



City Council Committee on Rules and Ordinances
Minutes of Monday, March 10, 2025, at 6:00 PM
Richard E. Mastrangelo Council Chamber, hybrid format
149 Main Street, Watertown, MA 02472

AGENDA: Continue discussion on proposed BERDO and regulations.

Present: John Gannon, chair; John M. Airasian, vice chair; Lisa Feltner, secretary.

Also present in the room: City Manager George Proakis, Asst. City Manager for Community Development & Planning Steve Magoon, Asst. Dir. for Energy Management Silas Fyler, Council Pres. Sideris, Councilors V. Piccirilli, A. Palomba, and N. Gardner (arrived 6:30), Municipal Policy Analyst Doug Newton, Susan Falkoff, Jocelyn Tager, Brian Hebeisen, Pat Rathbone, Jennifer Ballew, Dave Levine of Whitney Towers, Robert Pyne of Crossroads on the Charles, Sam Ghilardi, Beverly Seavey, Nora Kelly of Griffith Properties, Stephen Bradley of Broder, Doug Orifice and Bob Airasian of Watertown Business Coalition, Max Woolf of Charles River Regional Chamber, and from Boylston Properties: Mark Deschenes, Andrew Copelotti, Katie Sullivan, Marcus de Castro.

and present via zoom: Councilors C. Bays and E. Izzo, Sustainability Program Manager Laurel Schwab, Susan Ladue, Alan Leviton, Brian Noonan of Bloom Energy, Ellen Rothman, Jacky vanLeeuwen, Jim Eisenberg, Josh Rosmarin, Kai Verstrom, Kathryn Loup, Elodia Thomas, Dana Nielsen, Eric Svenson, William York, Pres. & CEO of Charles River Regional Chamber Greg Reibman, Halina Brown (joined 6:45).

Chair Gannon called the meeting to order at 6:00 with recognition that the city manager will make some comments before we move forward with reviewing BERDO materials. He also recognized there were many more participants in the room and connected remotely (~50) compared to the first committee meeting who would like to make comments, and the city has received many comments, emails and letters since. Additional documents were emailed by staff late this afternoon to the committee but not all of them would open. It was noted that the committee would still like to see the BERDO working group's comparison materials. It has also not been possible to find their meeting minutes or recordings online. Watertown's [climate and energy plan](#) identifies enacting a BEUDO so there were additional questions about whether a BERDO (reduction vs. just reporting use) is a change in scope.

City Manager Proakis clarified that when the referral was made to City Council, and he stated that he wanted us to be able to schedule meetings quickly, it was for members to have a chance to dive in sooner than later given BERDO's extreme complexity. There is a lot of discussion to be had in comparing what has been done in other communities, how it has been going there, and how Watertown fits into climate goals and what we can do. The committee shouldn't rush through the process and draft materials. You also need have some feedback that a committee would typically into consideration, with folks on every side of this issue. The manager introduced Jen Ballew, who has been running a similar program in Cambridge and is also a Watertown resident. To effectively administer a BERDO would require hiring additional staff (a few more full-time), which is not a priority at this time within the current budget per the manager. The administration will provide the best guidance we can to align with Council's policy direction and answer questions about where we are, and we will be responsive to where we go next.

It was noted that Cambridge, Boston, Newton, and Lexington are addressing energy reductions. The committee reviewed the draft BERDO Sections 7 through 11. Some of the concerns raised included: the process to date didn't include enough key stakeholders; benchmarking by tenants; impact on residential buildings and affordability; the much tighter timelines for some non-residential covered properties; how baselines are established for new properties, especially if already achieved LEED Gold Certified and meeting the state Specialized Stretch Code; waste and cost of eliminating equipment many years before end-of-life use; cost of electricity supply and delivery compared to gas depending on scale and current technology; use of fines for nearly impossible to achieve compliance in some cases; fees and penalties including their determination and rate; business competitiveness and strain on small local business; seeming arbitrary use of a public Review Board that reduces efficiency in considering hardship or exceptions and appeals (would require staff support); excluding gas for emergency backup generation due to limits of battery technology, etc. Attached documents provide more details.

Staff would like more time to respond to many stated concerns as well as new questions, including how to move forward on public engagement and help the committee and community understand materials that have been generated. The committee agreed and looks forward to hearing more about staffing and budget needs, as these don't necessarily scale down to the size of a municipality, and we look for more people to be engaged, especially key partners as identified in our climate and energy action plan. Chair Gannon suggested the next meeting would anticipate hearing updated responses from staff, after public

stakeholder meetings, and we would continue addressing community concerns with more discussion on a draft BERDO, regulations, building lists, and additional new materials, etc.

Feltner made a Motion to Continue, seconded by Airasian, approved 3-0.

Motion to Adjourn at 8:18 p.m. by Feltner, seconded by Airasian, approved 3-0.

Respectfully submitted, Lisa Feltner

Attached: (1) March 4 email from Housing for All Watertown (HAW) with letter; (2) March 5 email from Ernesta Krackiewicz with ACEEE's Policy Brief on Energy Burden; (3) March 10 email from 350 Mass Watertown/Watertown Faces Climate Change; (4&5) March 6 Letter and Statement made at March 10 from Charles River Regional Chamber; (6) Statement made on March 10 from Watertown Business Coalition; (7) March 10 Memo from Boylston Properties/Mark Deschenes; (8)BERDO draft (v1.8).

(1)

From: samghilardi@gmail.com <samghilardi@gmail.com>
Sent: Tuesday, March 4, 2025 12:41 PM
To: citymgr <citymgr@watertown-ma.gov>; City Councilors <citycouncilors@watertown-ma.gov>
Cc: Jacky van Leeuwen <jackyrvl@gmail.com>; Josh Rosmarin <josh.rosmarin@gmail.com>; RitaColafella <colafella@gmail.com>; DanielPritchard <pritchard33@gmail.com>
Subject: HAW considerations for draft BERDO

Dear City Councilors,

Please find the attached Housing for All Watertown Steering Committee's comments on the draft BERDO ordinance.

In summary, we are concerned that the residential emissions reduction requirements in the draft BERDO will disproportionately impact middle and low income residents in larger apartment and condo buildings that make up a key part of Watertown's unsubsidized affordable housing stock. We also think that gross building square footage is not the appropriate criteria to assess residential emissions. Data from Lexington's BERDO shows that square footage overestimates the residential portion of the community's emissions, and EPA data shows that homes in a large multifamily building on average consume 1/3 the energy of a single family home. For these these technical reasons, as well as uncertainty in federal policy and recent cuts to Mass Save at the state level, we urge the city council to remove the reduction requirements for residential buildings, but retain the reporting provision, and use this data to draft a BERDO 2.0 in 4-5 years tailored to the specific residential GHG emission patterns in Watertown.

Best,
Rita Colafella, Sam Ghilardi, Dan Pritchard, Josh Rosmarin, and Jacky van Leeuwen

Considerations for Applying BERDO to Watertown's Residential Buildings

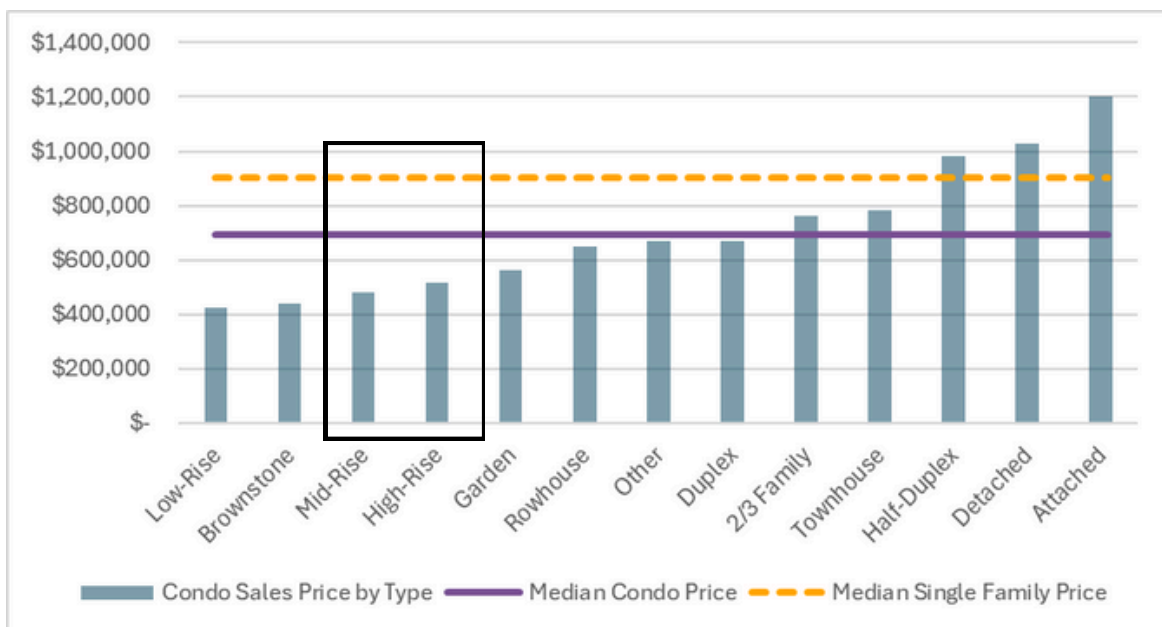
Introduction: Balancing Watertown's emissions and housing goals

Watertown has set a goal of net zero building emissions by 2050. To achieve this goal, the city is currently evaluating a proposed Building Energy Reduction and Disclosure Ordinance (BERDO). At the same time, our region is facing an acute housing shortage that, for many, makes staying here unsustainable and moving here unattainable. **Housing for All Watertown has concerns about the potential impact of the BERDO on the affordability of condos in large multi-unit buildings, and we believe that the City Council must evaluate its impact on housing costs alongside its climate benefits.** In this brief, we highlight several considerations when assessing the ordinance's impact on housing costs, and suggest an amendment to delay implementation of residential reduction requirements in order to collect more data and ultimately craft a more targeted and effective residential emission reduction ordinance.

1) The draft ordinance targets condo buildings >20,000 square feet, disproportionately affecting middle and lower income residents

- **Homes in large condo buildings are more affordable than in Watertown as a whole.** In 2024, the median high-rise condo sold for \$515,000, 25% less than the citywide median condo price of \$695,000, and over 40% less than the median single family home, according to the Watertown assessor.
- **The draft BERDO creates a two-tiered housing emission plan based on income.** Wealthier residents who can afford the \$903,000 price of a median single family home, or a \$760,000 unit in a two family can continue to burn heating oil or natural gas with no penalties or reporting standards. However, residents in more modest high-rise condos will be required to spend money to either reduce their emissions or pay for offsets for their individual units, while also paying additional HOA assessments so the condo association can do the same. The city should consider this inequitable impact before imposing the compliance provisions of the draft BERDO on condos and other multi-family buildings.

Median 2024 Condo Sale Price by Assessor Classification



2) The draft ordinance targets already-efficient homes in large residential buildings, but ignores the highest energy consumption homes

- Multi-family homes have the lowest *per-household* energy consumption of any residential class.** Using gross building size for residential reporting and enforcement ignores a key variable: the number of people living in each building. While a large multi-family building will, of course, consume more energy than a single family home, it also houses many more people. When looking at consumption data by *household* rather than building size, **a home in a building with 5+ units has 1/3 the energy consumption of a single family home.** Despite this, the draft ordinance applies reporting and compliance requirements only to low per-household consumption multi-family homes, while ignoring the highest consumption single family homes.

	Number of housing units (million)	Site energy consumption			
		Total Northeast	Total (trillion Btu)	Per household (million Btu)	Per household member (million Btu)
All homes	21.92	1,956	89.2	36.8	48.8
Housing unit type					
Single-family detached	11.23	1,355	120.7	45.6	47.9
Single-family attached	1.95	167	85.4	31.7	47.4
Apartments in buildings with 2–4 units	3.15	214	68.0	27.2	65.4
Apartments in buildings with 5 or more units	5.10	184	36.2	19.9	41.6

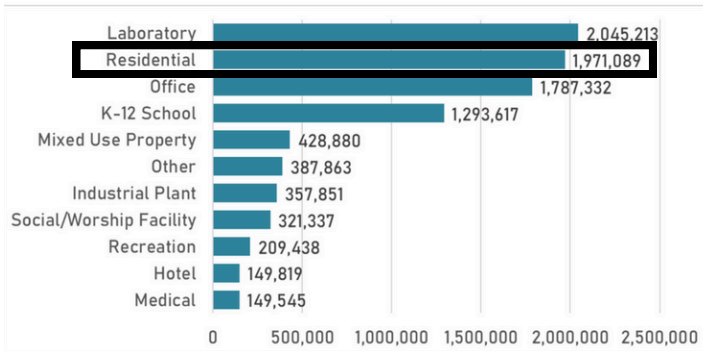
EPA Residential Energy Consumption Survey Table 2.1e

3) Data from nearby communities show that large residential buildings have much lower GHG emissions than lab or office space

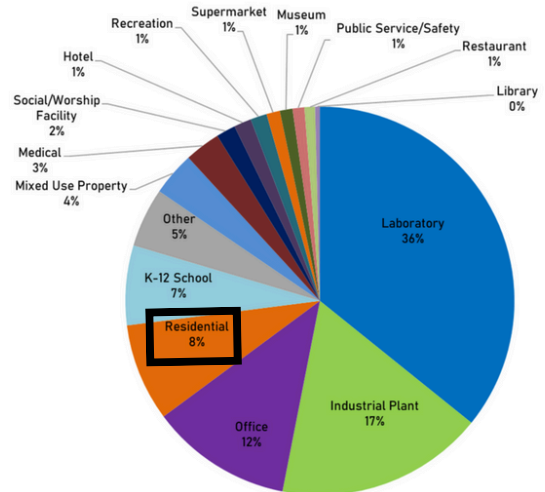
- Compared to actual data from neighboring communities, the draft BERDO appears to overestimate the GHG emissions of large condo buildings.** As shown on the graphs on the next page, Lexington’s residential buildings (>25,000 sqft) make up 21% of BERDO square footage, but only 8% of BERDO GHG emissions. Applying this ratio to Watertown, condos represent 8.5% of BERDO square footage, and would represent approximately 3.2%, or 2,650 MtCO₂e of GHG emissions. This number is 20% smaller than the 3,200 MtCO₂e estimated in the BERDO draft model.
- Overestimating residential emissions greatly affects the staff efforts needed to implement the draft BERDO.** Given the fiscal headwinds facing Watertown in FY26 and beyond, the city needs to be efficient with its limited staff resources. **As currently drafted, 91% (1,121 of 1,233) of property owners required to report and reduce emissions are individual condo owners, whose homes comprise an estimated 3.2% of GHG emissions from covered buildings.** Even with phased-in implementation, it is inefficient for city staff to spend most of their time working on reduction efforts with owners whose contributions are negligible to the overall emissions reduction goal in the proposal. By removing condo reductions from the ordinance, the city could reduce the case load of the staff responsible for BERDO compliance by 91%, while maintaining 97% of the estimated reduction in GHG emissions, giving them more time to focus time and energy on the buildings that actually generate the majority of Watertown’s GHG emissions.

Gross Floor Area by Property Type (Top 10)

Compared to 2022, there was an additional 442,686 square feet of laboratory space reported on. This is relevant to note because laboratories tend to be energy intensive spaces.



GHG Emissions by Property Type



Lexington 2023 BEU-D SUMMARY

Proposed amendment: Remove the reduction requirements for residential buildings, but retain the reporting provision. Use this data to draft a BERDO 2.0 in 4-5 years tailored to the specific residential GHG emission patterns in Watertown.

The draft BERDO requires residences to reduce their GHG emissions by 40% by the end of 2030. At the same time, changes at the Federal level under the new administration, plus recent cuts to Mass Save at the state level, are reducing the resources available for residents to meet these ambitious goals, while data from the EPA and nearby communities suggests that building size based on square footage alone is not the best metric to target buildings for residential GHG emission reductions. It is challenging to require reductions in residential emissions in an equitable manner, which is why both Cambridge and Newton removed residential buildings from their BERDO ordinances.

To mitigate the inequitable impacts of the current draft BERDO ordinance on middle- and lower-income residents, the city should remove the compliance provisions for residential buildings, while keeping the reporting requirements. After a few years of collection, the city should draft a BERDO 2.0 targeted at reducing residential emissions. Informed by data collected from Watertown, this ordinance can target the residences with the highest GHG emissions, and tailor interventions according to the type of home. The city's climate goal is to be carbon neutral by 2050, so there is still ample time to collect data and develop a targeted policy that allows us to advance both our climate goals and housing goals.

While BERDO has a role to play in helping the city reach its climate goals, it is not our only emission reduction tool. We believe that a complimentary path to reduce residential GHG emissions is to modernize Watertown's residential zoning ordinance to make it as easy as possible to replace old, inefficient, fossil fuel-burning homes with new, low-carbon buildings built according to our green stretch energy code. This is especially important near transit hubs, where new, dense, energy efficient buildings can also be built car-lite or car-free, minimizing both building and transportation GHG emissions.

(2)

From: Ernesta Kraczkiewicz <ernestakracz@gmail.com>

Sent: Wednesday, March 5, 2025 12:44 PM

To: Gannon, John <jgannon@watertown-ma.gov>; Feltner, Lisa <lfeltner@watertown-ma.gov>; John Airasian <jairasian@watertown-ma.gov>

Cc: Sideris, Mark <msideris@watertown-ma.gov>; Piccirilli, Vincent J <vpiccirilli@watertown-ma.gov>; Nicole Gardner <ngardner@watertown-ma.gov>; Izzo, Emily <eizzo@watertown-ma.gov>; Bays, Caroline <cbays@watertown-ma.gov>; Palomba, Anthony <apalomba@watertown-ma.gov>; Proakis, George <gproakis@watertown-ma.gov>; Magoon, Steve <smagoon@watertown-ma.gov>; Schwab, Laurel <lschwab@watertown-ma.gov>; Silas Fyler <sfyler@watertown-ma.gov>

Subject: BERDO will help low-income homeowners with Boston area's extremely high energy burden

I will unfortunately be out of town for the March 10 meeting of the City Council's Rules and Ordinances Committee, so I would like to make the following comments to you all now.

Watertown's draft BERDO was presented to the City Council Committee on Rules and Ordinances on February 18. During the discussion of the BERDO, concern was expressed about the financial impact of BERDO requirements on low-income owners of condos. It was pointed out that there will be a number of programs available to assist such owners in meeting these costs, and also that appeals may be made to the proposed Review Board to consider accommodations for property owners who have difficulties in meeting the requirements.

Another major point that should be understood is the importance of lowering energy costs for low income families in our area. A recent report shows that low-income households in the Boston area have **the highest median energy burden in the country!** See the report attached to this message. Low-income households often have higher energy burdens due to inefficient housing. Note the graph that shows that the median low-income household in the Boston Area spends 14% of their income on energy - as opposed to U.S. households overall which spend a median of less than 3%. Households that exceed 6% of their income on energy costs are typically considered highly energy burdened, and those that exceed 10% of their income on energy costs are typically considered **severely energy burdened**. Households with high energy burdens are more likely to experience poor health and poverty; alleviating the energy burden not only helps to lift the financial burden but also provides benefits to the family's health and comfort.

This energy burden will become even heavier for those households who depend on natural gas or oil for their heating. Projections of the cost of fossil fuels over the coming decades show that they are to increase substantially, in the case of natural gas due partly to the enormous cost of gas pipeline replacement. Electricity costs, however, are projected to remain stable over the next 3 decades. Households that are transferred from fossil fuel energy to electricity due to the BERDO requirements will benefit from significantly lower costs.

Thus the impact of BERDO on the low-income owners of condos covered by the BERDO should be expected to be very beneficial.

Sincerely,
Ernesta Kraczkiewicz
77 Riverside Street

Data Update: City Energy Burdens

SEPTEMBER 2024

Energy Equity for Homeowners

In cities across the country, many low-income families and other disinvested communities struggle with high energy burdens, including many homeowners. In this data update, we find that 25% of all low-income households in the United States have an energy burden above 15.2%. In many cases, low-income homeowners in particular experience very high energy burdens, with 25% of low-income homeowners having energy burdens over 17.2% and half having burdens over 9.4%.

Owner-occupied housing (especially in single-family homes and buildings with four units or fewer) makes up a significant portion of housing in cities. To reach their goals for climate action and energy affordability, local governments need to equitably include the owner-occupied sector as they tackle residential efficiency. ACEEE launched the [Energy Equity for Homeowners Initiative](#) in 2022 to help cities reach these goals.

ACEEE publishes data on energy burdens¹ (the percentage of household income spent on energy bills) to help governments, advocates, and other entities understand the scale of energy insecurity and inequity and prioritize energy investment (Drehobl, Ross, and Ayala 2020).² Households with high energy burdens are more likely to experience poor health and poverty (Lima, Ferreira, and Leal 2022; Hernández and Laird 2021; Partnership for the Public Good and PUSH Green 2022; Bohr and McCreery 2020; Goodson Bell et al. 2023; National Energy Assistance Directors' Association 2018).

We are presenting a limited data update to our [2020 energy burdens report](#) (which included energy burdens from 2017) to share more recent data on energy burdens faced by demographic groups across the country in the 25 cities included in the American Housing Survey (AHS).³ These data are especially important as many governments are actively working to equitably accelerate a clean energy transition that includes both the rental and owner-occupied residential sectors.

We highlight the energy burdens of metropolitan areas for a selection of highly impacted groups below.⁴ Consistent with previous research, energy burdens are higher for low-income communities and many communities of color than for all households overall, often due to inefficient housing.

¹ Energy burden is a term used to describe the percentage of annual household income that goes toward household energy costs. Households that exceed 6% or 10% of their income on energy costs are typically considered highly or severely energy burdened, respectively (APPRISE 2005).

² ACEEE's [energy burden page](#) provides more information on previous energy burden research.

³ Energy burdens were calculated using data from the Census Bureau's American Housing Survey (AHS), published in odd years. AHS includes a selection of metropolitan areas (based on the Census Bureau's designated [metropolitan statistical areas](#)), some of which are included in each edition of the survey and some of which are included in alternating editions. For a more detailed discussion of ACEEE's methodology for calculating energy burdens, see Drehobl, Ross, and Ayala 2020.

⁴ This data update includes a selection of highly impacted groups including low-income households, Black households, and Hispanic households. These groups were selected based on the previous publication and sample size in the AHS. However, other groups also face disproportionately high energy burdens, including Native American households, people with disabilities, and older adults. Additionally, energy burden is just one indicator of energy insecurity, and a low average burden does not indicate an absence of energy insecurity or broader systemic discrimination.

In this data update, we find that many households continue to pay excessive amounts of their incomes on energy bills, continuing a trend noted in earlier research and highlighting the importance of policy action. Key insights include:

- Low-income households in the United States spent a median of 8.3% of their annual income on energy bills (exceeding the threshold of 6% that traditionally indicates a high energy burden), while households overall spent a median of 2.9%.
- In many cities, 25% or more of households experience burdens above 6%.
- A quarter of low-income households have an energy burden above 15.2%, significantly above the traditional threshold of 10% to indicate severe burdens.
- A quarter of all households in the United States have an energy burden above 5.7%.
- Consistent with previous research, low-income residents, renters, Black households, and Hispanic households tend to experience higher median energy burdens than the median for all households in an area.
- Many of the most burdened low-income residents in cities own their homes and require support to affordably meet their energy needs.⁵ For example, of the low-income households included in the AHS survey, roughly half own their own homes. Low-income homeowners have higher energy burdens on average than low-income renters in many cities, and they require attention in city energy efficiency efforts in addition to renters.⁶

While this data update does not include a regional analysis, burdens were often particularly high for low-income households in cities in the Northeast and Mid-Atlantic, like Boston, Baltimore, New York, and Washington, DC, indicating a particular need for action in those locations.

DISCUSSION

Low-income households face high energy burdens across the country, with upper quartile burdens reaching over 15% in many cities (figure 1).

⁵ Renters also face extreme challenges with energy burdens and face additional barriers to accessing energy investment. ACEEE's [Energy Equity for Renters initiative](#) provides resources to equitably deploy energy efficiency to this burdened group. These findings emphasize the importance of including low-income homeowners in local energy efficiency efforts, in addition to the important focus on renters.

⁶ The data used for this resource include owners and renters living in all building sizes. However, most owners, 97% nationally, live in small buildings (four units or fewer). Therefore, efforts to lower energy burdens for homeowners should prioritize small buildings.

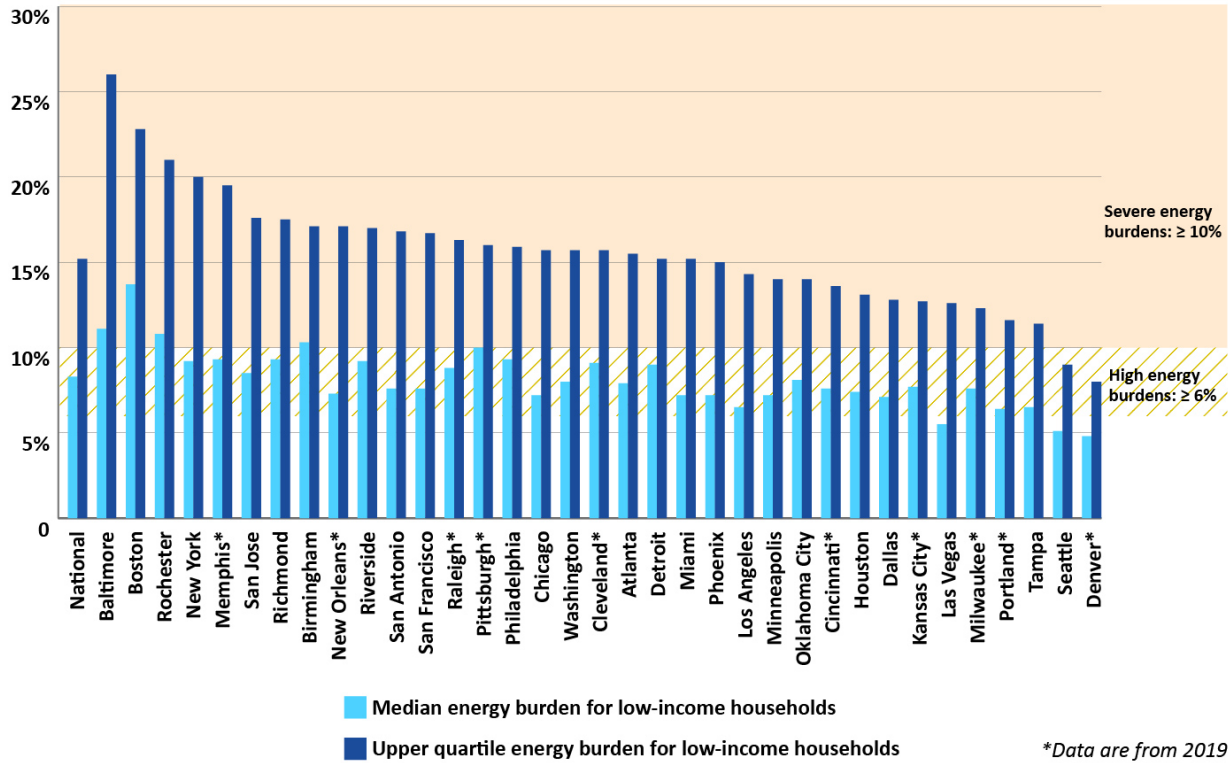


Figure 1. Upper quartile and median energy burden rate by city. A quarter of low-income households have an energy burden higher than the upper quartile threshold, while half experience energy burdens above the median. Energy burdens above 6% are traditionally considered high, while burdens above 10% are considered severe. *Data are from 2019.

Table 1 presents the upper quartile energy burden rates for each group, indicating that 25% of households in the group experience a burden higher than the rate listed in the the table.

Table 1. Upper quartile energy burdens in metro areas a selection of highly impacted groups¹. 25% of households in a group experience an energy burden above this number. Orange cells indicate high energy burdens, over 6%, while red cells indicate severe energy burdens, over 10%.

Metro Area	All households			Low-income households			Black households			Hispanic households		
	All	Owner	Renter	All	Owner	Renter	All	Owner	Rental	All	Owner	Renter
National	5.7%	5.4%	6.3%	15.2%	17.2%	13.2%	7.2%	6.7%	7.8%	6.2%	5.8%	6.8%
Atlanta	5.4%	5.1%	6.2%	15.5%	20.6%	11.0%	6.2%	6.2%	6.7%	6.5%	6.2%	7.4%
Baltimore	5.4%	4.9%	7.2%	26.0%	48.0%	17.7%	8.6%	7.6%	10.5%	7.2%	5.9%	8.0%
Birmingham	7.5%	7.0%	9.7%	17.1%	16.8%	17.1%	10.3%	9.6%	11.0%	7.6%	7.0%	9.5%
Boston	6.1%	6.0%	6.7%	22.8%	37.2%	19.4%	8.5%	6.6%	10.5%	7.4%	5.3%	8.1%
Chicago	4.1%	4.0%	4.7%	15.7%	14.9%	18.6%	9.1%	10.2%	6.9%	4.8%	3.8%	6.2%
Dallas	4.5%	4.3%	4.8%	12.8%	17.1%	10.0%	5.1%	5.3%	5.0%	5.2%	5.6%	5.0%
Detroit	6.0%	5.4%	8.3%	15.2%	14.1%	16.4%	8.8%	7.6%	9.7%	6.0%	5.4%	6.9%
Houston	5.3%	4.9%	5.9%	13.1%	18.3%	10.4%	6.3%	5.5%	7.2%	6.2%	6.3%	6.0%

Metro Area	All households			Low-income households			Black households			Hispanic households		
	All	Owner	Renter	All	Owner	Renter	All	Owner	Rental	All	Owner	Renter
Las Vegas	4.1%	3.9%	4.3%	12.6%	13.0%	12.4%	4.8%	4.3%	6.4%	4.2%	4.0%	4.3%
Los Angeles	4.1%	3.8%	4.4%	14.3%	17.3%	13.0%	5.7%	3.5%	6.0%	4.7%	4.4%	5.0%
Miami	5.0%	5.0%	5.4%	15.2%	16.6%	13.2%	4.9%	4.4%	6.0%	5.8%	5.5%	5.8%
Minneapolis	3.7%	3.5%	4.9%	14.0%	15.9%	12.2%	4.4%	2.7%	6.0%	4.6%	3.3%	9.0%
New York	5.4%	5.6%	5.1%	20.0%	25.1%	16.0%	5.1%	6.3%	4.9%	5.6%	4.5%	7.7%
Oklahoma City	5.7%	4.7%	7.2%	14.0%	14.6%	13.5%	6.9%	5.8%	9.1%	6.2%	5.7%	7.0%
Philadelphia	5.4%	5.1%	6.2%	15.9%	19.7%	15.4%	7.4%	6.0%	8.0%	6.6%	6.8%	6.6%
Phoenix	4.4%	4.3%	4.5%	15.0%	20.0%	10.0%	4.3%	3.8%	4.4%	5.6%	5.6%	5.4%
Richmond	5.1%	4.7%	6.6%	17.5%	17.5%	16.8%	6.9%	5.8%	7.8%	6.4%	7.2%	6.0%
Riverside	6.2%	5.8%	7.3%	17.0%	20.0%	15.4%	6.9%	4.2%	10.1%	6.2%	6.1%	6.8%
Rochester	7.3%	6.9%	8.4%	21.0%	23.3%	17.6%	10.4%	6.4%	14.8%	8.5%	9.9%	8.0%
San Antonio	5.4%	5.1%	6.5%	16.8%	17.3%	15.0%	5.6%	5.1%	7.0%	6.1%	5.5%	7.0%
San Francisco	3.1%	3.0%	3.2%	16.7%	20.0%	14.6%	5.9%	3.8%	7.2%	3.2%	3.7%	3.0%
San Jose	2.7%	2.7%	2.8%	17.6%	31.3%	14.0%	3.4%	3.7%	3.4%	3.9%	4.4%	3.7%
Seattle	2.4%	2.5%	2.2%	9.0%	10.2%	8.0%	3.4%	3.0%	3.4%	2.8%	3.0%	2.8%
Tampa	4.7%	4.6%	4.8%	11.4%	13.3%	8.7%	5.9%	7.7%	4.9%	5.6%	5.4%	5.8%
Washington	3.7%	3.6%	3.8%	15.7%	23.3%	11.4%	4.4%	4.4%	4.4%	4.3%	4.2%	4.6%
Cincinnati*	4.4%	4.3%	4.8%	13.6%	14.8%	10.9%	5.0%	4.3%	6.5%	6.5%	4.9%	6.5%
Cleveland*	6.3%	5.5%	8.3%	15.7%	15.7%	15.5%	8.8%	8.4%	9.1%	9.5%	4.9%	15.5%
Denver*	2.6%	2.6%	2.9%	8.0%	10.0%	6.7%	3.8%	3.9%	3.4%	3.2%	2.8%	3.3%
Kansas City*	4.9%	4.2%	6.6%	12.7%	13.6%	12.0%	6.3%	4.8%	8.6%	5.5%	4.0%	5.8%
Memphis*	7.3%	6.1%	8.3%	19.5%	27.8%	15.4%	8.6%	8.4%	9.0%	7.9%	4.4%	9.0%
Milwaukee*	5.1%	4.5%	6.3%	12.3%	16.0%	10.9%	7.5%	6.3%	8.0%	6.0%	5.7%	6.2%
New Orleans*	5.3%	5.1%	5.7%	17.1%	27.6%	10.9%	7.0%	7.2%	6.9%	5.4%	4.9%	6.5%
Pittsburgh*	5.8%	5.3%	8.4%	16.0%	15.5%	18.4%	7.6%	6.5%	12.6%	4.3%	3.5%	12.0%
Portland*	3.5%	3.4%	3.8%	11.6%	15.0%	8.2%	4.9%	4.5%	5.1%	4.5%	4.5%	4.8%
Raleigh*	4.9%	4.8%	5.3%	16.3%	19.2%	14.3%	6.9%	7.3%	6.2%	5.3%	5.5%	5.3%

Two example cities demonstrate the severity of energy burdens faced by too many households. For example, in Richmond, low-income households have a median annual income of \$20,000 and median annual utility bills of \$1,800. A household with a median income and utility cost would pay 9% of their income on energy bills. For a low-income Richmond household earning an income in the 25th percentile (\$11,700) and having energy bills in the 75th percentile (\$2,640), the energy burden skyrockets to 22.6%.

Boston provides another example, with a quarter of low-income homeowners in Boston having an energy burden over 37% of their annual income.⁷

CALL TO ACTION

The scale of energy insecurity across the country necessitates major action. Governments and utilities have a role to play in reducing these burdens and ensuring that all households can meet their energy needs and access the benefits of energy efficiency and weatherization. Doing so successfully requires prioritizing the most burdened households for energy investment and eliminating barriers that many disinvested households face to accessing energy programs. Appendix A lists resources on strategies to lower the energy burdens of low-income households and advance energy equity. Appendix B provides median energy burden data for a selection of highly impacted groups, providing additional information to help steer cities' efforts.

⁷ As the AHS includes a limited number of metropolitan statistical areas (MSAs), other jurisdictions can explore tools like the Department of Energy's [Low-Income Energy Affordability Data](#) (LEAD) tool and the White House Council on Environmental Quality's [Climate and Economic Justice Screening Tool](#) (CEJST) to better understand burdens faced by their specific community.

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APPENDIX A: RESOURCES TO REDUCE ENERGY BURDENS

The following ACEEE resources provide actionable guidance on the ways to meet the energy needs of low-income households and advance energy equity:

- [Adapting Energy Efficiency Programs to Reach Underserved Residents](#)
- [Strengthening Equity in Energy Efficiency Programs: Case Studies of Two Utilities](#)
- [Toward Affordable Energy Access: Approaches to Reducing Energy Unaffordability, Arrearages, and Shutoffs](#)
- [Equity and Electrification-Driven Rate Policy Options](#)
- [Energy Equity for Homeowners: Policy and Program Guide for Local Governments](#)
- [Toward More Equitable Energy Efficiency Programs for Underserved Households](#)
- [Advancing Equity through Energy Efficiency Resource Standards](#)
- [Leading with Equity: Recommendations for State Decision Makers, Utilities, and Regulators to Advance Energy Equity](#)
- [Meeting the Challenge: A Review of Energy Efficiency Program Offerings for Low-Income Households](#)
- [Energy Equity for Renters Toolkit](#)
- [Fostering Equity Through Community-Led Clean Energy Strategies](#)
- [A New Lease on Energy: Guidance for Improving Rental Housing Efficiency at the Local Level](#)

APPENDIX B: MEDIAN ENERGY BURDEN RATES

Median energy burdens in metro areas a selection of highly impacted groups.⁸ 50% of households in a group experience an energy burden above this number. Orange cells indicate high energy burdens, over 6%, while red cells indicate severe energy burdens, over 10%.

Metro area	All households			Low-income households			Black households			Hispanic households		
	All	Owners	Renters	All	Owners	Renters	All	Owners	Renters	All	Owners	Renters
National	2.9%	2.8%	3.1%	8.3%	9.4%	7.0%	3.5%	3.4%	3.6%	3.1%	2.9%	3.3%
Atlanta	2.9%	2.9%	1.7%	7.9%	10.3%	7.1%	3.2%	3.3%	3.2%	3.8%	3.0%	4.2%
Baltimore	2.8%	2.7%	3.1%	11.1%	14.6%	10.1%	3.7%	3.5%	3.8%	3.0%	2.6%	3.4%
Birmingham	3.8%	3.6%	4.4%	10.3%	11.0%	9.5%	5.1%	5.2%	4.9%	4.9%	5.1%	4.8%
Boston	3.2%	3.1%	3.2%	13.7%	16.8%	11.7%	3.9%	3.5%	4.1%	4.0%	3.1%	4.2%
Chicago	2.2%	2.2%	2.3%	7.2%	7.6%	5.7%	3.2%	3.6%	2.6%	2.5%	2.4%	2.5%
Dallas	2.5%	2.4%	2.6%	7.1%	8.8%	5.7%	3.0%	2.5%	3.2%	3.0%	3.2%	2.6%
Detroit	3.2%	3.0%	3.7%	9.0%	8.9%	9.0%	4.0%	4.0%	4.5%	2.8%	2.8%	3.2%
Houston	2.9%	2.6%	3.3%	7.4%	9.1%	6.2%	3.3%	2.9%	3.5%	3.5%	3.5%	3.5%
Las Vegas	2.2%	2.1%	2.4%	5.5%	6.0%	5.0%	2.5%	2.1%	2.6%	2.6%	2.4%	2.6%
Los Angeles	2.0%	1.9%	2.1%	6.5%	8.8%	5.9%	2.4%	2.5%	2.3%	2.4%	2.4%	2.4%
Miami	2.4%	2.4%	2.4%	7.2%	8.4%	5.8%	2.6%	2.5%	2.9%	2.6%	2.6%	2.5%
Minneapolis	2.2%	2.1%	2.7%	7.2%	8.3%	5.6%	2.6%	1.8%	3.4%	2.4%	2.0%	3.5%
New York	2.7%	2.9%	2.4%	9.2%	12.2%	6.8%	2.8%	3.1%	2.3%	2.8%	2.6%	3.3%
Oklahoma City	3.0%	2.7%	4.0%	8.1%	8.4%	7.4%	4.3%	3.6%	4.6%	3.4%	3.1%	4.0%
Philadelphia	2.7%	2.6%	3.0%	9.3%	10.5%	7.8%	3.6%	3.4%	3.7%	4.1%	4.5%	3.2%
Phoenix	2.3%	2.3%	2.3%	7.2%	8.3%	5.6%	2.1%	2.4%	1.8%	2.9%	2.9%	2.9%
Richmond	2.8%	2.7%	3.2%	9.3%	10.9%	7.8%	3.5%	3.4%	3.6%	3.2%	3.6%	3.0%
Riverside	3.1%	3.0%	3.4%	9.2%	9.8%	8.3%	3.0%	2.8%	3.8%	3.1%	3.1%	3.3%

⁸ Data in this table come from the 2021 AHS, with the exception of cities marked with *, for which data are available only from 2019.

Metro area	All households			Low-income households			Black households			Hispanic households		
	All	Owners	Renters	All	Owners	Renters	All	Owners	Renters	All	Owners	Renters
Rochester	4.0%	3.8%	4.6%	10.8%	12.5%	8.9%	4.8%	4.0%	5.8%	5.0%	4.2%	5.2%
San Antonio	2.8%	2.7%	3.1%	7.6%	8.2%	7.0%	2.7%	2.5%	3.6%	3.2%	3.0%	3.6%
San Francisco	1.5%	1.5%	1.5%	7.6%	8.8%	6.0%	2.5%	2.3%	2.8%	1.7%	1.9%	1.6%
San Jose	1.3%	1.3%	1.4%	8.5%	13.5%	6.5%	2.3%	2.4%	2.2%	2.1%	2.2%	2.1%
Seattle	1.2%	1.3%	1.2%	5.1%	6.4%	4.2%	1.7%	1.4%	1.9%	1.4%	1.4%	1.3%
Tampa	2.5%	2.5%	2.4%	6.5%	8.0%	5.3%	2.9%	3.4%	2.6%	3.1%	3.2%	3.0%
Washington	2.1%	2.1%	1.9%	8.0%	11.5%	6.7%	2.5%	2.7%	2.4%	2.5%	2.5%	2.2%
Cincinnati*	2.7%	2.6%	3.0%	7.6%	8.6%	7.2%	3.1%	2.9%	3.6%	3.2%	2.5%	3.6%
Cleveland*	3.1%	2.8%	3.9%	9.1%	9.1%	9.1%	4.3%	4.6%	3.9%	4.8%	3.5%	7.2%
Denver*	1.7%	1.6%	1.7%	4.8%	6.0%	4.0%	2.1%	1.9%	2.1%	2.0%	1.8%	2.1%
Kansas City*	2.8%	2.6%	3.5%	7.7%	8.3%	7.2%	4.0%	3.2%	5.2%	3.4%	3.2%	3.5%
Memphis*	3.8%	3.3%	4.8%	9.3%	12.0%	8.0%	4.9%	4.3%	5.1%	4.1%	2.4%	4.8%
Milwaukee*	3.0%	2.7%	3.5%	7.6%	9.0%	6.6%	4.0%	3.6%	4.2%	3.6%	3.7%	3.4%
New Orleans*	2.8%	2.7%	3.1%	7.3%	9.4%	5.7%	3.4%	3.1%	3.6%	3.0%	3.1%	3.0%
Pittsburgh*	3.4%	3.2%	4.4%	10.0%	10.1%	8.7%	4.4%	3.7%	5.1%	2.0%	1.9%	2.0%
Portland*	2.1%	2.1%	2.1%	6.4%	8.6%	4.8%	2.4%	2.7%	2.3%	2.7%	2.5%	2.8%
Raleigh*	2.9%	2.8%	3.0%	8.8%	10.8%	7.1%	3.7%	4.1%	3.4%	3.7%	3.7%	3.7%

(3)

From: 350 Mass Watertown <watertown@350mass.org>

Sent: Monday, March 10, 2025 2:56 PM

To: Feltner, Lisa <lfeltner@watertown-ma.gov>

Subject: Re: BERDO

Hi Lisa, sorry to be getting this to you so late. If you have a chance to read through before meeting that would be great. Ann

Dear Councilors Gannon, Airasian, and Feltner:

As you know, the issue before your committee is complex; we have tried to stay “out of the weeds” in this letter, but there is still a lot to say. The BERDO [Building Emission Reduction Disclosure Ordinance] you are considering is intended to address the fact that approximately 2% (2020) of Watertown’s largest buildings contribute about 50% of the GHG emissions created by the city’s buildings. It is important to keep in mind that this BERDO is one of the first action items in Watertown’s Climate and Energy Plan unanimously adopted by the City Council in 2022.

The BERDO recently sent to the City Council is based on the ordinances already adopted by and in use in Boston and Cambridge. Newton’s, which was passed recently, is a weaker ordinance and new to that city’s building owners; it is an outlier in not including electricity.

It is important to include electricity because a large and growing proportion of emissions comes from electricity; Newton’s BERDO does not address the need to reduce the energy used by equipment such as lights and heat pumps. Watertown’s BERDO requires high quality Class 1 RECs (Renewable Energy Certificates) generated by renewable energy facilities in New England that are validated by MASSDOER as part of the MASS RPS used in the standard Massachusetts electricity mix. Since the Massachusetts electric grid is already very clean, most fully electric buildings would only need to buy at most a few percentages of additional RECs to comply with the BERDO. Those who prefer will have the option to use Watertown’s ACP payments instead to fund hyper-local clean energy projects. Like Boston’s and other city’s, Watertown’s BERDO does include residential buildings. Because of Watertown’s mix of building types, it is critical that it does if we are to meet our climate goals.

Many of the developers active in Watertown also operate in Cambridge, which has been reporting under a BERDO since 2015 and Boston, which has had a BERDO since 2023. As a result, developers here will be accustomed to the practices required by Watertown’s ordinance. Developers in Cambridge, including Alexandria Real Estate, were members of the BEUDO review committee there and recommended an ordinance that called for recording that would reflect any reduction (or lack thereof) of GHG emissions. Their experience in Cambridge and Boston will provide familiarity with the reporting required in Watertown. Furthermore, the timelines for building reductions and the price of carbon in Watertown’s BERDO are consistent with Cambridge’s and Boston’s.

With both Boston and Cambridge using the same metrics, Watertown has been and will remain competitive and desirable. Neither Cambridge’s nor Boston’s BERDOs have brought development to an end in those cities. In addition, more Massachusetts cities are adopting BERDOs all the time and since the Commonwealth has mandated the elimination of GHG emissions in every Massachusetts city and town by 2050, all developers and building owners will have to achieve these same reductions. No municipality will have an advantage because it does not require a significant reduction in GHG emissions.

It is true that our BERDO only applies to existing buildings and that the specialized opt-in stretch code in effect in Watertown has a fossil-fuel pathway. Still it will make economic sense to all developers to build to the BERDO standard in the first place. The BERDO’s timeline of GHG emission reduction by 2035 pertains to only approximately 20% of the buildings covered by the ordinance; the other 80% are on a 2050 timeline. To provide additional time for reduction planning, baselines can be back dated and planning for reductions can start during the baseline years.

The Watertown BERDO will cover 202 buildings, which create almost half of GHG emissions from buildings. Of these buildings, 65 (30%) contain residential units—19 are classified as mixed-use residential and 27 as condominiums. Some condo buildings have owners who have bought units for investment purposes and rent them. The average rent in most of Watertown’s newer large buildings is \$3,000/month or higher; most tenants pay for their own utilities. Our low-to middle-income population does not live in these buildings so the BERDO will have little or no adverse impact them.

The projected rise in the cost of using power from fossil fuels, an increase we are already experiencing, and the relative stability of electricity makes it clear that all tenants, including vulnerable households, will benefit from the reduction of dependence on fossil fuel called for by the BERDO. If there are condo owners who reside in their units and for whom retrofits will cause hardship, the BERDO creates a Review Board, which will meet with owners and develop Hardship or Deferral Plans.

Note that MassSave has *not* cut money available for retrofits as reported. Only the planned rate of increase has been reduced. Its budget has actually increased by \$500 million for the next three years with greater focus on low- and middle-income households.

Finally, as mentioned above, the Commonwealth has mandated that every city be net zero by 2050. Rather than waiting until the deadline approaches, the BERDO gives owners a manageable path forward. It is irrefutable that we must reduce GHG emissions. It

is undeniable that it will take investment, but it is undeniable that these investments will create energy savings and slow climate change.

In the past year alone, tens of thousands of people in Florida, North Carolina, and Los Angeles lost their homes because of the climate crisis. Every time we allow a non-net-zero building to be built here in Watertown, every time we allow an existing building here in Watertown to contribute substantial GHG emissions to the atmosphere, every time we miss an opportunity to reduce GHG emissions, we are contributing to the increase in homelessness and vulnerability and ultimately to the demise of the planet. Watertown's City Council just voted to add over 3,000 new homes to this city in the hopes of addressing the region's dire housing shortage. Without a strong BERDO, these buildings will increase the vulnerability of all of us who are in peril from climate change."

Thank you.

Watertown Faces Climate Change

Cc/ Watertown City Council

George Proaskis, City Manager

Representative Steve Owens

Silas Fyler

(5)

Opinion Letter by Max Woolf, for R&O Committee, March 6, 2025

Fighting climate change is essential, but how we do it matters.

[Watertown is considering new rules](#) that would shift the costs of decarbonization onto property owners, businesses, and renters. The [proposed ordinance](#), known as BERDO, would have Watertown join Boston, Lexington, Cambridge, and Newton by requiring owners of properties 20,000 square feet or larger to track and reduce fossil fuel use — or face fines.

While specific requirements and timelines vary based on building size, under the proposal, all large commercial and residential property owners in Watertown will have to take a combination of the following steps to comply:

- Hire a consultant to measure and benchmark energy use
- Report energy use annually to the city
- Take steps to reduce emissions, such as replacing gas boilers with heat pumps, upgrading HVAC systems and adopting other efficiency measures, or pay fines
- Periodically verify energy data through third-party consultants at the owner's expense
- Implement efficiency upgrades, like installing new insulation, optimizing building controls, or reducing overall energy consumption, or pay fines
- Possibly install on-site solar panels or instead purchase costly electricity offsets (even after completing retrofits)

On top of that, Watertown's BERDO rules are different from Boston's, Cambridge's, Newton's, or Lexington's, and that's a problem in and of itself because anyone who owns or manages property in multiple communities must navigate a different set of complex rules and deadlines.

Watertown's proposed ordinance also goes further than Newton's, Cambridge's, or Lexington's, raising concerns about the city's future affordability and competitiveness, not just against these communities but also communities across the region that have not adopted BERDO rules.

Off-Site vs. On-Site Emissions

For example, Newton's BERDO focused solely on on-site emissions reductions, like replacing gas boilers, while Watertown's draft language expands regulations to include off-site emissions. This means large property owners would need to install solar panels, buy [costly renewable energy credits \(RECs\)](#), or implement additional efficiency upgrades.

The primary choice is RECs, which reflect the New England grid's fossil fuel reliance. Payments subsidize clean power sources like wind farms. This means large apartment buildings, condominium associations, and other property owners must not only retrofit their buildings but also incur extra payments for the same electricity others purchase at standard market rates. Thus, the ordinance effectively becomes not just a building emissions reduction tool but a mechanism requiring businesses and renters to subsidize renewable energy projects.

An Accelerated Timeline

Watertown's proposed ordinance also sets an aggressive schedule for compliance, mandating that the largest commercial properties reach net zero by 2035 — 15 years sooner than Newton. This significantly compressed timeline forces expensive upgrades in a way that may not be financially feasible for many businesses and property owners.

Even a 2050 net-zero goal timeline would strain Watertown's biotech sector which contributes an outsized amount to the city's tax base. An accelerated 2035 deadline only worsens the challenge, likely reducing commercial property values and the city's long-term tax revenues, both of which will make the city less competitive. This is especially important as neighboring communities like Waltham and Burlington are not imposing such requirements on businesses.

Impact on Apartments, Condos, and Housing Affordability

Finally, unlike Newton and Cambridge, Watertown's BERDO proposal includes large residential buildings. These apartments and condos house some of the city's most vulnerable residents and a substantial portion of its workforce. At a time when we need to reduce, not raise, the cost of housing, BERDO will hurt housing affordability.

That does beg the question, how much will rents rise? And what will businesses have to pay for retrofitting their buildings? There are no easy answers to these questions. Every building is different. However, the City of Newton conducted an [economic analysis and case studies](#), finding that rent increases could reach 4% in a single year—a significant burden for both business owners and renters at a time when so many other costs are rising. Notably, Newton's estimate does not include off-site emission offset costs, which Watertown's ordinance does.

Watertown has yet to conduct a similar analysis. If the results were anything like Newton's, they would demonstrate that these costs will likely be passed on to commercial and residential tenants.

Finding a Balanced Path

Make no mistake: BERDO will require expensive investments and challenging retrofits. It will drive up rents and it will make Watertown less competitive for both owners and tenants.

We must balance doing our part to stem the climate crisis while also keeping Watertown affordable and economically viable.

The Watertown City Council's Committee on Rules and Ordinances will hold [a public hearing on BERDO](#), March 10, at 6 p.m. The Charles River Chamber urges councilors to carefully consider the costs of this ordinance and its unintended consequences.

Max Woolf is the Public Policy & Government Affairs Manager at the Charles River Regional Chamber. Contact him at mwoolf@charlesriverchamber.com.

From: Greg Reibman <greibman@charlesriverchamber.com>

Sent: Thursday, March 6, 2025 4:12 PM

To: City Councilors <citycouncilors@watertown-ma.gov>

Cc: Proakis, George <gproakis@watertown-ma.gov>; silas.fyler@watertown.k12.ma.us <silas.fyler@watertown.k12.ma.us>; Magoon, Steve <smagoon@watertown-ma.gov>; Max Woolf <mwoolf@charlesriverchamber.com>

Subject: BERDO

Good afternoon Watertown City Councilors:

I wanted to make sure you've seen our letter to the [Watertown News related to BERDO](#).

Thanks very much.

Greg Reibman (he/him) | President & CEO

Charles River Regional Chamber

✉ greibman@charlesriverchamber.com

☎ 617-799-0550 [schedule a time to connect with me](#)

🖱 www.charlesriverchamber.com

CHARLES RIVER

REGIONAL CHAMBER

March 10th, 2024

Dear Chair Gannon,

Fighting climate change is essential, but how we do it matters.

BERDO has an admirable goal: to reduce greenhouse gas emissions and fight the climate crisis.

But Massachusetts is facing another crisis: affordability and competitiveness.

Our western suburbs have become prohibitively expensive; it is perhaps our top economic vulnerability. It pushes our workforce further away, keeps seniors from downsizing, and prevents young adults from returning to where they grew up. This has resulted in staffing shortages in health care, child and senior care, hospitality, and other industries.

As written, BERDO would only serve to worsen this vulnerability. It shifts the cost of decarbonization onto residents and businesses. Under the ordinance, many large apartment buildings in Watertown will have to replace boilers, buy RECs, and change HVAC systems. These upgrades come at a cost—costs that won't impact single-family homeowners but will hit our most vulnerable renters, who make up a substantial portion of the workforce.

Affordability creates another problem: competitiveness. Young adults are leaving our state in droves...and Businesses that support the tax base—especially in small communities—are leaving with them.

You have heard from the lab sector that BERDO will make Watertown less competitive. Our life science employers have helped Watertown accomplish incredible things. Still, under BERDO, future and current large employers could look to other communities like Burlington and Waltham that do not have such policies and go there.

The chamber recognizes the need to decarbonize and do our part, but at what cost?

And make no mistake: as proposed, BERDO will cost a lot. It will require expensive investments and challenging retrofits. It will drive up rents and make Watertown less competitive for both owners and tenants. Watertown has already made serious strides in climate resiliency, with LEED Gold requirements and other initiatives that add extra cost to development. Please proceed cautiously while considering this ordinance; please do not jeopardize what we have and could have.

Sincerely,

Max Woolf

Public Policy & Government Relations Manager

Charles River Regional Chamber



(7) WBC Comments at Rules & Ordinances Committee Meeting of March 10, 2025

From: Watertown Business Coalition <doug@watertownbusinesscoalition.com>

Sent: Monday, March 10, 2025 5:12 PM

To: City Councilors <citycouncilors@watertown-ma.gov>; Charlie Breitrose <watertownmanews@gmail.com>

Cc: Doug Orifice <info@watertownbusinesscoalition.com>; Jackie Dentino <jackie@watertownbusinesscoalition.com>; Bob Airasian <robert.airasian@gmail.com>

Subject: Watertown Business Coalition - Letter Regarding BERDO

Dear Council President Sideris & City Councilors,

At the Watertown Business Coalition, we support the City's efforts to reduce carbon emissions and help to create a more sustainable future. The climate goals of the City and the Resilient Watertown climate plan remain crucial goals for a sustainable future for Watertown residents, families and organizations.

This being said, Watertown's proposed BERDO presents financial and operational concerns for some property owners that may negatively affect properties and the tenants that live there.

The retrofitting of buildings with new heating systems, insulation, and efficiency upgrades will require substantial investments—costs that will inevitably be passed down to tenants through higher rents.

Unlike similar measures in Newton and Cambridge, Watertown's BERDO includes large residential buildings, meaning apartment owners in the City will bear the cost of compliance. The same can be said for the potential trickle-down effect to some of our key small business and commercial tenants in the City.

Although we at the WBC generally support the long term goals and outcome of the BERDO plan, we have concerns:

- Many of our renters are not high-income earners, and any rent increases would put additional and unnecessary strain on them
- The plan may be conflict with affordable housing goals as BERDO may disproportionately affect older apartments with more affordable rents
- There is already a Small Business Affordable Rents Crisis. We are concerned about rent increases for small businesses who have reasonable terms in older buildings.
- There are different types of property owners
 - Larger/National firms that own real estate in Watertown
 - Small buildings which may be owned by families, trusts, etc.
- We have limited data on what buildings have what power sources...then create policy based on data
- Neighboring towns DO NOT have residential requirements

At a time when our state is facing a housing crisis, the last thing we should do is increase the cost of living for renters. Likewise, as we face a softening economy - we must protect our small businesses.

We urge the City Council to reconsider the inclusion of residential properties in BERDO and conduct a full economic impact analysis before moving forward.

The reporting portion of BERDO is well intended, however, the City should consider collecting full energy data on all 20,000+ Sq Ft buildings prior to enforcing any requirements of BERDO.

Sustainable solutions must balance environmental goals with affordability and feasibility for both property owners and tenants alike.

Thank as always for your dedication to our City.

Sincerely,

Bob Airasian

Doug Orifice

Co-Founders & Co-Presidents

Watertown Business Coalition

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"Creating Connections in the Watertown Business Community"



Memo

To: City of Watertown – Committee on Rules and Ordinances
From: Mark Deschenes – Boylston Properties
Date: March 6, 2025 *MAD 3/6/25*
Re: Proposed BERDO Ordinance dated January 9, 2025

The City of Watertown is considering adopting a Building and Emissions Reduction and Disclosure Ordinance (BERDO) as outlined in a Draft ordinance dated January 9, 2025.

The purpose of this memo is not to debate the climate issues that face us all, or how we can all do our part in developing for a more sustainable future, but rather to express grave concerns about how the proposed BERDO was developed and how it will be implemented and enforced should it be adopted.

The City of Watertown has always been a leader in requiring higher environmental standards, and over the years has made many changes to its zoning regulations to promote better sustainability. We appreciate the City's commitment to these goals and have always complied with – if not exceeded – the City's ordinances in each of the many buildings we've built in Watertown over the last decade. Indeed, in many instances, we have incorporated sustainability measures before they were mandated by the City.

From our efforts in the last decade, we have:

- Built the first LEED Silver **Certified** building in Watertown at LINX in 2018, going above simply LEED certifiable.
- Built 2 LEED Silver **Certified** hotels in the Residence Inn Watertown, and the Hampton Inn and Suites (also firsts).
- Built 100 Forge and 500 Forge, both of which are LEED **Certified** Gold.
- Implemented the largest storm water recharge system in the City, treating more than 19 acres of formerly impervious buildings and pavement and reducing the phosphorous loading into the Charles River from that runoff.
- Implemented the first large-scale commercial solar array, initially producing 1,200 MWh annually, and increasing that array to 2,026 MWh with the addition of the array on 500 Forge several years later, resulting in more than 105,000sf of solar panels on the property.
- Installed a wide array of Electric Vehicle Charging Stations including 37 dual port stations available for tenant, resident, and public use.



I do not present these accomplishments as boastful, but rather to underscore that much of what we have accomplished was achieved in a collaborative manner and often well in advance of any regulatory requirement to do so. We believe we have been good partners with the City and hope to continue to do so; however, the proposed BERDO regulation risks upending that collaborative effort.

The reality is that, as real estate owners, developers and businesspeople, we are the primary implementation body for the vast majority of the City's sustainability ordinances, including the new BERDO. We and our tenants -- whether they are small local business establishments, residents in our apartments, or tenants occupying our office and lab buildings -- bear the majority of the costs of existing measures, as well as the proposed new obligations for reporting and the risk of additional fines, taxes and compliance payments associated with these new regulations. With the business community as the largest partner in accomplishing the environmental goals of the City, our concerns with the draft regulations are real, and they need to be considered as you move toward adopting a final plan, or the City risks undermining its economic success.

The properties we have developed added more than \$16.4M annually in FY 2024 to the City's property tax coffers. Overall, the 3.8M sf of lab buildings in the City contribute \$42.8M in taxes annually, or approximately 22.5% of the City's \$190M FY 24 annual budget. I would respectfully submit that it is not in the City's interest to undermine this important municipal revenue stream.

Our Concerns:

Overall, the proposed BERDO regulations appear to have been drafted with little input from the commercial real estate community, as they fail to appreciate the significant burdens of implementation, including increased operational costs to both owners and tenants, required capital reinvestment in equipment in its life-cycle infancy, and the spillover effects on the health and economic growth of the Watertown business community. In particular, we would note the following major flaws in the proposed regulations:

- **Baseline Metrics:** The current proposal for determining baseline metrics fails to take into account the nature of commercial real estate, with the needs of end users constantly in flux over the lifetime of a building. It is unrealistic to have each building establish baseline operating data at a particular point in time, which "snapshot" data will then determine the future metrics of its compliance, regardless of the fluctuating operating efficiencies, vacancy, or particular tenant demands and equipment.
- **Initial Design and Investment:** Watertown has benefitted from a recent surge in new buildings, many of which have attracted the life science industry to the City. Due to the nature of their work, buildings catering to this industry are by necessity, heavy energy users, designed with very specific energy capacities to meet life science tenant demands. A key problem with



Watertown's proposed BERDO baseline regulation is that if at the time the baseline is established, a building is not currently drawing those demands despite its physical capacity to accommodate additional future life science occupancy, the owner/operator will be forced to forfeit the capacity that they invested millions in building. This cannot help but cripple the asset value, and thereby significantly reduce tax revenue for the City.

- **Vacancy:** The ordinance as currently drafted does not address vacancy of unoccupied spaces within an operational building. For example, developing a baseline for a building is that only 75% occupied could force the building owner to forfeit 25% of the energy usage of that building by artificially lowering the base year metrics. This is essentially a penalty for having a vacancy within the building at the time of establishing its baseline; consumption that can never be recovered.
- **Timeline:** In part as a result of active engagement with the commercial real estate community, Boston and Cambridge's BERDO programs feature a timeline that enables property owners to develop a BERDO Roadmap for their respective properties to align with the emission standards in five phases over the course of 25 years. This approach enables building users (owners, tenants, residents, clients) to absorb the associated costs (CapEx, OpEx, Reporting Admin, Carbon Credits, etc.) driven by decarbonization over a longer period. We would encourage the City of Watertown to look to these more realistic implementation models as it refines its BERDO proposal. The City's proposal to spend two years of data gathering followed by immediate implementation is entirely impractical.
- **Capital Costs:** As drafted, the proposed BERDO fails to acknowledge the significant capital and practical costs of compliance and unintentionally results in further harm to the environment. At 100 Forge and 500 Forge, both LEED Gold Certified buildings brought online less than two years ago, we invested \$10.3M and \$11.4M, respectively, for efficient, state-of-the art HVAC systems. Replacing two-year-old gas-fired equipment with new refrigerant-based equipment is incredibly expensive and disruptive to the tenants (as such a replacement would require the tenants to vacate the premises for approximately 6 months). Additionally, mechanical equipment traditionally has a working lifespan of 20 years. Replacing high-efficiency equipment only four years into its useful life seems irresponsible, wasteful and environmentally neglectful, as that equipment will end up landfilled and the manufacture, shipping and installation of new equipment has a significant carbon footprint of its own.
- **Physical Constraints:** Much of the electric heating equipment currently on the market requires a significant footprint, to the extent that it even exists, as it requires large holding tanks and back-up electric resistance heaters to ensure that demand is met. Most buildings were not designed to account for the additional structural load required for the holding tanks or the additional space required to install such equipment. We know that future equipment will evolve to be better, more efficient and demand less space, but frankly, those systems currently don't exist to replace these systems efficiently today.
- **Operational Costs:** The economic impact of the proposed aggressive compliance schedule cannot be overstated. For example, at 100 Forge, a 165,000 sf life science building, the building required 17,000,000 kBtuH for space heating in 2024. Much of that heat was generated through high-efficiency (96%) gas-fired boilers. The equivalent amount of energy generated



electrically would have cost an additional \$424,000, or an increase of 179%, during the same time period. (We note that this is a straight energy conversion, and is not based on electrical equipment selections to truly generate the equivalent amount of heat. Our own estimates indicate that such selections would, in fact, increase the utility costs by 400% to 500%.) An increase of this magnitude in operational cost will drive up occupancy costs and make our buildings significantly less competitive. This harms us, tenants who view Watertown as a desirable location particularly for life sciences uses, and ultimately the City.

- **HFC Phase-Down:** Non-fossil fuel-based heating equipment is refrigerant-based, which have varying Global Warming Potentials (GWP). The HVAC industry is now, even more dependent on refrigerants as they develop equipment to meet decarbonization efforts set by the Paris Agreement. There is an asymmetry between Watertown's BERDO compliance schedule and the HFC Phase-down. As a result, building owners and operators will be forced to invest in equipment that has not been tried and proven, especially for our climate. Further complications driven by this asymmetry:
 - The lower a refrigerant's GWP level, the more flammable it is. Based on its flammability classification, any pipe traveling through a building will need to be installed in a fire-rated assembly, creating additional expense hazards and disruption to tenants.
 - Compressors, pipe sizes, fan sizes, etc. are very specific to the refrigerant used. Reusing existing equipment, and swapping out refrigerant is not an option. Refrigerant changes require complete equipment and piping replacement.
- **Parking Structures:** We have two open-air parking garages serving the Arsenal Yards campus. Other than stair vestibules, there are no conditioned spaces. Much of the energy used for those structures is for life safety systems and lighting. It is wholly unclear how under the new BERDO we would be able to offset the energy usage for life safety systems, which require uninterrupted power.
- **Emergency Backup Generation:** Section 11.10.4 of the Watertown BERDO draft v1.8 indicates that energy used by backup generation **will not** be exempted after 2030. Backup generation initiates when power from the electrical grid is lost, and supports life safety systems critical to ensuring a safe environment for building occupants. We wonder why building owners and operators are to be penalized for a utility grid's failure, especially after being forced to put additional load and strain on that same grid. Additionally, for life science tenants, the loss of power for a sustained period of time could result in years of lost data from interrupted research. If reliable backup power is unavailable, life science tenants will undoubtedly relocate to other jurisdictions where backup power and reliability is available without penalty.
- **Residential Buildings:** Due to annual leases, residential building tenancies are fluid by nature. The composition of a residential building in 2023 could be very different than in 2025, as each resident utilizes their apartments differently. (For example, if more residents work from home, the overall energy usage will increase.) Additionally, under the new regulations, building owners/operators ultimately are liable for the energy usage of residents in an apartment building. If residents either fail to provide their utility data, or their energy usage increases over time, how will the City penalize that resident, rather than the owner? Landlords simply cannot dictate how much energy residents are allowed to use.



- **Restaurant Tenants:** Part of the success of Arsenal Yards is that we have managed to attract a wide range of restaurant tenants, who have created a vibrant atmosphere. In many cases, these are local business owners, and most have installed substantial gas cooking equipment. These small business owners are often managing their business on tight margins. Requiring them to replace all of their equipment and cookware will simply put them out of business. Empty restaurant spaces in Arsenal Yards benefits no one. All we can do as building owners is build the most efficient building we can, with the technology available at the time, in compliance with the latest building and energy codes.
- **Carbon Offset/Renewable Energy Certificates:** The marketplace for these products is highly variable and is subject to supply and demand, driving up the price as we approach the proposed Net Zero targets laid out in the Compliance Timelines. Since Watertown's BERDO incorporates all energy inputs (Natural Gas, Electricity, diesel fuel), converting to a 100% electric building will still require carbon offsets, and RECs, imposing yet additional costs on the property and its users. It is near-impossible to predict what those costs will be in the future, and many of our commercial leases are five- and ten-year terms. What mechanism exists to hedge our exposure to surges in REC pricing?
- **Review Board:** The proposed ordinance provides for a review board to review hardships in meeting the requirements of the Ordinance. A review board without clear guidelines or the ability to understand the broader economic picture of how the costs and practicality of implementing these regulations will impact businesses and tenants alike will be entirely arbitrary and capricious.

These issues in the proposed regulations will impact all stakeholders – owners, residents, tenants and, ultimately, the City, as the costs of compliance on the timeline suggested are nothing short of astronomical. These costs will be borne by building owners in having to retrofit or replace newer equipment not otherwise in need of replacement, to tenants in the form of increased utility costs potentially as much as 200% or more, and to the City in lost tax revenue as both owners and tenants seek a more favorable business climate in which to develop and operate. The mandated carbon offsets and RECs are nothing short of a tariff levied on assets that already bear the highest tax burden in the City. The regulations also penalize newer buildings for having already established efficient base line operating metrics, particularly as compared to most older vintage buildings.

Implementing these rules as they stand, without modification to address the issues outlined above will severely undermine the economic engine that the City has worked hard to develop in recent years. That economic progress has allowed the City to further its sustainability agenda; killing the proverbial "golden goose" through ill-considered regulation benefits no one. We note the irony that, while it is certainly the case that abandoned buildings create no utility demand and would readily allow the City to achieve its energy reduction goals; in forcing this inevitable outcome, the City will lose the revenue stream it relies on to support its climate agenda and many other key municipal priorities.

CITY OF WATERTOWN

Building Emissions Reduction and Disclosure Ordinance

(BERDO)

V 1.8

February 9, 2025

An Ordinance

In amendment to the Ordinance entitled “Municipal Code of the City of Watertown”

- WHEREAS:** The Watertown Town Council in 2019 passed a resolution committing to 100% renewable energy by 2050; and
- WHEREAS:** The Watertown Town Council passed a resolution in May 2021 declaring a climate crisis with a goal of ending town-wide greenhouse gas emissions as soon as possible; and
- WHEREAS:** The City of Watertown’s 2022 Climate and Energy Plan details strategies to reduce carbon emissions from buildings, including a requirement for a building performance standard ordinance; and
- WHEREAS:** The City of Watertown has exhibited leadership in combating global climate change as the first city in New England to pass a solar ordinance and the first city in Massachusetts to adopt the specialized energy stretch code; and
- WHEREAS:** The City of Watertown has acted on these commitments by building two zero net energy registered elementary schools and is in the process of building a new Watertown High School designed to be the first LEED 4.1 platinum zero net energy high school in the country; and
- WHEREAS:** Environmental justice communities in Watertown are disproportionately affected by climate change through increasing heat island exposure, rising sea levels, and storm water flooding; and
- WHEREAS:** Buildings contribute approximately 50% of greenhouse gas emissions in the City of Watertown and a small number of large

buildings contribute a disproportionate amount of those emissions; **THEREFORE, BE IT**

ORDERED: By the City Council of the City of Watertown that the Municipal Ordinances of the City of Watertown be amended by adding the following:

DRAFT

Building Emissions Reduction and Disclosure Ordinance

1 PURPOSE

This ordinance is enacted to encourage efficient use of energy, to reduce the emission of greenhouse gasses, and to implement the 2022 Watertown Climate and Energy Plan by authorizing the City to collect energy usage data to enable more effective energy and climate protection planning by the City and others; provide information to the real estate marketplace so that its members are able to make decisions that foster better energy performance; and require reductions in emissions from to achieve net zero emissions from the largest properties in Watertown by 2035 or 2050.

2 DEFINITIONS

- 2.1 **Alternative Compliance Credit:** A credit obtained by a Covered Property Owner to offset greenhouse gas emissions from the Covered Property. One Alternative Compliance Credit shall be equivalent to one metric ton of Greenhouse Gas Emissions.
- 2.2 **Approved Verification Body:** An organization accredited by the American National Standards Institute, or other accrediting body approved by the Department, to conduct verification services of energy and covered property characteristics for the reported data.
- 2.3 **Baseline:** The average of Greenhouse Gas Emissions of Covered Properties for two consecutive calendar years comprising the default baseline, alternative baseline, or new covered properties baseline, as set forth in section 11 for purposes of calculating emissions reduction targets necessary to meet the requirements of this Ordinance, set forth in section 11.
- 2.4 **Benchmarking Information:** Information collected by the Department and information generated by the Benchmarking Tool, as herein defined, including

descriptive information about the physical property and its operational characteristics.

- 2.5 **Benchmarking Tool:** The ENERGY STAR Portfolio Manager tool developed and maintained by the U.S. Environmental Protection Agency to track and assess the relative energy performance of buildings nationwide, and/or other tools identified by the Department to collect and track Benchmarking information necessary for compliance with this Ordinance.
- 2.6 **Compliance Period A** defined range of years, by which each year a Covered Property must achieve the performance requirements of section 11.
- 2.7 **Condominium:** A residential or non-residential condominium property established pursuant to G.L. c183A, as identified by the City of Watertown Assessor's records.
- 2.8 **Cooperative:** A multi-dwelling complex in which owners acquire an interest in the entire complex and a proprietary lease to their own apartment or dwelling. The complex is formed or held pursuant to Chapters 156C, 156D, 157, 157B, or 180 or similar provision in the Massachusetts General Laws.
- 2.9 **Covered Property:** A Residential or Non-Residential building that contains 20,000 or more Covered Square Feet.
- 2.10 **Covered Square Feet:** The Living Area of the property as per the City of Watertown Assessor's records.
- 2.11 **Department:** The City of Watertown's Department of Community Development and Planning or its successor.
- 2.12 **Dwelling Unit:** A single residential unit, as defined by the Watertown Zoning Ordinance.
- 2.13 **Emission Factors** The multipliers used to determine the Greenhouse Gas Emissions produced by the production or consumption of Energy that will be established by the Director of the Department pursuant to regulations

developed per Section 15 no later than the year prior to the relevant Compliance Period.

- 2.14 Energy: Purchased electricity, natural gas, steam, hot or chilled water, heating oil, or other product or electricity generated on site, for use in a building for purposes of providing heating, cooling, lighting, water heating, cooking, or for powering or fueling other end-uses in the building and related facilities, excluding any verified amount of electricity used for charging electric vehicles and excluding any Energy exported for consumption outside the Covered Property.
- 2.15 ENERGY STAR Portfolio Manager The tool developed and maintained by the U.S. Environmental Protection Agency to track and assess the relative energy performance of buildings nationwide.
- 2.16 Energy Use Intensity (EUI): A building's annual energy consumption measured in kBtUs (1000 British Thermal Units) used per square foot of gross floor area.
- 2.17 Fund The Equitable Emissions Investment Fund established to receive monies and expend them for the reduction of Watertown's Green House Gas Emissions.
- 2.18 Greenhouse Gas Emissions (GHG Emissions): The carbon dioxide equivalent emissions produced from the operations of the Covered Property calculated by the Department according to the following formula:
- 2.18.1 Sum of annual Energy use by fuel type, multiplied by the Emission Factor for that type of Energy, minus Alternative Compliance Credits minus any Renewable Electricity subtracted from electricity consumption, up to a limit of the total electricity consumption or the limit determined in section 11.7.
- 2.19 Hardship Compliance Plan: A detailed compliance plan to reduce Greenhouse Gas Emissions.
- 2.20 Municipal Property: A building owned by the City of Watertown that contains 5,000 or more Covered Square Feet.

- 2.21 **New Covered Property:** A Covered Property that has received a Certificate of Occupancy in 2025 or later or has completed a Substantial Rehabilitation, as defined herein, of the property in 2025 or later. New Covered Properties shall comply with the performance requirements of section 11.4.
- 2.22 **Owner:** For a Covered Property under this ordinance, an Owner is one or more of the following:
- 2.22.1 An individual or entity having title, either directly or through a legally authorized or designated affiliate or subsidiary, to a Covered Property;
 - 2.22.2 An agent authorized to act on behalf of the owner of a Covered Property, although the owner as defined in 2.22.1 remains responsible for any compliance obligations;
 - 2.22.3 The net lessee in the case of a Covered Property subject to a net lease with a term of at least forty-nine years, inclusive of all renewal options;
 - 2.22.4 The board of managers or trustees in the case of a condominium at the Covered Property; and/or
 - 2.22.5 The board of directors or trustees in the case of a Cooperative at the Covered Property.
- 2.23 **Power Purchase Agreement (PPA):** A contract by which an Owner agrees to purchase electricity from a generating facility over a fixed term of years.
- 2.24 **Regulations:** Rules generated by the Department and derived from this Ordinance.
- 2.25 **Renewable Electricity:** Purchases from specific off-site renewable electricity programs approved by the Department, or the renewable energy attributes, measured in megawatt-hours retired from renewable on-site electricity generation or from off-site zero greenhouse gas emission electricity sources.

- 2.26 Renewable Energy Certificate (REC): A certificate representing the positive environmental attributes associated with the production of one (1) megawatt hour (MWh) of electricity by a renewable energy facility.
- 2.27 Residential Property: A property containing one or more Dwelling Units and whose use is primarily (greater than 75% of the Covered Square Feet) residential.
- 2.28 Review Board The BERDO Review Board established by Administrative code and/or through this Ordinance as a resource for owners of Covered Properties seeking redress of reporting or reductions of energy use for reasons including hardship.
- 2.29 Site Energy: The amount of energy consumed by a Covered Property or Municipal Property as reflected in utility bills or other documentation of actual energy use.
- 2.30 Source Energy: All the energy used in delivering energy to a Covered Property, including power generation and transmission and distribution losses.
- 2.31 Substantial Rehabilitation: The act or process of repair, alterations, additions, or change of use to a building in excess of 25% of the assessed value of the building.
- 2.32 Tenant: A person or entity leasing, occupying, or holding possession of, all or a portion of a Covered Property or Municipal Property.
- 2.33 Utility: Any entity that distributes and sells Energy for Covered Properties or Municipal Properties.

3 APPLICABILITY

This Ordinance requires owners of Covered Properties and Municipal Properties to annually measure and disclose energy use to the Department and to achieve Greenhouse Gas Emissions reduction targets consistent with the commitments of the 2022 Watertown Climate and Energy Plan. Furthermore, this Ordinance authorizes the Department to collect energy usage data to enable more effective

energy and climate protection planning by the City and others and to provide information to the real estate marketplace so that its members are able to make decisions that foster better energy performance. The performance requirements of this Ordinance reduces emissions from Covered Properties, achieving net zero emissions from the largest Non-Residential Properties by 2035 and all Covered and Municipal Properties by 2050.

4 APPLICABLE PROPERTIES

4.1 This Ordinance applies to the following:

4.1.1 All Municipal Properties as defined in this Ordinance; and

4.1.2 All Covered Properties as defined in this Ordinance.

5 BENCHMARKING REQUIRED FOR MUNICIPAL PROPERTIES

The City of Watertown must, no later than December 31, 2025, and no later than June 30th every year thereafter, input the total Energy consumed by each Municipal Property, along with all other descriptive information required by the Benchmarking Tool, into the Benchmarking Tool for the previous calendar year. The City must report Renewable Electricity production and purchases annually to the Department on the same schedule.

6 BENCHMARKING REQUIRED FOR COVERED PROPERTIES

6.1 Owners shall annually input the total Energy consumed by each Covered Property, along with all other descriptive information required by the Benchmarking Tool, into the Benchmarking Tool for the previous calendar year. Renewable Electricity production and purchases shall be annually reported to the Department. The Owner shall input this information according to the following schedule:

6.1.1 A Non-residential Covered Property by June 30th, 2026, and by every June 30th thereafter;

- 6.1.2 A Residential Covered Property that is not a Condominium or Cooperative by June 30th, 2026, and by every June 30th thereafter;
- 6.1.3 A Residential Covered Property that is a Condominium or Cooperative by June 30th, 2027, and by every June 30th thereafter;
- 6.1.4 A new Covered Property must report by the following June 30th, when it has one full calendar year of energy use data as defined in the Regulations
- 6.2 Owners may, and are encouraged to, authorize an energy utility or other third party to report Covered Property-specific data on their behalf to the Department. Such authorization shall not create an obligation on the part of energy utilities or remove the obligation of Owners to comply with reporting requirements.

7 NOTIFICATION OF COVERED PROPERTIES

Between September 1 and December 1 of each year, the Department will notify Owners of Covered Properties of their obligation to input Energy use into the Benchmarking Tool. By March 15 of each year, the Department will post the list of the addresses of Covered Properties on a public website. Greenhouse Gas Emissions will be calculated by the Department and reported annually to the Owners along with the energy reduction requirements of section 11.

8 QUALIFICATIONS OF BENCHMARKERS

The Department may establish certification and/or licensing requirements for the users of Benchmarking Tools as a part of the Regulations established per Section 15.

9 DISCLOSURE AND PUBLICATION OF BENCHMARKING INFORMATION

- 9.1 Owners shall annually provide Benchmarking Information to the Department, in such form as established by the Department, by the date provided by the schedule in section 6.1. The City will provide owners with the opportunity to submit contextual information related to energy use and may disclose such information on its website upon request of the owner.

- 9.2 Benchmarking Information must include, but need not be limited to:
- a. Property address;
 - b. Owner and/or designated agent contact information;
 - c. Primary use type;
 - d. Gross floor area;
 - e. Energy use and production by type as defined in section 2.14;
 - f. Site Energy Use Intensity (EUI) as defined in this section;
 - g. Weather normalized source EUI;
 - h. Any Emission Factors for Energy used by the building if different from the Emission Factors in the Regulations;
 - i. The energy performance score that compares the energy use of the building to that of similar buildings, where available; and
 - j. Compliance or noncompliance with this Ordinance.
- 9.3 Any significant change in the size of a Covered Building (due to renovation, addition, reduction in size, etc.) shall be evaluated by the Department for the necessity of an adjusted Baseline.
- 9.4 The Department will make Benchmarking Information for Covered and Municipal Properties for the previous calendar year, available to the public on the City's website no later than December 31 for the year in which the data is required. The Review Board may grant an exception to public reporting for any given data at the request of an Owner or the Department.
- 9.5 The Department will make available to the public and update information at least annually which may include the following:
- 9.5.1 Summary statistics on energy consumption and greenhouse gas emissions derived from the aggregation of Benchmarking information for Municipal Properties and Covered Properties;
 - 9.5.2 Summary statistics on overall compliance with this Ordinance, including an assessment of the accuracy of this data;
 - 9.5.3 For each Municipal Property and Covered Property:
 - a. The status of compliance with the requirements of this Ordinance

- b. Annual summary statistics for the Municipal Property or Covered Property, including EUI, annual Greenhouse Gas Emissions per square foot, total annual Greenhouse Gas Emissions, and an energy performance score where available; and
- c. A comparison of Benchmarking Information, Greenhouse Gas Emissions, and other descriptive information across calendar years.

10 PROVISION OF BENCHMARKING INFORMATION BY TENANTS TO THE OWNER

- 10.1 Upon request from the Owner, a Tenant in a Covered Property shall provide information that cannot otherwise be acquired by the Owner and is needed to comply with the requirements of this Ordinance. The Tenant shall provide the information no later than February 28 of any year in which the Owner is required to report. Failure to provide information to an Owner may result in penalties to the Tenant as provided under section 15.
- 10.2 Failure of a Tenant to provide required information does not relieve the Owner of the obligation to report emissions data.
- 10.3 When an Owner of a building is unable to obtain complete data due to the failure of a Tenant to provide the required information, the Owner shall use values or formulas established by the Department to estimate data.
- 10.4 For Covered Residential Buildings, the Homeowners Association or the Management Company may input the energy use of the building into the Benchmarking Tool.

11 EMISSION REDUCTION REQUIREMENTS

- 11.1 Baseline: The default Baseline years for Covered Properties shall be calendar years 2025 and 2026.
- 11.2 Compliance Periods are as follows:
 - 11.2.1 Compliance Period 1 is the years 2027 through 2029.
 - 11.2.2 Compliance Period 2 is the years 2030 through 2034.
 - 11.2.3 Compliance Period 3 is the years 2035 through 2039.

- 11.2.4 Compliance Period 4 is the years 2040 through 2044.
- 11.2.5 Compliance Period 5 is the years 2045 through 2049.
- 11.2.6 Compliance Period 6 is the year 2050 and onwards.

11.3 Performance requirements: Each Covered Property shall comply on an annual basis with Greenhouse Gas Emissions requirements according to the following schedule of Greenhouse Gas Emissions relative to the Baseline:

- 11.3.1 For Non-Residential Covered Properties of 100,000 Covered Square Feet or greater:
 - a. In Compliance Period 1, annual Greenhouse Gas Emissions will not exceed 80% of the Baseline.
 - b. In Compliance Period 2, annual Greenhouse Gas Emissions will not exceed 40% of the Baseline.
 - c. In Compliance Periods 3 through 6, annual Greenhouse Gas Emissions will not exceed zero.
- 11.3.2 For Non-Residential Covered Properties of 20,000 to 99,999 Covered Square Feet, or Municipal Properties and Residential Covered Properties that are greater than 20,000 Covered Square Feet and not Condominiums or Cooperatives:
 - a. In Compliance Period 1, annual Greenhouse Gas Emissions will not exceed 100% of the Baseline.
 - b. In Compliance Period 2, annual Greenhouse Gas Emissions will not exceed 60% of the Baseline.
 - c. In Compliance Period 3, annual Greenhouse Gas Emissions will not exceed 40% of the Baseline.
 - d. In Compliance Period 4, annual Greenhouse Gas Emissions will not exceed 20% of the Baseline.
 - e. In Compliance Period 5, annual Greenhouse Gas Emissions will not exceed 10% of the Baseline.
 - f. In Compliance Period 6, annual Greenhouse Gas Emissions will not exceed zero.

11.3.3 For Residential Covered Properties that are Condominiums or Cooperatives:

- a. From 2028 to 2030, annual Greenhouse Gas Emissions will not exceed 100% of the Baseline.
- b. From 2031 to 2034, annual Greenhouse Gas Emissions will not exceed 60% of the Baseline.
- c. In Compliance Period 3, annual Greenhouse Gas Emissions will not exceed 40% of the Baseline.
- d. In Compliance Period 4, annual Greenhouse Gas Emissions will not exceed 20% of the Baseline.
- e. In Compliance Period 5, , annual Greenhouse Gas Emissions will not exceed 10% of the Baseline.
- f. In Compliance Period 6, annual Greenhouse Gas Emissions will not exceed zero.

11.4 New Covered Properties: The Baseline for a New Covered Property shall be the average Greenhouse Gas Emissions of the first two calendar years following issuance of the Certificate of Occupancy. New Covered Properties shall comply with the following performance requirements on an annual basis:

11.4.1 For Residential and Non-Residential New Covered Properties of any size, Greenhouse Gas Emissions shall not exceed 80% of the Baseline in the fourth year after the Baseline period. Thereafter, the New Covered Property shall reduce Greenhouse Gas Emissions in three-year Compliance Periods that achieve a linear reduction to zero Greenhouse Gas Emissions in 2035, except no such New Covered Property shall exceed zero Greenhouse Gas Emissions in 2035 and onwards.

11.5 Alternative Baseline: An Owner may request alternative Baseline years for a Covered Property that is prior to the default Baseline years. The alternative Baseline must be the average Greenhouse Gas Emissions of two consecutive years between 2020 and the default Baseline. The request for an alternative Baseline must be submitted to the Department prior to the Covered Property's first Compliance Period per the Ordinance section 11.3 and, if approved, shall remain the Baseline for all future Compliance Periods. Owners shall ensure that the Energy use for the alternative Baseline years has been inputted into

the Benchmarking Tool and that Benchmarking Information and any Renewable Electricity for the alternative Baseline years have been provided to the Department. A Covered Property that uses an alternative Baseline shall comply with performance requirements that include an additional 2.5% reduction for every year between the start of the alternative Baseline and the default Baseline.

- 11.6 Use of Alternative Compliance Credits: Alternative Compliance Credits must be obtained in the same calendar year during which reporting is required. The month by which they must be obtained will be defined in the Regulations.
- 11.7 Use of Renewable Electricity: Any Renewable Electricity must be obtained in the year in which it is applied to the Covered Property, and documentation thereof must be submitted to the Department by the subsequent June 30th reporting deadline. In calculating Greenhouse Gas Emissions, a Covered Property that uses electricity from a generating facility in Watertown using combustible fuels to generate electricity for direct use by the Covered Property may subtract Renewable Electricity from that electricity only as long as the Emission Factor for the generated electricity is less than or equal to the Emission Factor for electricity purchased from the grid. The Director of the Department will promulgate regulations pursuant to section 15 to establish a methodology for evaluating the Emission Factor for generated electricity compared to grid electricity.
- 11.8 Deferral: A Covered Property may apply to the Review Board with a detailed plan to defer compliance with any Greenhouse Gas Emissions requirements for up to five years such that the cumulative Greenhouse Gas Emissions of the Covered Property from the start of the deferred compliance through 2050 do not exceed what they would be without such deferral. Such plans must detail the expected measures that will result in compliance within five years and must comply with the Regulations. The Review Board may issue its approval of such plans for one or more years, upon which such Covered Property is deemed to be in compliance for those years. The approved deferred compliance plan must not result in Greenhouse Gas Emissions being above zero in 2050 or beyond. After the conclusion of the approved deferral period of five years or less, the Covered Property shall annually purchase Alternative Compliance Credits for any Greenhouse Gas Emissions in excess of the amount proposed

in the deferral plan. The Director of the Department will promulgate regulations pursuant to section 15 that establish minimum performance requirements that a Covered Property must meet during the deferral period.

- 11.9 Hardship: A Covered Property may submit a Hardship Compliance Plan for consideration to the Review Board. Hardship Compliance Plans must comply with the Regulations. The Review Board may issue its approval of a Compliance Plan for one or more years. During those years the Covered Property is deemed to be in compliance.
- 11.10 Energy Use that is Exempt from Emissions Requirements: Building Owners may choose to deduct Energy used by Emergency Backup Generators or other Backup Power and Electrical Vehicle Supply Equipment (EVSE) from a Building's total Energy use, as long as it meets the CO₂e Emission Factors in this Ordinance and the Regulations, and provided that:
- 11.10.1 Emergency Backup Generation/Backup Power provides Energy only to the Covered Building during emergency outages or exercising for operational testing.
- 11.10.2 Electrical Vehicle Supply Equipment is separately metered or capable of tracking and accurate reporting of energy usage.
- 11.10.3 Building Owners annually report Energy used by Emergency Backup Generation and EVSEs and the dates, hours and conditions that required Emergency Backup power. Such reporting is subject to the self-certification and third-party verification procedures in section 13.
- 11.10.4 Energy used by Emergency Backup Generation will not be exempted after 2030, except as follows: a) energy usage by a healthcare institution will continue to be exempted for as long as the institution is required to install and maintain Emergency Backup Generation to ensure reliable operations or as a condition of accreditation; b) Emergency Backup Generation in specific Covered and Municipal Properties may be granted by the Review Board.
- 11.10.5 Upon recommendation from the Review Board, these exemptions may be revised or additional exemptions added by the Department.

11.10.6 The Department may further define acceptable uses of generators in the Regulations.

12 RENEWABLE ELECTRICITY

12.1 Renewable Electricity must meet the following standards:

12.1.1 The off-site renewable energy procurement shall support a renewable energy project that is new, meaning that the Covered Property Owner enters into a contract to purchase Renewable Electricity from a newly built renewable energy generating source that is not operational at the time of contract execution. This includes contracts that lead to construction of a new project, as well as contracts that lead to expansion of existing projects with new renewable capacity.

12.1.2 Renewable Energy Certificates (Class I RECs only) and other environmental attributes associated with the procured off-site renewable energy shall be assigned to the Covered Property in Watertown for the duration of the contract and made available for inspection by the City of Watertown upon request. The Owner shall maintain transparent accounting that clearly assigns renewable energy production in the form of RECs in megawatt-hours to the Covered Property in Watertown for the duration of the procured off-site renewable energy contract.

12.1.3 The renewable energy generating source shall be local (New England) photovoltaic systems, solar thermal power plants, wind turbines, geothermal power plants, small hydro-power or other renewable energy generating sources (excluding biomass) that may be submitted to and certified by the Department.

12.1.4 Commonwealth of Massachusetts mandated green products (such as class II RECs in Utility standard offerings) will be allowed.

13 MAINTENANCE OF RECORDS AND DATA VERIFICATION

- 13.1 Owners shall maintain records as the Department determines is necessary for carrying out the purposes of this Ordinance, including but not limited to, energy bills and other documents received from Tenants and/or Utilities. Such records shall be preserved by Owners for a period of seven years. At the request of the Department, records shall be made available for inspection and audit by the Department.
- 13.2 Owners shall self-certify their reporting data every year.
- 13.3 For the two Baseline years, Owners shall provide a third-party verification of their reporting data, submitted by the benchmarking deadline for the first year of the first Compliance Period.
- 13.4 For the first year of each Compliance Period, Owners shall provide, by the benchmarking deadline for that year, a third-party verification of their reporting data.
- 13.5 For any year in which any Covered Building is transferred to new ownership, the Review Board may request that the Owner provide a third-party verification of their reporting data by the benchmarking deadline for that year.
- 13.6 For the generation of steam, hot water, chilled water, or electricity, other than Renewable Electricity, the owner of the generating facility shall provide annual third-party verification of the facility's Energy inputs and outputs and the calculated Emission Factor for each output.
- 13.7 All verifications must be performed by an Approved Verification Body.
- 13.8 At the time any occupied Covered Building is transferred to new ownership, the buyer and seller will arrange for the seller to provide to the buyer, all energy information necessary for the buyer to report complete Benchmarking information for the entire year. A seller that fails to provide any such information within 30 days of request by the buyer may be deemed in violation of this ordinance.

14 REVIEW BOARD

- 14.1 The Review Board shall consist of five voting members as defined in the Regulations. Members are appointed by the City Manager and confirmed by City Council for terms of up to five years.
- 14.2 The Review Board will be supported by a staff member assigned by the Department.
- 14.3 The members of the Review Board shall elect a member every three years to serve as Chair.
- 14.4 A Building Owner may apply to the Review Board for a Hardship Compliance Plan if there are Building characteristics or circumstances that present a hardship in complying with the Emissions standards in this Ordinance. Such characteristics or circumstances, to be detailed in the Regulations, may include, but not be limited to, historic Building designations, affordable housing refinancing timelines, or pre-existing long-term Energy contracts without reopeners. The application, review process and conditions for Hardship Compliance Plans shall be set forth in the Regulations. The Review Board shall have sole discretion in issuing Hardship Compliance Plans; such plans must include alternative timelines for meeting Emissions standards and alternative Emissions standards.
- 14.5 Emissions Standards established under the Regulations shall meet the following standards:
- 14.5.1 For the combustion of fuels such as oil and gas, the Emission Factors will be based on standard scientific values published by federal agencies.
- 14.5.2 For the use of all electricity purchased from the grid other than Renewable Electricity, the Emission Factors will reflect the emissions intensity of electricity consumed in Massachusetts.
- 14.5.3 For the generation of steam, hot water, and chilled water, and the generation of electricity other than Renewable Electricity, the Emission Factors for each output from the generation facility will be calculated using the Greenhouse Gas Protocol methodology jointly developed by the World

Resources Institute and World Business Council for Sustainable Development, or similar methodology acceptable to the Department, using data provided by the generation facility owner.

- 14.5.4 Any RECs created for onsite solar arrays or other renewable energy generation must be retired in order for the electricity from that source used onsite to qualify as zero emission.
- 14.5.5 If a building is supplied with power through a PPA from a solar array or other renewable energy generator, the associated RECs must be retired for the electricity from that source to qualify as zero emissions.
- 14.5.6 If requested by an Owner and approved by the Department, Greenhouse Gas Emission Factors other than those in the Regulations may be used.

15 ENFORCEMENT AND ADMINISTRATION

- 15.1 The Director of the Department or his or her designee shall be the Chief Enforcement Officer of this Ordinance.
- 15.2 The Director of the Department will promulgate regulations relative to the administration of the requirements of this Ordinance.
- 15.3 The Review Board is a resource for owners of Covered Properties seeking redress of reporting or reductions of energy usage, for example, for reasons of hardship.
- 15.4 If any person or entity violates any provision of this Ordinance, enforcement measures may be taken. A violation can include but is not limited to the following:
- 15.4.1 Any person or entity fails to report the Benchmarking Information.
- 15.4.2 A third-party verification of Benchmarking Information reported by an Owner identifies a discrepancy with an Owner's self-certified reporting that the Owner does not correct within 30 days

15.4.3 An Owner neglect to obtain third-party verification.

15.4.4 An owner misrepresents any material fact reported as a part of this ordinance.

15.4.5 Any person or entity fails to meet the emissions reduction requirements.

15.5 Enforcement measures for violations are as follows:

15.5.1 For the first violation, a written warning may be issued; and

15.5.2 For any subsequent violation the Department may issue a fine of up to \$300.00 per violation per day, pursuant to the provisions of Chapter 10.99 (Watertown Code General Penalty) herein. Each day that the property remains in violation shall constitute a separate offence.

15.5.3 The Department may adjust the amount of the fine on an annual basis up to the maximum allowed by law.

16 EQUITABLE EMISSIONS INVESTMENT FUND

The City Auditor shall establish the Fund as a revolving fund under MGL 44 53 E½ , and credit to the Fund all Alternative Compliance Payments and penalties made pursuant to this Ordinance; the City Council may direct other monies to the Fund at its discretion. The Director of the Department is responsible for evaluating local Greenhouse Gas Emissions abatement proposals and determining expenditures from the Fund.

Money in the Fund must be expended only for the support, implementation, and administration of local Greenhouse Gas Emissions abatement projects that benefit the City of Watertown's reduction goals. Fund expenditures should consider first projects that benefit Environmental Justice Populations and populations disproportionately affected by air pollution.

17 REVIEW OF ORDINANCE

The Department shall review the implementation of this Ordinance after three years and thereafter every five years. As part of such review, the Department will hold at least one public hearing and solicit comments from the public.

18 APPLICABILITY

If any provision of this Ordinance imposes greater restrictions or obligations than those imposed by any other general law, special law, regulation, rule, ordinance, by-law, order, or policy, then the provisions of this Ordinance control.

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