



Annual Town Meeting

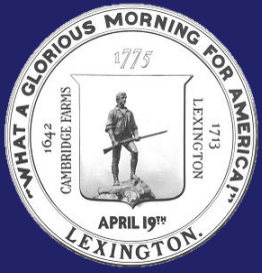
2023

Article 26: Municipal Opt-In Specialized Stretch Energy Code



Article 26

To see if the Town will vote to replace the existing Chapter 115 of the Code of the Town of Lexington entitled “Stretch Energy Code” with the **“Specialized Energy Code”** for the purpose of **regulating the design and construction of buildings for the effective use of energy and reduction of greenhouse gas emissions**, pursuant to the entirety of 225 CMR 22 and 23 including Appendices RC and CC, including future editions, amendments or modifications, a copy of which is on file with the Town Clerk; or take any other action in relation thereto.



Why is this important?

Lexington's emissions:



4%

SOLID WASTE



24%

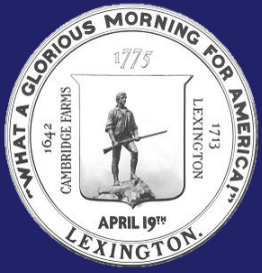
TRANSPORTATION



72%

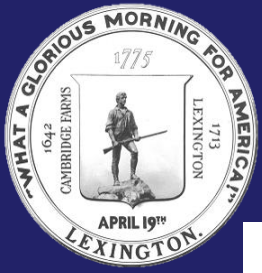
BUILDINGS

Fossil fuel buildings have no path to zero emissions



Evolving MA Stretch Codes

- 2009 – Stretch Code created
- 2010 – Lexington adopted first Stretch Code
- 2021 – Climate Act called for an Opt-in Net Zero Stretch Code
- 2022 – DOER issued final Opt-in Specialized Code, along with updated Stretch Code
- Jan 2023 – Updated Stretch Code went into effect in Lexington
- **ATM 2023 – Lexington considers adopting Specialized Code**



Three Available Code Pathways



Base Code (IECC 2021)

- New construction in towns & cities not a green community
- **52 communities**

Expected from BBRs:
July 2023

Stretch Code (2023 update)

- New construction in towns & cities that are a green or stretch community
- **299 communities**

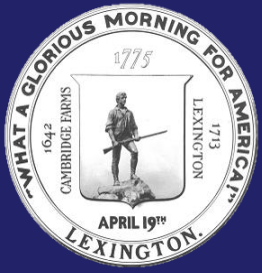
Residential : Jan 2023
Commercial: July 2023

**Automatic for
Lexington**

Specialized Code ("Net-Zero")

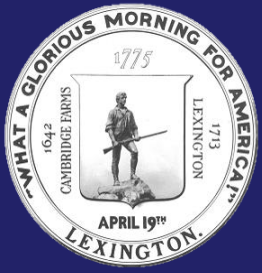
- New Construction in towns & cities that vote to opt-in to this code
- **Effective date:**
Typically 6-11 months after
Town/City vote

**Town Meeting
Vote**



Introduction to the Specialized Code

- Builds on efficiency and clean energy improvements in updated Stretch Code
 - Ensures new construction is **consistent with net-zero goals** for 2050 through deep energy efficiency, reduced heating loads, and efficient electrification
 - Applies only to **new construction**, not renovations
 - Includes both commercial and residential guidelines
 - **Adoption is a requirement for participating in the 10 community fossil fuel free demonstration program (Clean Heat)**
-



Specialized Code: Residential

- Builds on Stretch Code with 3 paths:
 - All-Electric: No additional requirements
 - Mixed Fuel: Must be pre-wired for future electrification
 - if HERS Path: Solar energy system required (≥ 4 kW for single family or ≥ 0.75 W/sf for multi-family, except shaded sites)
 - Zero Energy: HERS 0 or Pplus ZERO (Passive House ZERO)
 - Dwellings over 4,000 sf must use All-Electric or Zero Energy paths
 - Additions & alterations/renovations – same as stretch code
-



Specialized Code: Commercial

- All requirements of Stretch Code must be met
- Multi-family buildings >12,000 sf must follow Passive House compliance pathway
 - If mixed-fuel: must also be pre-wired for future electrification
 - Note: Passive House used more and more by affordable housing developments
 - Lowers total life cycle costs
 - Healthier, more comfortable, more resilient....more equitable
 - Additional costs range 0-3% compared to previous stretch code requirements (before incentives)

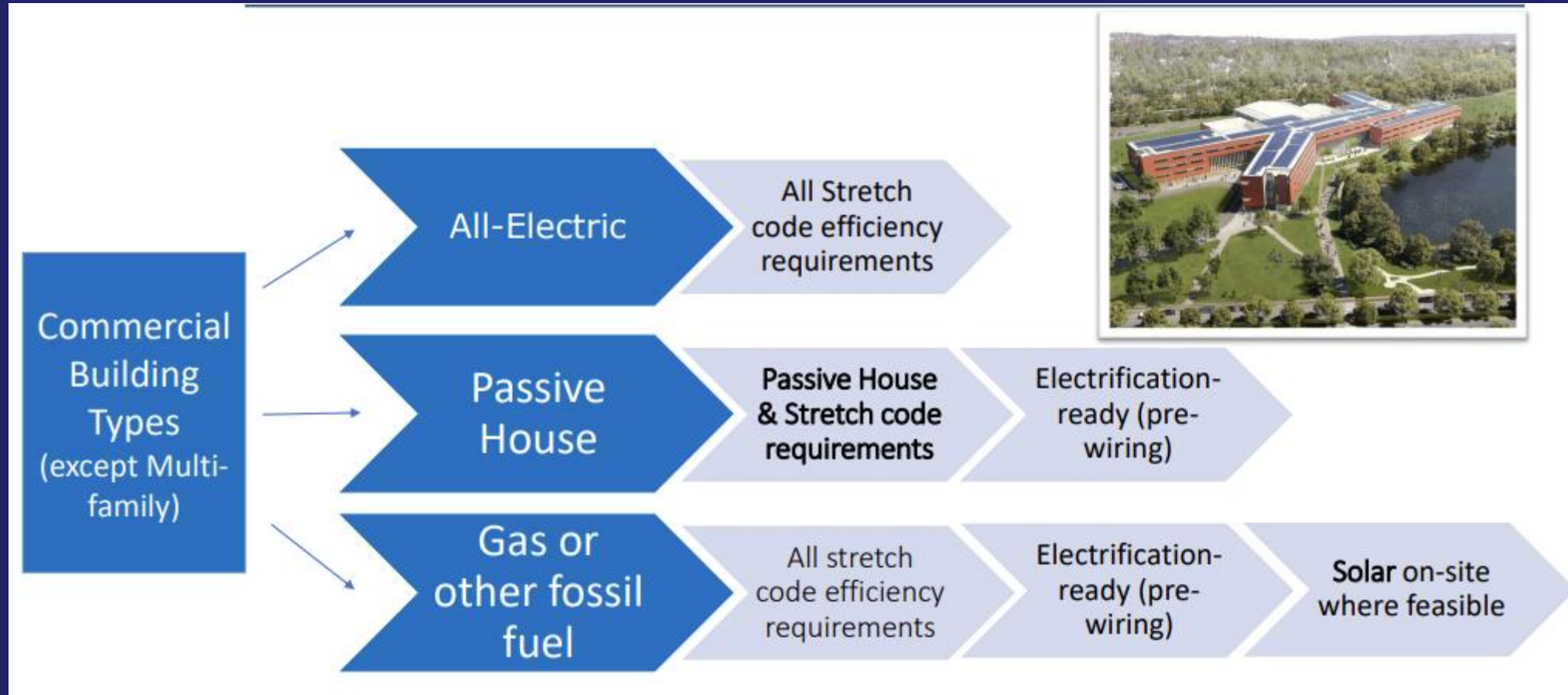


Sources:
passivehouseema.org
masscec.com



Specialized Code: Commercial

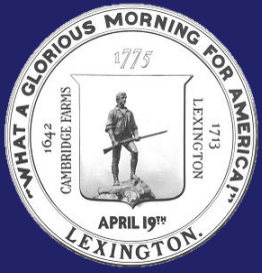
Buildings other than multi-family buildings have a choice of three compliance pathways:





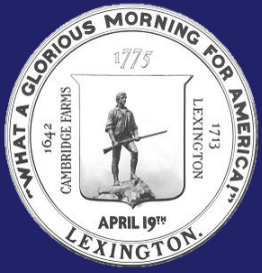
Effective Date

- DOER recommends that the requirements of the Specialized Code take effect beginning on the January 1 or July 1 that is at least six months after the Town Meeting Vote
- Proposed effective date in Lexington: **January 1, 2024**



In our Goals and Plans

- Part of Lexington's *Getting to Net Zero Emissions Roadmap*, adopted by Select Board in 2018
- Adopt Specialized Code - an "Immediate Action" in Housing Goals Chapter of Lexington NEXT Comprehensive Plan adopted by Planning Board in September 2022
- Building and Planning Departments have been consulted and are prepared to enforce it



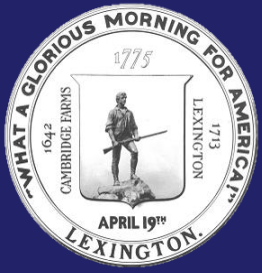
Many thanks to the collaborative network of Massachusetts Sustainability Directors and climate action organizations for their contributions to these slides.

Special thanks to the Town of Wellesley and the City of Newton.



Appendix: Overview of Updated Stretch Code

- Residential (automatically in effect Jan 1, 2023):
 - All dwellings: One parking space pre-wired for fast EV charging
 - All-Electric dwellings: HERS 45 or Passive House
 - Mixed Fuel dwellings: HERS 42 or Passive House
 - All dwellings that follow HERS: Heat/energy recovery ventilation
 - Commercial (automatically in effect July 1, 2023):
 - Multiple paths for compliance with improved efficiency requirements
 - 20% of parking spaces for large multifamily and office/labs pre-wired for fast EV charging (10% for other uses)
 - Labs/Hospitals: at least 25% of heat load must be satisfied with efficient heat pumps
 - Buildings with curtainwalls must be all-electric
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Residential Stretch and Specialized Code Additions

Dwelling Size	On-site fuel type	Stretch Code Efficiency	Specialized Code Efficiency	Specialized Additions: Electrification	Specialized Additions: Renewable Energy Generation
≤4,000 sf	All-electric	HERS 45 and ERV or Passive House	same as Stretch	nothing required	nothing required
≤4,000 sf	Mixed-fuel	HERS 42 and ERV or Passive House	same as Stretch	pre-wiring for electric appliances/systems (including sufficient service & space)	Solar system installed, ≥4 kW for single family or ≥0.75 W/sf for small multi-family (except shaded sites and Passive House buildings)
>4,000 sf	All-electric	HERS 45 and ERV or Passive House	same as Stretch	nothing required	nothing required
>4,000 sf	Mixed-fuel	HERS 42 and ERV or Passive House	HERS 0 and ERV or Phius ZERO	pre-wiring for electric appliances/systems (including sufficient service & space)	nothing required (renewable energy required to meet HERS 0 or Phius ZERO)

*Stretch: All dwellings at least one parking space pre-wired for fast EV charging