



MASSACHUSETTS
**DEPARTMENT OF
ENERGY RESOURCES**

Stretch & Specialized Codes

Why we have them, what they do, and what's new

March 18, 2026

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Why does Massachusetts have the Stretch & Specialized energy codes?

What are the Stretch & Specialized codes?

Recent updates and what's coming.....

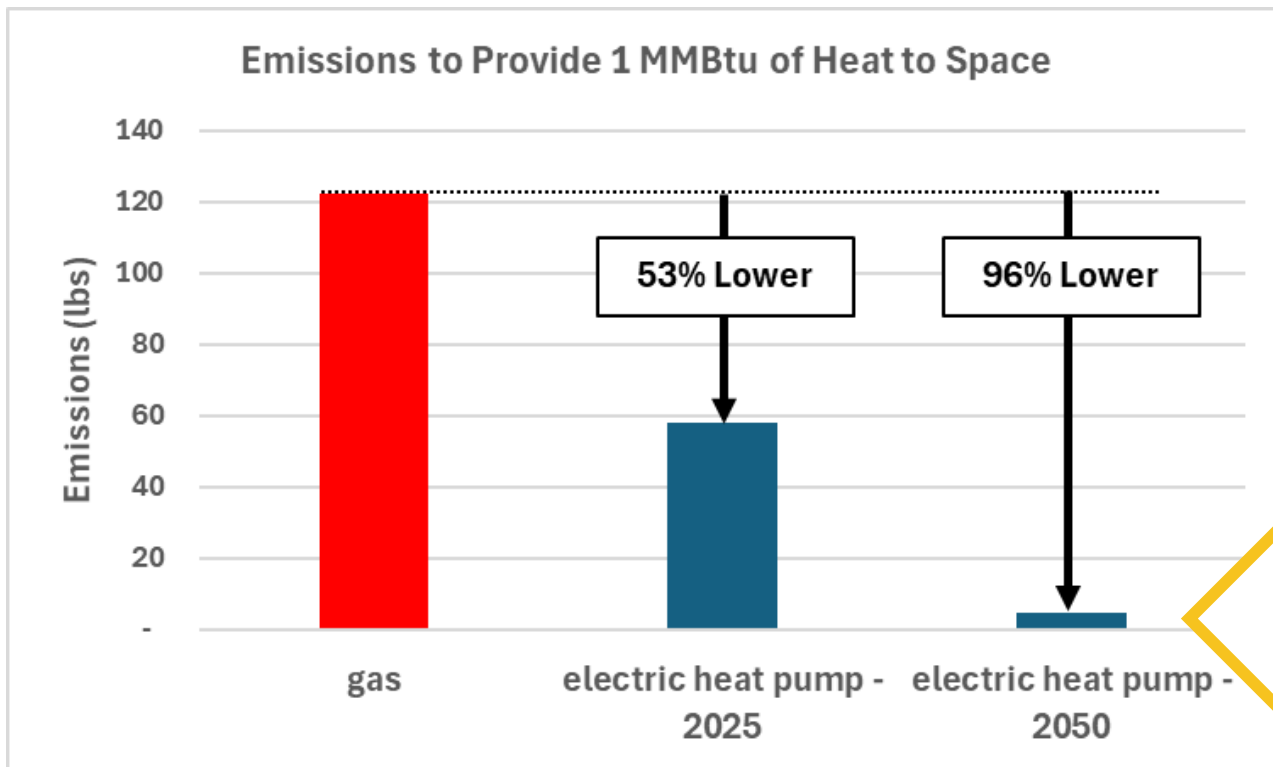


Why does Massachusetts have the Stretch & Specialized energy codes?



The Climate Act 2021 commits Massachusetts to achieving **Net Zero emissions** by **2050**

Space heating (and cooling) accounts for a big chunk of a building's energy use.



Based on 95% efficient natural gas boiler vs. 320% efficient ASHP, 2023 emission rate of 633 lbs/MWh, 2050 emission rate of 50 lbs/MWh



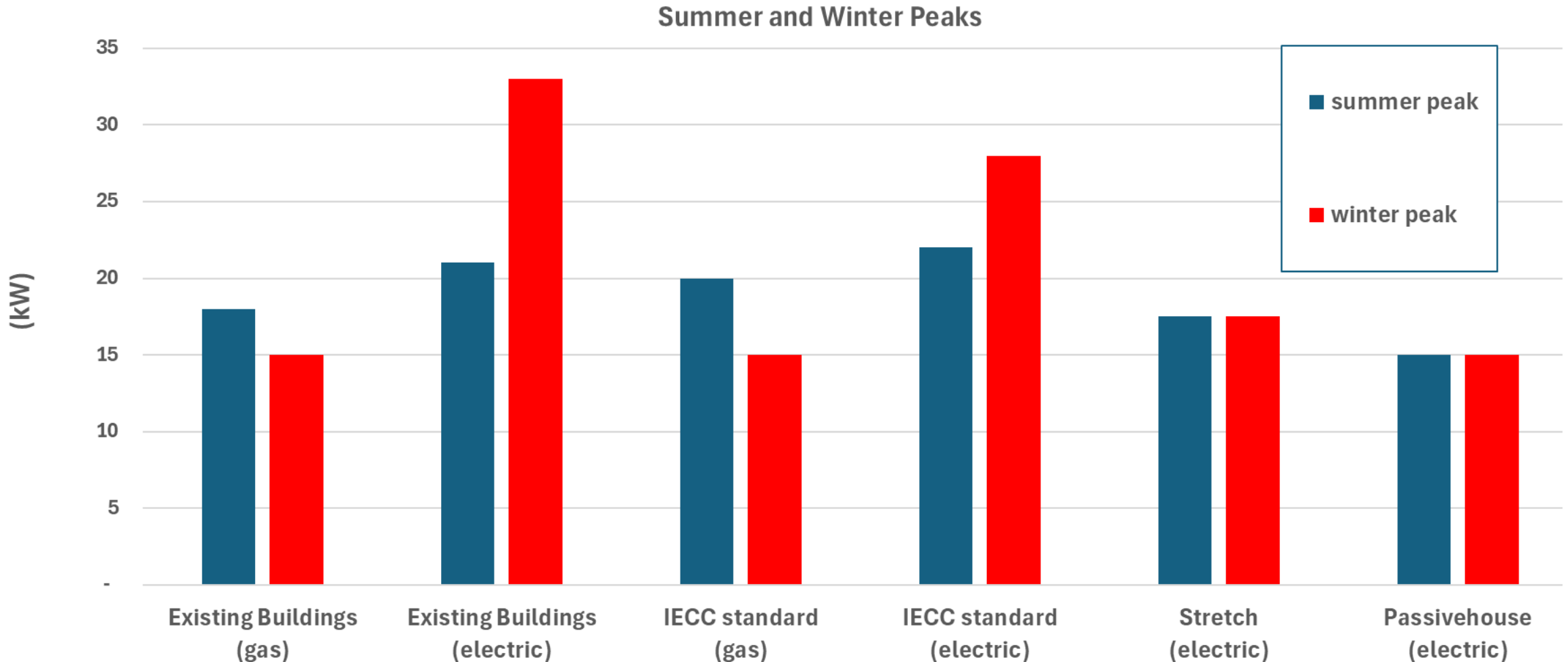
Electrify Everything is the plan.

If buildings can reduce the peak energy use, less energy is required from the grid. This means less grid infrastructure is required for new buildings, and the money can instead be spent on energy retrofits to existing buildings.

Renewables are a growing share of energy production. Gas is projected to drop its share of electric generation for the foreseeable future.

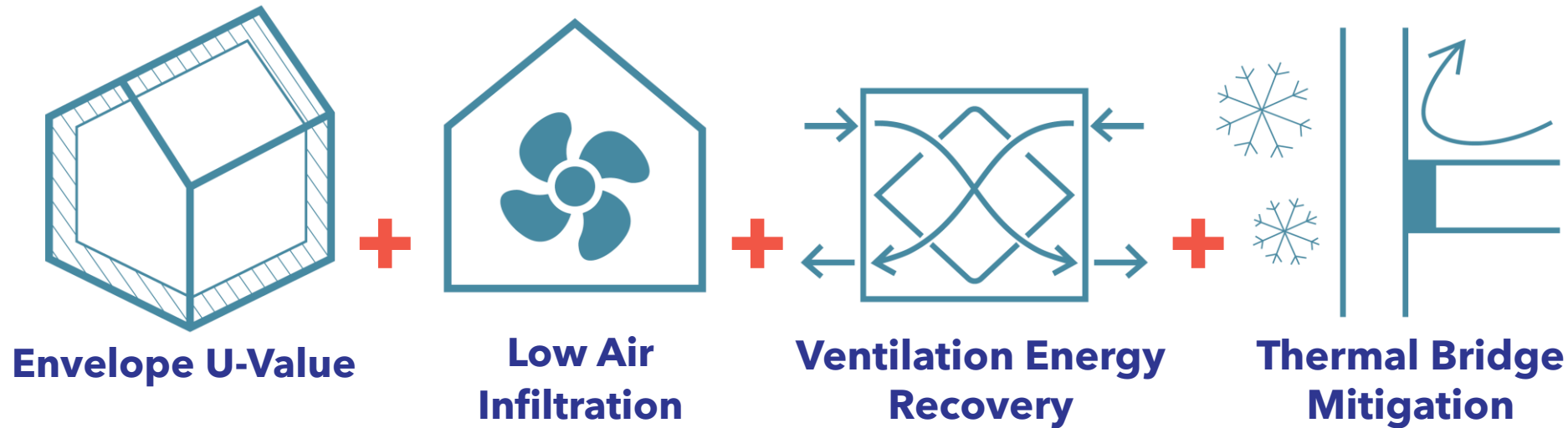
Energy Code Goals, continued:

Managing peak electric loads



Massachusetts **Thermal Code**

Four Pillars based on Passive House



= energy efficiency, comfort, resilience & grid-friendly electrification

Massachusetts **Thermal Code** **Four Pillars** based on Passive House



Comfort



**Simplified,
reduced HVAC**



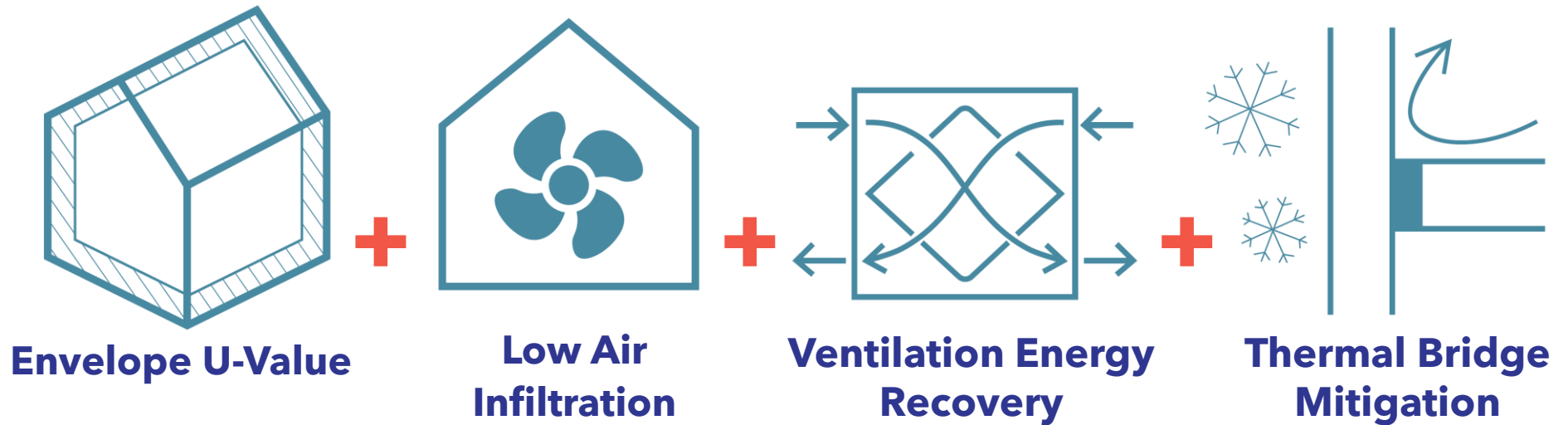
Resilience



**Grid-friendly
electrification**

**Cost effective :
+ Lower life cycle cost
for all building types**

Massachusetts **Thermal Code** vs. IECC/ASHRAE Model Code



IECC/ASHRAE

Unlimited tradeoffs

**Low air leakage
+ verify**

Low expectations

Weak (0 to 1)

**Massachusetts'
Thermal Code**

Backstop

**Low air leakage
+ verify**

High expectations

Strong (0 to 10)

What are the Stretch & Specialized codes?



3 tiers of Energy Codes available to MA towns &

Massachusetts "Opt-In" Energy Codes

Stretch Code

IECC 2021

w/ key MA amendments:

225 CMR Chapter 22 (residential)

225 CMR Chapter 23 (commercial)

Specialized Code

IECC 2021

w/ key MA amendments:

**225 CMR Chapter 22 +
Appendix RC** (residential)

**225 CMR Chapter 23 +
Appendix CC** (commercial)

Base Code

IECC 2021 (10th edition*)

w/ MA amendments:

8% population

50 municipalities

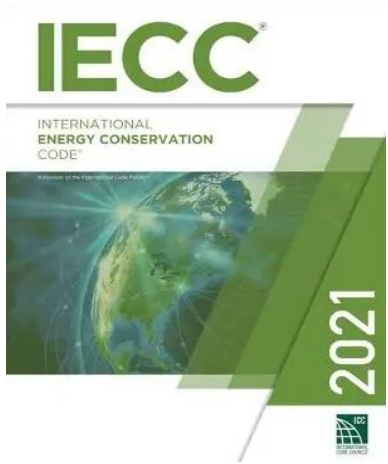
60% population
**New Construction,
Major Alterations &
Additions**

245 municipalities

32% population
New Construction Only
Reference Stretch Code for
existing buildings

56 municipalities

Creating each level of code...



+ Massachusetts Amendments

Modest changes

Base Code

Adds "thermal" performance

Stretch Code

IECC 2021 w/
4 thermal pillars

Adds "thermal" performance & **electrification**

Specialized Code

IECC 2021 w/ **4 thermal pillars**
+ **Passive House** (multifamily > 12,000 sf)
+ **All-electric** or **Electric-ready** + **Solar**

Mass Save **Passive House** Incentive Program



Leyland Community
Dorchester MA
Davis Square Architects



Glen Brook Way
Medway MA
Meander Studio Collaborative



McElwain Apartments
Bridgewater MA
Prellwitz Chilinski Associates



11 E. Lenox Street
Boston MA
Haycon Construction



Walnut Street Building 2
Foxborough MA



1005 Broadway
Chelsea MA
Utile, Inc



The Loop at Mattapan Station
Boston MA
The Architectural Team



Hillside Center for Sustainability
Newburyport MA
Hall & Moskow

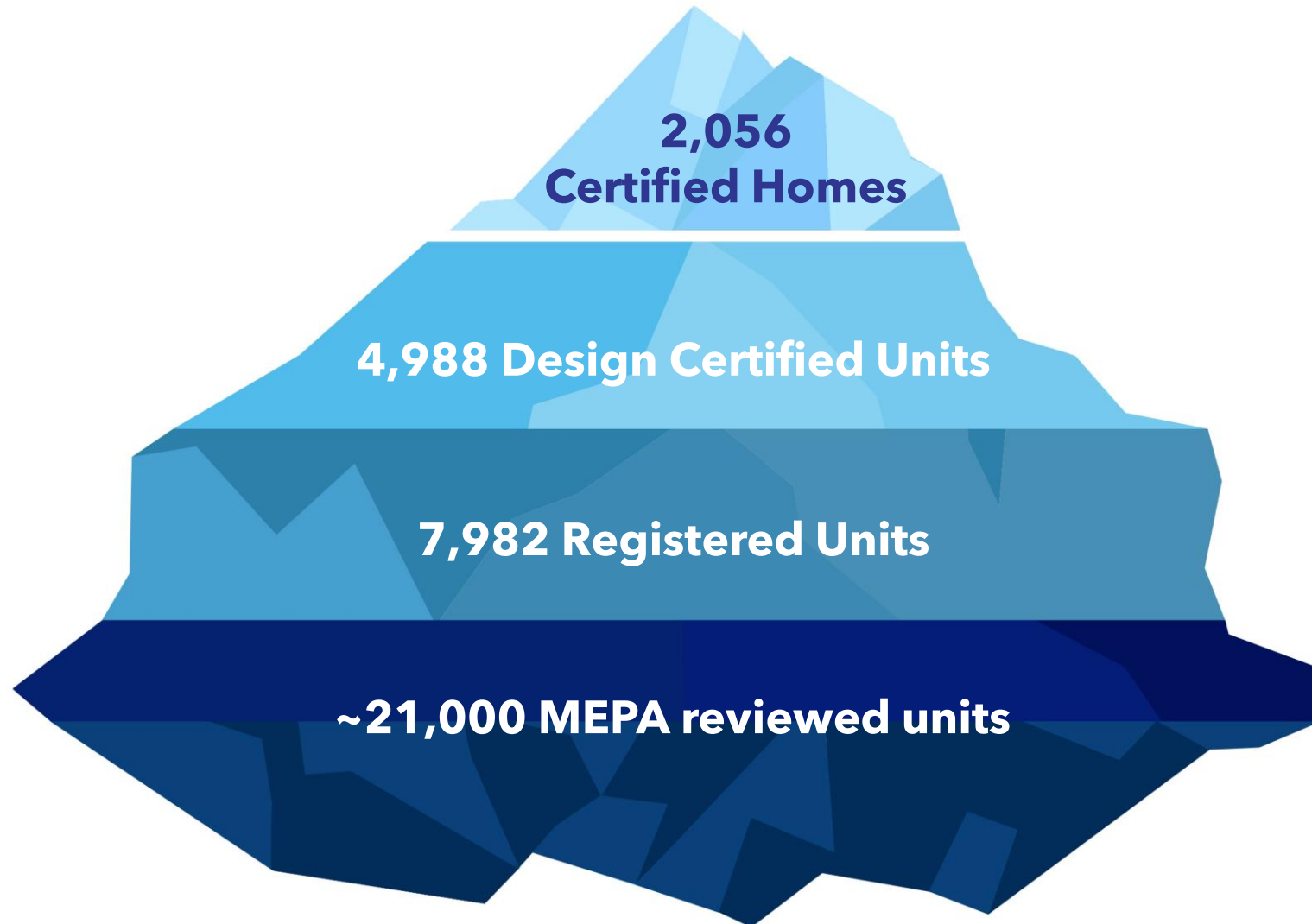


JJ Carroll Redevelopment
Boston MA
MASS Design Group

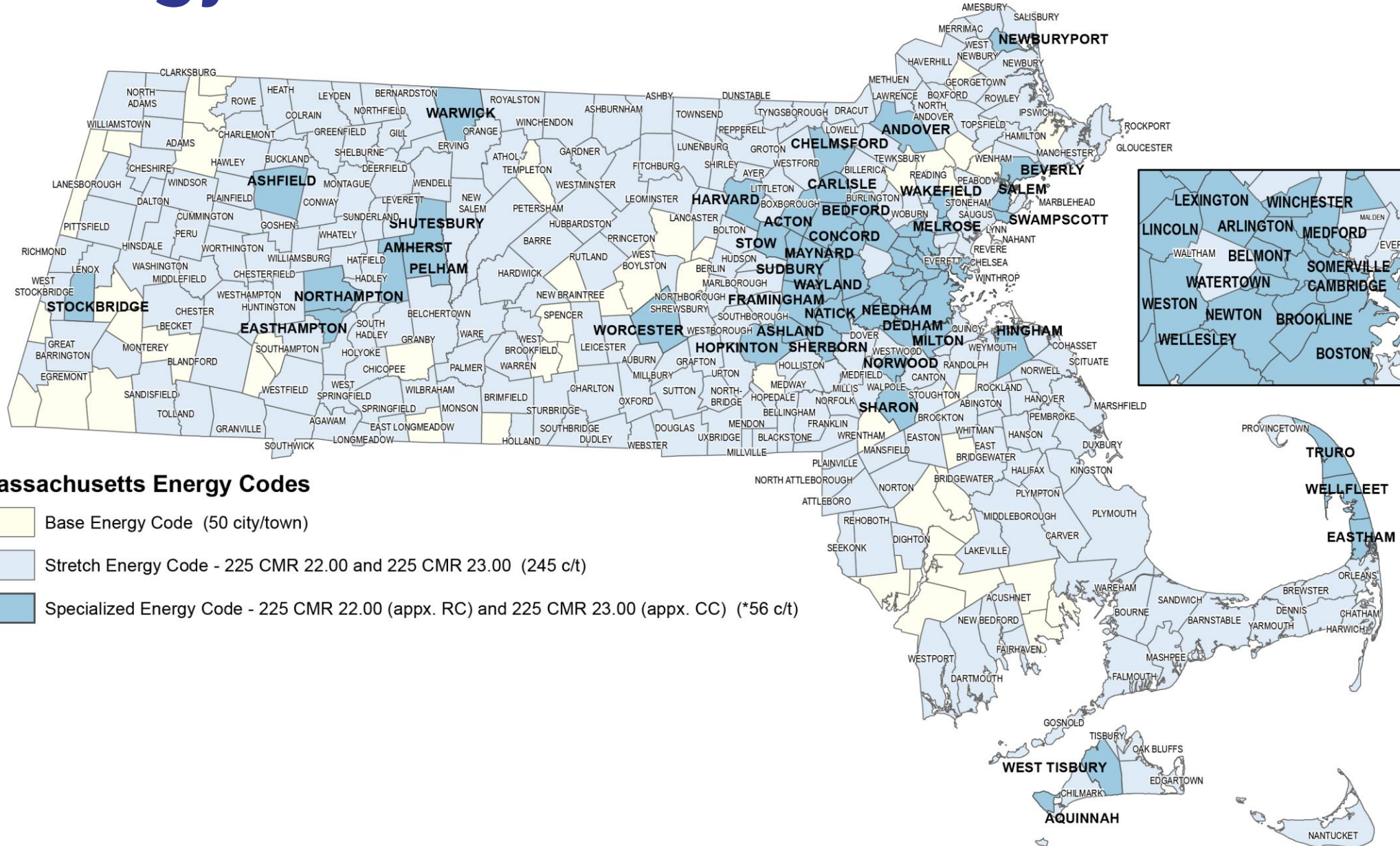
to date **>16,000** housing units
have pursued **PH** through **Mass Save**

The Passive House iceberg:

Over 35,000 new dwelling units in the works.....



Energy Codes in MA:

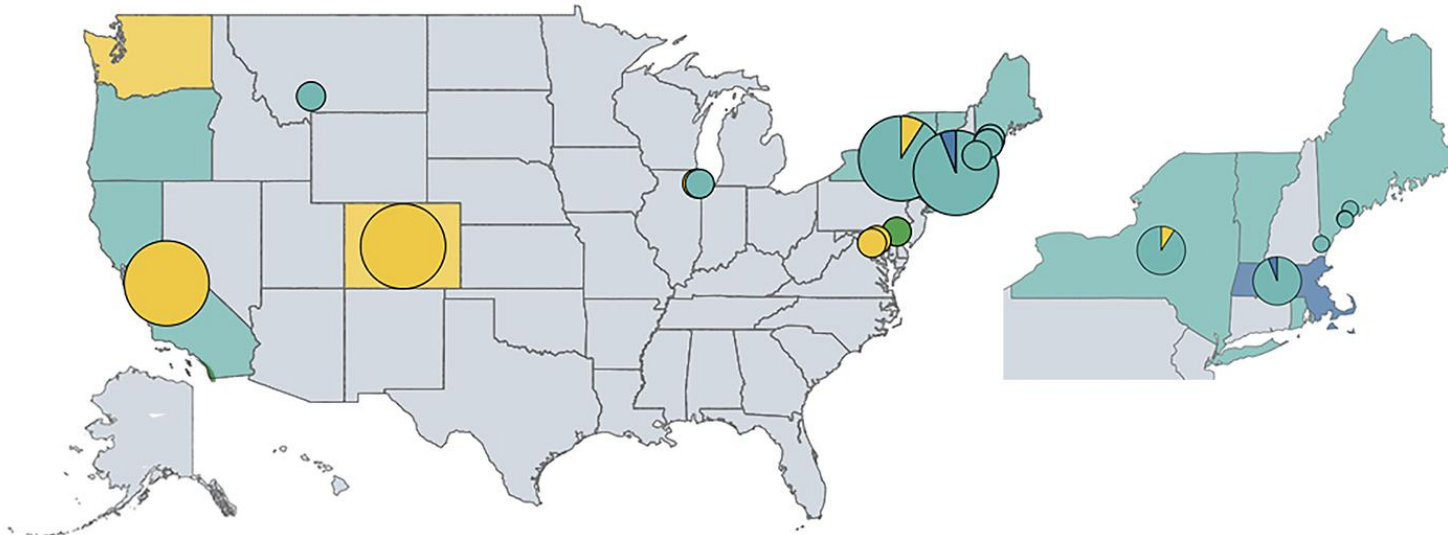


What about Fossil Fuel Free?

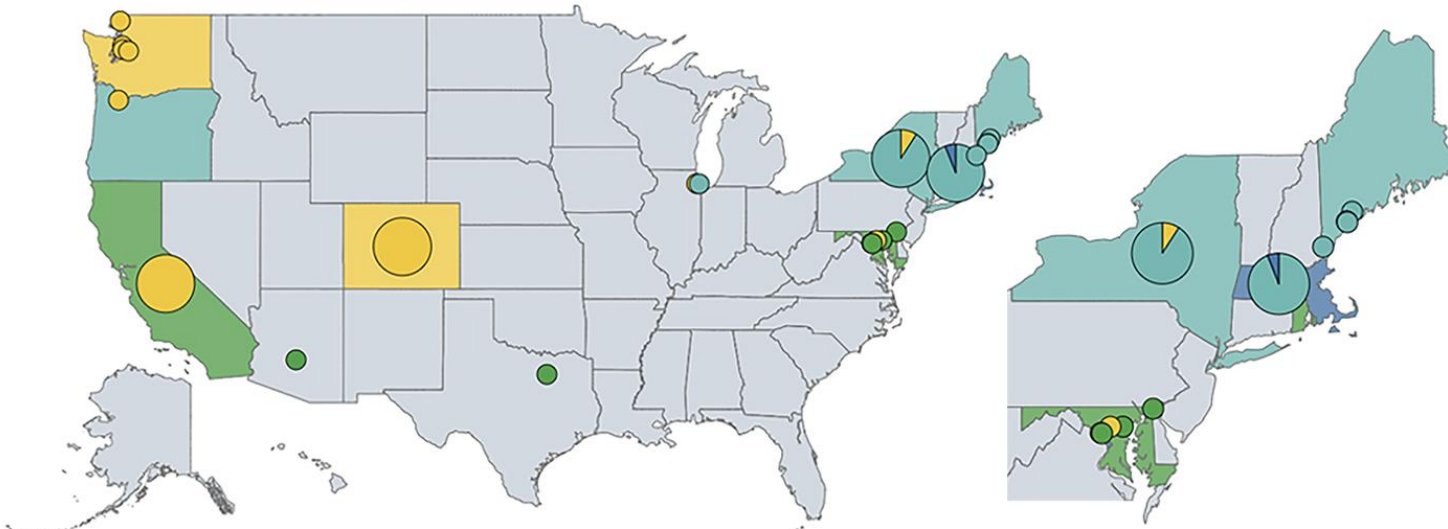
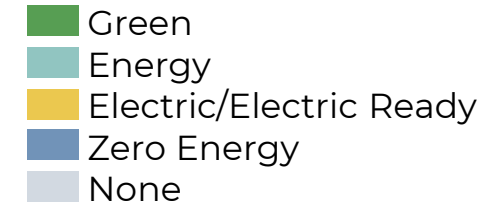
The Massachusetts Municipal Fossil Fuel-Free Building Demonstration Project :
10 towns adopted by-laws that require new construction or major renovation
to be fossil fuel-free (no oil, propane, gas). MUST already be Specialized Code.

Acton
Aquinnah
Arlington
Brookline
Cambridge
Concord
Lexington
Lincoln
Newton
Northampton

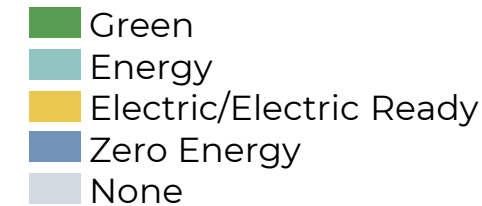
Massachusetts isn't alone..... ...but we are well-ahead of the nation



Type of Residential Stretch Code



Type of Commercial Stretch Code



Stretch Code:

Thermal Code + “peak load” added to model code

- Require envelope calculations to account for thermal bridges - not ignore them
- Require ventilation to be balanced and include heat and energy recovery
- Require air leakage testing - and at rates lower than the model codes

+

- Give designers and builders design flexibility to reach the desired outcomes with Performance Based Codes (Same concept as Performance Based Ratemaking)

=

TEDI – Thermal Energy Demand Intensity (pioneered in Canada)

Passive House - (pioneered in Germany, Austria, Switzerland, Scandinavia)

HERS ratings - (pioneered in Alaska)

Recent updates and what's coming.....



Stretch & Specialized:

Significant refinements since 2023:

- **Residential additions/alterations/ADUs**
 - HERS ratings modified from HERS 52-58 to HERS 52-75
 - Significant engagement with Building Officials, HERS raters, project designers
- **District Energy Systems**
 - Pathway for investment in central plant conversion to all-electric
 - DOER order of conditions, allows buildings to qualify as mixed fuel without pre-wiring
- **TEDI modeled buildings**
 - New consultant support for TEDI modeling
 - Modifying small building TEDI heating limits, based on project review and feedback
- **Air leakage testing in renovations**
 - SETAC guidance on revised language

Coming Soon:

Public Comments on the Stretch & Specialized:

Key topics include:

- District Energy Systems
- HERS ratings for ADUs – existing vs new buildings
- Air leakage in renovations
- Modified TEDI limit for small buildings

Upcoming Trainings:



Go here to find more info on more trainings:

www.masssave.com/en/trade-partners/events-and-trainings-calendar?page=1

email anytime for help:

stretchcode@mass.gov

becca.edson@mass.gov

or

psdtraininghelpma@psdconsulting.com