



Advanced Building Energy Efficiency Policy Task Force (ABEEP)

Building Energy Policies and Municipal Opportunities in Illinois

August 2022



Agenda

Introductions

Role of the Advanced Building Energy Efficiency Policy Task Force (ABEEP)

Building performance standard basics

Stretch code basics (refer to previous presentation)

Discussion





Accelerating climate solutions. For everyone.

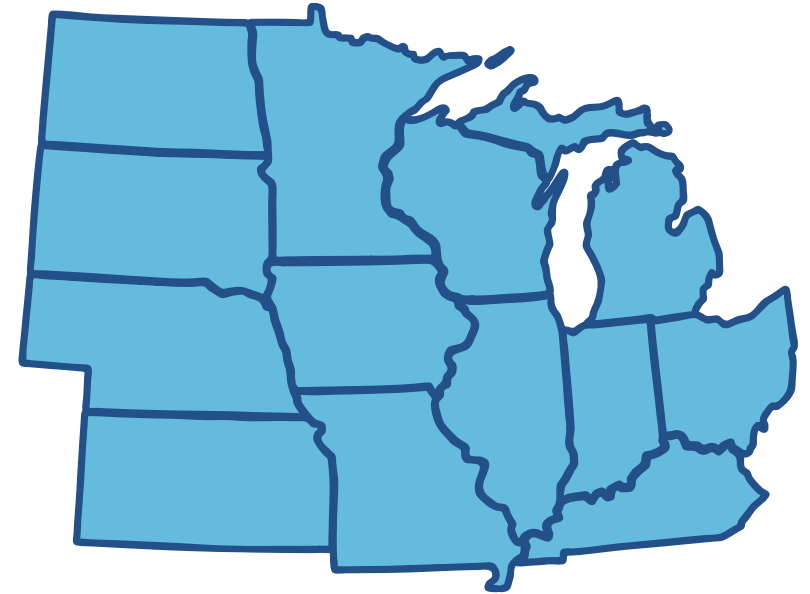
We deliver research, technical assistance, financing, education and training, and programs for utilities and their customers.



Midwest Energy Efficiency Alliance

The Midwest Energy Efficiency Alliance (MEEA) is a collaborative network, promoting energy efficiency to optimize energy generation, reduce consumption, create jobs and decrease carbon emissions in all Midwest communities.

MEEA is a non-profit membership organization with 160+ members, including:



Electric & gas utilities



State & local governments



Academic & Research institutions



Energy service companies & contractors

ABEEP Members

Community	Participants
Broadview	Mayor Katrina Thompson, David Upshaw, Greg Buchanan, Deputy Fire Chief Matt Martin
Brookfield	Trustee Katie Kaluzny
Darien	Sylvia McIvor
Elgin	Tom Armstrong
Geneva	Mayor Kevin Burns
Glenview	Robyn Flakne, Molly Laycob
Harvey	Nick Greifer
Hillside	Mayor Joe Tamburino
Hoffman Estates	Mayor Bill McLeod
Lincolnshire	Jay Yunker

Community	Participants
Mount Prospect	Alex Bertolucci, Bill Schroeder
Naperville	Craig Schneider, Kris Murphy
Northbrook	Tessa Murray
Oak Park	Marcella Bondie Keenan, Steve Cutaia
Park Forest	Andrew Brown
Richton Park	Bill Gleason
Cook County	Jamie Meyers
McHenry County	Chalen Daigle
Will County	Briana Moore

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- GRC
- MMC CAP
- + own CAP
- + energy plan



Advanced Building Policies Overview

Stretch/reach codes

Alternative compliance path that defines a higher level of energy efficiency

New construction

Building Performance Standard (BPS)

Focus on improving existing building stock through setting targets for efficiency upgrades

Existing buildings



Background on the Project

Phase 0 (2018)

- Review of energy codes and utility roles across the country

Phase 1 (2020)

- Outreach to municipalities
- Understand the potential for building policies
- Estimate energy savings

Phase 2...

- Work with IL Stakeholder Advisory Group Market Transformation working group
- Continued discussion with municipalities
- Statewide building energy code updates

Funders: ComEd, Nicor Gas, Peoples Gas and North Shore Gas



Utility Programs

- Utilities have a statutory requirement to spend a certain amount of money on energy efficiency investments for their customers
- Programs span new construction to existing building, residential to commercial and industrial
- No programs currently exist in Illinois for advancing or supporting code or building policies, but program elements are under consideration



Related Caucus Goals



Enact Policies that support clean energy

- Adopt stretch codes
- Enact an ordinance requiring periodic benchmarking

Implement Clean Energy policies

- Support robust building energy codes, benchmarking, and building performance standards to optimize energy efficiency for retrofit projects
- Require high performance, all electric and net-zero new construction





Leadership on IECC

- Active participant in national initiative to register governmental votes for 2021 IECC
- Mayor Burns testified to ICC



- Caucus advocating for Illinois adoption of 2018 IECC & appointments to Advisory Council



Task Force Objectives and Outcomes

- Help innovative municipalities pioneer stretch codes and BPS
- Get prepared to take action on building energy policies and have the tools to do so
- Assist in creation of a roadmap without obligation of adoption
- Provide feedback and guidance to utilities on most effective ways utilities can support
 - Emerging technology research led by ComEd, with additional funding from Peoples and North Shore and Nicor Gas



Value of Being Involved

Engagement by municipalities
in the past has been
beneficial to energy codes

The Climate and Equitable Jobs Act
(CEJA) created new opportunities for
municipal involvement in building policies

Preparation for imminent
state policies and programs
impacting municipalities

Opportunity for conversations, feedback,
and direct involvement in shaping energy-
efficient building policies and support



Task Force Time Commitment

- **Duration:** August to December
- **Time commitment:** 2 to 3 total meetings (1.5 hours each)
 - August (this one), October, November/December
- Minimal other work required outside of meetings



Menti Poll

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Building performance standards

BPS Poll

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Elements of Building Performance Standards

Benchmarking

- Ongoing review of energy performance of existing buildings with the goal of informing and motivating performance improvement
- Data collection of commercial buildings
- Comparison of Energy Use Intensity (EUI) to other

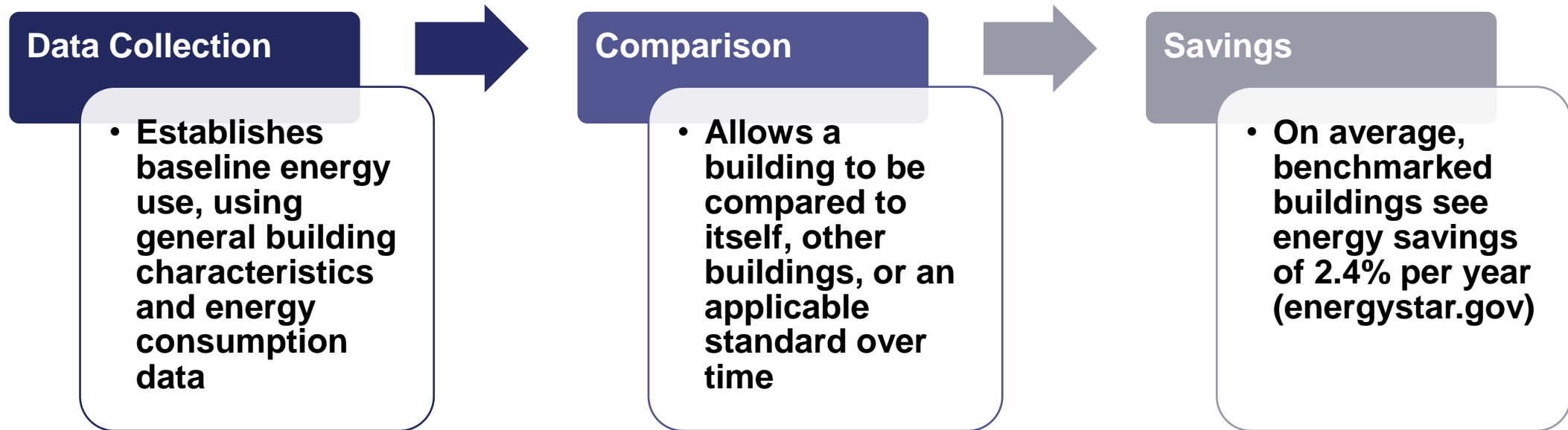
Building Performance Standards

- Typically follows benchmarking policy
- Requires low-performing buildings to take action



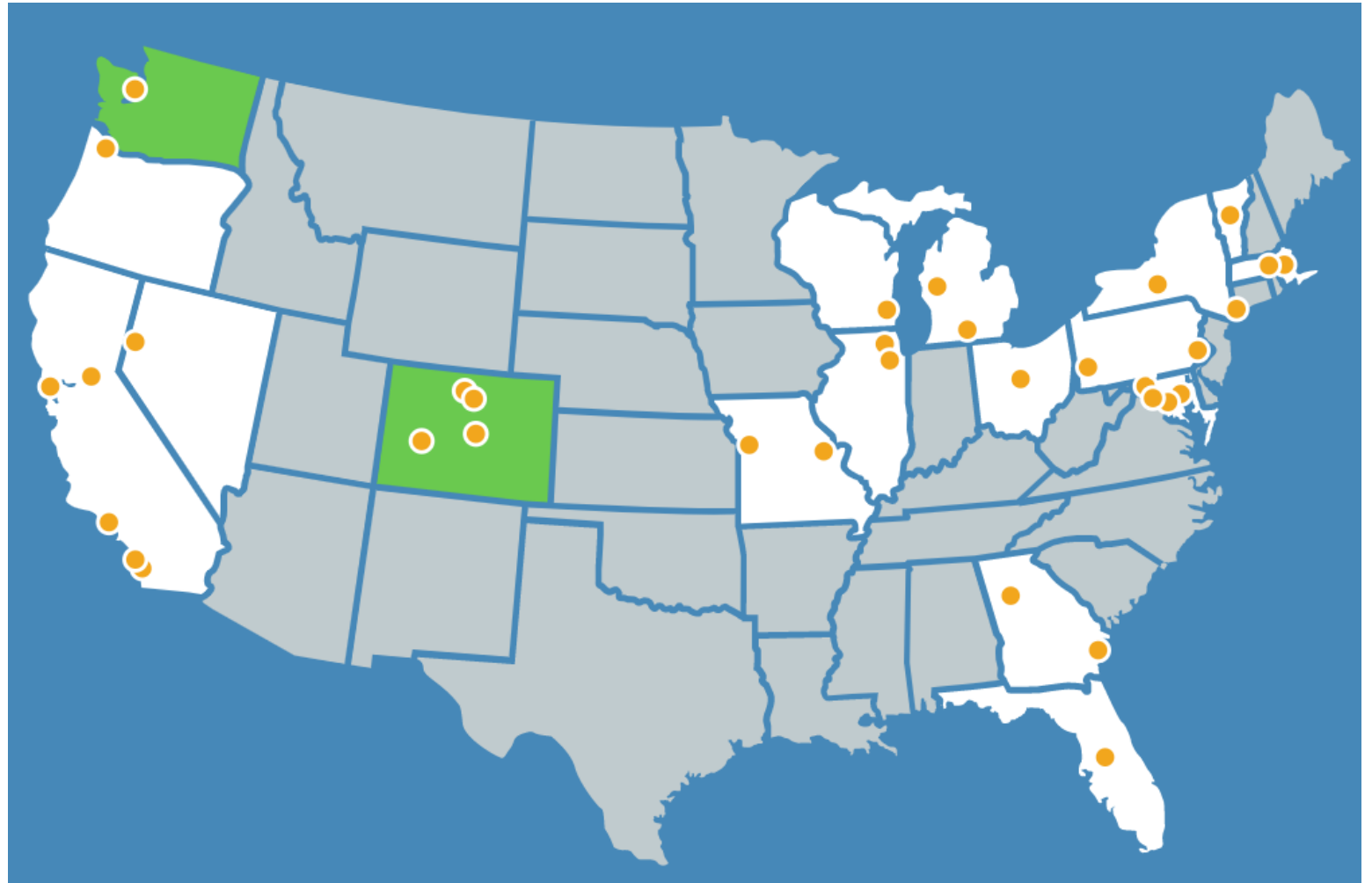
BPS – Benchmarking

Benchmarking is the ongoing review of energy performance of existing buildings with the goal of informing and motivating performance improvement.



National BPS Coalition

- Group of state and local governments committed to designing and implement BPS policies
- Signatory gov'ts provided technical support



Existing Building Performance Standards (BPS)

Location	Year Adopted	Compliance Year	Covered Buildings	Performance Metric	Compliance
Boston	2021	2025	> 20,000 ft ²	Annual GHG emissions	Meet emissions target
Colorado	2021	2026	> 50,000 ft ²	TBD	TBD
New York City	2019	2024	>25,000 ft ²	GHG emissions	Must meet target annually
St. Louis	2020	2025	>50,000 ft ²	Site energy use (EUI)	Meet 65 th percentile of EUI
Washington DC	2018	2026	>50,000 ft ²	EnergyStar score	Meet median EnergyStar score



Development of BPS

Community Engagement

- Establish community engagement process
- Establish policy goal
- Identify opportunities

Policy Creation

- Policy design
- Consider elements: data collection, enforcement, eligible entities, waivers

Policy implementation

- Create outreach tools and resources



BPS Feedback

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Stretch Codes

Stretch Codes Poll

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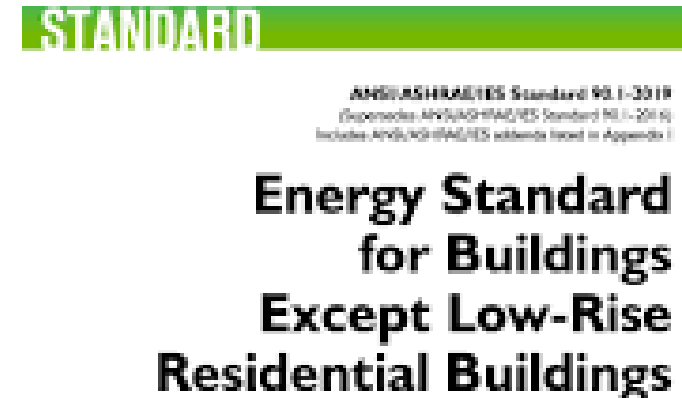


Current Energy Codes and Processes

- Energy Codes are a **set of rules** that govern the energy use of a building through mandated building practices & components
- National Model Codes developed by International Code Council and ASHRAE
- Updated on a 3-year cycle
- States/municipalities adopt and enforce the code



International Energy Conservation Code



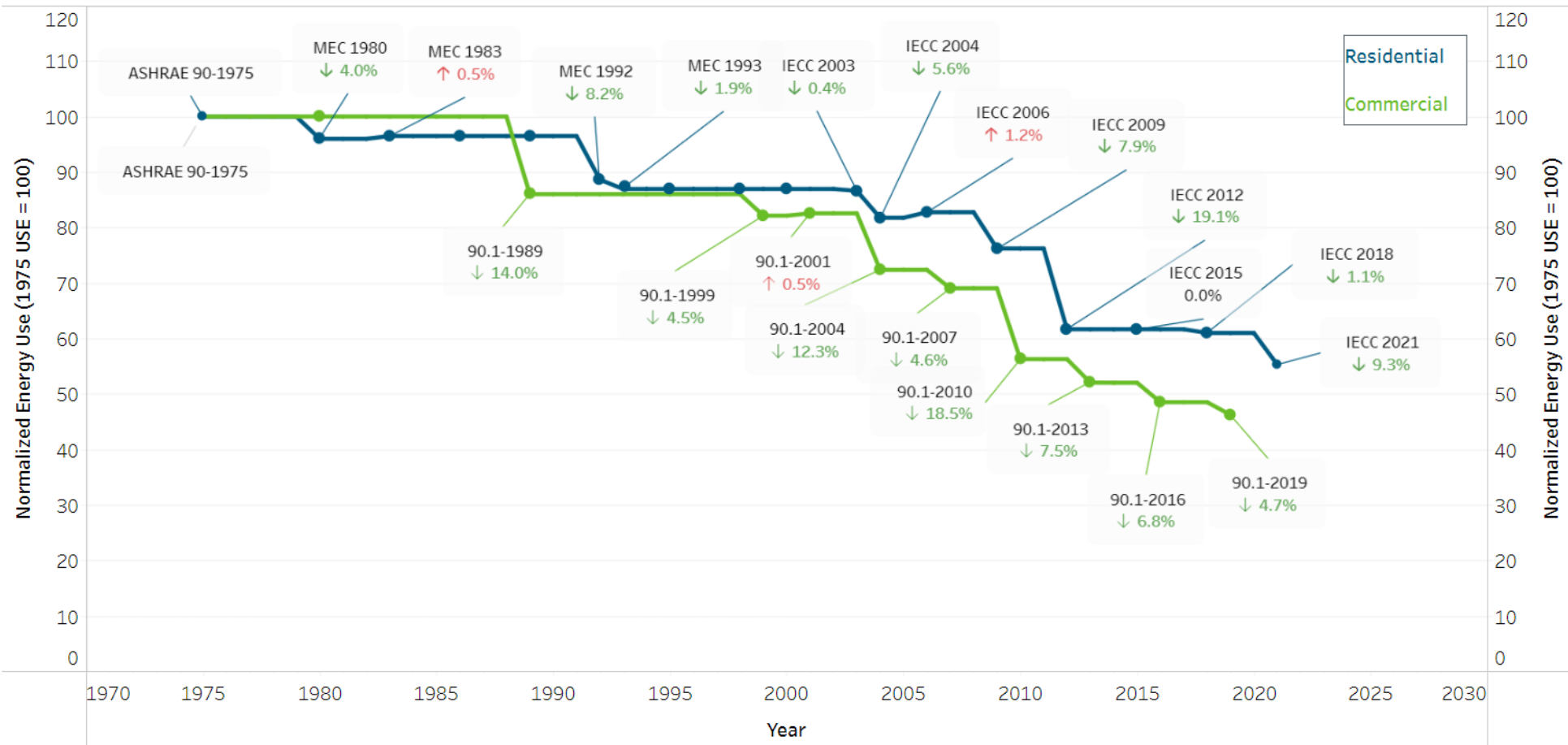
ASHRAE Standard 90.1



Model Energy Codes Efficiency



Estimated Improvement in Residential & Commercial Energy Codes
(1975 - 2021)





Why Stretch Codes?

Gives municipalities an alternative mandatory compliance path that promotes energy efficiency beyond the available code options

Provides significant cost savings for residents and businesses

Help gain market acceptance of the adoption of more energy efficient codes in the future



Residential Targets

Single-family and low-rise multifamily buildings

Stretch Code Version	Implementation Date	Site Energy Index	Performance Targets	Code Created By
2024 Residential Stretch Code	December 31, 2023	0.50	At least 50% more efficient than 2006 IECC	Set by CDB by July 31, 2023
2026 Residential Stretch Code	December 31, 2025	0.40-0.42	At least 60% more efficient than 2006 IECC*	Set by CDB in 2025
2029 Residential Stretch Code	December 31, 2028	0.33 - 0.35	At least 67% more efficient than 2006 IECC**	Set by CDB in 2028
2032 Residential Stretch Code	December 31, 2031	0.25	At least 75% more efficient than 2006 IECC	Set by CDB in 2031

*If “unanticipated burdens” are associated with previous stretch code, new code must be at least 58% more efficient than 2006 IECC and at least 5% better than 2024 IECC

** If “unanticipated burdens” are associated with previous stretch code, new code must be at least 65% more efficient than 2006 IECC; and at least 5% better than 2027 IECC



Commercial Targets

Single-family and low-rise multifamily buildings

Stretch Code Version	Implementation Date	Site Energy Index	Performance Targets	Code Created By
2024 Commercial Stretch Code	December 31, 2023	0.60	At least 40% more efficient than 2006 IECC	Set by CDB by July 31, 2023
2026 Commercial Stretch Code	December 31, 2025	0.50	At least 50% more efficient than 2006 IECC	Set by CDB in 2025
2029 Commercial Stretch Code	December 31, 2028	0.44	At least 56% more efficient than 2006 IECC	Set by CDB in 2028
2032 Commercial Stretch Code	December 31, 2031	0.39	At least 61% more efficient than 2006 IECC	Set by CDB in 2031

*If “unanticipated burdens” are associated with previous stretch code, new code must be at least 58% more efficient than 2006 IECC and at least 5% better than 2024 IECC

** If “unanticipated burdens” are associated with previous stretch code, new code must be at least 65% more efficient than 2006 IECC; and at least 5% better than 2027 IECC



Development of Stretch Code

Community Engagement

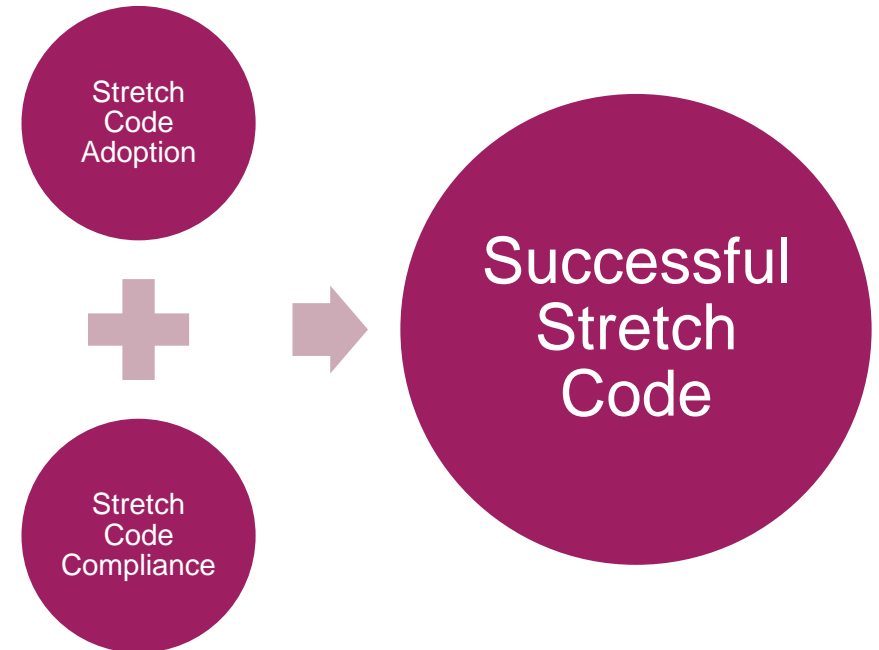
- Establish community engagement process
- Educate stakeholders
- Elicit feedback

Policy Creation

- Develop policy ordinance language
- Consider elements: timing, training, enforcement

Policy Implementation

- Establish enforcement and compliance plan
- Create outreach tools and resources



Stretch Codes Poll

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Discussion and feedback



Discussion via Menti

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Next Steps

- Use feedback received today to facilitate next discussion
- Send follow-up email with other ways to provide feedback
- Begin developing materials based on feedback
- Schedule next meeting



Slipstream and MEEA Team Contacts



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