

# Specialized Opt-in Code

January Milton CAPC Meeting

# Massachusetts' net-zero strategy

A range of solutions led by clean electricity

## End Use Energy



Transitioning buildings, vehicles, and other end uses away from consuming fossil fuels

## Energy Efficiency and Flexibility



Aggressively pursuing energy efficiency and flexibility to enable cost-effective decarbonization

## Decarbonizing Energy Supply



Producing zero and low-carbon energy supplies to power our energy system

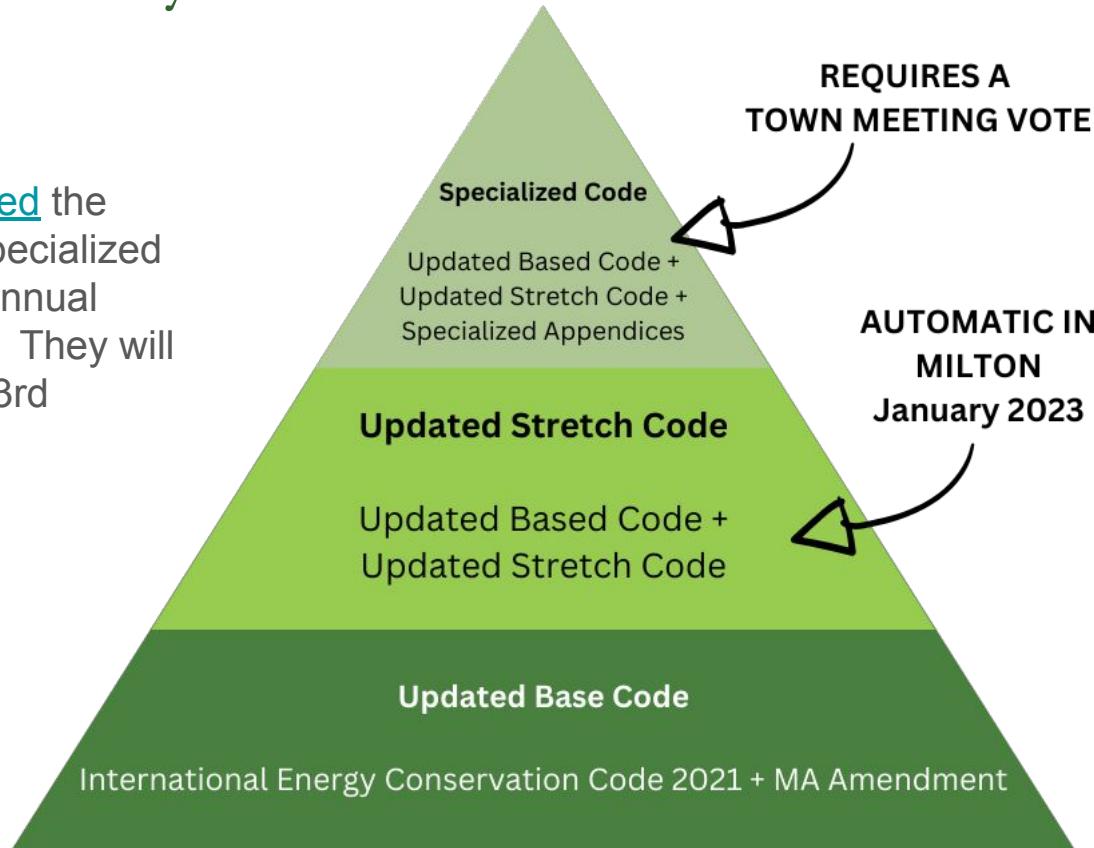
## Carbon Sequestration



Balancing remaining emissions by facilitating carbon dioxide removal from the atmosphere

# MA communities may choose from three model codes

Sustainable Milton [asked](#) the Select Board to add Specialized Code adoption to the annual Town Meeting warrant. They will vote at their January 23rd meeting.



# 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

- Incremental requirements **do not** affect additions and renovations of existing homes, but specialized code includes stretch code provisions that apply to renovations of existing buildings. These are already in force in Milton.
- Goal is removing obstacles to future, necessary electrification
- Construction cost impacts smaller than base vs stretch, and will be offset by lower energy costs.

# What does “pre-wiring” mean?

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

- **HVAC:** cold weather rated air source or ground source heat pump for both heating and cooling
- **Water Heating**
- **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 	All Electric 	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)

## Wentworth/MIT impact study

[Available here](#)

- Acknowledges importance of climate goals and tension with affordable housing goals
- Energy efficient code does increase construction costs\*, but land-use restrictions are primary drivers of affordability.
- Recommends coordinated zoning reform, financial incentives, and workforce training to mitigate affordability impacts

\*but typically decrease ongoing energy costs

# Municipal Opt-in Stretch Code Resources

- [ZeroCarbonMA summary](#)
- [Boston Society for Architecture: Stretch Code training](#)
- [Hopkinton Special Town meeting presentation](#)
- [Wentworth MIT Center for Real Estate Study](#)
- [Stretch code piece from the Sustainable Milton newsletter](#)