



Ruthanne Fuller  
Mayor

## City of Newton, Massachusetts

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**To:** Massachusetts Department of Energy Resources  
[green.communities@mass.gov](mailto:green.communities@mass.gov)

**From:** City of Newton

**Re:** 10 Community Pilot

**Date:** July 25, 2023

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Please accept this application of the City of Newton to participate in the State's Municipal Fossil Fuel Free Building Construction and Renovation Demonstration Project (the "Demonstration Project"), 225 CMR 24.00.

We have attached:

- A copy of the City's home rule petition regarding electrification, proof of approval by the Newton City Council and Mayor Fuller, and the date the petition was submitted to the General Court.
- A copy of the City's proposed ordinance for participation in the Demonstration Project. The proposed ordinance differs from the Model Rule in that it contains a number of exceptions in addition to those required for research laboratories for scientific or medical research and for hospitals and medical offices, as well as a waiver provision.

### **Exceptions/process loads**

The proposed exceptions appear in the attached proposed ordinance. In addition to the required exceptions, the City's proposed exceptions are:

1. Freestanding outdoor cooking appliances that are not connected to the building's natural gas or propane infrastructure;
2. Freestanding outdoor heating appliances that are not connected to the building's natural gas or propane infrastructure;
3. Emergency generators;
4. Appliances to produce potable or domestic hot water from centralized hot water systems in commercial buildings with a gross floor area of at least 10,000 square feet, provided that the architect, engineer, or general contractor on the project certifies by affidavit that no commercially available electric hot water heater exists that could meet the required hot water demand for less than 150% of installation costs, compared to the costs of complying only with the requirements of the applicable (i.e., residential or commercial) specialized building code.
5. Fossil fuels for process loads for manufacturing, industrial, and commercial purposes.

The City believes these are reasonable exceptions, and will not result in a meaningful contribution to the City's GHG emissions.

With respect to process loads specifically, the City proposes to create an exception for the use of fossil fuels for process loads for manufacturing, industrial, and commercial purposes in new and renovated buildings.

Since the City is primarily residential and has limited manufacturing and industrial facilities, we anticipate that the ordinance will have minimal effect on the use of fossil fuels for process loads in new and renovated manufacturing and industrial facilities. For this reason, we also anticipate that the use of fossil fuels for these purposes will not make a significant contribution to the City's GHG emissions, especially when considered relative to the GHG emissions associated with building construction and renovation.

The City does have restaurants, dry cleaners, and other commercial establishments but, once again, we do not expect that the use of fossil fuels for process loads for these purposes in new and renovated buildings will appreciably affect the City's GHG emissions.

### **Waiver**

The City's proposed ordinance also differs from the Model Rule in that it contains a waiver provision, which applies only to major renovations and not to new construction. This is the proposed waiver provision: The City will entertain waiver requests for Major Renovation Projects with respect to which an architect, engineer, or general contractor on the project certifies by affidavit that compliance with the requirements of the Ordinance will increase the costs of the project by 50% or more, compared to the costs of complying only with the requirements of the applicable (i.e., residential or commercial) specialized building code.

The City considered an alternative to this type of "certification" waiver provision. However, we determined that it would involve a much more subjective standard, which would require the Inspectional Services Department (ISD) to determine that required electrification imposes an unreasonable financial burden or the like. The City concluded that such a subjective standard would be too difficult for ISD or, for that matter, any other City department, to implement. As a result, we strongly prefer the "certification" waiver.

### **Public participation/timelines**

The Newton City Council has held extensive discussions of the proposed electrification ordinance. The City Council opened a public hearing on the proposed ordinance in June of 2023. The City Council is holding the public hearing open while it waits for DOER to approve the ordinance. At that point, Newton intends to complete the local approval process, including final approval by the City Council and the Mayor.

### **Data collection, reporting, outreach/training**

The City is fully committed to collaborating with DOER on data collection, reporting, and outreach/training. The City is committed to doing so not just for the purposes of participation in the Demonstration Project, but also for its own administrative purposes.

The City uses OpenGov software for storing building permit data and certificates of occupancy (more on OpenGov below). OpenGov software includes customizable fields for collecting information, and has a reporting feature that allows for easy extraction and analysis of relevant data. Newton's ISD has already developed

reports on issues relevant to the Demonstration Project—for example, on the number of building permits pulled each month—which are available to the public online.

The City has previously provided important information to permit applicants via a message board posted at the ISD desk in City Hall, through emails to contractors, and on permits themselves, and is committed to exploring other avenues for outreach and training.

The Newton City Council has also held numerous public meetings on the City’s proposed electrification ordinance and on the Demonstration Project, all of which were publicized widely.

### **Storage of permit data and certificates of occupancy**

As noted above, the City uses OpenGov software for storing building permit data and certificates of occupancy. OpenGov is a software platform used by governments around the country to collect and store data. Anyone with internet access can search for and view individual permit records online, and anyone can create an account to apply for a building permit through the Newton OpenGov system, known as NewGov. City staff have specialized access to NewGov for tasks such as developing permit templates, reviewing permits, and creating reports.

### **Housing production eligibility thresholds**

At this time the City has not met any of the three housing production eligibility thresholds set forth in 225 CMR 24.05(2). The City plans on being in compliance with this aspect of the Demonstration Project well before February 11, 2024.

The City Council opened a public hearing in June of 2023 on a rezoning effort intended to allow housing by right within and adjacent to Newton’s many village centers. The proposed overlay district will allow more than enough by-right housing to meet the MBTA Communities Law requirements. The City Council plans to vote on this in the fall of 2023, so that we can submit our compliance report to the State Department of Housing and Community Development before the end of the year, as required.

Newton is also very close to meeting the 10% Chapter 40B requirement, although economic conditions have slowed several projects in the queue. We anticipate that Newton will likely meet the MBTA compliance deadline before meeting the 40B requirement.

If you have any questions or need further information about any aspect of this application, please contact Ann Berwick at [aberwick@newtonma.gov](mailto:aberwick@newtonma.gov).

Thank you for your consideration.

Sincerely,



Ann G. Berwick  
Co-Director of Sustainability

## **Draft Newton Electrification Ordinance and Amendments to the Specialized Energy Code**

### **Purpose**

The City of Newton adopts this Ordinance in order to enable the City to participate in the State’s Fossil Fuel-Free Demonstration Project, 225 CMR 24.00. The purpose of the Fossil Fuel-Free Demonstration Project is to restrict and prohibit new building construction and Major Renovation Projects that are not fossil fuel-free in ten communities in Massachusetts. The Ordinance will protect the health and welfare of the City’s inhabitants and the environment by reducing greenhouse gases, which cause climate change, and by reducing other air pollutants.

The Ordinance requires new construction and Major Renovation Projects to use electricity instead of fossil fuels for heating and cooling systems and cooking and clothes drying appliances; and, for hot water, to use either electricity or thermal solar.

### **Definitions**

“Department” means The Massachusetts Department of Energy Resources, as established by MGL chapter 25A.

“Commissioner” means the Commissioner of Inspectional Services of the City of Newton, as established by Section 5-16 of the Ordinances of the City.

“Fossil Fuel-Free Demonstration Project” means the project codified by the entirety of 225 CMR 24.00, enabling ten communities designated by the Department to require new construction and Major Renovation Projects to be fossil-fuel free, notwithstanding MGL chapter 40A; MGL chapter 142, section 13; MGL chapter 164; or any other general or special law to the contrary.

“Hospitals or Medical Offices” means a facility licensed or approved by the Department of Public Health to provide health care, including clinics licensed as health care facilities and facilities that provide substance use disorder treatment

services, including outpatient withdrawal management, opioid treatment programs, office-based opioid treatment programs, acute treatment services (inpatient detoxification), and clinical stabilization services.

“Major Renovation Project” means (a) low-rise residential additions over 1,000 square feet and additions exceeding 100% of the conditioned floor area of the existing dwelling unit, (b) additions over 20,000 square feet and additions that exceed 100% of the conditioned floor areas of the existing building for all building use types except low-rise residential, (c) Level 3 Alterations as defined in the International Existing Building Code (IEBC 2021) (which exceed 50% of the existing conditioned floor area) exceeding 1,000 square feet for low-rise residential, or exceeding 20,000 square feet for all other building uses, or (d) Change of use of over 1,000 square feet per International Energy Conservation Code (IECC 2021) Sections R505, or (e) change of use of over 20,000 square feet or change of use of 100% of the conditioned floor areas of the existing building for all building use types except low-rise residential, International Energy Conservation Code (IECC 2021) Sections C505.

“Research Laboratories for Scientific or Medical Research” means a building in which a laboratory procedure or research activity occurs, and where the building has an average ventilation at full occupancy greater than 0.5 cfm/sf. Such buildings shall provide the ventilation design documentation described in 225 CMR 23.00, Section C103.2, at the time of building permitting.

“Specialized Energy Code” means the building code in 225 CMR 22.00 and 23.00; including Appendices RC and CC, which add residential and commercial appendices to the Massachusetts Stretch Energy Code.

### **Applicability**

The fossil fuel restriction applies to residential and commercial buildings located in the City that qualify as new construction or Major Renovation Projects, except as listed in the Section herein entitled “Exceptions.”

### **Exceptions**

The requirements of this Ordinance do not apply to any of the following:

- A. Research Laboratories for Scientific or Medical Research;

- B. Hospitals or Medical Offices;
- C. Freestanding outdoor cooking appliances that are not connected to the building's natural gas or propane infrastructure;
- D. Freestanding outdoor heating appliances that are not connected to the building's natural gas or propane infrastructure;
- E. Emergency generators;
- F. Appliances to produce potable or domestic hot water from centralized hot water systems in commercial buildings with a gross floor area of at least 10,000 square feet, provided that the architect, engineer, or general contractor on the project certifies by affidavit that no commercially available electric hot water heater exists that could meet the required hot water demand for less than 150% of installation costs, compared to the costs of complying only with the requirements of the applicable (i.e., residential or commercial) specialized building code.
- G. Fossil fuels for process loads for manufacturing, industrial, and commercial purposes.

### **Waivers**

The City will entertain waiver requests for Major Renovation Projects with respect to which an architect, engineer, or general contractor on the project certifies by affidavit that compliance with the requirements of the Ordinance will increase the costs of the project by 50% or more, compared to the costs of complying only with the requirements of the applicable (i.e., residential or commercial) specialized building code.

### **Application Requirements**

When applying for a building permit for new building construction or a Major Renovation Project the applicant must submit documents with the application that identify the heating and cooling and hot water systems and cooking and clothes drying appliances that will be installed and used in the building.

### **Compliance**

The Commissioner shall not issue any building permit for the construction of a new building or Major Renovation Project unless the applicant submits the

documentation set forth in the Section herein entitled “Application Requirements.” The Commissioner shall not issue a certificate of occupancy for any building subject to this Ordinance prior to inspection and confirmation that the heating and cooling and hot water systems and cooking and clothes drying appliances installed in the building comply with the applicant’s documents submitted pursuant to the Section herein entitled “Application Requirements.”

**Effective Date**

This Ordinance shall apply to all building permits, special permits, and comprehensive permits issued **XXX** days after the approval by the Department of participation by the City in the Fossil Fuel Demonstration Project.

**Amendments to the Specialized Energy Code**

With adoption of the Fossil Fuel-Free Demonstration Project by the City, and upon approval by the Department, the following amendments to the Specialized Energy Code are adopted. These changes are enforceable by the Commissioner and will go into effect for any project seeking a permit after the effective date of this Ordinance.

- a. Low-rise Residential Code (225 CMR 22 Appendix RC)
  - 1. Sections RC102 and RC101 “Zero Energy Pathway” and “Mixed Fuel Pathway” shall not be permitted for use for new construction or Major Renovations.
  
- b. Commercial and All Other (225 CMR 23 Appendix CC)
  - i. Sections CC103 and CC105 “Zero Energy Pathway” and “Mixed-Fuel Pathway” shall not be permitted for new construction or Major Renovations, with the following exceptions:
    - 1. Research Laboratories for Scientific or Medical Research;
    - 2. Hospitals or Medical Offices;
    - 3. Buildings heated with Clean Biomass Heating Systems as defined in 225 CMR 23, as the only combustion equipment;

4. 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.





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Office of the Mayor

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April 12, 2022

Senator Cynthia Creem  
State House, Room 312-A  
24 Beacon Street  
Boston, MA 02133

Representative Kay Khan  
State House, Room 146  
24 Beacon Street  
Boston, MA 02133

Representative Ruth Balser  
State House, Room 163  
24 Beacon Street  
Boston, MA 02133

Representative John Lawn  
State House, Room 236  
24 Beacon Street  
Boston, MA 02133

Honorable Senator Creem and Representatives Khan, Balser and Lawn:

I write to request that you file Home Rule legislation that will allow the City of Newton to ensure new residential and small non-residential buildings and major renovations to these buildings use electricity as their energy sources rather than other fossil fuels.

***An Act Relative to the Electrification of New and Substantially Remodeled or Rehabilitated Buildings in the City of Newton*** (which is attached) more specifically gives the City of Newton the legal authority to require new buildings and significant renovations to use electricity for heating, cooling, hot water, cooking, and other appliances, and to minimize the use of fossil fuels in these buildings.

The City Council unanimously approved this language and I wholeheartedly support it.

Newton's electrification Home Rule Petition, similar to other electrification Home Rule Petitions currently pending before the Legislature, is crucial if we are to begin meeting the urgency of the climate crisis.

In Newton, over 60% of our greenhouse gas emissions come from our homes, apartments, and commercial buildings. The way we heat and cool our buildings, heat our water, and keep the lights on matters as we work to reduce greenhouse gas emissions.

We can make the electric grid cleaner and greener by generating electricity with cleaner, greener renewable sources, especially solar and wind. The same is not true of natural gas used for heating, heating oil, gasoline, or diesel fuel. Renewables dramatically reduce the greenhouse gases from generating electricity. In 2050, according to the State Department of Energy Resources (DOER), electric heating is projected to result in 98 percent lower greenhouse gas emissions as compared to gas heating. Technological innovations are also making the use of electricity more energy efficient. For example, using an electrically powered air-source heat pump results in less than half the greenhouse gas emissions of an efficient boiler powered by natural gas, even though more than half of the electricity in our current electric grid mix is generated by fossil fuels. That's without taking into account the leaking natural gas distribution system.

A new house built now will last decades, and as DOER recognizes, 27% of all building space will be constructed between now and 2050. We must act now to ensure that we are building for a sustainable future, not one that relies on fossil fuels.

Based on our experience here in Newton, we know that full electrification is achievable. Since 2008, Newton has asked petitioners seeking special permits to achieve a significant reduction in the use of energy and natural resources for buildings over 20,000 square feet. In two recent quite large mixed-use developments, Northland and Riverside, the housing will be all-electric. These developers also agreed to study embodied carbon reductions; Northland completed its study and is incorporating the identified reductions. Small 20- to 26-unit apartments are also going all-electric for primary systems.

Thank you for your help and please let us know how we can help pass this petition. Please contact me, Jonathan Yeo or Ann Berwick if you have any questions.

Sincerely,



Ruthanne Fuller

Mayor

*Attachment: An Act Relative to the Electrification of New and Substantially Remodeled or Rehabilitated Buildings in the City of Newton.*

cc: Susan Albright, President, Newton City Council  
Alison Leary, Chair, City Council Public Facilities Committee  
Jonathan Yeo, Chief Operating Officer, City of Newton  
Ann Berwick, Co-Director of Sustainability, City of Newton

CHAPTER \_\_\_\_\_ AN ACT RELATIVE TO THE ELECTRIFICATION OF NEW AND  
SUBSTANTIALLY REMODELED OR REHABILITATED  
BUILDINGS IN THE CITY OF NEWTON

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

**SECTION 1.** Notwithstanding the State Building Code; the Gas Code; M.G.L c. 142, sec. 13; M.G.L. c. 164, and any other general or special law to the contrary, the City of Newton may by ordinance require new and substantially remodeled or rehabilitated residential and small non-residential buildings to use electricity instead of fossil fuels for heating and cooling systems and dryers and, for domestic hot water, by electricity or thermal solar.

**SECTION 2.** As used in this chapter, the following words shall have the following meaning unless the context clearly indicates a different meaning:

“Residential buildings” means buildings that include one or more dwelling units.

“Small non-residential buildings” means buildings the floor area of which is equal to or less than 20,000 square feet, and any portion of which is used for commercial, retail, office, professional, educational, or other non-residential purpose.

“Substantially remodeled or rehabilitated” means a renovation that affects 50% or more of the building gross floor area, excluding parking. In the case of a building that is both residential and non-residential, “substantially remodeled or rehabilitated” means a renovation that affects 50% or more of the gross floor area of the residential or non-residential space, in which case electrification of the residential or non-residential space, as applicable, would be required.

**SECTION 3.** An ordinance adopted under this Act may require new and substantially remodeled or rehabilitated residential and small non-residential buildings to use electricity instead of fossil fuels for heating and cooling systems, dryers, and hot water appliances and, for hot water, by electricity or thermal solar.

**SECTION 4.** The City of Newton may require that building permit applications for new and substantially remodeled or rehabilitated residential and small non-residential buildings identify the heating and cooling systems, dryers, and hot water appliances that will be used in the building.

**SECTION 5.** The City of Newton may withhold the issuance of a building permit for a new or substantially remodeled or rehabilitated residential and small non-residential building that does not use electricity instead of fossil fuels for heating and cooling systems, dryers, and hot water appliances and, for hot water, by electricity or thermal solar.

**SECTION 6.** The City intends to provide for a waiver and appeals process for those circumstances in which compliance makes a project impractical to implement or imposes extraordinary challenges. Waiver requests will have to be supported by a detailed explanation of the justification for such request, and by a proposed Alternative Compliance Pathway. Any proposed Alternative Compliance Pathway will be required to limit greenhouse gas emissions to levels consistent with declining

statewide greenhouse gas emissions limits specified in “An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy.”

The process will provide that waivers may be subject to reasonable conditions. Where possible, waivers will be issued for specific portions of a project for which compliance is infeasible, impractical to implement, or imposes extraordinary challenges, rather than for entire projects.

**SECTION 7.** The requirements of this Ordinance do not apply to any of the following:

- A. Freestanding outdoor cooking appliances that are not connected to the building natural gas or propane infrastructure.
- B. Freestanding outdoor heating appliances that are not connected to the building natural gas or propane infrastructure.
- C. Newton-Wellesley Hospital/Mass General Brigham buildings constructed or substantially remodeled or rehabilitated in the future and located on the hospital campus in Newton.
- D. Emergency, back-up, or standby power production.
- E. Appliances to produce potable or domestic hot water from centralized hot water systems in buildings with a gross floor area of at least 10,000 square feet, provided that the architect, engineer, or general contractor on the project certifies by affidavit that no commercially available electric hot water heater exists that could meet the required hot water demand for less than 150% of installation costs, compared to a conventional fossil fuel hot water system.

**SECTION 8.** This act shall take effect upon its passage.