Energy Codes for New Construction Subcommittee Meeting #1

NJ Energy Code Collaborative

May 7, 2025

Agenda

- Welcome and introductions (5 min)
  - Please introduce yourself in the chat!
  - Purpose, guiding principles & fact sheet
- DCA Overview of Code Adoption Cycle: Base Code and Appendices (5 min)
- Stretch Codes (10 min)
- Case Studies (5 min)
  - Massachusetts
  - New York
  - Maryland
- Discussion (30 min)
- Next steps (5 min)

Meeting Guidelines – Antitrust Statement

- Throughout our meetings, participants shall comply with competition law requirements and shall not enter into any discussion, activity or conduct that may violate any applicable competition law. Should the meeting discuss matters that contravene competition law requirements, it is the responsibility of participants to notify the Moderator who will discontinue the discussion or close the meeting.

About New Jersey Board of Public Utilities

Mission Statement

To ensure that safe, adequate, and proper utility services are provided at reasonable, non-discriminatory rates to all members of the public who desire such services. To develop and regulate a competitive, economically cost-effective energy policy that promotes responsible growth and clean renewable energy sources while maintaining a high quality of life in New Jersey.

About Northeast Energy Efficiency Partnerships

- Non-partisan, non-profit organization founded in 1996
- One of six Regional Energy Efficiency Organizations
- We drive market transformation regionally by fostering collaboration and innovation, developing research and tools, and disseminating knowledge

About Rutgers Center for Urban Policy Research

The Built Environment and Green Building Group, formerly Rutgers Center for Green Building develops and implements research, education and training initiatives that promote environmental, economic, and social improvements for buildings and their occupants, in partnership with federal agencies, industry, state and local government, and community and not-for-profit organizations.

NJ ECC Purpose

Establish a timely and robust, stakeholder-guided process to research and develop a New Jersey Zero Energy Building Roadmap that provides options to build government and market capacities to effectively advance an increasingly more energy-efficient building energy code and improve administration, enforcement and compliance, aligned with relevant clean energy policies of the State, including the Energy Master Plan goals and recommendations.

NJ ECC Guiding Principles

The New Jersey Energy Code Collaborative and its subcommittees are committed to establishing a transparent, collaborative, and evidence-based process to advance energy efficiency and high-performance buildings across New Jersey. The following principles guide our work:

- **Shared Commitment to Progress:**
  - we are united by a common goal: to help New Jersey transition toward more efficient, resilient, and high-performing buildings, in alignment with relevant clean energy policies of the State.
- **Welcoming All Perspectives:**
  - we value broad stakeholder engagement and are committed to creating a space where all voices can be heard and respected. Meetings will be facilitated to encourage open dialogue and thoughtful participation.

NJ ECC Guiding Principles

- **Transparency and Accountability:**
  - meeting summaries will be shared with the group for review prior to publication to ensure accurate reflection of discussions and input. We are committed to documenting the process clearly and consistently.
- **Commitment to Education:**
  - we aim to support stakeholders with access to relevant information through educational sessions, panels and other learning opportunities.
- **Draft Net Zero Building Roadmap as Living Document:**
  - the Draft Net Zero Building Roadmap will be treated as a dynamic, evolving resource that reflects emerging best practices, market developments, and stakeholder feedback.
- **Role of the New Jersey Energy Code Collaborative:**
  - the New Jersey Energy Code Collaborative facilitates and informs this process in a manner consistent with the principles.

Overview of Code Adoption Cycle: Base Code and Appendices

DCA

Energy Codes

Base codes

The minimum energy efficiency levels set in the state-adopted version of a national model code, which may have state specific amendments.

Stretch codes

A stretch code is an adoptable and enforceable code that exceeds the requirements of the base code. Stretch codes typically enhance building energy efficiency and may also contain additional considerations like building material impacts, water efficiency, renewable energy, and resilience or grid security. Stretch codes may be required for specific building types, building sizes, certain funding or incentive programs, or be voluntary.*

Green Stretch Codes include provisions or requirements that may address Indoor Air Quality (IAQ), site, building material life cycle, and water use and reuse.
Energy Stretch Codes require additional efficiency beyond the base code.
Electric/Electric Ready Stretch Codes require that a building be all electric or have electric ready connections for at least all major end uses regulated by the energy code.
Zero Energy Stretch Codes contain provisions that lead to the design and construction of buildings that are zero energy; such buildings produce or procure renewable generated power to offset their energy consumption annually. Some Zero stretch codes require that the building be 100 percent electric and utilize no fossil fuels or emit any greenhouse emissions.

*Unites States Department of Energy, Building Energy Codes Program, Stretch Codes

Stretch Codes

There are a few pathways by which jurisdictions can adopt a stretch code, depending on the state:

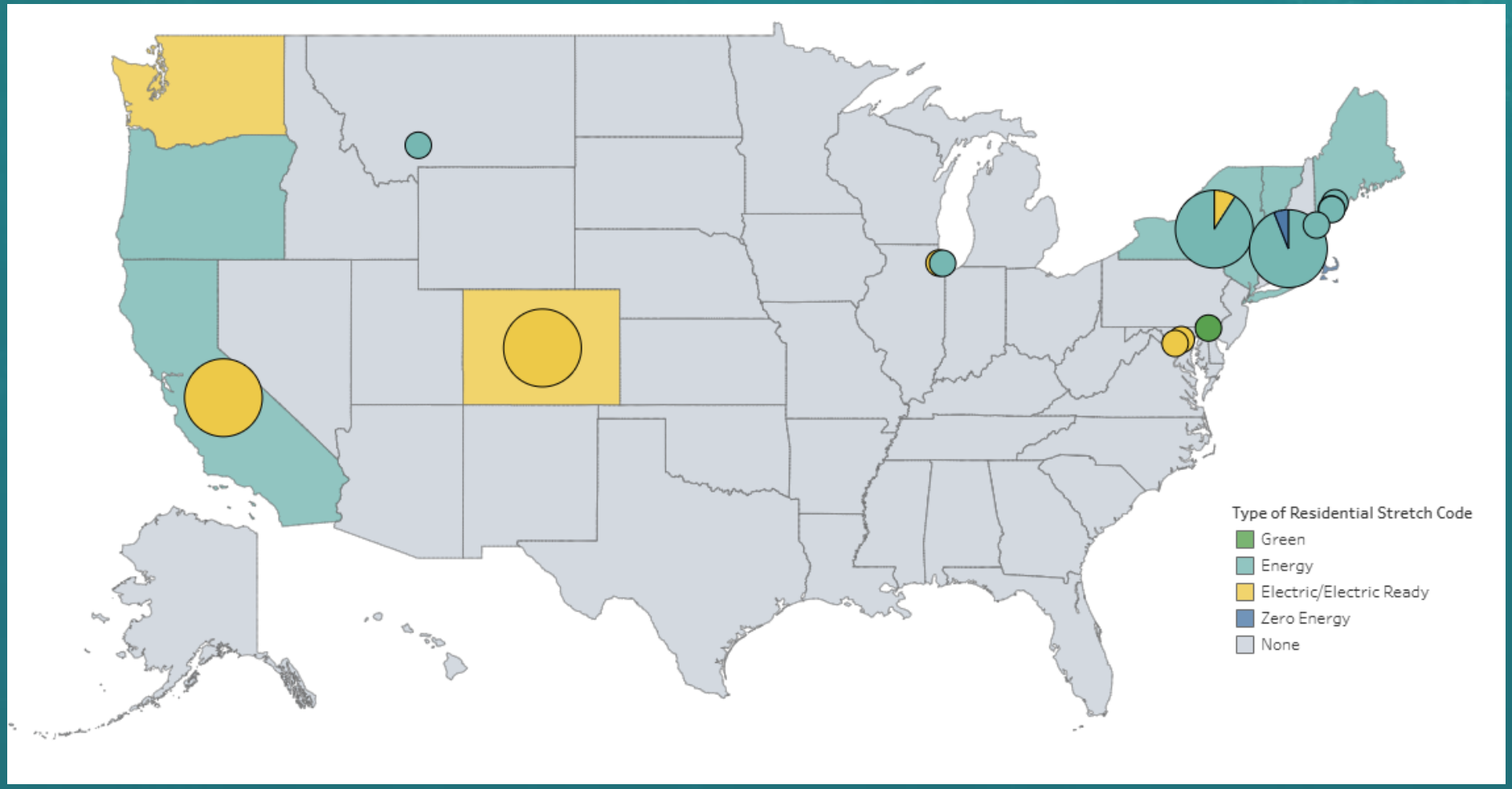
1. States specify that a jurisdiction has the authority to adopt a stretch code, but do not provide any specific language (Delaware)

2. States specify that a jurisdiction has the authority to adopt a stretch code, and states write state specific language. Jurisdictions must use the state's language (Massachusetts, Maine)

3. States specify that a jurisdiction has the authority to adopt a stretch code, and provide model language, but states do not require that jurisdictions adopt the state's model language (New York)

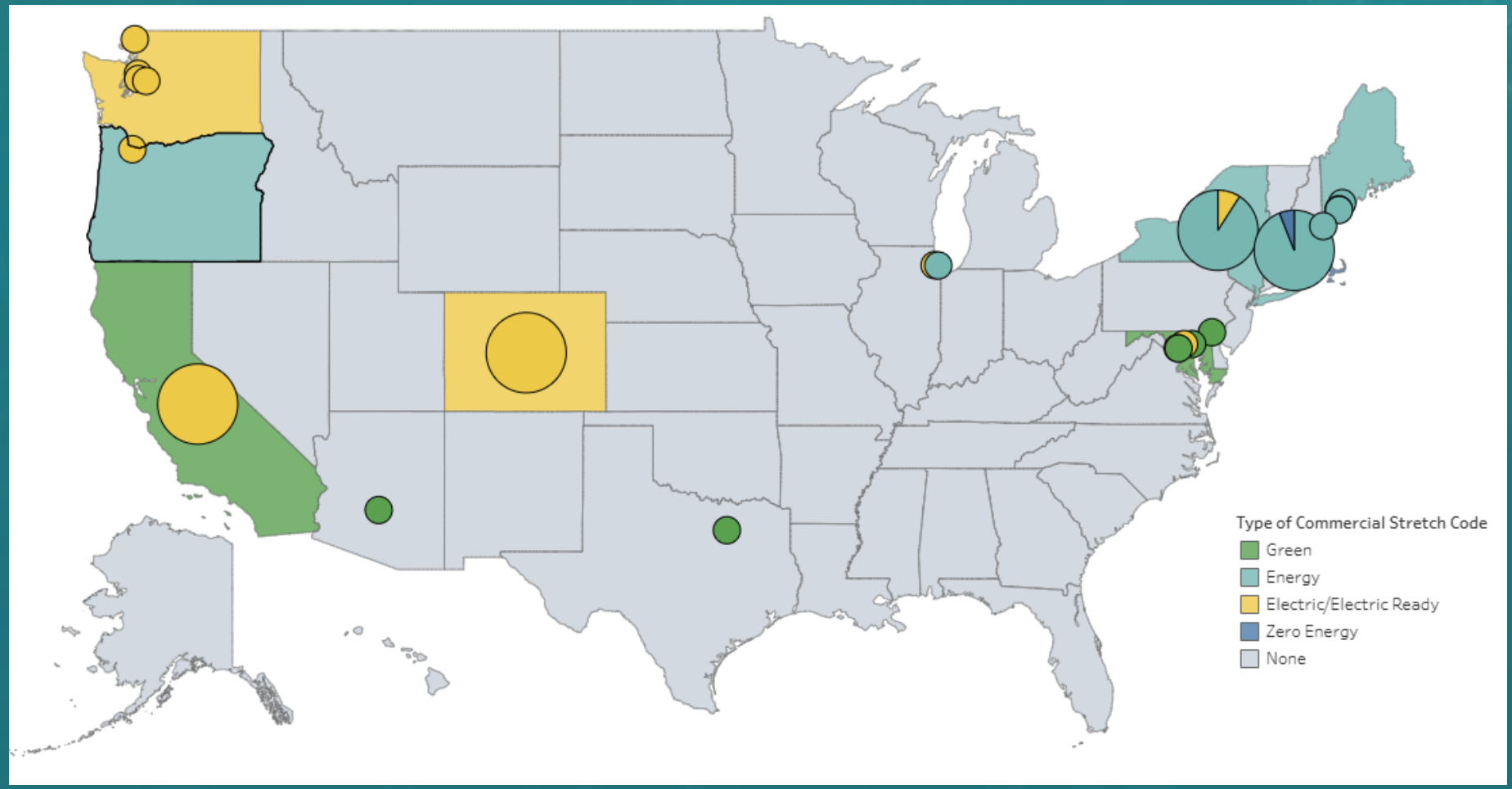
Stretch Codes

National Residential Stretch Codes



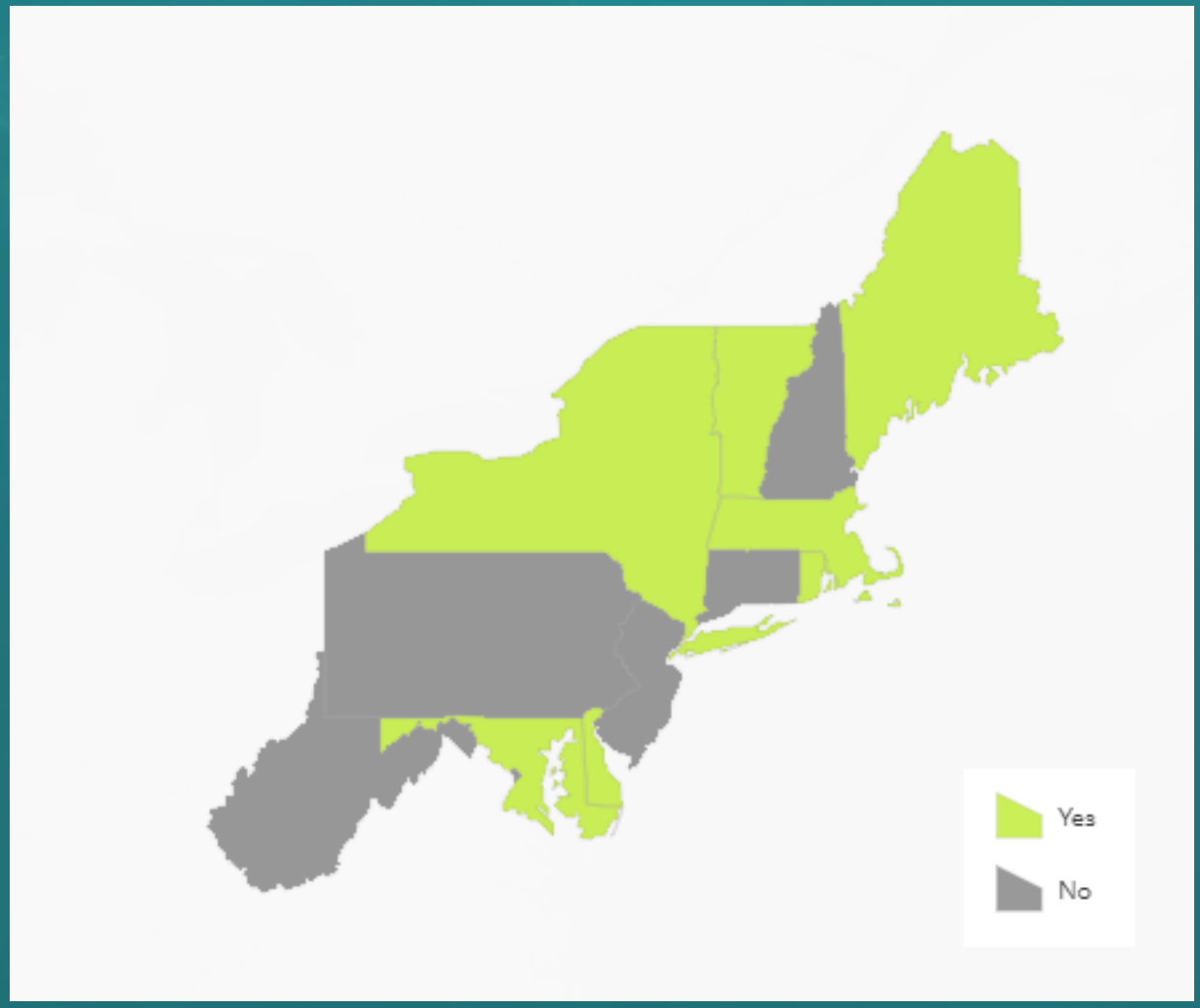
Stretch Codes

National Commercial Stretch Codes



Stretch Codes

Regional Building Energy Codes



Stretch Codes 101

Regional Building Energy Codes

Stretch Codes in New England and the Mid-Atlantic			
State	**Residential**	**Commercial**	**Notes**
MA	Base Code Overlays	Base Code Overlays	Stretch Code and Specialized Opt-In
ME	Percent Better than Base Code	Percent Better than Base Code	Percent better than 2021 IECC base code based on presence of mixed fuels or all-electric
NY	Base Overlay or Written by Jurisdiction	Base Code Overlay or Written by Jurisdiction	Current NYStretch 2020, anticipated NYStretch Energy Code Update 2026 - jurisdictions can develop their own stretch code
VT	Point-Based System	None	Points for: EV Charging, Solar Ready, Air Leakage, Building Envelope, Heating and Cooling, Water Use
RI	Department of Energy Zero Energy Ready Home Requirements	2015 International Green Construction Code (IgCC)	The IgCC is a different model code than the commonly-used IECC and ASHRAE base codes. It focuses on creating green and sustainable buildings.
MD	None	IgCC as applied by jurisdiction	2021 IgCC also applies to buildings owned/funded by MD
DE	Written by jurisdiction	Written by jurisdiction	DE SB 289 2023-2024

Incentives

Incentives

- Stretch codes may be incentive-based (MA, NY) to help states reach climate goals
  - ***MA**: Green Communities eligible for $125K base grants; MassSave incentives for high-performance new construction to builders*
  - ***NY**: Clean Energy Communities receive grant funds; Building Better Homes program supports construction of net zero emission homes to builders; NYSERDA Energy Star Labeled Homes to builders*
- NJ, including through the Clean Energy program and the NJEDA, already has incentives for high performance buildings, including measures that are consistent with some of the examples found in stretch codes. There is an opportunity to align these incentives with stretch codes.

Case Study

Massachusetts

2021 Climate Act

50% emission reduction by 2030

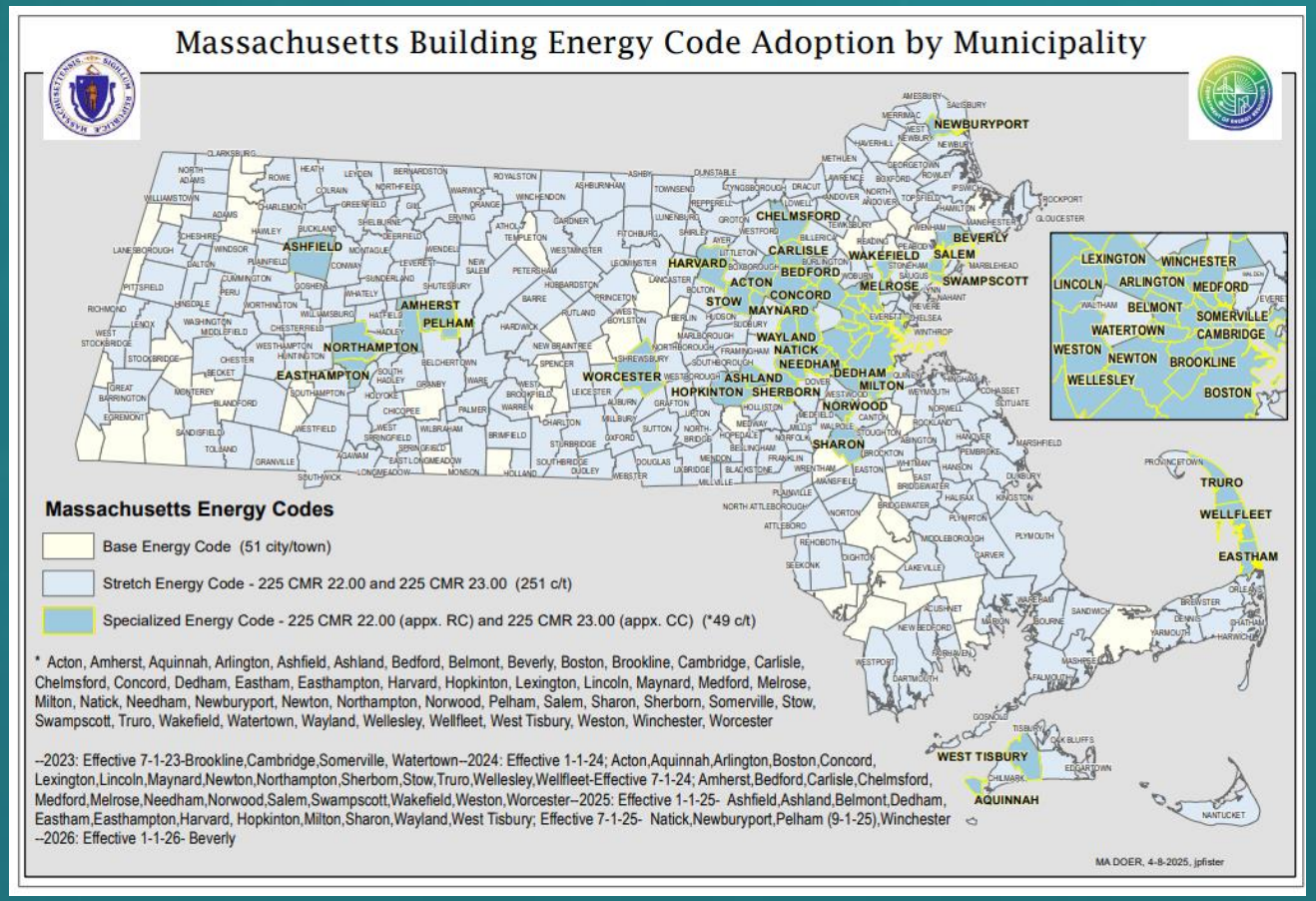
NEEP facilitates the MA Net-Zero Buildings Coalition

Source: MA DOER Technical Guidance, Massachusetts Stretch Energy Codes

- Current Base Energy Code = IECC 2021 with MA amendments
- Updated Stretch Code = IECC 2021 with MA amendments + Stretch Code amendments
- Specialized Code = IECC 2021 with MA amendments + Stretch Code amendments + Specialized Code appendices

Case Study

Massachusetts



Communities

Base	51
Stretch	251
Specialized	49

Source: MA DOER April 2025: https://www.mass.gov/doc/building-energy-code-adoption-by-municipality/download

Case Study

New York

Base Code

2020 Energy Conservation Construction Code of NY State (ECCCNYS)

- 2018 IECC, ASHRAE 90.1-2016

Stretch Code

NYStretch Energy Code 2020 - amends the ECCCNYS

Pursuant to Article 11, section 11-109 of the New York State Energy Law, and subject to the provisions and requirements of that section, any municipality has the power to promulgate a local energy conservation code that is more stringent than the 2020 ECCCNYS.

- Applies to new construction and major renovations
- Buildings that are built to NYStretch requirements save 10-12% in energy costs
- Payback period <10 yrs

Case Study

New York

Communities that have adopted NYStretch

– **43** communities

Communities that have adopted a modified version of NYStretch

– New York City

Communities that have adopted stretch codes other than NYStretch

– City and Town of Ithaca, requiring all new buildings meet net-zero energy requirements by 2026

Case Study

Maryland

International Green Construction Code (IgCC)

- Integrated energy conservation, water efficiency, site and material sustainability, land use, and indoor environmental quality.
- Measures that address better indoor environments, lower impact on natural resources, better neighborhood connections and improved walkability

In use as an overlay in the following communities for commercial construction

- Baltimore, 2021 IgCC
- Montgomery County, 2018 IgCC

  Comprehensive Building Decarbonization for both commercial and residential passed Nov 2022

  requires the County Executive to issue all-electric building standards for new construction by Dec. 31, 2026
- Gaithersburg, 2021 IgCC

Discussion

Next Steps

For more information

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