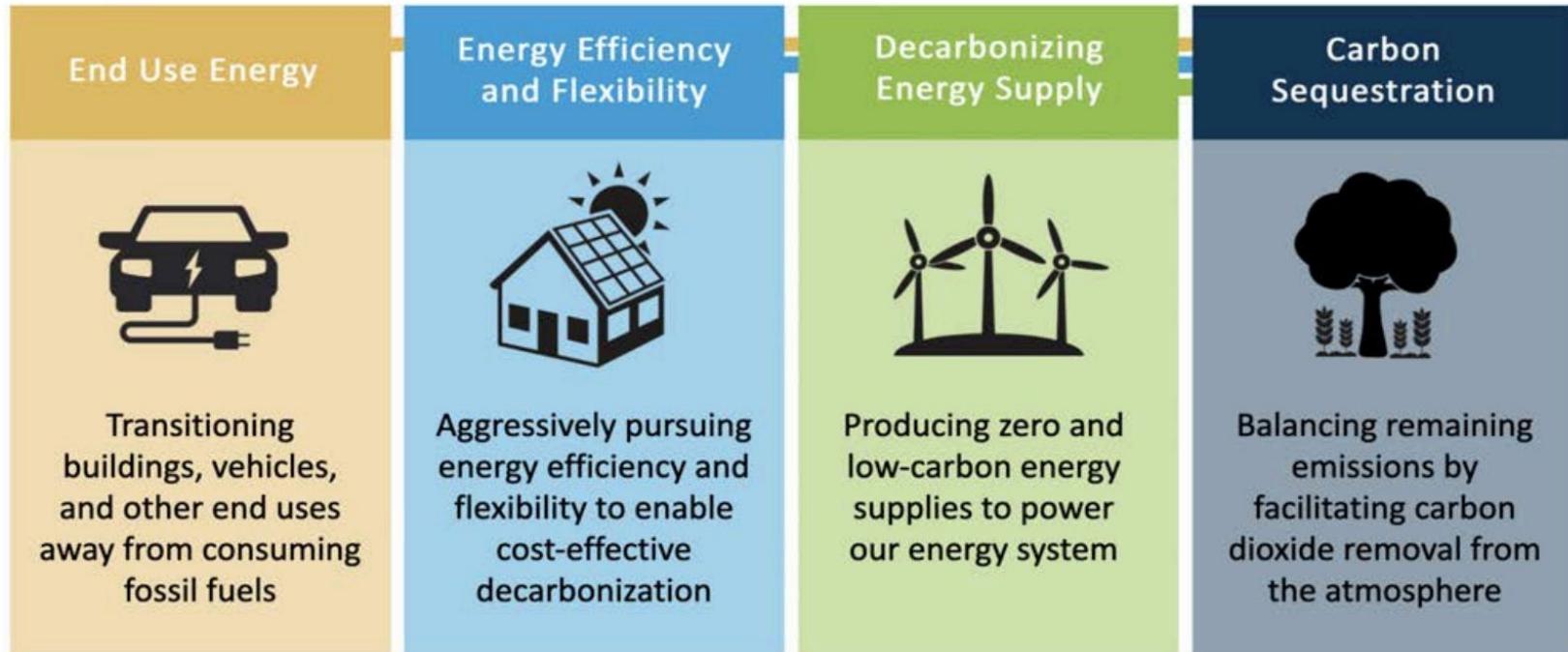


Specialized Opt-in Code

Overview for Warrant Committee, 2/26/2024

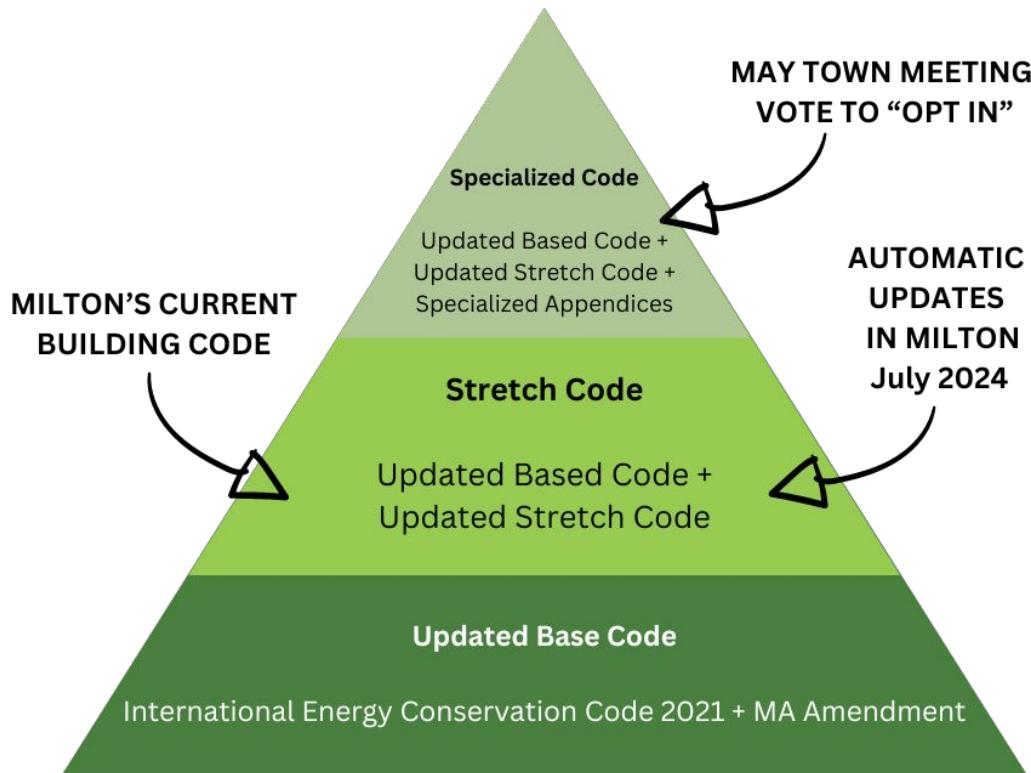
Massachusetts' net-zero strategy

The [2021 Climate Act](#) commits Massachusetts to net-zero emissions by 2050



Source: Massachusetts 2050 decarbonization roadmap
<https://www.mass.gov/doc/ma-decarbonization-roadmap-lower-resolution/download>

MA communities choose from three standard building codes



Incremental requirements of specialized code

- 1. Pre-wiring:** new buildings using fossil fuels must pre-wire for future electrification, including EV charging
- 2. Solar:** new buildings using fossil fuels must install a certain amount of onsite solar
- 3. Exemplary Performance for Large Homes:** New single-family homes greater than 4,000 square feet must be all-electric or certified zero Energy (solar to offset energy usage)
- 4. Exemplary Performance for Large Multi-family:** New multi-family homes greater than 12,000 square feet must use Passive House compliance pathways (highly efficient by design).

Key Points

- **Do not** affect additions or renovations of existing homes,
- Removes obstacles to future, necessary electrification
- Construction costs offset by lower energy costs.

What does “pre-wiring” mean?

Adequate electrical service to the building, designated circuits, and appropriate outlets for:

- **Heating:** cold weather rated air source or ground source heat pump for both heating and cooling
- **Hot Water**
- **Cooking:** induction stovetop and electric oven
- **Clothes Drying**
- **Electric Vehicle Charging** (already included in stretch code)

Electric appliances are complemented with onsite solar electricity generation to further lower emissions and saves money for the homeowner.

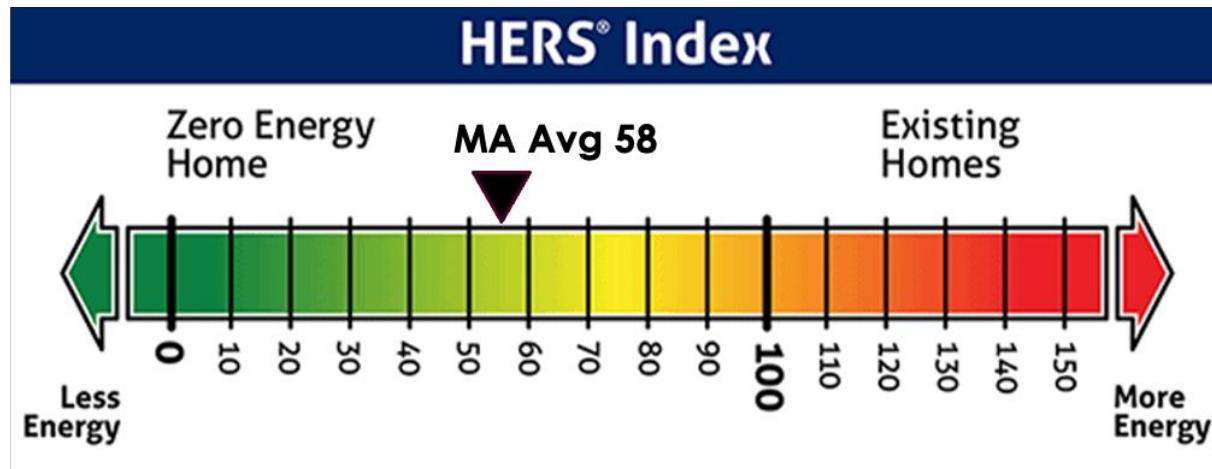
Compliance Pathways Details

New with Specialized Code

Building Size	Fuel Type	Minimum Efficiency		Electrification	Onsite Solar
		Stretch Code	Specialized Code		
Home under 4000 sq ft 	All Electric 	HERS 45 or Passive House pathways	Same	N/A	Optional
Home under 4000 sq ft 	Mixed Fuel 	HERS 42 or Passive House	Same	Pre-wiring 	Required  (except shaded sites)
Home more than 4000 sq ft 	All Electric 	HERS 45 or Passive House	Same	N/A	Optional
Home more than 4000 sq ft 	Mixed Fuel 	HERS 42 or Passive House	HERS 0 or Phius ZERO	Pre-wiring 	Required  (except shaded sites)
Multi-family >12k sq ft 	All Electric 	HERS 45 or Passive House	Passive House	N/A	Optional
Multi-family >12k sq ft 	Mixed Fuel 	HERS 42 or Passive House	Passive House	Pre-wiring 	Optional
Commercial 	All Electric 	Per Stretch Code	Same	N/A	Optional
Commercial 	Mixed Fuel 	Per Stretch Code	HERS 0 or Phius ZERO optional	Pre-wiring 	Required  (except shaded sites)

The HERS Index Rates a Building's Energy Efficiency

Nationally-recognized standard to measure a home's energy efficiency using variables like walls, insulation, ceiling/roof/window/doors, and HVAC systems. Based on an audit conducted by a certified HERS rater.



HERS 0: The home produces as much energy as it consumes

HERS 100: The energy efficiency of a typical home in 2006.

Specialized Energy Code: Key Points

- New requirements are for **new construction only**
- Encourages all-electric buildings: cost-competitive, healthier, and necessary to address climate change
- Preserves choice for present and future energy needs
- Avoids future costly retrofits for mixed-fuel buildings

Specialized Opt-in Code Resources

- [DOER Summary of Stretch and Specialized code](#)
- [Wentworth MIT Center for Real Estate Study](#)
- Code Documents:
 - Residential construction code - [225 CMR 22.00](#)
 - Commercial, multi-family, and other code - [225 CMR 23.00](#)