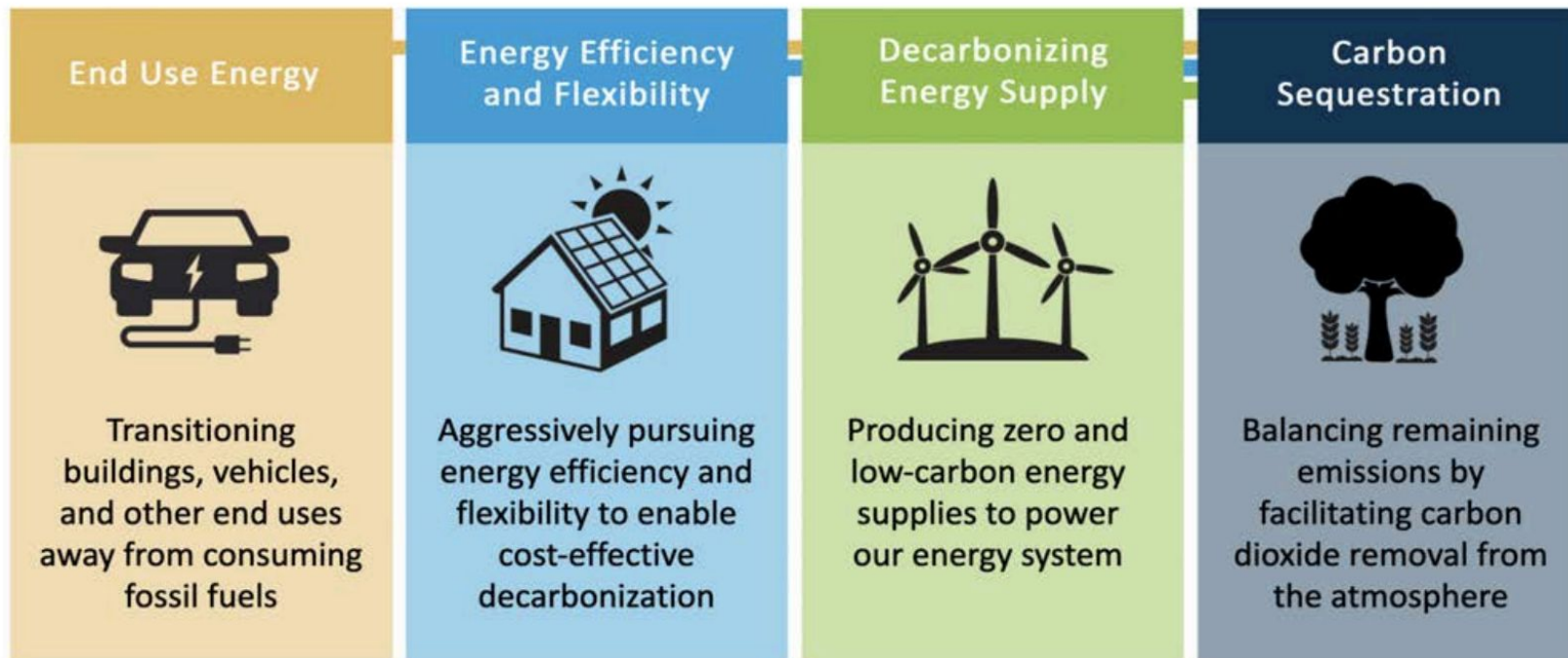


# Specialized Opt-in Code

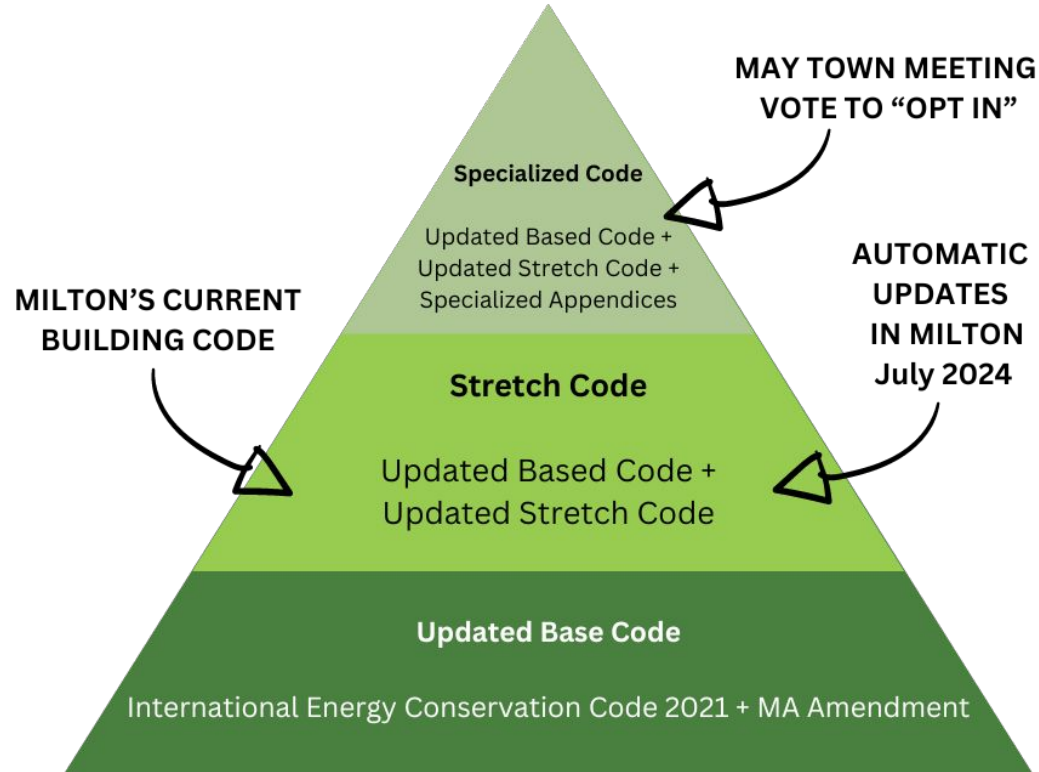
Overview for Warrant Committee, 2/26/2024

# Massachusetts' net-zero strategy

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



# 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.

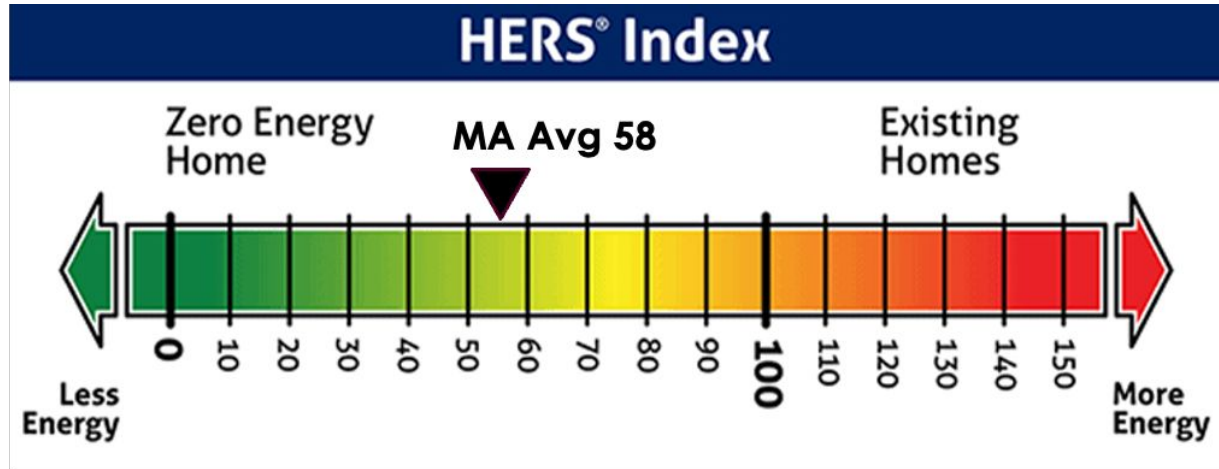
# Compliance Pathways Details

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](#)