility Involvement

July 17, 2012
Allen Lee

What Can Utilities Do?

Advocate for state adoption

- Latest model codes
- Enhancements to codes

Support local reach/stretch code adoption

- Information
- Technical and policy support

Increase compliance

- Code official/industry training
- Technical assistance
- Resources

Why Should Utilities Get Involved?

Building energy codes can produce very large savings

- Codes affect all new buildings and renovations
- California program provides about 20% of portfolio savings

Utility costs can be small to modest

- No incentives are required

Utility cost-effectiveness can be exceptional

- \$/kWh saved can be 1/10th or less than other programs
- California code advocacy program is close to 1/20th

Utilities have the resources

- Staff
- Experience
- Relationships

What Obstacles Limit Utility Involvement?

Codes raise the baseline for new building efficiency programs

- Codes reduce savings of other programs

Regulatory protocols may not address code programs

- Utilities get no credit for energy savings, but entail costs

Codes might be decentralized, e.g., "home rule"

- Multiple adoption efforts are necessary

Compliance/enforcement may be weak

- Savings may not be realized

Internal/external stakeholders may not "get it"

- Other programs may oppose
- External stakeholders may challenge

How Can It Work?

Planning incorporates code impacts

- Potential studies include code savings
- Goals treat code savings appropriately

Utility defines and implements program

- Utility coordinates with other programs

Actual impacts are evaluated

- Evaluation protocol is developed and implemented

Attribution of impacts is assessed

- Attribution method is developed and implemented

Examples of Experience to Date

California

- CPUC establishes savings goals
- Provides largest savings of all programs
- IOUs support state code advocacy, reach codes, compliance enhancement
- CPUC protocol used to determine impacts (2006-08 first time)
- CPUC includes in risk/reward 2010-12

Arizona

- Corporation Commission (ACC) requires 22% IOU savings by 2020
- Legislation permits 1/3 code savings to count toward goal
- IOUs must demonstrate evaluate and provide evidence
- Salt River Project pursuing own program

Minnesota

- 2007 Next Generation Energy Act sets savings goals
- Utilities may have role in compliance enhancement
- Commerce Division of Energy Resources provides energy-efficiency oversight—special plans examiner, compliance analysis, attribution
- PUC provides resource plan approval

Selected Useful Resources

- EPA/DOE Energy Action Plan
<http://www.epa.gov/cleanenergy/documents/suca/codes.pdf>
- NEEP workshop
http://neep.org/uploads/EMV%20Forum/EMV%20Products/Codes_Standards_Workshop_92810_Materials.pdf
- RAP webinar
<http://www.raponline.org/event/supporting-codes-and-standards-through-energy-efficiency>

Thank You

Contact information

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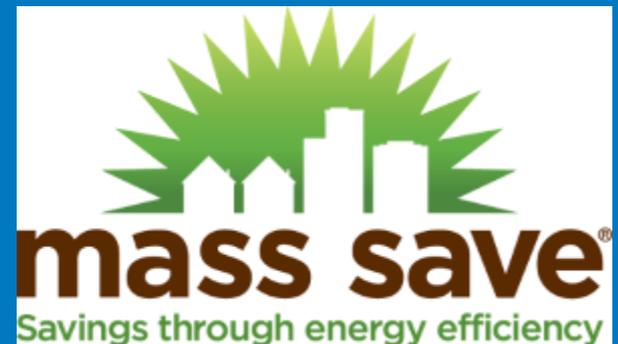
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Updates from Massachusetts: Program Administrators (PA) Role in Advancing Codes & Standards

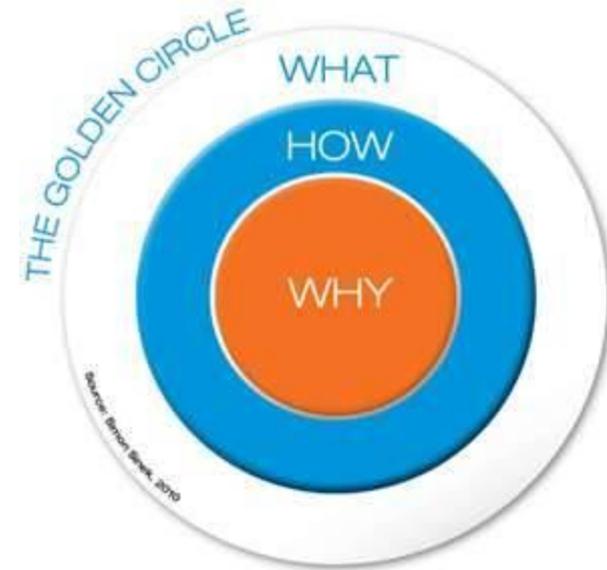
July 17, 2012

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Overview of Presentation

- **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



Why PA/Utility Involvement?

- If projects not 100% in compliance with code, some opportunities lost in energy efficiency
- Codes increasingly stringent. Limited technology to meet them. Construction Community struggling to interpret requirements
- PA role:
 - Customers and trade allies reach out to PAs for technical guidance
 - Need innovative ideas to meet increasingly high energy savings goals
- Proven through work in other states (e.g., CA, AZ) and other research (IMT/IEE etc):
 - Significant energy savings
 - C&S Programs cost effective

How: Program Planning- Work in Progress

- PAs/Utilities following a thorough and organized process
- Awaiting results of many ongoing studies
- Work in progress includes:
 - Collaborative PA/utility effort, both residential and C&I
 - Hired consultant team
 - Working to identify & prioritize initiatives
 - Identified stakeholders
 - Ongoing research efforts
 - Coordination with the State
 - Ongoing savings/attribution/evaluation discussions
 - 2013 three-year program planning preparation

How do we Prioritize Initiatives?

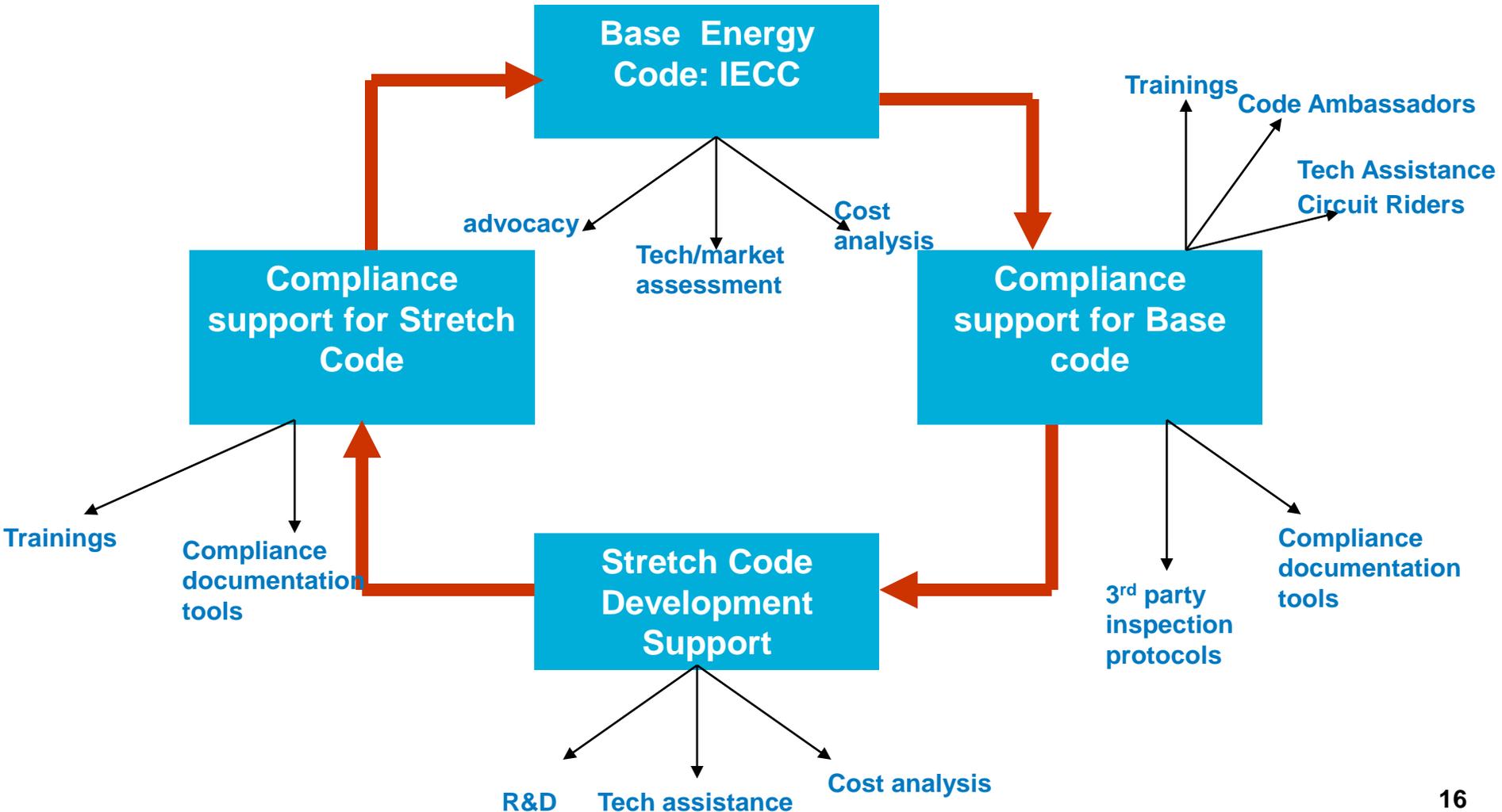
- **The need**
- **Current status**
- **Overlap w/state programs**
- **Rationale for PA involvement**
- **Savings potential**
- **Attribution to PA/utility effort**
- **Evaluation methodology**

How: Paths to Savings through **nationalgrid** Codes & Standards Efforts

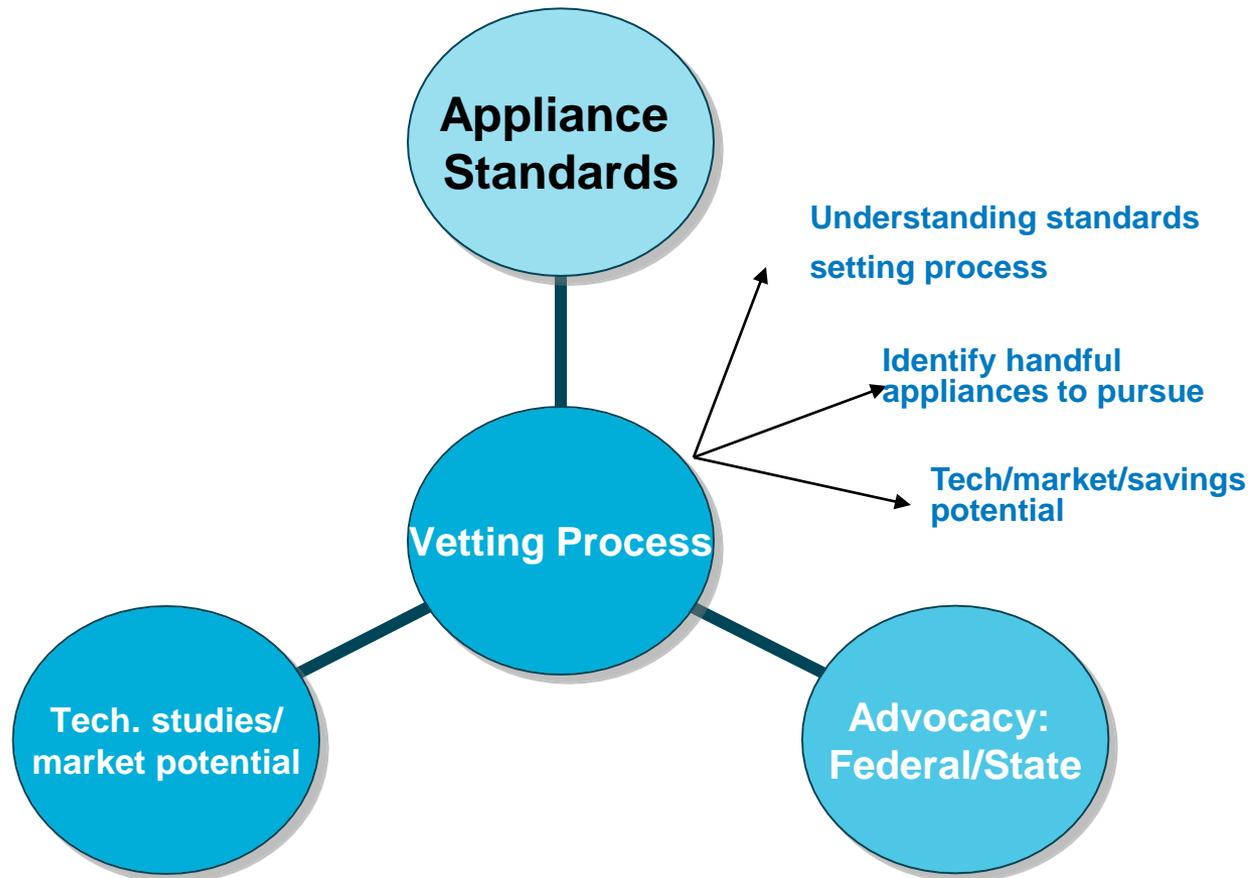
THE POWER OF ACTION

- PAs/Utilities 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



Appliance Standards Initiative



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
- **Attribution to PA effort**
 - A detailed methodology, like 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?)

Key Takeaways

- PA Objective: Encourage adoption and compliance of more stringent building energy codes and appliance standards
- Through this effort, PAs/utilites 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

About RAP

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