

# Newton BERDO Frequently Asked Questions

September 12, 2024

(Updated October 24, 2024)

This FAQ addresses questions about the proposed BERDO ordinance raised by the general public and Newton City Council at the Public hearing held in City Hall Council Chambers by the Zoning and Planning Committee on June 10, 2024 and September 23, 2024. Additional questions were added by the City staff to help make the document more comprehensive in scope.

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# Introduction to BERDO

## 1. What is BERDO?

The Building Emissions Reduction and Disclosure Ordinance (BERDO) requires large commercial buildings to report their energy use and reduce their on-site greenhouse gas emissions according to declining emissions standards that reach zero by 2050. [Boston](#) and [Cambridge](#) recently enacted similar ordinances.

Massachusetts [law](#) requires the state to achieve net zero greenhouse gas emissions by 2050, and Newton has a [goal](#) of achieving net zero by 2050. The building sector currently accounts for [35 percent of statewide emissions](#) in Massachusetts and 66% in Newton. Adopting BERDO will make Newton a leader in reducing building sector emissions within the state, and by acting early rather than waiting for statewide policies to come into effect, will also reduce costs for building owners.

## 2. I own real estate in Newton. How do I know if my building(s) will be covered by BERDO?

With few exceptions, BERDO will cover all non-residential buildings with floor areas of at least 20,000 square feet. While residential buildings will not be included in the first iteration of the ordinance, the mayor proposes to add residential buildings with at least 20,000 square feet of floor area to the ordinance in April 2025.

To determine if your building is covered, check the [list of covered buildings](#) on Newton's website. The list is updated annually using data from the Assessor's Office. You can also find a detailed description of the process used to develop the list on the same webpage.

## 3. What types of emissions will BERDO cover?

BERDO will regulate direct emissions from covered buildings. Also called Scope 1 emissions, direct emissions result from fuel burned on-site in a furnace, boiler, water heater, or other combustion-based equipment. The largest contributors to direct emissions are usually space and water heating. Depending on the building type, there may be additional direct emissions from end-uses such as cooking. Fuel used for backup power generation is not regulated by BERDO.

BERDO will not cover emissions associated with building electricity use (Scope 2 emissions), since Massachusetts has already implemented state-level policy to decarbonize the electricity sector. All-electric buildings have no on-site fuel combustion and therefore zero regulated emissions under BERDO.

## 4. What will I need to do to comply with BERDO?

There are two main components to BERDO compliance: data reporting and emissions reductions.

**Reporting:** Each year, you will need to report energy use data for your building in Energy Star Portfolio Manager. In the second reporting year for each building, and every five years thereafter, you will need to complete 3<sup>rd</sup> party verification of the energy data you have reported. The BERDO Regulations will give more details on the types of energy professionals who are eligible to complete this verification.

**Emissions Reductions:** You will need to reduce your building’s emissions so that its emissions intensity is less than or equal to the applicable emissions limit in each year. Emission intensity is measured in metric tons of carbon dioxide equivalent per square foot per year (MT CO<sub>2</sub>e/SF/yr). Another option is to pay an Alternative Compliance Payment (ACP) if your building’s covered emissions are higher than the limit. The ACP is currently set at \$234 per MT CO<sub>2</sub>e. The emissions limit for your building will depend on its size and primary use (see table below). Owners of buildings with more than one primary use may request a blended emissions limit, calculated as the weighted average of the applicable limits.

Owners of multiple buildings may comply with BERDO for each building individually or for their building portfolio as a whole. Under the portfolio approach, total emissions from the building portfolio must be lower than the aggregate portfolio emissions limit, which is the sum of the floor area of each building times its emissions intensity limit.

Instead of following the standard emissions limits, building owners also have the option to apply for an individual compliance schedule, which is based on a building’s historical emissions.

| <b>Tier</b> | <b>Description</b>                   |
|-------------|--------------------------------------|
| 1           | Non-residential, ≥100,000 sq ft      |
| 2           | Non-residential, 50,000–99,999 sq ft |
| 3           | Non-residential, 35,000–49,999 sq ft |
| 4           | Non-residential, 20,000–34,999 sq ft |

| Building use             | Emission standards (kgCO <sub>2</sub> e/SF/yr) |          |          |          |          |
|--------------------------|--|----------|----------|----------|----------|
|                          | Period 1                                       | Period 2 | Period 3 | Period 4 | Period 5 |
| Assembly                 | 6.1  | 3.7      | 2.3      | 1.1      | 0.0      |
| College/University       | 9.5  | 5.7      | 3.5      | 1.5      | 0.0      |
| Education                | 4.1  | 2.8      | 1.9      | 0.9      | 0.0      |
| Food Sales & Service     | 6.8  | 4.4      | 3.2      | 1.5      | 0.0      |
| Healthcare               | 14.3   | 9.2      | 6.5      | 3.2      | 0.0      |
| Lodging                  | 4.6  | 3.1      | 2.1      | 1.0      | 0.0      |
| Manufacturing/Industrial | 3.9  | 2.9      | 2.2      | 1.0      | 0.0      |
| Office                   | 3.1  | 2.0      | 1.2      | 0.5      | 0.0      |
| Retail                   | 3.4  | 2.3      | 1.4      | 0.6      | 0.0      |
| Services                 | 6.5  | 4.2      | 2.9      | 1.4      | 0.0      |
| Storage                  | 2.5  | 1.8      | 1.3      | 0.6      | 0.0      |
| Technology/Science       | 14.6   | 10.7     | 6.7      | 2.8      | 0.0      |

Building owners facing extraordinary circumstances that affect their ability to comply with BERDO may apply for hardship compliance schedules. Examples of potential qualifying circumstances include historic building designations, pre-existing energy contracts without reopener, or extraordinary financial hardship.

For more information, see the [draft ordinance](#). After the ordinance is passed, the BERDO Administrator will publish regulations with additional details about each of these steps.

**5. What types of changes can I make to my building to reduce its greenhouse gas emissions?**

Measures that reduce your building’s fuel consumption will reduce its greenhouse gas emissions under BERDO. These include:

- Building shell improvements such as air sealing, insulation, and windows.
- Other energy efficiency measures that reduce fuel use, including HVAC tune-up and controls, low-flow fixtures that conserve hot water, and duct sealing.
- Electrification of end-uses that currently use combustion-based equipment, for example installing heat pumps for space heating, heat pump water heaters, and electric ranges for cooking.

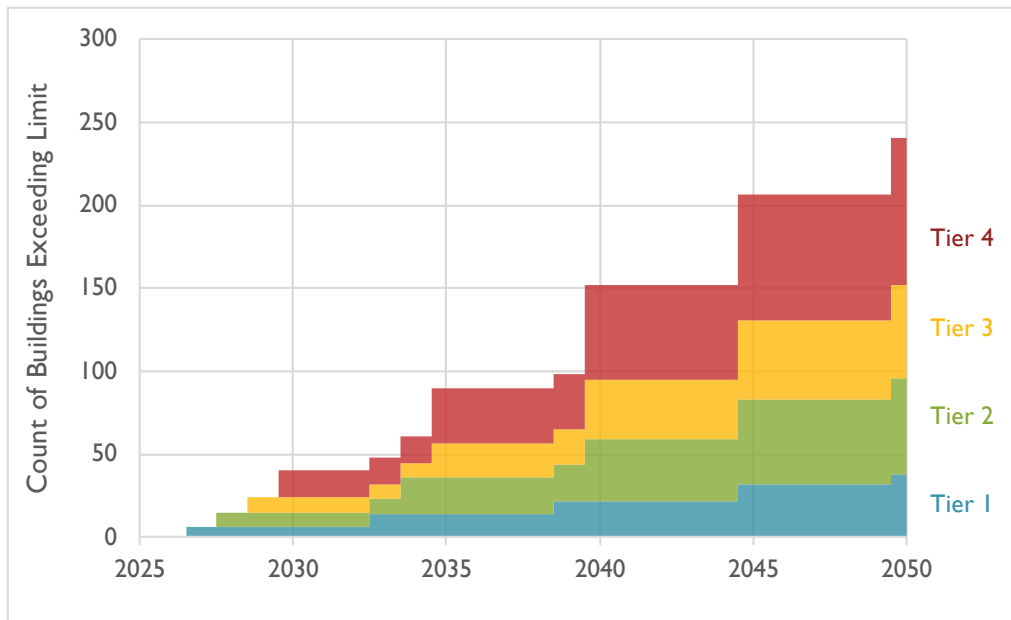
**6. When will I need to reduce my building’s emissions?**

You will need to reduce your building’s emissions in line with the relevant emissions standard, or else pay an Alternative Compliance Payment (ACP) of \$234 per MT CO<sub>2</sub>e. Building type determines which emissions standard applies, and building floor area determines which implementation tier a given building falls under. Refer to the tables in the question above, “*What will I need to do to comply with BERDO?*”. Compliance deadlines begin sooner for larger buildings, but all tiers reach zero direct emissions by 2050. The Newton BERDO emissions limits are designed to give building owners sufficient

lead times to incorporate necessary upgrades into their capital planning and to minimize early equipment replacements.

| Tier | Period 1  | Period 2  | Period 3  | Period 4  | Period 5 |
|------|-----------|-----------|-----------|-----------|----------|
| 1    | 2027-2032 | 2033-2038 | 2039-2044 | 2045-2049 | 2050-    |
| 2    | 2028-2033 | 2034-2039 | 2040-2044 | 2045-2049 | 2050-    |
| 3    | 2029-2034 | 2035-2039 | 2040-2044 | 2045-2049 | 2050-    |
| 4    | 2030-2034 | 2035-2039 | 2040-2044 | 2045-2049 | 2050-    |

We estimate that BERDO will impact approximately six buildings in 2027 and 10 additional buildings each year thereafter. Most owners will have substantial time to make improvements, with approximately two-thirds of buildings complying until 2040. While residential buildings are not included in the initial BERDO policy, the City plans to add them in 2025; notably, we expect all public and non-profit affordable housing buildings (nine total) will comply until 2040 or later.



## Cost and Feasibility of Building Decarbonization

### 7. I'm concerned about how much it will cost me to comply with BERDO. What resources are available to help building owners pay for them?

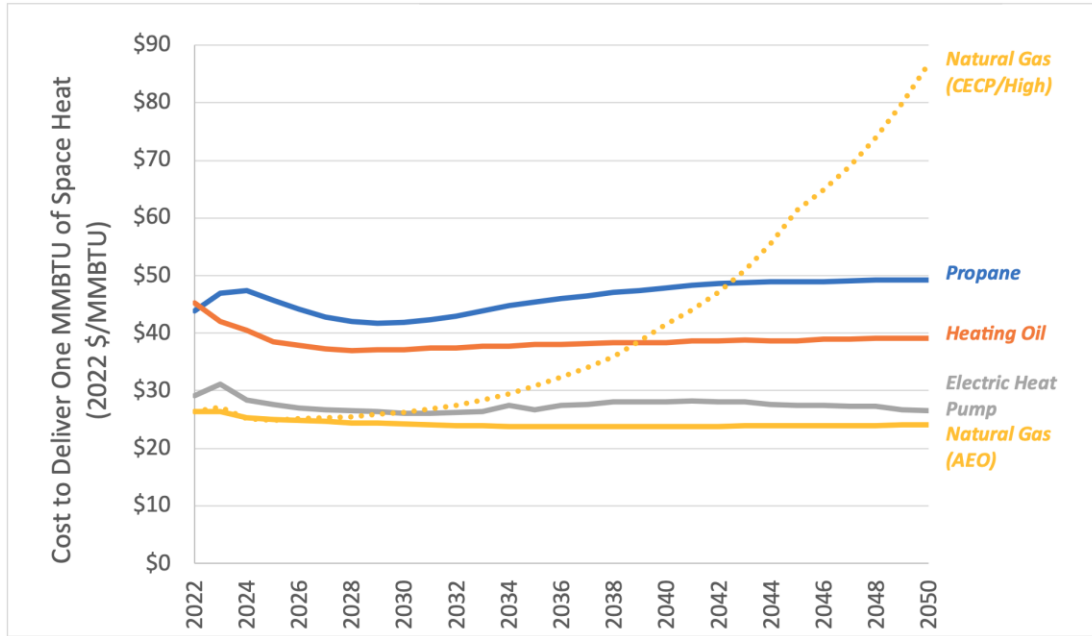
Based on the BERDO team's research and existing Newton case studies, we expect that the incremental costs of decarbonization technologies will fall in the range of \$5–20 per square foot, although this will vary based on building characteristics. By phasing equipment installations, these costs can be spread over several decades. Building owners will typically be able wait until equipment would have needed to be replaced anyway, which will reduce costs compared to last-minute

decarbonization (which could occur if Newton waits to decarbonize its building stock until state law requires it). A variety of state and federal incentives, including the ones listed below, can help reduce the cost of complying with BERDO:

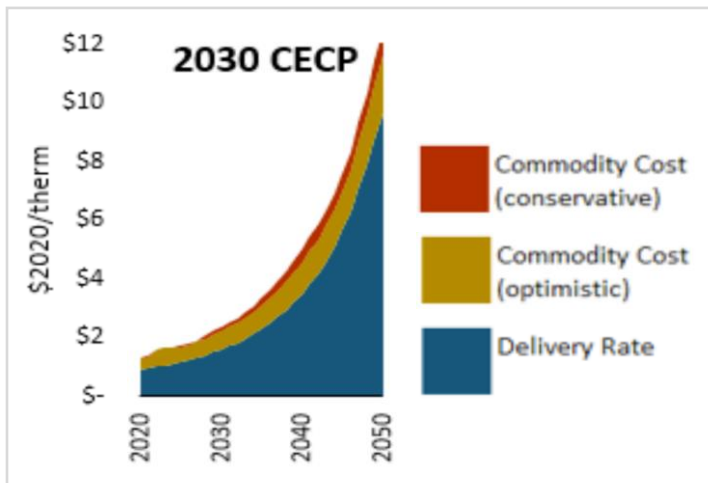
- **State rebates:** [MassSave](#) offers commercial incentives of \$2,500–\$4,500 per ton for heat pumps and \$1,000–\$2,200 per unit for heat pump water heaters. MassSave also offers weatherization incentives. **These translate to roughly \$9.00–\$15.00 per sq. ft. for most buildings that undergo full decarbonization.**  
**Owners of affordable housing properties are also eligible to apply for *no-cost* comprehensive energy retrofits through the LEAN Multifamily Program. This includes all buildings owned by non-profits, for profit entities, or housing authorities in which at least 50% of tenants meet the income guidelines.**
- **Federal tax deductions:** The [179D federal tax deduction](#) offers **\$0.50–\$6.00** per square foot for energy efficient building improvements, including building envelope and HVAC system measures, **with higher incentives for projects that save more energy and meet prevailing wage and apprenticeship requirements.**
- **Property Assessment Clean Energy (PACE):** [PACE](#) is a program for financing energy upgrades through a property betterment assessment, which repays the financing, and is available through MassDevelopment and Department of Energy Resources.
- **Massachusetts Community Climate Bank (MCCB):** [MCCB](#), which launched in 2023, is the nation’s first green bank dedicated to affordable housing. It is located within MassHousing, the Commonwealth’s housing finance agency, and helps owners of affordable housing finance decarbonization measures in their buildings.
- **Low-interest financing:** Eversource and National Grid offer financing through [MassSave](#) for commercial customers, including multifamily housing and non-profits. Loans are available for up to 7 years and up to \$500,000. MassSave incentives are used to buy down interest rates to 0–2 percent.

## **8. Are decarbonization technologies affordable to operate?**

One pathway to decarbonization involves switching from fossil fuels (typically natural gas or fuel oil) to all-electric equipment. All-electric equipment uses less energy and doesn’t generate emissions directly. Today, electricity is more expensive than natural gas but by 2030 we expect heating with natural gas to become more expensive than electricity. Further, gas heating costs are expected to rise to 300%–700% of current costs by 2050. This is due to existing climate laws and policies in Massachusetts that will result in reduced natural gas sales; because the fixed cost of maintaining the natural gas system will be spread over less sales, costs will rise. Two recent studies commissioned by the Massachusetts Department of Public Utilities (DPU) and Department of Environmental Protection (DEP) evaluated this effect in detail, and the results are shown here.



Sustainable Energy Advantage and Synapse Energy Economics. 2023. “Data for Use in Economic Analysis of A Clean Heat Standard.” Prepared for MA DEP. Available at: <https://www.mass.gov/doc/memo-on-heating-technology-costs-and-emissions/download>.



Energy+Environmental Economics and Scott Madden Management Consultants. 2022. Prepared for MA DPU. Available at: [https://thefutureofgas.com/content/downloads/2.15.22 - DRAFT Independent Consultant Technical Report - Part II \(Regulatory Designs\).pdf](https://thefutureofgas.com/content/downloads/2.15.22 - DRAFT Independent Consultant Technical Report - Part II (Regulatory Designs).pdf).

### 9. Are decarbonization technologies affordable to install?

Costs will vary by building type, size, and existing equipment systems. The BERDO Team assessed costs by evaluating completed decarbonization projects in and around Newton, reviewing published literature, obtaining contractor quotes, and conducting interviews with industry professionals. We estimate typical costs will be \$5–\$35 per sq. ft. before incentives and \$0–\$25 per sq. ft. after incentives. If



the upfront cost is financed at 6% over a 20-year equipment life, typical costs will be \$0.40–\$3.00 per sq. ft. annually—less after incentives. This translates to a **one-time** (but persisting for the life of the financing period) 4% increase in rent due to BERDO-related capital investment. This is roughly equal to year-over-year rent increases that happen **every year** according to data from [National Association of Realtors](#), [Costar](#), and the [Federal Reserve Bank](#).

Case studies for decarbonization projects in Newton are available on the [Newton BERDO webpage](#) in the slide deck from the September 23, 2024 ZAP committee meeting.

#### **10. Are the lifecycle costs of all-electric technologies higher or lower than conventional fossil fuels?**

We expect all-electric technology lifecycle costs to be equal to or lower than fossil fuel equipment. Today, the upfront cost of fossil fuel equipment for space heating and water heating is typically less and the equipment typically lasts longer. We expect these higher upfront costs to be offset by MassSave rebates, federal incentives, and lower operating costs over time (see Questions 7 and 8 above). MassSave incentives are no longer available for fossil fuel equipment. Additionally, [NREL estimates](#) that installed costs for commercial heat pump systems will decline by approximately 18-37% through 2050 while efficiency improves 9-47%.

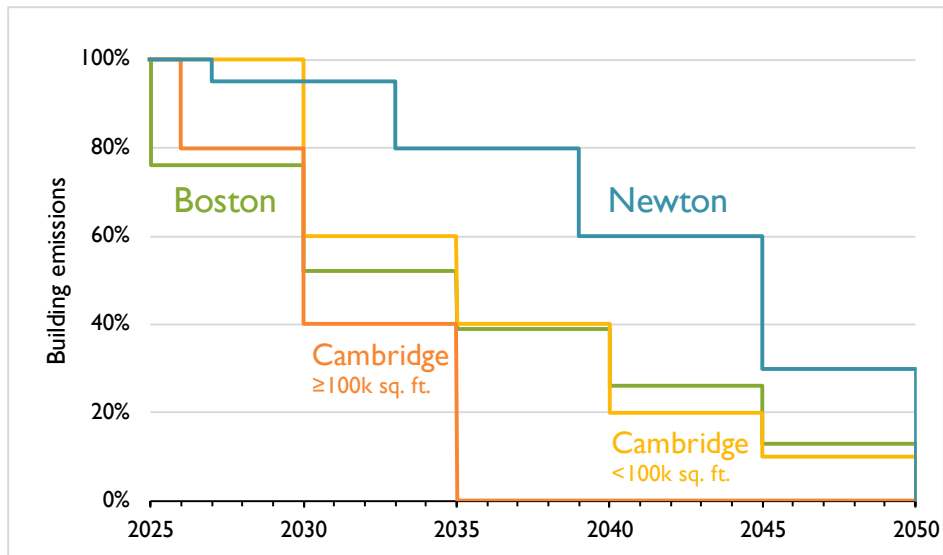
#### **11. How will BERDO affect the overall cost of affordable housing for tenants and housing providers?**

Based on discussions with affordable housing providers in Newton, our understanding is that costs to tenants of deed-restricted affordable housing will be unchanged. The combined cost of rent and utilities to tenants is established by U.S. Housing and Urban Development (HUD), so housing providers cannot increase costs to tenants. If tenant utility costs increase, tenant rent must decrease correspondingly. This is the case for properties with separately metered and master-metered utilities.

We understand that costs to housing providers may increase temporarily but will ultimately be covered by HUD. HUD provides a fixed allowance to landlords for providing housing, which is adjusted periodically to reflect locational changes in costs. If a housing provider incurs additional costs to comply with BERDO, they cannot pass those costs on to tenants and will experience a shortfall in revenues initially; however, housing providers can request an adjustment from HUD to cover the additional costs.

#### **12. Will Newton BERDO require owners to decarbonize quickly like Boston BERDO and Cambridge BEUDO?**

Newton BERDO will require more gradual emissions reductions than Boston BERDO and Cambridge BEUDO. This will allow building owners to align needed investments with capital planning cycles. We expect that owners will rarely, if ever, need to replace equipment before it wears out, which will reduce overall costs. In rare circumstances where BERDO compliance would require an upgrade that is not aligned to equipment replacement cycles, building owners can pay the Alternative Compliance Payment (ACP) to buy time.



### 13. Will BERDO require me to perform a gut renovation or deep energy retrofit of my building?

No, complying with BERDO will not require gut renovation or deep energy retrofits in most buildings. Importantly, BERDO does not require buildings to achieve net zero energy by generating the same amount of energy onsite that they consume. Instead, BERDO only requires buildings to eliminate emissions from on-site combustion of fuels. This can be achieved without significant disruption to building occupants.

The phased emissions trajectories and long periods (5–6 years each) are intended to allow alignment of BERDO-related upgrades with capital planning cycles such that building owners can typically wait until equipment would have needed to be replaced anyway. Swapping zero-carbon equipment in is therefore no more intrusive than equipment replacements would have been under a business-as-usual scenario.

### 14. Can you provide examples of buildings that have successfully installed heat pumps or other decarbonization technologies?

The City has prepared four case studies of buildings in Newton that have substantially or fully decarbonized through voluntary action. These include:

1. Newton Early Childhood Program education building
2. Auburndale Library
3. First Unitarian Universalist Society in Newton
4. Chapman Construction and Design office building

In addition to reducing or eliminating greenhouse gas emissions, these buildings have cut energy use by 53–76 percent. Costs for complete decarbonization ranged from \$10–\$32 per square foot after utility incentives. Compared to installing new fossil fuel equipment, the incremental costs ranged from \$4 per square foot less expensive to \$5 per square foot more expensive.

## 15. Will BERDO require building owners to take on debt?

Building owners may pay for upgrades in any manner they see fit. There are low-cost financing options available for technologies such as heat pumps that will likely be more advantageous than pure equity financing. Debt financing also offers tax benefits, because federal tax law allows businesses to deduct interest payments for loans.

## 16. I've heard it's more challenging for buildings that heat with forced hot water to electrify. What options are available for these buildings?

Buildings that heat with forced hot water do not have existing ductwork that could be used with a central ducted air-to-air heat pump. Adding ductwork in an existing building can be disruptive and costly. However, several options exist for decarbonizing the space heating in buildings that heat with forced hot water:

- Install ductless heat pumps such as mini-splits or variable refrigerant flow (VRF) heat pumps
- Replace the existing central boiler with an air-to-water heat pump. Historically, such equipment has not been able to provide sufficiently high-temperature water (often 170–180°F) to meet heating needs in the coldest times of year. However, there are solutions to this problem:
  - Install a standard air-to-water heat pump with a backup electric resistance boiler
  - Several manufacturers now offer high-temperature air-to-water heat pump systems. These heat pumps are newer to the U.S. market and are usually more expensive to purchase. Examples include:
    - Daikin: [VRV](#) with water kit such as [Mega-Q](#) (up to 194°F) or [Ark Heat boost](#) (up to 180°F)
    - LG: [Multi V 5](#) with [Hydro Kit](#) (up to 176°F)
    - Mayekawa: [Unimo Series](#) (up to 194°F)
    - Watts: [Lync Aegis](#) (configurations up to 185°F)
    - Mitsubishi and Samsung are expected to bring high-temperature commercial products to market in 2024/2025

Redwood Energy's [Pocket Guide to All-Electric Commercial Retrofits](#) discusses these options and more.

## 17. Can the electric grid handle the new loads if buildings switch from fossil fuels to electricity?

Electrifying building heating systems will place increased demand on the electric grid. Fortunately, grid operators and utilities are already planning for this new load so that the electric power system will be prepared to serve it reliably. For example, ISO-NE, the grid operator in New England, now includes detailed heating electrification [forecast](#) as part of its annual load projection process. In Massachusetts, the Department of Energy Resources oversees a Grid Modernization Advisory Council (GMAC) that reviews grid modernization plans developed by Massachusetts utilities.

Importantly, historical load growth in the United States has been far greater than what New England faces today. Over the period 1950–2000, the average annual [growth in U.S. electricity demand](#) was 5.0 percent. By comparison, ISO New England expects electricity demand to grow by about 2.0 percent annually on average over the next decade, including the impact of electrification of vehicles and heating (see report “[2024-2033 Forecast Report of Capacity, Energy, Loads, and Transmission](#)”).

The grid in New England is currently summer peaking. This will remain the case at least through the early 2030s, according to the latest ISO-NE forecasts. While this is the case, space heating electrification can contribute to reductions in electric rates, because fixed system costs (which are determined by the summer peak) can be spread over a greater volume of electric sales.

Additionally, technologies and programs exist today to mitigate peak demand increases and other potential grid challenges from heating electrification. Working proactively with design professionals, facility managers, and the electric utility when planning building electrification projects can help accomplish this. In particular, the peak load of electrification can be reduced by pairing electrification measures with energy efficiency and demand response improvements. Insulating buildings and sealing air gaps can reduce peak loads from heat pumps for space heating and cooling. For buildings with high ventilation rates, such as hospitals and laboratories, energy recovery systems that collect waste energy from exhaust air can be very cost-effective and will reduce peak loads for space heating and cooling when using heat pumps. For sites that use large amounts of hot water, such as multifamily buildings, heat exchangers that capture waste heat from the building’s sewer lines can cost-effectively reduce the contribution of water heating to peak loads.

## Obtaining and Reporting Energy Data

### **18. How challenging is it to learn Energy Star Portfolio Manager?**

Energy Star Portfolio Manager is a free, user-friendly tool developed by the U.S. Environmental Protection Agency. [Nearly a quarter](#) of U.S. commercial building space is already benchmarked in Energy Star Portfolio Manager. EPA has been refining the tool for over twenty years, since it was [first released](#) in 2000. EPA publishes extensive [training material](#) on its website, including [how-to guides](#) that walk you through all the steps you will need to enter your building’s data.

### **19. How time consuming is it to import data into Energy Star Portfolio Manager?**

Reporting energy data in Energy Star Portfolio Manager requires some initial setup time to become acquainted with the tool and enter building characteristics such as floor area and primary use. For reference, it took a junior member of the consulting firm working with the City of Newton about 15 hours to learn the tool and report initial data for 30 city buildings. While the City may have benefited from some efficiencies of scale, this initial step should not take more than a few hours per building, including time necessary to assemble information about each building.

After this initial stage, entering annual energy data is even less time-consuming. If you are the sole utility account holder for your building, you can authorize Eversource and National Grid to automatically upload electricity and gas data to ESPM for you. If you would rather enter the data yourself, you can easily do so using your utility bills; each bill shows data for the past twelve months. If your building has tenants, both Eversource and National Grid will aggregate the tenant data for you (see next question). Finally, if your building uses a delivered fuel such as oil or propane, you can enter consumption data into ESPM using fuel receipts.

The City of Newton will offer public trainings and one-on-one assistance to building owners to help them comply with BERDO. This will include topics such as the use of ENERGY STAR Portfolio Manager, how to obtain energy use data, developing a BERDO compliance plan, and how to use BERDO flexibility measures: Building Portfolios, Individual Compliance Schedules, and Hardship Plans. Further, the [Newton BERDO website](#) will be expanded to offer a resource clearinghouse for stakeholders.

For more information, see Portfolio Manager's [instructions](#) on importing utility data.

## **20. My building has tenants. What if I'm unable to obtain energy use data from some of them?**

We have been working with the utilities to enable building owners to obtain tenant data through a utility portal set up for this purpose. Building owners can request the data using National Grid's portal [here](#) and Eversource's portal [here](#). Also, we expect that the State's Large Building Energy Reporting (LBER) database that will be published annually starting October 2025 will contain this data. If all else fails, Section 1 (o) 3 of BERDO requires that: "When an Owner of a Building is unable to obtain complete Energy use data due to the failure of any Tenant to report the information required, the Owner shall use values or formulas established by the BERDO Administrator to estimate whole Building Energy use."

## **21. I've heard some building owners in Boston have faced challenges with reporting. Is that true? How is Newton BERDO reporting different?**

Boston works with owners to resolve any issues and has had nearly complete reporting (only 3.8 percent of reports are pending revisions for 2022). Compared to Boston, Newton will use a simplified reporting process, because Newton BERDO excludes electricity emissions. This means that there is no need to report quantities such as renewable electricity purchases, onsite renewable generation, custom emissions factors, or electricity used for EV charging. Excluding electricity also allows Newton to use one reporting platform only (Energy Star Portfolio Manager), whereas Boston and Cambridge each use two (Energy Star Portfolio Manager and BEAM/Touchstone). This will create a more streamlined and simplified data reporting process for building owners in Newton.

# Navigating the Administrative Aspects of BERDO

## **22. What resources will the City of Newton provide to help me navigate BERDO requirements?**

The City will have staff and consulting support available to assist building owners in navigating BERDO. Relative to the number of buildings, Newton has greater staffing than Boston (179 buildings per FTE and \$563 of consulting budget per building in Newton, compared to 348 buildings and \$87 in Boston). Reporting in Newton is also simpler because it does not include water, district steam, grid emissions, or renewables tracking.

The City will offer public trainings and one-on-one assistance on topics such as using ENERGY STAR Portfolio manager, obtaining energy use data, developing a BERDO compliance plan, and accessing flexibility measure options (including building portfolios, individual compliance schedules, and hardship plans). The City will also host public seminars with equipment manufacturers and vendors, utilities, and other experts. Finally the [Newton BERDO website](#) will be expanded to offer a resource clearinghouse for building owners and other stakeholders.

In addition to resources offered by the City of Newton itself, building owners can access assistance and technical support from the state and from their utilities. The Commonwealth's Large Building Energy Reporting (LBER) program will publish a database of energy use information about every building over 20,000 square feet in Massachusetts and will be publicly available starting in October 2025. MassCEC is establishing a Building Performance Exchange for large building decarbonization that will provide information and technical assistance to stakeholders for compliance with BERDO policies and energy reporting throughout the state. Early rollout for communities with BERDO policies is expected in 2025/2026. Through the utility-funded Mass Save program, building owners can access rebates and incentives for building decarbonization measures, low- or no-cost financing programs, and free scoping and technical assistance studies.

## **23. Does the City have adequate resources allocated to support building owners?**

The City has budgeted for consultants for FY2025. In FY2026, the City will assign an FTE. The first reports are due for 47 buildings on Sept. 15, 2025. We will use the most efficient combination of consultants and City staff needed to get the job done effectively.

It is important to note that under the Commonwealth's Large Building Energy Reporting program (Section 41 of Ch. 179 of the Acts of 2022) utilities will be required to report annually to the State the energy use for all buildings over 20,000 square feet. These reports will be due in March 2025 and available in October 2025. The City is coordinating with the State Department of Energy Resources on this reporting program. This will greatly simplify reporting by building owners. We will also set up and provide training and reporting assistance during this first period which will also be available to the remaining buildings that are due to report on September 15, 2026. Note that BERDO does not impose

penalties or fines until the third year of the emissions standard for each Tier. This leaves ample time for building owners to develop the capacity to submit reports before fines become a factor.

**24. Will there be a process for appeals if an owner disagrees with a city ruling related to BERDO?**

The BERDO ordinance will be implemented using objective calculations and criteria. The ordinance does not provide for an administrative appeal process.

**25. If an owner fails to pay fines related to failure to report or non-compliance, will those fines be tied to the owner or the asset?**

The owner of a building that is not in compliance with the ordinance will be responsible for all fines that have accrued, including for violations that exist when the owner acquires title to a property subject to BERDO.

**26. How much should property owners expect to pay for the required 3<sup>rd</sup>-party certifications?**

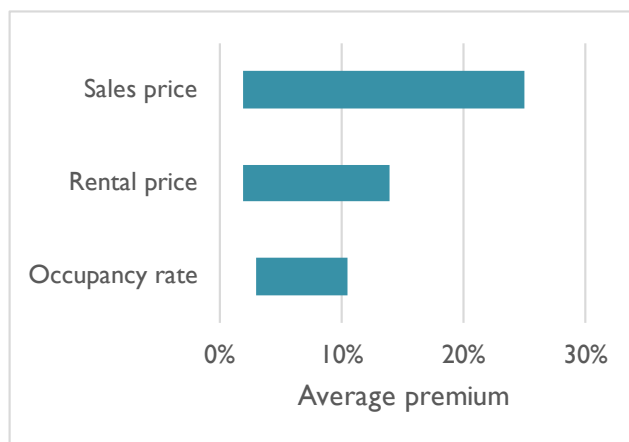
In general, we would not expect it to cost building owners more than \$500-\$1,000 per building depending on size of building, number of meters, and availability of building information; this is the median cost range reported by third-party verifiers in a recent RFI (Request For Information) issued by the City of Boston (note that Boston's reporting requirements are more complex than Newton's). Owners with more buildings will probably get some economies of scale such as the City did. Verifiers are only needed the second year and every 5 years after that. Also, beginning in October 2025, the state will be publishing energy use data for all buildings over 20,000 square feet. (This is a requirement of State law, Section 41 of Chapter 179 of the Acts of 2022.) The City is working with Mass Department of Energy Resources on the regulations for this program to try to coordinate it with Newton BERDO and help simplify reporting requirements for Newton building owners.

## Impacts of BERDO on the City of Newton

**27. It's important to me that Newton maintains its economic competitiveness within the state. How will BERDO affect our local businesses? What about our property values and tax base?**

Newton is a desirable location to live and work for many reasons, including its public school system, transportation options, proximity to Boston, and active community life. BERDO will not affect any of these positive characteristics. Preserving property values is also important to the long-term financial stability of Newton. Fortunately, the upgrades required by BERDO are likely to increase commercial property values. A [review](#) of studies published by the Institute for Market Transformation found that more energy efficient commercial buildings garner higher market value, sales price, and occupancy rates. As the stringency of state building sector emissions policies increases, buildings with reduced emissions intensities will only become more valuable.

**Added value of ENERGY STAR-labeled commercial buildings in the United States**



Sources: Devine and Kok 2015, Wiley et al. 2010, Fuerst and McAllister 2009/2011, Jackson 2009, Pivo and Fisher 2010, Kok et al. 2010, research assembled by IMT

**28. Religious institutions and nonprofits are important parts of the community fabric in Newton. What resources are available to help these organizations comply with BERDO?**

Acting on climate change is a crucial component of many religious institutions’ commitment to stewardship. Newton residents are already taking steps to decarbonize their houses of worship. For example, the First Unitarian Universalist Society in Newton, which occupies a historic building constructed in 1905, has already begun installing air source heat pumps in parts of their building. The Massachusetts chapter of Interfaith Power and Light highlights [success stories](#) from houses of worship around the state who have prioritized reducing their carbon emissions—including Eliot Church in Newton—and compiles [resources](#) for religious communities seeking to reduce their emissions. Like all institutions covered by BERDO, nonprofits and religious institutions are eligible to apply for hardship compliance plans if complying with BERDO would cause them exceptional financial hardship.

**29. I’m concerned about the potential impact of BERDO on renters and low-income households. What resources are available to help low-income and renter-occupied housing comply with BERDO?**

While residential buildings are not included in the initial BERDO policy, the City plans to add them in 2025. The City is assisting affordable housing owners with building decarbonization planning and implementation. and we expect all public and non-profit affordable housing buildings (nine total) will comply until 2040 or later. The cost of rent in government-subsidized housing is fixed and won’t be affected by BERDO. Financial resources are available to support the decarbonization of low-income housing. Low-income properties receive greater support for decarbonization through the utility-funded Mass Save program than do other utility customers. Building owners can access rebates and incentives for building decarbonization measures, low- or no-cost financing programs, and free scoping and technical assistance studies. Additionally, the [Massachusetts Community Climate Bank](#) has \$70 million in seed funding to provide loans to affordable housing for clean energy retrofits.



Based on local case studies, we expect the cost of complying with BERDO is equivalent to a 4 percent increase in rent for market-rate housing, which we do not expect to impact the amount of naturally affordable housing in Newton

**30. How does BERDO relate to statewide policies, including upcoming energy reporting requirements?**

The BERDO emissions targets are aligned with statewide climate law, which requires Massachusetts to achieve net zero greenhouse gas emissions by 2050. It is also consistent with approaches to building decarbonization in [Boston](#) and [Cambridge, both of which](#) recently enacted similar ordinances that reach net zero greenhouse gas emissions by 2050. By acting early to decarbonize large buildings through Newton BERDO, Newton residents will access several benefits: BERDO will serve as a hedge against uncertainty in state planning to meet GWSA requirements; phased decarbonization will avoid early replacement, lowering costs; and BERDO will reduce residents' exposure to rising gas rates under state policy.

Under the Commonwealth's Large Building Energy Reporting program (Section 41 of Ch. 179 of the Acts of 2022), utilities will be required to report annually to the State the energy use for all buildings over 20,000 square feet. These reports will be due in March 2025 and available in October 2025. The City is coordinating with the State Department of Energy Resources on this reporting program. This will greatly simplify reporting by building owners.

**31. I'm concerned that BERDO singles out the owners of certain types of buildings. Don't we need to reduce the emissions from all buildings, not just large commercial buildings?**

We are starting with large buildings because it is manageable and impactful with only 293 commercial buildings accounting for 23 percent of Newton's total emissions. When we add large residential buildings, it will be 413 buildings accounting for 28 percent of Newton's total emissions. There are over 34,000 residential units in the city including over 24,000 single family homes. Implementing a BERDO for this many buildings would be costly to manage and administer. At this time the City is encouraging voluntary energy efficiency and electrification through its 4 Our Future Program and Energy Coach Program. We are always working on ways to make these programs more effective.

**32. How much will BERDO implementation cost Newton taxpayers?**

We estimate the total annual cost to be up to \$290,000 per year. The administration does not anticipate seeking an override for this purpose.

**33. How will Newton use the funds generated by BERDO fines and alternative compliance payments?**

Fines, fees, and penalties are placed in a special city fund to be administer by the Climate and Sustainability Office. The funds can be used for:

- Projects that benefit environmental justice populations in Newton
- Costs to the City to administer BERDO
- Cost to the City to comply with BERDO
- Costs to local nonprofits (such as affordable housing providers) to comply
- Projects to reduce greenhouse gas emissions in Newton
- Education related to implementation of BERDO

### **34. How will buildings providing critical local services, such as schools and hospitals, be affected?**

Newton BERDO will regulate emissions from buildings providing critical local services (except state and federally owned buildings). City facilities and public schools provide a range of important services and will need to be decarbonized over time. The City of Newton has already made substantial progress decarbonizing its facilities and has more decarbonization projects planned. As a result, all municipal facilities, including public schools, will comply with BERDO until 2040 with no additional cost and no loss of critical services.

City of Newton is working closely with local healthcare institutions to ensure BERDO does not pose an undue burden. Specifically, we are developing ordinance language for City Council consideration that would exclude emissions from healthcare buildings that are required by existing regulations to provide critical healthcare services even in the event of grid power outages. We reviewed laws in every U.S. jurisdiction with a building performance standard—federal, state, county, and city—for exemptions for healthcare facilities; the draft Newton BERDO ordinance amendment for hospitals provides a more generous exemption than any other jurisdiction’s law.

Finally, the Newton BERDO emission standard for healthcare facilities is already comparatively lenient, even without the exemption:

- Cambridge: 60% reduction required by 2030 ([Cambridge Ordinance](#))
- Boston: 50% reduction required by 2030 ([Boston Ordinance](#))
- NYC: 30% reduction required by 2030 ([NYC Local Law 97](#))
- Newton: 10% reduction by 2030

# Planned content for Newton BERDO clearinghouse

## Energy use reporting

- Reporting tool
- How to gather whole building data (including tenants) from the utilities
- Obtaining utility data
- Large Building Energy Reporting (LBER) program

## Electrification solutions

- Equipment manufacturers
- HVAC design & implementation companies
- Case studies
- MassCEC Building Performance Exchange
- MassCEC Building Electrification and Transformation Accelerator (BETA)

## Financial Resources

- MassSave incentives and rebates
- MassSave financing
- Property Assessed Clean Energy (PACE)
- 197D tax deduction
- Massachusetts Community Climate Bank

## Emission Requirements for your building

- Multi-year visualization tool
- Compliance flexibility measures
- Alternative compliance payment

## Energy Efficiency Solutions to reduce emissions

- Boiler controllers
- Air leak testing & sealing

## Overview of Newton BERDO elements

- Reporting requirements & data entry
- Focus on direct emissions: gas & oil
- Emission limits by year
- Starting timeline for different building types & sizes

Help Desk:

- Data Entry
- Emission limits for your building
- Decarbonization options