

---

---

**ADVISORY COMMITTEE'S RECOMMENDATION**

**Recommendation:** The Advisory Committee recommends FAVORABLE ACTION on Article 15 by a vote of 23 in favor, 1 opposed, with 1 abstention.

<b>Executive Summary:</b>	<p>Article 15 is being proposed by the Department of Planning and Community Development</p> <p>Article 15 would amend Article 5.9 Stretch Energy Code of the General Bylaws in two parts:</p> <ul style="list-style-type: none"><li>• Part 1 amends Article 5.9 so that it is consistent with Town Meeting's adoption of the Specialized Energy Code on January 10, 2023.</li><li>• Part 2 amends Article 5.9 to enable Brookline's participation in the Massachusetts Department of Energy Resources' (DOER) ten community Fossil Fuel Free (FFF) Building Construction and Renovation Demonstration Project.</li></ul>
<b>Voting Yes will...</b>	Allow Brookline to participate in the FFF Demonstration Project.
<b>Voting No will...</b>	Prevent Brookline from participating in the FFF Demonstration Project, with the likelihood that its place will be taken by another community.
<b>Financial impact</b>	There are reporting requirements that will need to be fulfilled by the Building Department. This added work is not expected to require additional staff or new systems or software.
<b>Legal implications</b>	<p>As originally submitted Article 15 utilized the preliminary text that had been circulated by DOER in December 2022 because this seemed most straightforward and safe from a legal perspective. However, that text presented real issues that have now been addressed in how the law would apply to renovation projects. Many of the other Demonstration Project Communities are similarly making changes to DOER's template, and DOER has indicated that it is comfortable with this approach.</p> <p>A recent decision handed down in the Federal 9<sup>th</sup> Circuit Court of Appeals raised questions as to the legality of fossil-fuel prohibitions. However, Massachusetts is not under the jurisdiction of the 9<sup>th</sup> Circuit, and if there were a challenge it would likely be defended by the Commonwealth rather than by Brookline.</p>

The Advisory Committee met first on 4/11/23. A recording of the meeting can be found here: [https://brooklinema.zoomgov.com/rec/share/Z9HSs3h\\_fkLoV16bPWcLp4cpAMfVJwwXqGVNhdxCXQqvNY69ZnbjhfLrbinhp4A.J3snWNG0jhALOUj7](https://brooklinema.zoomgov.com/rec/share/Z9HSs3h_fkLoV16bPWcLp4cpAMfVJwwXqGVNhdxCXQqvNY69ZnbjhfLrbinhp4A.J3snWNG0jhALOUj7)

The Advisory Committee met again on 5/9/23 to consider an amended version that addressed the renovation issues raised at the April 11 meeting. A recording of this meeting can be found here: [https://brooklinema.zoomgov.com/rec/play/f\\_sUBOCi5T6iA08z-0LJNfTvzWIaHthV4a03d5oATSPu7bk9AKxF57Zu2qVYwbSgIapDksR4AvFc4kDS.Rr9Q7yaE8D3R\\_pOV?continueMode=true](https://brooklinema.zoomgov.com/rec/play/f_sUBOCi5T6iA08z-0LJNfTvzWIaHthV4a03d5oATSPu7bk9AKxF57Zu2qVYwbSgIapDksR4AvFc4kDS.Rr9Q7yaE8D3R_pOV?continueMode=true)

### **Introduction**

Article 15 will amend General Bylaw 5.9 to prohibit the use of fossil fuels in all new construction (with exemptions outlined below) in Brookline. It will also prohibit the installation of any new Combustion Equipment in Major Renovation projects (but allow existing combustion Equipment to remain in service). Article 15 is very similar to the bylaw that was passed by Town Meeting in November, 2019 by a 211-3-6 vote but that was subsequently ruled unlawful by the Attorney General. Brookline's 2019 action arguably set in motion efforts by other communities and the State Legislature that have led to the creation of this ten-community Demonstration Project.

Brookline Town Meeting voted to "opt in" to the Stretch Energy Code in 2010, and then opted in to the Specialized Energy Code on January 10, 2023. Those codes, now promulgated by DOER as 225 CMR 22.00 (low-rise residential) and 225 CMR 23.00 (commercial including multi-family), are extensions of the "Base Energy Code" that set higher standards for performance and encourage the movement away from fossil fuel use. Both allow fossil fuel use in new construction and major renovation projects under either a "Zero Energy Pathway" or a "Mixed Fuel Pathway", with both of those pathways requiring a range of additional measures compared with the "All-Electric Pathway".

**Article 15 will add "Section 5.9.2 Fossil Fuel-Free Demonstration" to the General Bylaws, including 225 CMR 24.00. This further modifies the Specialized Energy Code requirements that were adopted in January, eliminating the Zero Energy and Mixed Fuel Pathways for new construction projects, with several exceptions including:**

- Research laboratories for scientific or medical research, hospitals and medical offices are exempted;
- Multifamily buildings over 12,000 square feet with permit application filed prior to January 1, 2027 may utilize gas or propane for domestic water heating as the only combustion equipment.

The original version of Article 15 treated Major Renovation projects identically to new construction. However, the amended version before Town Meeting only prohibits the installation of new Combustion Equipment in Major Renovations.

### **Applicability to Renovation Projects**

At the Advisory Committee's first meeting on April 11 Building Commissioner Dan Bennett explained that the energy code (including the Base Code as well as the Stretch and Specialized Codes) has one set of regulations for "low rise" residential buildings (single- and two-family

buildings, attached “row homes”, and also all multi-family building of three or fewer stories) and another for residential buildings four stories or taller. In the newest versions of the Stretch Code, “low-rise” is regulated by 225 CMR 22.00 and taller residential buildings are regulated under the “commercial” code 225 CMR 23.00. For residential renovation projects this has the particular effect of requiring compliance with the Stretch Code for any “dwelling unit” undergoing a Major Renovation if the building is three stories or less. For buildings four stories or taller compliance is only required if the entire building is undergoing a Major Renovation.

The imposition of this Stretch Code requirement on individual dwelling units in larger three-story multi-family buildings in Brookline may create issues of infeasibility and hardship for owners seeking to renovate individual dwellings, particularly in condominium buildings where the unit owner does not control the “building envelope” (the walls, roof, windows, etc.) or the HVAC system that would probably need to be upgraded to comply with Stretch Code. So while Town Meeting cannot amend the Stretch Code, Article 15 has been amended so that this issue is not added to by extending the “dwelling unit” trigger to electrification.

**Resolution of the “dwelling unit” issue:** The amended version of Article 15 removes the dwelling unit issue by providing a definition of Major Renovation within the bylaw and deleting the reference to the definition in the Stretch Code. This is a significant simplification, because the trigger would be the same for all buildings, based on the single definition of Major Renovation. Under this definition the “Work Area” of a project would need to exceed 50% of the “Building Area” for the new requirements to apply. A definition of Work Area is also added.

**Reduction of the electrification requirement for Major Renovations:** The amended version of Article 15 reduces the compliance requirement for all Major Renovation projects to a prohibition of the installation of any new combustion equipment. As originally submitted, the article had included the following language: *“Zero Energy Pathway” and “Mixed Fuel Pathway” shall not be permitted for use for new construction or major renovations.* This meant that a Major Renovation would need to be all electric. The amended language reads *“Zero Energy Pathway” and “Mixed Fuel Pathway” shall not be permitted for use for new construction, and Major Renovations shall not install any new Combustion Equipment.* As revised, a Major Renovation project would not be allowed to replace a gas stove, gas/oil boiler or gas-fired hot water heater, but it could leave existing combustion equipment in service.

**Addition of a waiver process:** Thirdly, a waiver process has been added to the article, a provision that was also included in all previous FFF warrant articles. Several examples of these were reviewed by Building Commissioner Bennett (who will be the waiver authority), and the process included in Lexington’s recently passed fossil fuel free bylaw was the one he favored and the one that has been added to Article 15.

### **Meeting the legislation’s “housing eligibility threshold”**

The housing eligibility threshold can be met in any one of three ways: meeting the 10% threshold (the “40B” measure) as of December 21, 2020, meeting the requirements of the MBTA CA, or having a valid Housing Production Plan that has been certified by DHCD. Brookline qualifies under the first of these criteria.

### **Reporting Requirements: how much additional work will this reporting be for the Building Department?**

The Building Department will be required to report annually, *“in an accessible format as established by the Department, to the appropriate electric and gas distribution companies, or other designees as determined by the Department.”* According to the information that we have, each municipality will be able to deliver its report using forms and software that it already has, and won’t be required to move data into new software or different formats.

Two types of information are listed:

*“(a) For each applicant for a building permit, the applicant’s name, street address, building usage type, square footage, and estimated construction cost.”*

This (a) appears to be Building Permit data and nothing more.

*“(b) Electronic copies of any third-party energy reporting on new construction and Major Renovation projects that illustrate the expected energy use for each major end use. These include but are not limited to relevant sections of: final Home Energy Reporting System rating reports; Passive house certification reports; building energy modeling reports used to demonstrate commercial energy code compliance through ASHRAE 90.1 or Thermal Energy Demand Intensity (TEDI) building code compliance pathway.”*

This (b) appears to be a requirement to essentially forward submissions that are otherwise required under the Stretch Code.

Based on the above, the annual reporting requirements are an added burden, but do not appear to be difficult to comply with or requiring additional training or investments beyond the time it will take to gather and assemble the report materials. The responsibility of number crunching, analysis and reporting is placed on the utility companies serving the ten participating communities, and then on DOER.

### **Publication of Final Version of 225 CMR 24.00 and DOER Model Rule**

On May 10, the day after the Advisory Committee met and voted its recommendation, DOER published its updates to 225 CMR 24.00 and the Model Rule, along with a “Response to Comments” document. These publications can be found at the following locations:

225 CMR 24.00 (CLEAN): <https://www.mass.gov/doc/225-cmr-2400-5-10-23/download>

225 CMR 24.00 (REDLINE): <https://www.mass.gov/doc/225-cmr-2400-redline-comparison-5-10-23/download>

Responses to Comments: <https://www.mass.gov/doc/doer-response-to-comments-225-cmr-2400/download>

Model Rule – Fossil Fuel Free Demonstration Project: <https://www.mass.gov/doc/model-rule-fossil-fuel-free-demonstration-project/download>

**These documents have not been reviewed by the Advisory Committee.**

On the issue of Major Renovations, DOER agreed in their “Responses to Comments” with many comments including Brookline’s, and also added a definition of Major Renovation. This definition has been reviewed by Sustainability Director Tom Barrasso and by Associate Town Counsel Jonathan Simpson, and they have recommended staying with the amended version voted by the AC rather than incorporating the considerably longer and more complex definition in the just released Model Rule.

**Recommendation:** The Advisory Committee recommends FAVORABLE ACTION by a vote of 23 in favor, 1 opposed, with 1 abstention, on the following amended Article:

---

**VOTED:**

1) To amend Article 5.9 to document votes previously taken by Town Meeting regarding adoption of the Specialized Energy Code and Stretch Code as well as to clarify and incorporate state regulation references, as follows:

- a) Change the title of Article 5.9 from “Stretch Energy Code” to “Energy Codes”
- b) Amend 5.9 as follows, **with additions underlined and deletions in strikeout:**

“Section 5.9.1 Stretch Energy Code and Municipal Opt-in Specialized Energy Code

- a) Purpose: The purpose of this by-law and related state regulations 780 CMR 120.AA-225 CMR 22 and 23 is to provide a more energy efficient alternative to the base energy code applicable to the relevant sections of the building code for both new construction and existing buildings.
- b) Authority: Through Town Meeting action, the Town of Brookline has adopted the Stretch Energy Code and Specialized Energy Code, and both are incorporated by reference into the Town of Brookline General By-Laws Article 5.9. These codes are enforceable by the Building Commissioner or their designated Building Inspector(s).
- c) Definitions:

**Combustion equipment.** Any equipment or appliance used for space heating, service water heating, cooking, clothes drying and/or lighting that can use fuel gas, fuel oil or solid fuel and that is not a clean biomass heating system.

**Fossil Fuel-free.** An entire building that does not, in support of its operation after construction, utilize coal, oil, natural gas, other fuel hydrocarbons, including synthetic equivalents, or other fossil fuels.

**Major Renovation.** An alteration requiring a building permit, to a building in existence on the date of an application, and that includes the reconfiguration of space in which the Work Area is more than 50% of the aggregate area of the building, prior to the project.

**Work Area.** The aggregate area of those portions of a building affected by alterations for the reconfiguration of space as indicated in the drawings associated with a building permit application. Excluded from the calculation of Work Area are those portions of a building where only repairs, refinishing or incidental work occur or where work not initially intended by the applicant is specifically required by an inspector from the Building Department pursuant to the applicable building code.

**Specialized Energy Code** – Codified by the entirety of 225 CMR 22 and 23 including Appendices RC and CC, the Specialized Energy Code adds residential and commercial appendices to the Massachusetts Stretch Energy Code, based on amendments to the respective net-zero appendices of the International Energy Conservation Code (IECC) to incorporate the energy efficiency of the Stretch energy code and further reduce the climate impacts of buildings built to this code, with the goal of achieving net-zero greenhouse gas emissions from the buildings sector no later than 2050.

**Stretch Energy Code** - Codified by the combination of 225 CMR 22 and 23, not including Appendices RC and CC, the Stretch Energy Code is a comprehensive set of amendments to the International Energy Conservation Code (IECC) seeking to achieve lifecycle cost-effective energy efficiency in accordance with the Green Communities Act of 2008, as well as to reduce the climate impacts of buildings built to this code.

#### Section 5.9.2 Definitions

- a) ~~International Energy Conservation Code (IECC) 2009—The International Energy Conservation Code (IECC) is a building code created by the International Code Council. It is a model code adopted by many state and municipal governments in the United States for the establishment of minimum design and construction requirements for energy efficiency. Commencing July 1, 2010, the baseline energy conservation requirements of the MA State Building Code will default to IECC 2009 and MA amendments.~~
- b) ~~Stretch Energy Code—Codified by the Board of Building Regulations and Standards as 780 CMR Appendix 120 AA, the Stretch Energy Code is the International Energy Conservation Code (IECC) 2009 as may be amended from time to time.~~

#### Section 5.9.3 Applicability

~~This code applies to residential and commercial buildings. Buildings not included in this scope shall comply with 780 CMR 13, 34, 61, or 93, as applicable.~~

#### Section 5.9.4 Authority

~~The Town of Brookline hereby adopts 780 CMR 120 AA in order to ensure that construction within its boundaries is designed and built above the energy efficiency requirements of 780 CMR~~

~~Appendix 120 AA and mandates adherence to said Appendix as may be amended from time to time.~~

~~Section 5.9.5 Stretch Code~~

~~The Stretch Code, as codified by the Board of Building Regulations and Standards as 780 CMR Appendix 120 AA, including any amendments or modifications, is herein incorporated by reference into the Town of Brookline General Bylaws, Article 5.9. The Stretch Code is enforceable by the Building Commissioner or their designated Building Inspector(s)."~~

2) To amend Article 5.9 of the Town of Brookline General By-Laws by **adding** the following language for the purpose of restricting and prohibiting new building construction and Major Renovation projects that are not Fossil-Fuel Free, pursuant to the entirety of 225 CMR 24 Fossil Free Building Construction and Renovation Demonstration Project, which latest version is on file with the Town Clerk. This amendment shall only take effect if approved by the Massachusetts Department of Energy Resources (MA DOER) as a Participating Community pursuant to 225 CMR 24.

“ Section 5.9.2 Fossil Fuel-Free Demonstration

- a) Purpose: The purpose of this by-law and related state regulations 225 CMR 24, also referred to as the Fossil Fuel-Free Demonstration, is to restrict and prohibit new building construction and Major Renovation projects that are not fossil fuel-free.
- b) Authority: Through Town Meeting action, the Town of Brookline has adopted the Fossil Fuel Free-Demonstration. Upon approval by the Department of Energy Resources (DOER), amendments to the Specialized Energy Code are adopted as listed in Section 5.9.2 (f) below. These changes are enforceable by the Building Commissioner or their designated Building Inspector(s) and will go into effect for any project seeking a permit after the effective date.
- c) Applicability: This restriction applies to residential and commercial buildings that qualify as new construction and/or Major Renovations. This restriction shall not apply to research laboratories for scientific or medical research, hospitals and medical offices regulated by the department of public health as a health care facility as defined in 225 CMR 24.
- d) Definition of Fossil Fuel-Free Demonstration: Codified by the entirety of 225 CMR 24, the Fossil Fuel-Free Demonstration.
- e) The effective date of this Section 5.9.2 is the latest of the following: (1) sixty days following approval by DOER of the necessary changes to the Specialized Energy Code and the Town's status as a Participating Community; (2) the effective date established by M.G.L. c. 40, s. 32; and (3) January 1, 2024.
- f) Amendments to the Specialized Energy Code as part of the Fossil Fuel-Free Demonstration are as follows:
  - 1) Low-rise Residential Code (225 CMR 22 Appendix RC):
    - Sections RC102 and RC101 “Zero Energy Pathway” and “Mixed Fuel

Pathway” shall not be permitted for use for new construction, and Major Renovations shall not install any new Combustion Equipment.

2) Commercial and All Other (225 CMR 23 Appendix CC)

Sections CC103 and CC105 “Zero Energy Pathway” and “Mixed-Fuel Pathway” shall not be permitted for new construction, and Major Renovations shall not install any new Combustion Equipment, with the following exceptions:

- (i) Research laboratories for scientific or medical research,
- (ii) Hospitals regulated by the department of public health as a health care facility,
- (iii) Medical offices regulated by the department of public health as a health care facility, and
- (iv) Multi-family buildings over 12,000 square feet with permit application filed prior to January 1, 2027 may utilize gas or propane for domestic water heating as the only combustion equipment.”

g) Waivers

1) The Building Commissioner may grant a waiver from the requirements of this Section in the event that compliance with the provisions of this Section makes a project financially infeasible or impractical to implement. Compliance with this Section may be considered infeasible if, without limitation:

- (i) as a result of factors beyond the control of the proponent, the additional cost of the project over the long term, including any available subsidies, would make the project commercially unviable; or
- (ii) technological or other factors would make the project unsuitable for its intended purpose.

2) Waivers from compliance with this Section may be subject to reasonable conditions established by the Building Commissioner. Where possible, waivers shall be issued for specific portions of a project that are financially infeasible or impractical to implement under the requirements of this Section, rather than entire projects.

3) As may be requested by the Building Commissioner or established by guidelines, waiver requests shall be supported by a detailed cost comparison, including available rebates and credits. A waiver request may be made at any time and may be based upon submission of conceptual plans.

4) In considering a request for a waiver, the Building Commissioner may consider as a factor the requesting party’s status as a non-profit or government-sponsored affordable housing entity.

5) The Building Commissioner’s decision with respect to the granting of a waiver, the scope thereof, and any conditions imposed by a waiver, shall be appealable to the Select Board, or its designee, within thirty (30) days in accordance with policies established by the Select Board.



- 6) The Select Board may, prior to the Effective Date, issue, and may thereafter amend, guidance regarding the process for requesting and granting waivers, and describing reasonable conditions that may be placed on a waiver.

ARTICLE 15 ADVISORY COMMITTEE VOTES

Article Description	Fossil Fuel Free Demonstration Project
<b>AC recommendation (Favorable Action unless indicated)</b>	<b>23-1-1</b>
Ben Birnbaum	Y
Harry Bohrs	Y
Cliff Brown	Y
Patty Correa	Y
John Doggett	Y
Katherine Florio	Y
Harry Friedman	A
David-Marc Goldstein	Y
Neil Gordon	Y
Susan Granoff	
Kelly Hardebeck	Y
Amy Hummel	Y
Anita Johnson	Y
Alisa Jonas	Y
Janice Kahn	Y
Pam Lodish	Y
Joslin Murphy	
Donelle O'Neal, Sr.	Y
Linda Olson Pehlke	Y
Markus Penzel	Y
David Pollak	Y
Stephen Reeders	N
Carlos Ridruejo	Y
Lee Selwyn	Y
Alok Somani	Y
Carolyn Thall	Y
Christine Westphal	Y
Dennis Doughty *	
* Chairperson does not vote except to break a tie	