



## City Council Committee on Rules and Ordinances

Tuesday, February 18, 2025 at 6:00 PM

Richard E. Mastrangelo Council Chamber, hybrid format

149 Main Street, Watertown, MA 02472

AGENDA: Discuss a proposed Building Emissions Reduction and Disclosure Ordinance (BERDO) and its regulations.

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

Also present in person: Asst. City Manager for Community Development & Planning Steve Magoon, Asst. Dir. for Energy Management Silas Fyler, Council Pres. M. Sideris, Councilors V. Piccirilli and A. Palomba; Municipal Policy Analyst Doug Newton, Ernesta Krackiewicz, Lise Paul, Susan Falkoff, Pat Rathbone, and Ann Munson arrived (at 6:33);

also present via zoom: Councilor C. Bays, Sustainability Program Manager Laurel Schwab, Susan Ladue, Carol Bates, Sam Ghilardi, Fangxue Zheng, Rita Colafella, Mia Kania, Mary Rose, Connie Henry, Ellen Rothman, and Pres. & CEO of the Charles River Regional Chamber Greg Reibman.

Chair Gannon called the meeting to order at 6:06 p.m. explaining this will be the committee's first meeting, with focus on presentation of draft materials. Staff then began their remarks with Steve Magoon summarizing some of the history of how the draft BERDO and its regulations came about, which included many long hours and efforts by the Environment & Energy Efficiency Committee, and he feels this dovetails with our aggressive Climate and Energy "Resilient Watertown" Plan. Watertown achieved Green Community status in 2010 with the state's inaugural designation. Silas Fyler proceeded with his presentation. It focuses on the largest existing, and new buildings in the city and a program that will also inform the real estate market. The concept behind switching all buildings to electricity and away from fossil fuels toward clean energy, in the hope of 100% renewable, with commitments from the state in reaching this goal by 2050. "Building Performance Standards" is becoming the term used nationally (including Portland, ME which isn't reflected on the p6 map, but this will be updated in time), and staff feels that BEUDO and BERDO are the same strategy. Greenhouse gas (GHG) emissions are estimates at this point using Assessors data and building codes; we don't know all the energy details of each building, but the EPA Portfolio Manager shared an energy use index for building types in Massachusetts. Cambridge, Boston, and Newton have already adopted a BERDO program, but they are at different stages. The table summarizing the building stock reflects parcels more than buildings, so the total number of 200 buildings for analysis on GHG emissions is an estimate. There are city-owned buildings not included in this analysis: those that are smaller than 5,000 sq. ft. and/or are not very active; some examples are the former Police Station, Ridgelawn Cemetery, the former North Branch Library, current Moxley Park field house, and the new O'Connell Park field house at Hosmer. Information on Condos -owned and/or rented of different sizes and with some in multiple buildings on a single parcel- is very difficult to glean from Assessors data; total square footage doesn't recognize hallways. Reporting by property owners would be summarized on a yearly basis, not a month-by-month usage.

Staff and WE3C often held weekly meetings, over two to four years, to walk through every step of a draft BERDO for Watertown, studying matches or discrepancies with other city and town approaches (Boston, Cambridge, Lexington, Newton, Somerville, etc.) and consider best practices and draft language for Watertown.

The committee asked for the working group's comparison information to be shared with them and began reviewing a newer draft ordinance through Section 7. Staff also recently submitted draft BERDO Building Lists and regulations for consideration.

A few other questions and concerns included: How and when to establish baselines, benchmarking, timeframes and reduction percentage goals; energy rates used -a forecast on electricity rates was not included; the timeframe for compliance may be unreasonable with a reliance on fines; the creation and administration of a new city Equitable Emissions Investment Fund from penalties; the additional layer of a Review Board; potential hardship on residential properties; the ability to reach energy reduction goals without state and federal subsidies; any feedback from businesses; a delay in adopting BERDO could make commitments on reductions more difficult to reach stated targets.

The committee agreed to continue the discussion, with the next meeting scheduled for March 10 at 6:00 p.m.

Motion to Adjourn at 8:05PM was made by Feltner, seconded by Airasian, and approved 3-0 on a roll call vote.

Respectfully submitted, Lisa Feltner

Attached: Staff Presentation to R&O Committee on draft BERDO text

Draft BERDO v 1.8 dated Feb 9, 2025

Draft BERDO Regulations v 3 dated Feb 14, 2025

Draft Building Lists for BERDO (MS Excel workbook with six worksheets)

**City of Watertown**

**Building Emission Reduction and  
Disclosure Ordinance (BERDO)**

**Draft Ver 2.1**



# What is BERDO?

- B** New and Existing **B**uildings
- E** Emissions
- R** Reductions in the Green House Gases
- D** Disclosure of Energy and Emissions
- O** City **O**rdinance

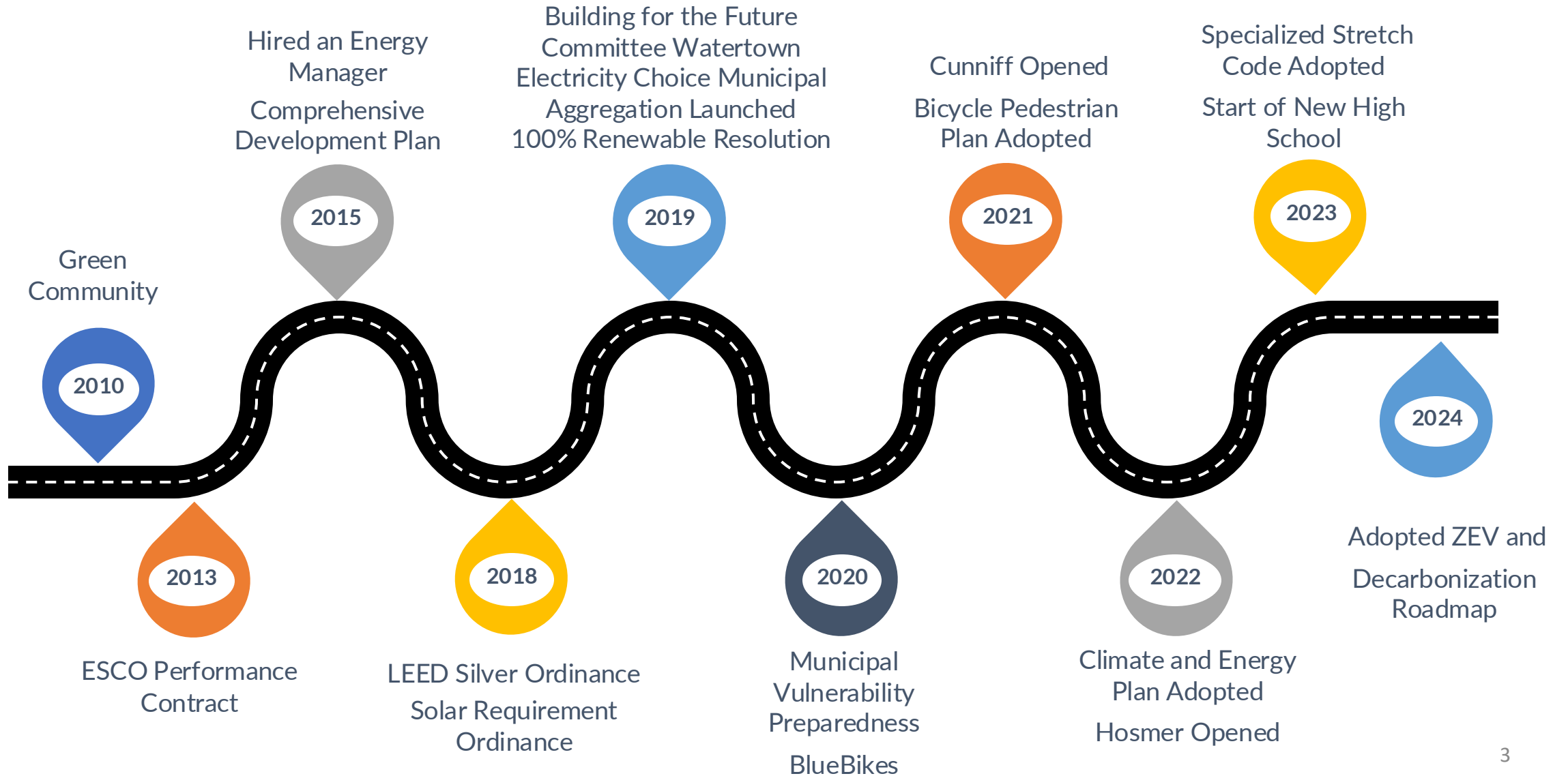


To encourage efficient use of energy and to reduce the emission of greenhouse gases (GHG), BERDO would require owners of large properties to annually measure and disclose energy usage to the City of Watertown and to achieve Greenhouse Gas Emissions reduction targets consistent with the commitments of the Watertown Climate and Energy Plan.

Furthermore, the Ordinance would authorize the City to collect energy usage data to enable more effective energy and climate protection planning and to provide information to the real estate marketplace, so that its members can make decisions that foster better energy performance.



# Climate Planning in Watertown





# Climate and Energy Plan



## Building and Energy Goal 2

*by 2050, Watertown’s buildings are efficient, resilient and carbon neutral*

### Electrifying Our Existing Buildings

Working with the larger commercial properties allows for big win opportunities with electrical retrofits. To help get this work done, the City will take advantage of State, Federal, and other financial support. As more and more communities continue to electrify, coordination with electrical providers will also be critical.

Year	2025	2030	2050
Electrification Target for Existing Buildings	10%	40%	100%

### Conserving Our Energy

As we electrify our buildings and power them with 100% clean energy, it may be tempting to discount conservation efforts to reduce GHGs. The fact is that it will be extremely difficult to produce or purchase all the clean energy we need if we do not find ways to make our buildings more efficient.

Efficiency Targets	2025	2030	2040	2050
Percent Retrofitted	10%	40%	80%	100%



# Climate and Energy

## Strategy & Action to Achieve our Goal from the Climate and Energy Plan is:

BE 4.1 Climate and Energy Plan Strategy --- Enact a Building Energy Use Disclosure Ordinance (BEUDO)

### A BERDO by any other name is just a BERDO waiting to happen

- BERDO
- BEUDO
- Building Performance Standards (BPS)

Watertown's Building Emissions Reduction and Disclosure Ordinance (BERDO) will set requirements for new large buildings to reduce their greenhouse gas emissions (GHG). The goal is to reduce emissions gradually to net zero by 2050 and to understand the efficiency and GHG emissions of our citywide existing building stock.





# BPS Across the Country & Locally



The State of Building Performance Standards (BPS) in the U.S.  
Members of the National BPS Coalition as of July 2024



## Local Building Performance Standards

- Boston
- Cambridge
- Lexington
- Newton

## Reporting Requirement

- Massachusetts



# Building Review



## Analysis of Watertown's 2024 Building Stock

### Criteria

- Based on buildings 20,000 Sqft Living Area only

### Estimated GHGs

Based on top 25% energy efficiency use for building types in Massachusetts and then applying an estimated ratio of gas to electric. Use Massachusetts DOER GHG data to calculate the GHG Metric Tons of CO<sub>2</sub> equivalent (MTCO<sub>2</sub>e)

### Understanding the Units

One MTCO<sub>2</sub>e is equivalent to driving a car 2,564 miles or 1.2 acre of forest GHG sequestration in a year





# Building Review



## Analysis of Watertown's 2025 Building Stock

Buildings > 20,000 Sqft	Parcels	# Buildings	Unique Owners	Total Sqft	MTCO2e
Commercial	96	121	80	9,863,757	
Residential	33	38	31	3,145,670	
City Owned ★	16	16	1	709,311	
Condo	25	25	1121	1,285,331	
<b>Total</b>	170	200	1233	15,004,069	82,590 ★
All Buildings in Watertown		8,936		35,570,309	133,624 ★
<b>Result for Building &gt; 20,000 Sqft</b>					
% Sqft of All Buildings	42.2%				★ Greater than 5,000 sqft
% MTCO2e of All Buildings	61.8%	★			★ Estimated Value

**More than half of Watertown's GHGs from buildings come from only 2% of the buildings!**



# What's the Process?



- Review the Ordinances of surrounding communities
- Develop a program based on the best practices of those communities through careful consideration of the ordinances and by talking to the decision makers
- Create an educational presentation to highlight the underlying details
- Create a draft ordinance and regulations working with WE3C
- Work with the City Council, stakeholders and the public to finalize the ordinance
- Planning Department implements the Watertown BERDO



# Building Types



## **Municipal**

Buildings owned and managed by the City  
Immediate Timeline

## **Large Commercial, non-Residential**

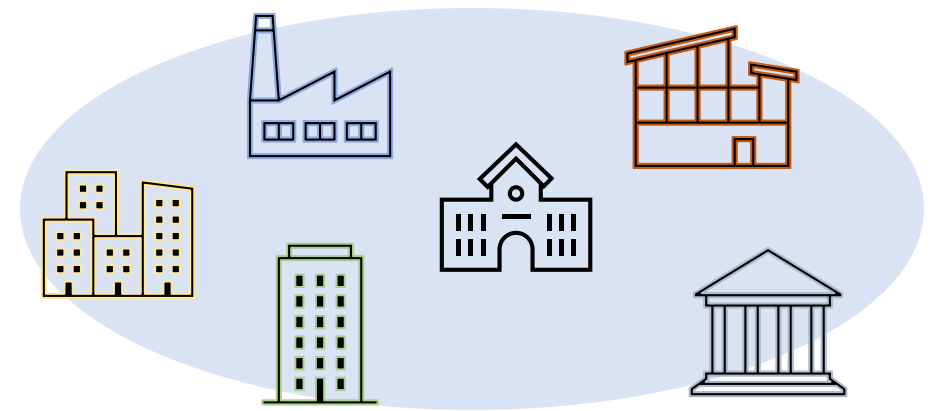
Buildings over 100,000 sqft  
Accelerated Compliance Timeline

## **Commercial, Residential, and Mixed Use**

Buildings over 20,000 sqft  
Default Compliance Timeline

## **Condos**

Buildings (multiple condos within one building) over 20,000 sqft  
Delayed start by a year and then a modified Compliance Timeline





# Building Size

Building Sizes are based on Gross Floor Area (GFA)

GFA is the total “property” square footage, and a “property” might be a

- Single building
- Part of a building (such as a single tenant space)

“Single buildings” measure the GFA between the outside surface of the exterior walls of the building(s).

- Include in GFA: lobbies, tenant areas, common areas, meeting rooms, break rooms, atriums, restrooms, elevator shafts, stairwells, mechanical equipment areas, basements, storage rooms
- Do not include in GFA: exterior spaces, balconies, patios, exterior loading docks, driveways, covered walkways, outdoor play courts, parking, crawl spaces

*“Parts of a building,” such as tenant spaces, measure the GFA of the “usable square feet”. Usable square feet includes the specific area the tenant occupies to do business.*



# How to Report



## EPA's Portfolio Manager

Provides a Central Repository where data can be securely collected and shared by

- Utilities
- Building Owners
- Building Tenants
- City of Watertown
- Provides training videos and help desk for users
- Allows Building Owners to track their own progress against other similar buildings throughout the country

Building representatives will need to share data with the City of Watertown to meet submission requirements

City of Watertown will provide other submissions methods for

- Alternative Emission Factors
- Alternative Compliance Credits
- REC Retirement Verifications
- Third Party Verification
- Contextual Information for Submission

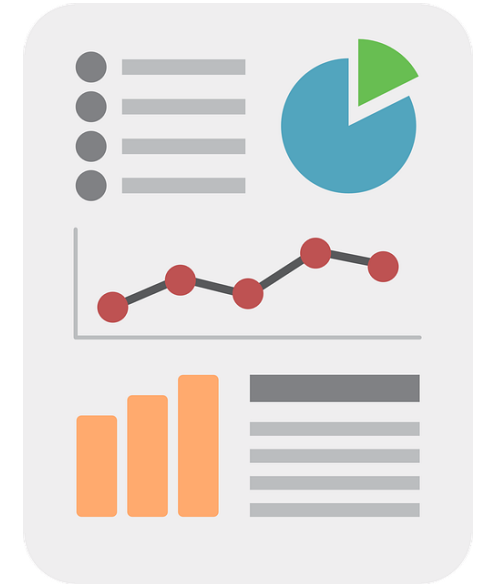




# Sample Report of Data Collected



Location Data Fields	Sample
BERDO ID	100001
Tax Parcel ID	0303060001
Property Owner Name	1 lovejoy wharf boston realty llc
Building Address	160 170 n washington st
Building Address City	boston
Building Address Zip Code	02114
Parcel Address	160 170 n washington st
Parcel Address City	boston
Parcel Address Zip Code	02114
Reported Gross Floor Area (Sq Ft)	236688
Reported Enclosed Parking Area (Sq Ft)	
Largest Property Type	Office
All Property Types and GFAs	Office (231408.0),Retail Store (5280.0)
Compliance Status	in compliance
First Emissions Compliance Year (Projected)	2025
Corresponding Campus ID	
Notes	





# Sample Report of Data Collected



Energy Use Data Fields	Sample Data	Energy Results	Sample Data
District Hot Water Usage (kBtu)		Water Usage Intensity (Gallons/ft <sup>2</sup> )	10.59
District Hot Water Emissions (kgCO <sub>2</sub> e)		Site EUI (Energy Use Intensity kBtu/ft <sup>2</sup> )	67
District Chilled Water Usage (kBtu)		Energy Star Score	60
District Chilled Water Emissions (kgCO <sub>2</sub> e)		Total Site Energy Usage (kBtu)	15857190.6
District Steam Usage (kBtu)		Estimated Total GHG Emissions (kgCO <sub>2</sub> e)	927895.726
District Steam Emissions (kgCO <sub>2</sub> e)			
Fuel Oil 1 - 6 Usage (kBtu)		Other Data	Sample Data
Fuel Oil 1 - 6 Emissions (kgCO <sub>2</sub> e)		Community Choice Electricity Participation	No
Diesel / Propane / Kerosene Usage (kBtu)		Renewable Energy Purchased through a PPA	No
Diesel / Propane / Kerosene Emissions (kgCO <sub>2</sub> e)		Renewable Electricity Usage Onsite (kBtu)	
Natural Gas Usage (kBtu)	3634294.3	Renewable Energy Certificate (REC) Purchase	No
Natural Gas Emissions (kgCO <sub>2</sub> e)	193017.37	Backup Generator	No
Electricity Usage (kWh)	3582326	Battery Storage	No
Electricity Emissions (kgCO <sub>2</sub> e)	734878.356	Electric Vehicle (EV) Charging	No



# Implementation



Implementation Phasing	Building Count	Total Finished Sqft	Estimated MtCO2e
City Buildings (year 0)	16	709,311	2,697
First Phase (year 1) >=20,000	130	7,202,328	26,366
First Phase (year 1) >= 100,000 sqft Commercial	29	5,807,099	50,368
No of Unique Owners --- 113			
No of Mixed Use / Apartments --- 14			
Second Phase (year 2) Condos >= 20,000 sqft	25	1,285,331	3,159
No of Unique Owners --- 1122			

From Analysis of Watertown's 2024 Assessors Data



# Timeline of Reporting



**Municipal**

**Commercial and Residential**

**Condos**

	2024				2025				2026				2027			
	Year	June	Sept	Dec	Year	June	Sept	Dec	Year	June	Sept	Dec	Year	June	Sept	Dec
<b>Notice to Report</b>			Municipal			Commercial and Residential	Municipal Commercial and Residential Condos				Municipal Commercial and Residential Condos				Municipal Commercial and Residential Condos	
<b>Collect Energy Use</b>	Municipal				Municipal Commercial and Residential				Municipal Commercial and Residential Condos				Municipal Commercial and Residential Condos			
<b>Submit Energy Use</b>						Municipal				Municipal Commercial and Residential				Municipal Commercial and Residential Condos		
<b>Compliance Report</b>							Municipal				Municipal Commercial and Residential				Municipal Commercial and Residential Condos	
<b>Yearly Results</b>								Municipal				Municipal Commercial and Residential				Municipal Commercial and Residential Condos
<b>Baseline Year One</b>	Municipal					Commercial and Residential					Condos					
<b>Baseline Year Two</b>					Municipal					Commercial and Residential					Condos	



# Benchmarking and Goals



Amount and speed of reductions necessary to meet our goal of carbon neutrality by 2050.  
 Benchmarking reduction is based on a stepped percentage reduction against the two baseline years.

Compliance Periods	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
	2027 to 2029	2030 to 2034	2035 to 2039	2040 to 2044	2045 to 2049	>= 2050
<b>Municipal Buildings</b>	100%	60%	40%	20%	10%	0%
<b>Commercial &gt;= 20,000 and &lt; 100,000 sqft or Residential &gt;= 20,000 sqft</b>	100%	60%	40%	20%	10%	0%
<b>Delay Start Compliance</b>	<b>2028 to 2030</b>	<b>2031 to 2034</b>	<b>2035 to 2039</b>	<b>2040 to 2044</b>	<b>2045 to 2049</b>	<b>&gt;= 2050</b>
<b>Condo Buildings &gt;= 20,000 sqft</b>	100%	60%	40%	20%	10%	0%
<b>Accelerated Compliance</b>	<b>2027 to 2029</b>	<b>2030 to 2034</b>	<b>2035 to 2039</b>	<b>2040 to 2044</b>	<b>2045 to 2049</b>	<b>&gt;= 2050</b>
<b>Commercial &gt;= 100,000 sqft</b>	80%	40%	0%	0%	0%	0%



# Verification

Owners shall provide a third-party verification of their reporting data



## Verification Required for

- ✓ Baseline Year 1  
Baseline Year 2
- ✓ First compliance year for each compliance period
- ✓ First year of transfer of ownership

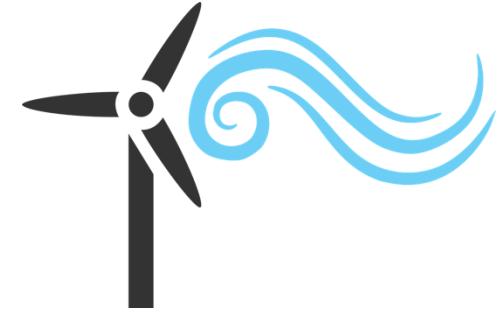


# Paths to Compliance



## Outside of the Ordinance

- Electrification of Building Systems
- MassSave and the Utilities Programs
- City Efficiency Programs
- Watertown Electricity Choice
- On Site Renewables
- Massachusetts Community Climate Bank
- MassCEC
- IRA
- 179D
- PACE



## From the Ordinance

- Power Purchase Agreements (PPAs)
- Renewable Energy Certificates (RECs)
- Alternative Compliance Payments
- Petition to the Review Board
- Alternative Emission Factors



# Penalties



Penalties may be assessed on any violation. Violations include:

- Failure to report benchmarking data or reporting only partial data
- Reporting false data
- Non-compliance with performance standards
- Lack of third-party verification
- Discrepancies between third-party verification and self verification

For the first violation a written warning may be issued. For subsequent violations the Department may issue a penalty of \$300 per violation per day. Each day a property is in violations constitutes a separate offence.





# Review Board

Is a resource for owners of buildings to seek redress of reporting or reductions of energy usage. Board consists of five members appointed by City Manager and approved by City Council for terms of up to five years. A city staff member will be assigned to the board for support.

The Review Board can:

- Grant exemptions to delay public reporting of benchmarking data
- Grant exemptions to generator energy use and emission requirements
- Review and approve Deferred Compliance Plans
- Review and approve Hardship Compliance Plans





# Deferred Compliance Plans



A building owner may apply to the Review Board with a plan to defer compliance with any GHG emissions requirements for up to five years.

Plans must detail the expected measures that will result in building returning to compliance within five years.

Buildings must still meet the 2050 net zero requirement and will be required to report Energy Use and Requirements for Verification.





# Hardship Compliance Plans



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.

Detail characteristics or circumstances will be determined in the regulations, but may include:

- historic building designations
- affordable housing
- refinancing timelines
- pre-existing long-term energy contracts without reopeners



The Hardship Compliance Plan can include alternative timelines and standards for meeting emissions requirements.

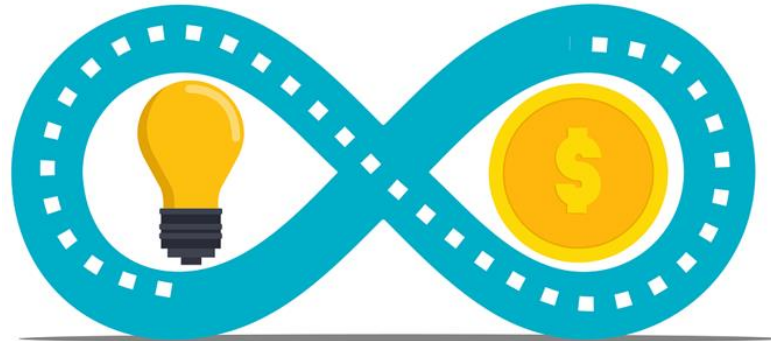
Buildings will still be required to report Energy Use and Requirements for Verification



# Equitable Emissions Investment Fund



All penalties and Alternative Compliance Payments will be placed in a separate City fund



Funds can be used for:

- Costs incurred by the City in administering the program
- Administration of GHG abatement projects that benefit the Watertown's reduction goals
- Prioritize projects that benefit Environmental Justice Populations and those disproportionately affected by air pollution

Expenditures from the funds are approved by the Planning Department Director



# BERDO Timeline

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Dates and emission reduction amounts in the draft BERDO are based on enacting the BERDO in the spring of 2025



To find out more about Resilient Watertown and the  
Climate and Energy Plan visit  
[www.watertown-ma.gov/1262/Sustainability](http://www.watertown-ma.gov/1262/Sustainability)

**Silas Fyler**  
**City of Watertown**  
**Assistant Director of Energy Manager**  
[sfyler@watertown-ma.gov](mailto:sfyler@watertown-ma.gov)

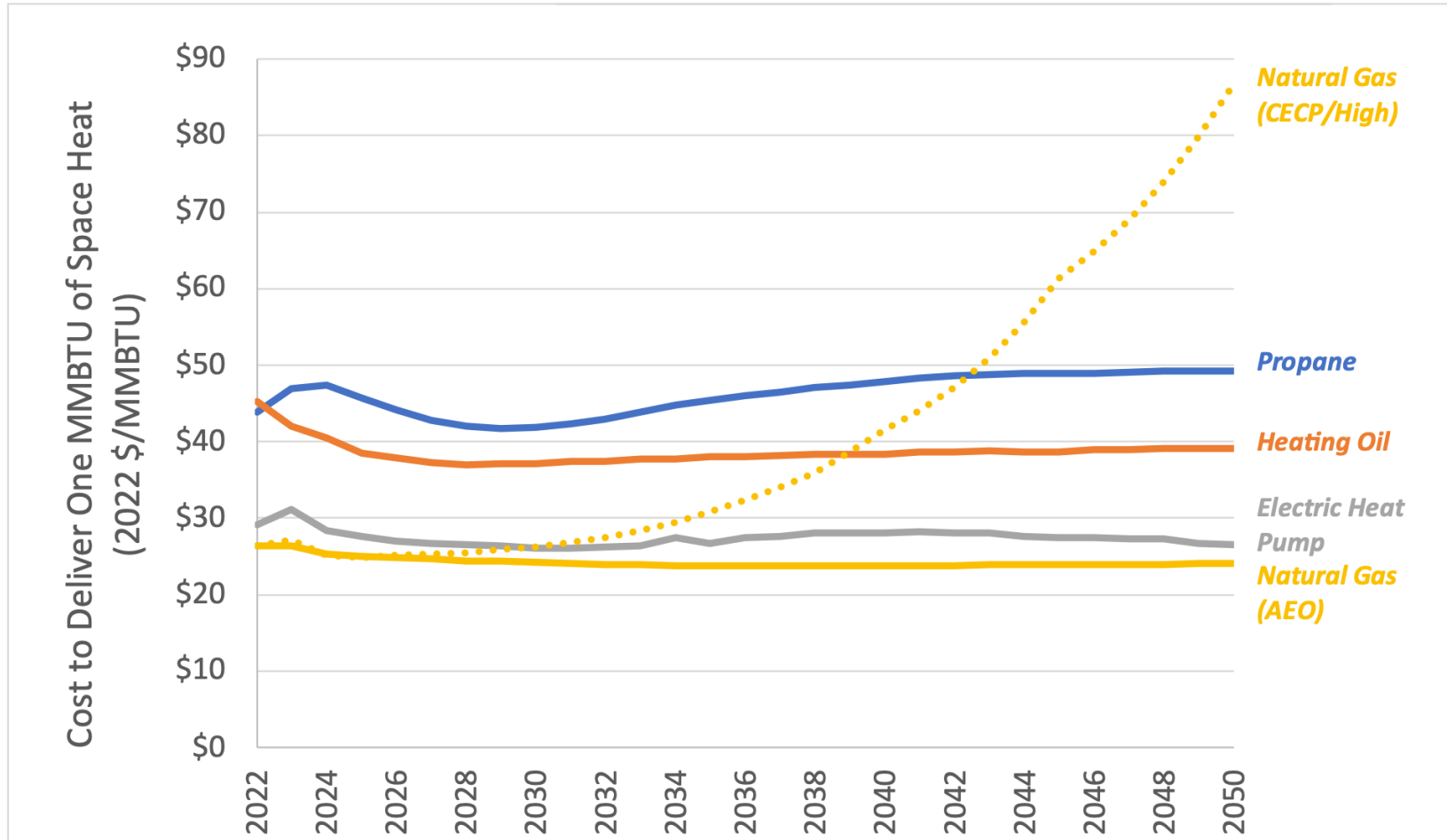
Questions?



# Space Heating Costs Forecast



## Massachusetts Space Heating Cost Forecast



- Studies for MA DEP and MA DPU forecast heat pumps to be less expensive to operate than gas heating by 2030 under CECP
- Gas heating costs are expected to rise to 300%–700% of current costs by 2050
- BERDO reduces exposure to rising gas rates

Sources: Sustainable Energy Advantage and Synapse Energy

Economics for MA DEP, 2023 (Link) Energy+Environmental Economics and Scott Madden Management Consultants for MA DPU, 2022. (Link)

CECP: Clean Energy and Climate Plan for 2050 (CECP)  
AEO: 2023 EIA Annual Energy Outlook



# Cost of Complying: Capital Costs



## *Is decarbonization affordable?*

Synapse and Newton's BERDO Team evaluated completed projects, published literature, contractor quotes, and interviews with industry professionals this past fall.

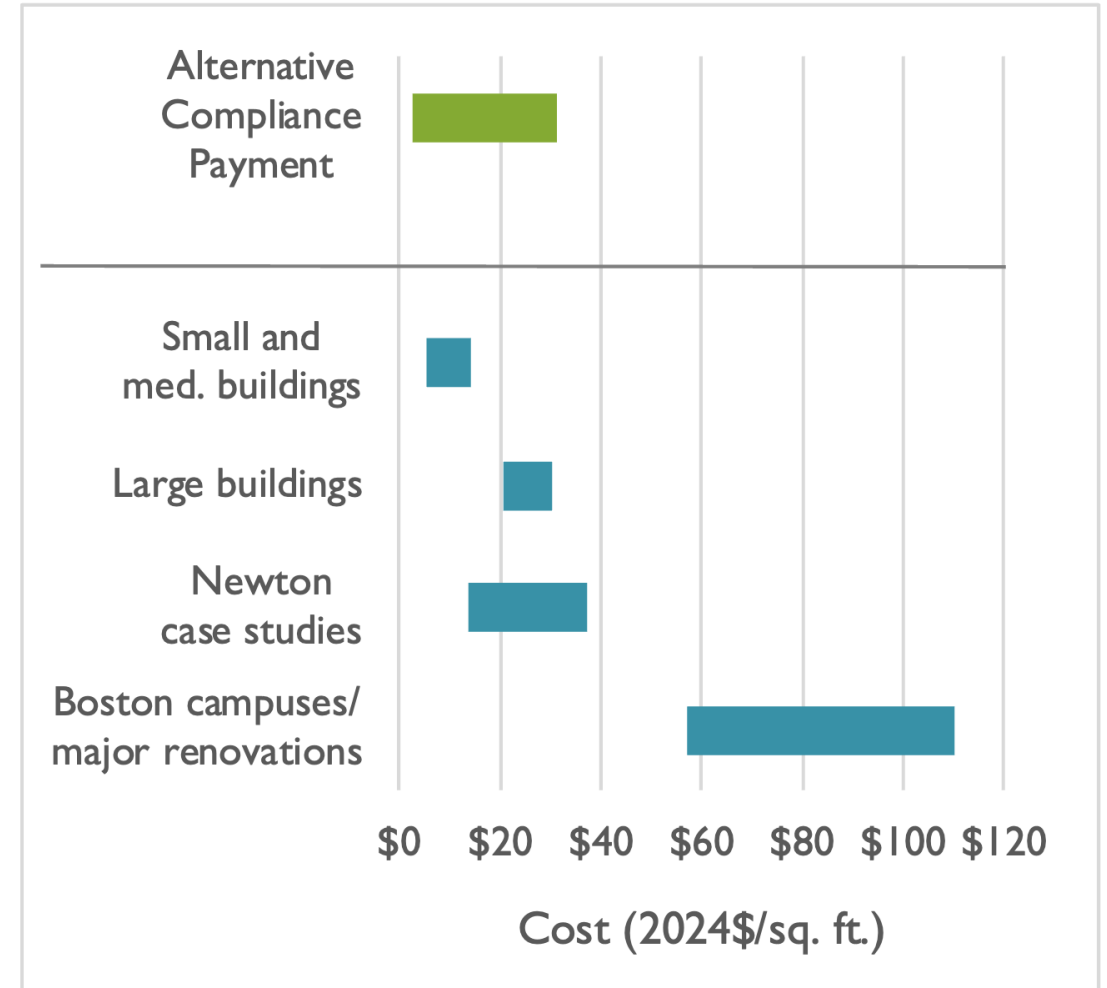
Typical costs:

- One-time: \$5–35 per sq. ft. before incentives
- Amortized: \$0.40–\$3.00 per sq. ft. annual (at 6% over 20-year equipment life)

**Costs vary by building type, size and timeframe**

*Sources: Jones, B. 2021, Synapse 2024, City of Newton 2024, City of Boston 2024, Synapse 2024, various contractors*

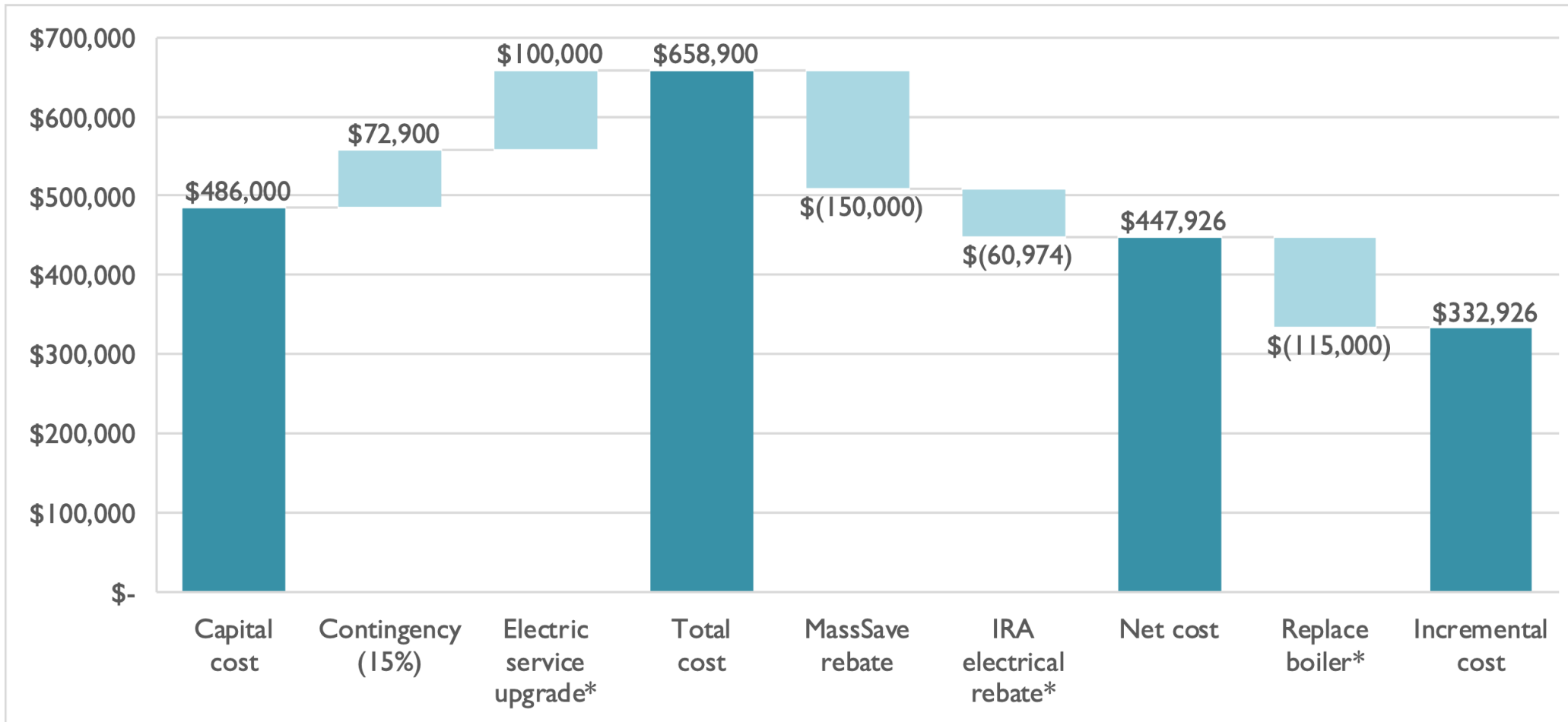
## Building Upgrade Cost Before Incentives





# Cost of Complying: Estimates

Real life sample estimate and why costs can vary





# Cost of Complying: Financial Support



## *What financial resources are available?*

### **Mass Save commercial incentives:** \$9.00–\$15.00 per sq. ft.

- Heat pumps: \$2,500–\$4,500 per ton
- Heat pump water heaters: \$1,000–\$2,200 per unit
- Deep energy retrofits: \$1 per sq. ft.
- Low or no interest loans



### **179D Federal tax deduction** for commercial retrofits: \$0.50–\$6.00 per sq. ft

- Sliding scale for achieving 25–50% energy savings: \$0.50–\$1.00 per sq. ft.
- **Plus** \$2.50–\$5.00 per sq. ft. for meeting prevailing wage and apprenticeship requirement
- Capped at price of retrofit



# Cost of Complying: Financial Support



## *What financial resources are available?*

### Property Assessed Clean Energy (PACE) (Watertown will need to adopt):

- Low-interest loans to commercial and multifamily owners
- Repaid through property taxes with terms up to 20 years
- Available through MassDevelopment and DOER
- Can reduce tax liability



### Massachusetts Community Climate Bank:

- Loans for affordable housing
- \$70 million to date in seed funding
- Available through MassHousing



### Eversource and National Grid:

- 0%–2% interest loans up to \$500,000
- Terms up to 7 years
- Incentives used to buy down interest rate





# City Assistance for Building Owners



## *What resources are available to help building owners comply?*

### Trainings for ENERGY STAR Portfolio Manager

- How to use and how to obtain energy use data
- Developing a BERDO compliance plan

### Flexibility Measures

- Deferral Plans, Hardship Plans, Renewable Energy Credits
- Review Board

### City will host public seminars and trainings

- Manufacturers and vendors: on technology solutions
- Utilities: on available assistance and how to access it (technical assistance, rebates and incentives, financing options, aggregated energy use data)

**City BERDO website:** resource clearinghouse with detailed FAQ



# State Assistance for Building Owners



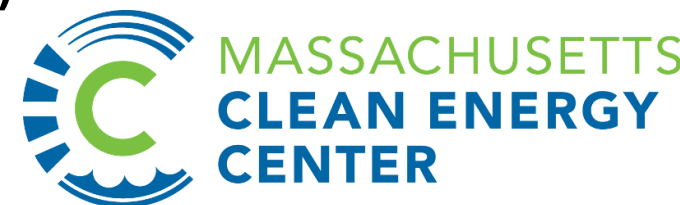
## *What resources are available to help building owners comply?*

### **MassCEC Building Performance Exchange** for large building decarbonization

- \$4 million in state funding; pursuing \$2 million in federal funds
- Information and technical assistance to help comply with BERDO-like policies throughout Massachusetts
  - Centralized information on state policies, initiatives, and programs
  - Clearinghouse for financing, incentives, and qualified building professional registry
  - New offerings: tools, guidebooks, case studies, trainings, events, and seminars
- Early rollout for communities with BERDO policies expected 2025/2026

### **MassCEC Building Electrification and Transformation Accelerator (BETA)**

- Portfolio of resources to help commercial and multifamily owners electrify
- No cost, in-depth audits to develop decarbonization plan (pilot stage)





# State Assistance for Building Owners



***What resources are available to help building owners comply?***

## **Large Building Energy Reporting (LBER) program**

- Requires utilities to report energy use for large buildings
- DOER consultant assembling energy use and building information
- First LBER reports issued October 2025, but utilities can request extensions
  
- Key differences compared to BERDO
  - Does not require emissions reductions
  - Requires utilities to report natural gas and electricity, not building owners
  
- BERDO Team is monitoring LBER closely to determine if it is useful for BERDO
  
- BERDO ordinance language allows City to incorporate use of LBER via regulations  
*“and/or other tools identified by the Department to collect and track Benchmarking information”*





# Utility Assistance for Building Owners



## *What resources are available to help building owners comply?*

- Mass Save 3-year plan (2025-2027)
  - Funded at \$5 billion, including \$3.5 billion for incentives
  - **\$437 million for multifamily and commercial customers of Eversource and National Grid**
  - Install over **115,000 heat pumps**
  - Reduce GHG emissions by **1.0 million metric tons CO<sub>2</sub>e**
  - Incentives for **natural gas equipment phased out** by law (more available for electrification)
  - Statewide customer call center
  - Equity: Main Streets program for downtowns, schools, **\$1 billion income-based incentives**
- Rebates and Incentives: insulation, air sealing, HVAC controls, heat pump water heaters, heat pump space heating
- **Low or no cost financing programs**
- **Free scoping and technical assistance studies** to help owners decarbonize buildings
  - Comprehensive building assessment, portfolio prioritization, decarbonization roadmap, existing building commissioning, and more



# 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 30<sup>th</sup> 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 30<sup>th</sup>, 2026, and by every June 30<sup>th</sup> thereafter;

- 6.1.2 A Residential Covered Property that is not a Condominium or Cooperative by June 30<sup>th</sup>, 2026, and by every June 30<sup>th</sup> thereafter;
- 6.1.3 A Residential Covered Property that is a Condominium or Cooperative by June 30<sup>th</sup>, 2027, and by every June 30<sup>th</sup> thereafter;
- 6.1.4 A new Covered Property must report by the following June 30<sup>th</sup>, 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 30<sup>th</sup> 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 CO<sub>2</sub>e 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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# City of Watertown

## DRAFT Building Emission Reduction Disclosure Ordinance Regulations

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Department of Community Development  
and Planning

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## 1. Introductions

The following Regulations are promulgated by the City of Watertown Department of Community Development and Planning Department (“the Department”) pursuant to the authority granted to it under the BERDO.

## 2. Definitions

Terms defined in the Watertown BERDO Section 2 have the same meaning for the purposes of these Regulations and those definitions are hereby incorporated by reference. Terms related to data reporting that are not otherwise defined shall have the same meanings as in the ENERGY STAR Portfolio Manager. For the purposes of this section, the following additional terms are defined as follows:

### 2.1 Campus District Energy System

District Energy System where the central generating plant, piped infrastructure, and all connected buildings that receive one or more of the generated products share a common Owner.

### 2.2 Emissions Intensity

Emissions divided by the gross floor area for which those Emissions are applicable.

### 2.3 Energy Type

Any Energy source used in a building, including, but not limited to, electricity, natural gas, fuel oil, propane, steam, and hot and chilled water, and any other Energy Types that the Department may designate.

### 2.4 Energy Use Intensity

Energy consumption divided by the gross floor area for which that consumption is applicable.

### 2.5 Ordinance

Means the City of Watertown Code, Ordinances, for BERDO (callout to ordinance code number)

### 2.6 Space Type, also referred to as Building Use

The primary activity for which a given building or part of a building is utilized.

### 2.7 Tenant, as defined in the BERDO Section 2.32

Any tenant, tenant-stockholder of a cooperative apartment corporation, and condominium unit Owner.

### 2.8 Verification Year, as defined in the BERDO Section 13

Any year where an Owner must report third-party verified reporting data. Verification Years will be 2025, 2026, 2030 and every five years thereafter.

## 2.9 Whole-Building Data

Complete Energy consumption data for all Energy Types used in a building for an entire building, inclusive of Tenant spaces and uses.

## 3. Reporting Process

Owners must annually report data through the ENERGY STAR Portfolio Manager and/or other methods as outlined in guidance documents issued by the Department. Data should be reported in accordance with the requirements in the BERDO Section 9, the following provisions and any other methods detailed in guidance documents issued by the Department.

### 3.1 Energy Use

3.1.1 Owners shall report Whole-Building Data for all Energy. Owners that are unable to obtain Whole-Building Data shall follow the procedures in Section 3.5 of these Regulations.

3.1.2 Owners that procure Energy through the City of Watertown's Electricity Choice (WEC) program, or Owners whose Tenants procure Energy through the WEC program, may provide evidence of enrollment in the WEC program when reporting a Building's Energy use in accordance with any guidance documents issued by the Department.

3.1.3 Owners that authorize an Energy utility or other third party to report Building-specific data on their behalf shall remain responsible for verifying the accuracy of such data. Any discrepancies between data provided by a utility or other third-party and reported data must be indicated in the "Property Notes" section of ENERGY STAR Portfolio Manager. The direct upload of such data by a utility or other third party does not relieve an Owner of the duty to report other required data.

### 3.2 Calculation of Gross Floor Area

3.2.1 For the purpose of determining if a building meets the definition of a Covered Property in the BERDO Section 2.9, Gross Floor Area (Covered Square Feet) or Area must be determined using records from the Watertown Assessing Department. Assessing Department records may be disputed in accordance with Section 3.5 of these Regulations. For any other purpose, Owners may either:

- a) Use the Gross Floor Area listed in the Watertown Assessing Department; or
- b) Calculate Gross Floor Area in accordance with the following provisions: (i) Gross Floor Area means the total number of square feet measured between the principal exterior surfaces of the enclosing fixed walls of the building, including tenant areas, lobbies, common areas, restrooms, stairways, elevator shafts, mechanical equipment rooms, basement space, and storage rooms; (ii) Gross Floor Area excludes all surface parking

areas, unroofed courtyards, outdoor balconies, exterior loading docks, plenums between floors, and unroofed light wells; (iii) for atria, Gross Floor Area includes only the area of atrium floors; and (iv) for tenant spaces or interior Building Use(s), interior demising walls should be measured to the centerline of the wall. Owners that calculate Gross Floor Area in accordance with this provision must preserve the supporting documentation pursuant to Section 11 of these Regulations.

### 3.3 Building Use Classifications

For purposes of BERDO Section 9.2, the Building Use classification is defined by Energy Star Portfolio Managers Property Types. Owners are strongly encouraged to report all Building Uses and associated square footage in ENERGY STAR Portfolio Manager, including Building Uses that occupy less than ten (10) percent of the building's square footage.

3.3.1 If ENERGY STAR Portfolio Manager updates the property types listed in Appendix A, the Department may update Appendix A to reflect those changes.

### 3.4 Vacant Space

Owners must account for any vacant or unoccupied space in ENERGY STAR Portfolio Manager in accordance with ENERGY STAR Portfolio Manager instructions or with guidance documents issued by the Department.

### 3.5 Buildings Without Whole-Building Data

If an Owner is not able to obtain Whole-Building Data for any Energy Type, then the Owner must report such Energy Type use as provided in this Subsection. In the event that an Owner does not have Whole-Building Data because Tenant(s) failed to respond to data requests and utilities have not provided Whole-Building Data within the time period specified in BERDO Section 6, the Owner shall also comply with the requirements in Section 3.8 of these Regulations.

3.5.1 Common Area Energy. The Owner shall submit Energy use data for all common areas and all centrally metered areas.

3.5.2 Calculating Energy Use in Tenant Spaces. For each Energy Type used in separately metered Tenant space, the Owner must report known Energy usage data and then use one of the following methods to determine Energy usage for the areas in which it is unknown, for each month.

a) **With Significant Partial Data for Building Use.** If an Owner has actual Energy use data for at least fifty (50) percent of a given Building Use, the Owner shall extrapolate the Energy data for the remainder of Gross Floor Area with the same Building Use. This extrapolation shall be applied only to those areas for which Energy use is unknown and shall be calculated by (i) multiplying the average Energy Use Intensity of the floor areas for which Energy Use Intensity is known by the total floor area for which the Energy Use

Intensity is not known and multiplying the result from step (i) by one hundred and fifty (150) percent.

b) **Without Significant Partial Data for a Building Use.** If an Owner does not have actual Energy use data for at least fifty (50) percent of any Building Use, the Owner shall utilize the default values set by the Department, applied only to those areas for which Energy use is unknown, and following the methodology included in the Regulations as adopted by the Department.

3.5.3 **Noting When Whole-Building Use Data Is Not Available.** In accordance with guidance documents issued by the Department, Owners shall indicate when Whole-Building Data for Energy is not available and where extrapolated data is used.

### 3.6 Contextual Information

Owners may supply contextual information regarding their required data, including hyperlinks, in the “Property Notes” section of ENERGY STAR Portfolio Manager or via any supplemental reporting methods detailed by the Department in guidance documents. Such contextual information may be included in public disclosures. Contextual information shall conform to guidance that the Department may issue regarding acceptable length and formats.

### 3.7 New Information

If, after having submitted a report to the Department, the Owner of a Building changes or an Owner receives or becomes aware of new or updated information that would result in a change to whole building Emissions, Energy use, or Emissions or Energy Intensity of two (2) percent or more over the period of one (1) calendar year, the Owner shall, within thirty (30) Days of the change or of receiving the new information, submit the additional or corrected data to the Department in accordance with guidance documents issued by the Department, and notify the Department accordingly. Owners may submit other updates at any time. The Department will include such updates in its annual disclosure of data.

### 3.8 Obligation to Request and Report Information from Building Tenants.

**Delegating Reporting Duties to a Single Tenant.** If an Owner has leased a Building to a single Tenant and that Tenant has assumed management, maintenance, regulatory compliance and/or capital improvement costs of the entire building, the Owner may, with the consent of the Tenant, delegate all responsibility regarding reporting under the BERDO to that Tenant. The Owner shall report such delegation in accordance with guidance documents issued by the Department.

3.8.1 **Tenant Non-Response.** Owners shall report in writing to the Department if any non-residential Tenant fails to respond to data requests from the Owner within the time period specified in BERDO Section 10, accompanied by documentation of the Owner’s request. Owners seeking data from Tenants shall document reasonable steps to collect such data, including making the written request using the most up-to-date contact information for the Tenant at least twice.

### 3.9 Requesting Alternative Reporting Dates.

A request for an alternative reporting date to that otherwise required by BERDO Section 6 must explain the extenuating circumstances that make an Owner unable to complete the report or third-party data verification by the deadline and must be submitted prior to the applicable deadline. Such requests must comply with any procedures created by the Review Board or guidance documents issued by the Department. The Review Board may grant a request for an alternative reporting date and/or third-party verification deadline for a period not to exceed six months. In 2025, the Department may grant a request for an alternative third-party verification deadline.

## 4. Ownership Changes and Designations

### 4.1 Change of Ownership

4.1.1 When a Building changes ownership, the previous Owner shall provide to the new Owner any required data that has been collected and is necessary for completing the next required report under BERDO.

4.1.2 If a Building changes ownership, any outstanding compliance obligations and liabilities shall become the responsibility of the new Building Owner.

4.1.3 New Building Owners shall provide notice of change of ownership to the Department within thirty (30) days of the change. Notice shall include (a) a copy of the instrument evidencing the transfer of the rights and obligations to the successor-Owner and assumption by the successor-Owner of said rights and obligations and (b) the name, address and contact information of the new Owner and any designated agent.

4.1.4 A New Building Owner is responsible for performing a third party verification of reporting data for the first full calendar year after transfer, regardless of whether it is a Verification Year.

### 4.2 Designation of Tenant as Owner

4.2.1 A Building Owner seeking to designate the lessee of a Building as “Responsible Party” for purposes of compliance shall submit to the Department or its designee a letter of agreed designation as “Responsible Party”, including a commencement date and term length, signed by both the Building Owner and the lessee, following any guidance set forth by the Department.

4.2.2 Once a notice of designation is submitted, the lessee shall be responsible for compliance with the Ordinance.

4.2.3 If the lease is terminated or the Owner and lessee otherwise agree to terminate the designation of Tenant as “Responsible Party”, the responsibility for Compliance and any outstanding compliance obligations will revert back to the Building Owner. The Owner and lessee are jointly and separately responsible for notifying the Department within fourteen (14) Days of any change in the designation of a Tenant as “Responsible Party”.

## 5. Special Conditions

### 5.1 Multiple Buildings on a Single Tax Lot or on Multiple Tax Lots that Share Energy Systems.

If there are multiple buildings on a single tax lot or on multiple tax lots that share Energy systems, the Owner(s) shall report data required by BERDO Section 2.14as follows:

5.1.1 For any building that has Energy use that is separately metered or sub-metered, data must be reported at the building level.

5.1.2 For buildings that are classified as the same Building Use and whose Energy use is not separately metered or sub-metered, the total shared Energy use should be apportioned by the Gross Floor Area of each building and reported for each such building. The apportioned data shall be marked as an “Estimation” in ENERGY STAR Portfolio Manager.

5.1.3 Buildings that are not classified as the same Building Use and whose Energy use is not separately metered or sub-metered, should be reported as a campus as defined in ENERGY STAR Portfolio Manager.

5.1.4 The Department may approve an alternative apportionment process proposed by the Owner.

### 5.2 Newly Constructed Buildings

The first reporting requirement for newly-constructed Buildings shall be the first full calendar year following the issuance of a Temporary Certificate of Occupancy for the Building or Certificate of Occupancy for the Building, whichever is earlier.

### 5.3 Extenuating Circumstances

Owners with extenuating circumstances may file a request with the Department to report information required by BERDO Section 2.14 on a basis other than the building level. Such requests shall be made in accordance with any guidance issued by the Department and the Department must issue decisions in writing. Such extenuating circumstances may include, but are not necessarily limited to:

5.3.1 Parcels with multiple Buildings that (a) have three (3) or fewer residential Tenants, (b) have no Energy metering at the building level, or (c) have no building level Gross Floor Area data.

5.3.2 Buildings that (a) share building walls, (b) are located on the same parcel or adjacent parcels and (c) have a common Owner.

#### 5.4 Disputing Assessing Department Records

In the event that an Owner disputes the Watertown Assessing Department's records of Gross Floor Area or unit count and believes the property does not meet the Ordinance's definition of a Covered Property, the Owner may make a written request for the Assessing Department to remeasure the property and shall provide a copy of the request to the Department.

5.4.1 An Owner that provides a copy of a reassessment request to the Department shall not be subject to penalties for failure to comply with the Ordinance until the next update of the Property Assessment has been published.

5.4.2 If after reassessment, the Property Assessment indicates that the property meets the Ordinance's definition of a Covered Property, the Owner shall be responsible for all outstanding reporting requirements and compliance with Emission standards since the request for reassessment was filed with the Assessing Department. In such cases, if an Owner fails to comply with the Ordinance within four months of publication of the updated Property Assessment, penalties defined in the Ordinance may be issued.

#### 5.5 Vacant Buildings

5.5.1 The Department may determine a Building is vacant and therefore not subject to third-party verification or compliance with an Emissions standard

5.5.2 A vacant building shall be demonstrated by one or more of the following: (1) an active demolition permit issued by the City of Watertown's Inspectional Services Department and proof of filing an Article 85 Demolition Delay application with the Watertown Historical Commission, (2) condemned by Building Commission, (3) no active water or gas utilities, (4) transfer of all utilities to a construction company with an active construction permit, (5) No certificate of occupancy, (6) Fire Department designation of unhabitable, or (7) if Energy use is less than five (5) percent of previously reported annual data. Owners shall submit requests to determine a Building as vacant in accordance with any guidance or standard form provided by the Department. The Department may ask for additional documentation and will issue a determination in writing to the Owner. An Owner may appeal the Department's decision to the Review Board in writing.

5.5.3 To maintain the status of a vacant Building, Owners must submit updated documentation in writing to the Department annually.

5.5.4 Buildings that are determined by the Department to be fully vacant for the entire compliance year are not subject to the Emissions standard for that compliance year. Owners must still follow applicable reporting requirements. When a Building is no longer

determined to be vacant by the Department or when it receives a Certificate of Occupancy, compliance obligations with the Emission standards shall resume.

## 6. Third-Party Data Verification

Third party verification of a Building Owner's reporting data shall be performed by a qualified energy professional who is not on the staff of a Building's Owner or Building's management company. Pursuant to BERDO Section 13, third-party verification is required for all reporting data for the specified time periods, including, but not limited to, data necessary to show compliance with and qualification for Emissions Standards, Deferred Compliance Plans and Hardship Compliance Plans, if applicable.

### 6.1 Qualified Energy Professionals

Include individuals who hold an active qualification of at least one of the credentials listed in the Regulations as adopted by the Department. The Department may approve additional credentials for designation as qualified energy professionals.

### 6.2 Corrections to Reported Data

In the event of errors found in previously reported data or discrepancies between previously reported data and third-party verified data, Owners shall submit an updated report as outlined in guidance documents provided by the Department.

## 7. Emission Factor

### 7.1 Emission Factor

By April 1st of each year, the Department shall adopt guidance, updated as needed, establishing Emissions Factors in accordance with the following conditions. Building Owners shall use these Emission Factors for calculating compliance with the standards.

7.1.1 Emission Factor for natural gas, propane, fuel oil, diesel oil, and kerosene, and any other fuels not otherwise specified in the Regulations issued by the Department, shall be the most recent Emissions Factors reported by ENERGY STAR Portfolio Manager.

7.1.2 Annual Emission Factor for the electric grid shall be based on real data published by Massachusetts Department of EnergyResources, or any other relevant governmental sources for the compliance year, and any other factors determined relevant by the Department.

7.1.3 Emission Factor for District Energy Systems shall be calculated for each end product using an efficiency methodology, as defined in the Regulations issued by the Department.

a) District Energy System operators shall provide annual Emission Factor for their systems to the Department by April 1st of each year and shall have the respective data,

calculations, and Emission Factor verified by a third party following any requirements included in the Regulations.

- b) If a District Energy System operator fails to provide third-party verified annual Emission Factor for its systems by April 1st, the most recent verified Emissions Factor from the District Energy System shall be used for compliance, provided, however, that if there is no verified Emission Factor for the District Energy System, then the current Emission Factor reported by ENERGY STAR Portfolio Manager for the corresponding products shall be used.

7.1.4 Owners of Campus District Energy Systems may either (a) follow the Emission Factor requirements for District Energy Systems as outlined in Section 7.1.3 of these Regulations or (b) apply the appropriate Emission Factor to their central plant's fuel inputs and apportion the Emissions across their connected buildings following Section 5.1 of the Regulations.

7.1.5 Emission Factor for thermal Energy generated from non-emitting renewable sources shall have an Emission Factor of zero (0) kgCO<sub>2</sub>e/MMBTU, provided that:

- a) Any renewable Energy or Renewable Energy Certificates are purchased in accordance with the requirements in Section 9 of these Regulations, and
- b) Any required third-party verification is provided.

7.1.6 The Department may adopt, via the Regulations, Emission Factor to be applied to fuels not referenced in the Regulations.

- a) Any Owner or entity that generates or delivers Energy with fuels or Energy sources without Emission Factor covered by the Regulations may petition the Department to approve custom Emission Factor to be applied to Buildings. Such custom Emission Factor may include, but are not limited to, biogenic fuels, hydrogen, and fuel cells.
- b) The Department shall develop guidance for reviewing petitions for custom Emission Factor.

7.1.7 Subject to approval by the Department, and in accordance with conditions set forth in the Regulations issued by the Department, Owners with hourly-metered or more frequently metered Energy data may opt to use time-of-use Emission Factor. Owners must provide third-party verification of annual time-of-use data, methodology, and Emission Factor; such data shall be subject to audit. If a time-of-use Emission Factor is not approved, the Emission Factor adopted by the Department shall be used.

## 8. Emission Standards

### 8.1 Emission Standards

8.1.1 When calculating square footage to determine compliance with BERDO Section 5, third-party verified Gross Floor Area shall be used. When third-party verified Gross Floor Area is not available, square footage as it appears in the records of the Watertown Assessing Department shall be used.

8.1.2 At the discretion of the Department, in any year that a building changes its emissions by greater than 20% due to a change in building use type as defined in the Benchmarking Tool:

- a) A new baseline will be generated by the Owner;
- b) The annual report required by BERDO Section 6 shall include third-party verification, regardless of whether it is a Verification Year;

## 9. Additional Compliance Mechanisms

### 9.1 Watertown Municipal Electricity Aggregation Program

Renewable Energy Certificates (RECs) procured on behalf of customers by the Watertown Municipal Electricity Choice aggregation program are eligible as a method of compliance per BERDO Section 9. For Energy purchased from the Watertown municipal aggregation program that is not matched with one hundred (100) percent RPS Class I RECs, the appropriate Emissions Factor adopted by the Department or Department pursuant to Section 7 of these Regulations shall apply to the portion of the Energy not matched with RPS Class I RECs.

### 9.2 Renewable Energy Certificates

Owners that utilize unbundled or bundled RECs, including local Power Purchase Agreements that generate RPS Class I RECs pursuant to 225 CMR 14.05, as a method of compliance shall provide documentation demonstrating that the RECs comply with the conditions in BERDO Section 12, provided, however, that, notwithstanding anything to the contrary in the Ordinance:

9.2.1 RECs may be generated either within

- a) the twelve (12) months before the compliance year or
- b) within the compliance year in which they are used, and

9.2.2 Owners must demonstrate that RECs are retired no later than six (6) months after the end of the compliance year in which they are used.

### 9.3 Power Purchase Agreements

9.3.1 Owners who procure electricity and bundled RECs through Power Purchase Agreements, including virtual Power Purchase Agreements, for compliance with the Ordinance shall provide documentation demonstrating compliance with the requirements in BERDO Section 12 and the following additional requirements:

- a) Power Purchase Agreements are for electricity generated by non-emitting renewable sources that meet the RPS Class I eligibility criteria outlined in 225 CMR 14.05, as those criteria may be amended from time to time, provided, however, that any requirements for metering and location in 225 CMR 14.05 are not applicable.
- b) Power Purchase Agreements are with electricity generators connected to an electric grid in the jurisdiction of the State of Massachusetts.
- c) The Power Purchase Agreement is for electricity from a project that begins commercial operation after a Power Purchase Agreement is executed by or on behalf of the Owner of a covered Building, provided, however, that this time requirement will not apply to Owners who join an existing eligible Power Purchase Agreement executed by a different Owner in accordance with this provision
- d) RECs associated with the electricity purchased pursuant to a Power Purchase Agreement may be used for compliance if they meet the requirements in Section 9.2 of these Regulations.

Owners may request, based on extenuating circumstances, the Review Board to approve a Power Purchase Agreement that does not meet this requirement.

9.3.2 Power Purchase Agreements that satisfy the criteria in the Ordinance and Regulations as exist at the time of execution may be used for compliance with the Ordinance for the length of the contract term, including extensions to the original term, and for any quantity or price of Energy purchased from the original generating source(s) identified in the Power Purchase Agreement.

### 9.4 Local Renewable Generation

9.4.1 Electricity and associated generation credits, such as net-metering credits, directly attributable to electricity generated by non-emitting electricity generating systems are eligible as a compliance mechanism regardless of (i) who owns the electric generating system and (ii) whether or not the corresponding RECs are retired by or on behalf of the Owner, provided that one of the following conditions is met:

- a) (i) The system is a solar generating system, and (ii) it is located in Massachusetts

- b) The Owner or Tenant(s) of a covered Building acquires electricity or generation credits from a non-emitting renewable electricity generating system and (ii) the generating system is located in the City of Watertown.
- c) Electricity or generation credits acquired from non-emitting electricity generating systems shall be reported following any requirements in guidance documents.

## 9.5 Alternative Compliance Credits

9.5.1 “Alternative Compliance Credit” shall mean 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. In the first Compliance Period, each Alternative Compliance Credit shall cost \$234. The Department shall update price of each Alternative Compliance Credit for the following Compliance Periods. Alternative Compliance Credit must be purchased no later than December 31<sup>st</sup> for each reporting period.

## 10. Compliance Plans

### 10.1 Types of Compliance Plans

10.1.1 Owners may apply for one of the following:

- a) Deferral Compliance Plan, which may grant relief from compliance with applicable Emission standards for one (1) to five (5) years. A Deferred Compliance Plan may be extended due to extenuating conditions for up to twelve (12) months. Under no circumstances will a Deferred Compliance plan be granted after 2050. An Owner seeking relief for additional time must apply for a Hardship Compliance Plan.
- b) Hardship Compliance Plan, which may grant relief from compliance with applicable Emission standards for one (1) or more years. A Hardship Compliance plan can be extended beyond the 2050 timeframe. Owners will still have to provide a third-party verification of their reporting data on the start of each Emission Compliance Period and every five years after 2050.

### 10.2 Circumstances and Characteristics that Could Create Hardship or Deferral in Complying with Emissions Standards.

The following circumstances and characteristics of an Owner, or Building that could, either singularly or collectively, create a hardship in complying with the Emission standards in the Ordinance. The existence of such circumstances and characteristics must be demonstrated in accordance with any policy adopted by the Department and guidance issued by the Department.

10.2.1 Financial circumstances and characteristics, including:

- a) Owner bankruptcy for all or part of a year in which an Emissions standard must be met.
- b) Schedule of compliance-related costs do not align with long-term schedules for capital expenditures that cannot be changed or are beyond the control of the Owner.

10.2.2 Regulatory or contractual circumstances and characteristics, including:

- a) Long-term Energy contracts signed prior to February 2025 without reopeners for a significant portion of a Building's or Building Portfolio's Energy demand.
- b) Delays in delivery of Renewable Energy Certificates pursuant to executed Power Purchase Agreements because of delays in initial commercial operation for reasons beyond a Building Owner's control.
- c) Delays in electric system interconnections or adequate delivery of electricity for reasons outside of an Owner's control, provided that requests for interconnections and notification of anticipated electricity demands were made in a timely manner in light of planned work and Emissions standard compliance deadlines.
- d) Denial of, or significant delays in, government permits or approvals, Massachusetts utilities permits or approvals or any equivalent state energy efficiency program, for significant compliance-related work, provided that applications for such permits or approvals were made in a timely manner in light of planned work and Emissions standard compliance deadlines as defined by Government Agency.

10.2.3 Technical or operational circumstances and characteristics, including:

- a) Building and/or site space constraints that limit significant compliance-related work.
- b) Equipment including substitute equipment needed for significant compliance-related work is not adequately demonstrated or available in the United States, including due to supply chain constraints or excessive international tariffs or taxes.
- c) Equipment that is used by the Owner or their tenant that cannot be feasibly operated or maintained within the regulatory framework of the Ordinance.

10.2.4 Other unusual circumstances or characteristics, including:

- a) Low-income Owners of Building(s) that provide affordable housing to low-income tenants.

- b) High costs for individual condominium owners that exceed the likely ability for middle-income individual condominium owners to pay
- c) Delays in significant compliance-related work due to a natural disaster or declared state of emergency.
- d) Unique or unusual situation as determined by the Department.

### 10.3 Eligibility for Hardship or Deferral Compliance Plans.

10.3.1 The Building is in compliance with the Ordinance and Regulations, including, as applicable, (i) payment of fines for any failure to comply with reporting requirements or Emissions standards, (ii) where feasible, the submission of any missing required reporting data, and (iii) the correction of any failure to meet an Emissions standard by using any compliance mechanism(s) authorized in BERDO Section 11.

10.3.2 The Owner has not previously been denied a Hardship or Deferral Compliance Plan for the same Building, unless there are material changes to the circumstances or characteristics of an Owner, Building or the hardship they create.

### 10.4 Types of Relief for Hardship or Deferral Compliance Plans.

At its discretion, the Review Board may grant an applicant one or more of the following types of relief for a defined period of time. However, any relief granted in a Compliance Plan shall be reassessed every five (5) years. Relief may apply to some or all of an Owner's compliance obligations.

10.4.1 Alternative schedules for complying with the Emission standards in the Ordinance.

10.4.2 Alternative Emission standards than those in the Ordinance.

10.4.3 Exemption of specified Energy use(s), in whole or in part, from a Building Owner's compliance obligations.

10.4.4 Adjusted compliance obligations in light of third-party barriers or delays to significant energy efficiency or electrification projects, provided that such third-party is unrelated to the Owner.

10.4.5 Additional compliance mechanisms that the Review Board determines are consistent with achieving the Purpose set forth in BERDO Section 10.

### 10.5 Applications for Hardship or Deferral Compliance Plans

Unless otherwise noted in this section, all applications for Hardship or Deferral Compliance Plans must include the following information and supporting documentation in accordance with

any guidance adopted by the Department and application instructions issued by the Department.

10.5.1 A brief narrative description of how the Owner has used, plans to use, and/or considered the use of all the compliance mechanisms and flexibility measures authorized by the Ordinance other than direct Emission reductions, including: on-site renewable Energy, Watertown Electricity Choice, Renewable Energy Certificates, Power Purchase Agreements, and.

10.5.2 A description, accompanied with supporting documentation, of the existence and scope of the circumstance(s) or characteristic(s) in Section 10.2 of these Regulations. that apply to the Owner, and / or Building.

10.5.3 A description, accompanied with supporting documentation, of the hardship resulting from the combination of:

- a) The compliance actions described in the BERDO section 11; and
- b) The circumstances and characteristics described in Section 10.2 of these Regulations.

10.5.4 An evaluation of opportunities, feasibility, costs and financial support for direct compliance-related work in the Building, including, where applicable, opportunities for conducting compliance-related work in phases to reduce or avoid hardships.

10.5.5 A brief narrative description of significant Emissions reduction efforts and work on heating/cooling systems and energy-intensive systems/process loads in the Building prior to the time of application.

10.5.6 The requested type, scope and length of relief the Owner is requesting for a Building.

10.5.7 The Department may, at its discretion, waive the consultant payment for applications from government agencies or for applicants that demonstrate financial difficulty in making the payment.

10.5.8 The Department shall develop, and may periodically update, guidance regarding limits on payments that may be requested from applicants for the purpose of securing outside consultants.

## 10.6 Process for Hardship or Deferral Compliance Plans Applications

Applications for Hardship or Deferral Compliance Plans may be submitted on a rolling basis in accordance with the following schedule:

10.6.1 Applicants for Deferral Compliance Plans must be submitted at least three (3) months before the first year in which the Deferral Compliance Plan would be used. Owners

who experience unexpected or unforeseeable events or conditions outside the Owner's control after this deadline may apply for a Deferral Compliance Plan during a compliance year, provided, however, that an Owner's failure to plan for compliance shall not constitute a cause to submit an application during a compliance year.

10.6.2 Applications for Hardship Compliance Plans must be submitted at least nine (9) months before the first year in which the Hardship Compliance Plan would be used.

10.6.3 Applications may be submitted in advance of the start of an anticipated hardship, provided, however, that the Review Board may prioritize the review of applications based on the year that the anticipated hardship would begin.

10.6.4 Within forty-five (45) Days of receiving an application to create or modify a Hardship Compliance or Deferral Compliance Plan, the Department shall inform the applicant whether the application is complete.

10.6.5 For applications seeking relief that would begin in the next two (2) years, the Review Board shall hold a public hearing on an application within forty-five (45) Days of the Department's finding of completeness. If application for relief is beyond the two (2) years period the Review Board shall hold a public hearing on the next scheduled hearing, but not more than the one hundred and twenty (120) days after the Department's finding of completeness.

a) Prior to the hearing, Owners must provide the Department proof that the Owner provided Tenants written notice about the hearing in accordance with this Section at least seven (7) Days before the hearing. Acceptable forms of notice include posting a notice on Tenants' doors or in multiple common spaces such as Buildings' lobbies.

b) The notice shall be made in accordance with any template that may be produced by the Department. Notice to Tenants must be provided in English and the second most commonly spoken language(s) in the neighborhood(s) where the Building is located, as determined by guidance from the Department. The Department will provide translated notice templates for the Owner to complete.

10.6.6 A written copy of the Review Board's decision to approve with standard conditions, approve with special conditions, or deny an application for or modification to an approved Hardship or Deferral Compliance Plan shall be provided to an applicant within seven (7) Days after the vote.

10.6.7 A pending application for a new or modified Hardship or Deferral Compliance Plan, or an appeal of a Review Board decision regarding a Hardship or Deferral Compliance Plan,

shall not stay a Building Owner's compliance obligations under the Ordinance or Regulations.

### 10.7 Modifications of Approved Hardship or Deferral Compliance Plans.

Review Board approval is required to make any modification to a Hardship or Deferral Compliance Plan or to extend the relief granted in such plan to any additional Building. Beginning in 2026, requests to modify an approved Hardship or Deferral Compliance Plan must be submitted by September 1 for the modifications to be effective in the next year. The Review Board shall review and vote to approve with standard conditions, approve with special conditions, or deny a requested modification in accordance with the schedule in Section 10.5 of these Regulations. Decisions on modifications shall be made in accordance with the following requirements and other conditions the Review Board deems appropriate:

### 10.8 Periodic Review of Hardship Compliance Plans

10.8.1 In accordance with the schedule for reassessments of an approved Hardship Compliance Plan, Owners shall provide the Review Board an update of the information provided in the application for the Hardship Compliance Plan. Such update should include a narrative description of any efforts to resolve or mitigate any circumstance, characteristic or hardship that contributed to the original Hardship Compliance Plan. Updates shall be provided in accordance with any forms or guidance issued by the Department.

10.8.2 If the Review Board determines that there has been a material change in (a) the circumstances, characteristics or hardship that were the basis for the Hardship Compliance Plan, , the Review Board may amend the relief and conditions of a Hardship Compliance Plan.

10.8.3 The Review Board's review of updates and determinations regarding modifications shall be made in accordance with the timeline for modifications in Section 10.6 of these Regulations.

### 10.9 Termination of Hardship or Deferral Compliance Plans.

Upon termination of a Hardship or Deferral Compliance Plan, the Building will be subject to the Emission standards in BERDO Section 11.

10.9.1 An Owner may terminate an approved Hardship or Deferral Compliance Plan. Notice must be provided to the Review Board by September 1<sup>st</sup> for the termination to be effective for the next year.

10.9.2 The Review Board may initiate a proceeding to revoke an approved Hardship or Deferral Compliance Plan if the Review Board determines that an Owner does not materially comply with the requirements in the Compliance Plan, including requirements to report

modifications to Building subject to Hardship or Deferral Compliance Plans, or the conditions of a Hardship or Deferral Compliance Plan as defined in Section 10.2 of these Regulations.

- a) If an Owner demonstrates that material noncompliance was due to unique circumstances beyond the Owner's control, the Review Board may, at its discretion, amend an approved Hardship or Deferral Compliance Plan rather than terminate it.

10.9.3 Any proposed revocation shall be discussed at a public hearing of the Review Board. Owners shall be provided notice of such meeting at least forty-five (45) Days in advance.

10.9.4 A written copy of the Review Board's decision shall be provided to an Owner within seven (7) Days after the vote. Recording deadlines shall be stayed pending any appeal.

10.9.5

## 11. Preservation of Records

Building Owners shall retain, in printed or electronic format, the following records for a period of seven (7) years:

11.1.1 All records and information submitted pursuant to the BERDO or these Regulations, including records and information that is optional to report, whether submitted via the ENERGY STAR Portfolio Manager or otherwise;

11.1.2 All records and information necessary to demonstrate compliance with BERDO Section 10 or the Regulations, including, but not limited to, any back-up information substantiating a Building's Energy data, Emissions, and qualifications for Hardship or Deferral Compliance Plans, if applicable.

11.1.3 Confirmation of submissions from ENERGY STAR Portfolio Manager or other systems designated for reporting by the Department;

11.1.4 Requests to Tenants for information pursuant to BERDO Section 10 or as otherwise needed to comply with the BERDO Section 11;

11.1.5 Third-party verifications and a copy of the credentials and the contact information for the qualified energy professional that were uploaded to ENERGY STAR Portfolio Manager or other systems designated for reporting by the Department; and

11.1.6 For requests for extensions of reporting deadlines, the Building Owner shall make such records and information available for inspection or audit upon request by the Department, Review Board or any third-party acting at their direction.

## 12. Disclosure of Records and Information

### 12.1 Public Disclosure of Information

All records and information submitted pursuant to BERDO, including records and information that is optional to report, whether submitted via the ENERGY STAR Portfolio Manager or otherwise, may be disclosed by the Department or upon a relevant public records request under Massachusetts Public Records Law.

### 12.2 Estimated and Additional Compliance Disclosure

The Department's public disclosure of any Building's compliance with the Emission standards in the BERDO may include information regarding a Building Owner's use of "Estimated" data and the Additional Compliance Mechanisms in the BERDO, including, but not necessarily limited to, the type and amount of each Additional Compliance Mechanism used in a compliance year.

## 13. Review Board

### 13.1 Selection of Review Board Members

13.1.1 Review Board members shall be residents of Watertown at the time of their appointment and for the duration of their term.

13.1.2 The City Manager will advertise to seek out members of the Review Committee in conjunction with the Residents' Advisory Committee established through the City Charter. The City Manager and Residents' Advisory Committee shall seek to appoint members of the Review Board with expertise in areas including but not limited to environmental science, climate science, climate technology, building systems (including mechanical, electrical and plumbing engineering), real estate finance, and equity advocacy. Expertise can be demonstrated through academic degrees, professional experience or certifications, volunteer experience, lived experience or as otherwise provided in guidance documents.

13.1.3 Five (5) individuals will be appointed to the Review Board by the City Manager and subject to confirmation by the City Council.

13.1.4 Members of the Review Board shall serve for terms of up to five (5) years. Individuals may be reappointed for subsequent terms. Upon establishment of the Board, initial appointments shall be staggered so that terms expire in one, two, three, four years, such that future appointments shall be made with one board member position expiring on the 30<sup>th</sup> of June of each subsequent year.

13.2 Review Board Procedures

13.2.1 The Chair of the Review Board may increase the frequency of regular meetings and convene additional meetings as they deem necessary. The Review Board shall be subject to Open Meeting Law, G.L. c. 30A, §§18-25. At the discretion of the Department any member should fail to attend more than fifty (50) percent of total meetings in a calendar year, their seat shall be considered vacated and filled pursuant to Section 13.1 of these Regulations.

14. Equitable Emissions Investment Fund

14.1 Eligibility for Funding

Any Building Owner or resident located in the City of Watertown, or entity acting on behalf of Watertown buildings or residents, is eligible to receive funding from the Fund to evaluate, design, implement, support and/or administer projects that meet the goals of the Watertown Climate and Energy Plan.

14.2 Application Process

The Department shall publicly announce the application period and the Department shall provide at least a thirty (30) Days within an application cycle for interested parties to submit applications for the fund. The Department may, at its discretion, dedicate any application cycle to specific types of benefits or types of applicants that align with the goals of the Fund and the Ordinance. An application shall include the following information and any other materials required by standards issued by the Department, and shall utilize any standard form issued by the Department:

14.2.1 A description of the proposed project, including:

- a) The relation to the Watertown Climate Energy Plan, including identifying which, if any, building(s) is subject to the Ordinance.
- b) The total cost of the proposed project. For requests for funding a phase of a project, the cost of the proposed phase as well as any known future costs to achieve Emissions reductions.
- c) The realized or anticipated project start date.
- d) The anticipated project completion date.

14.2.2 The total amount of funding requested by the applicant and a description of how the requested funding will be used for the proposed project.

14.2.3 The expected timeline and scale of Emissions reductions, including from Energy savings, that would be achieved by the proposed project if known.

14.2.4 A narrative of how the project would provide benefits to Environmental Justice Populations and/or advance the Purpose set forth in BERDO Section 16.

14.2.5 If applicable, any anticipated efforts to inform and engage tenants in the proposed project and any potential impacts of the proposed project on tenants.

14.2.6 If applicable, a description of any other funding or financial support that the proposed project has received in the past or that may be leveraged in the future.

14.2.7 If applicable, a description of any previous funding received by the applicant from the Fund and/or past applications to the Fund.

The Department shall review each application for completeness and compliance with the eligibility criteria in the BERDO and Section 14.1 of these Regulations.

### 14.3 Conditions for Expenditure

14.3.1 The following conditions shall apply to the award of any money from the Fund:

- a) If funding is provided for a project in a Building or Buildings covered by the Ordinance, timely compliance with reporting requirements in the Ordinance and Regulations is required;
- b) For long-term projects or projects that include distinct phases or deliverables, a schedule of allocating awarded funds must be agreed upon by the Department and the funding recipients;
- c) Funding recipients must report the project's progress and use of funding to the Department on a schedule agreed upon by the Department and funding recipients; the frequency of reporting may vary during the project's lifetime;
- d) Special conditions must be reported to the Department by the funding recipients in a timely manner, as they occur;
- e) The funded project must be completed within the projected time frame;
- f) To assess compliance with the terms and conditions of the funding, the Department or its designee may inspect any funded project and related records at reasonable times and with reasonable notice;
- g) If the funding recipient (i) fails to spend the funding and/or (ii) fails to comply with the terms and conditions of the funding, penalties may be imposed, including, but not limited to, denial of access to new funding applications.

14.3.2 On a case-by-case basis, approvals for funding may include special conditions relevant to the distribution of benefits to advancement of the Purpose set forth in BERDO Section 3 or the Watertown Climate Energy Plan. Any proposal to add special conditions shall be discussed at a public meeting of the Department.

14.3.3 Funding shall be subject to all requirements of the City Manager and City Auditor's offices that apply to other grants and programs funded by the City of Watertown.

## 15. Enforcement and Penalties

### 15.1 Notice of Violations

15.1.1 For any alleged violation of the Ordinance or Regulations, the Department shall issue a notice of violation with potential for penalties pursuant to BERDO Section 15. Notices shall be sent to either (i) the mailing address provided by an Owner via its BERDO reporting, or (ii) in the case of an Owner that has not reported, to the address provided by the Assessing Department.

a) With respect to violations based on a discrepancy between third-party verification of information reported by a Building Owner and an Owner's self-certified reporting:

i. The Department shall, at an Owner's request, meet with the Owner and/or their third-party verifier to discuss the discrepancy in the data and options to come into compliance.

### 15.2 Penalties

The violation of any provision of these Regulations is subject to the imposition of penalties pursuant to and as outlined in M.G.L. ch. 111, s. 31C and BERDO Section 15.

15.2.1 The penalty established via BERDO Section 15.5.3 shall be \$300 per day.

Fines and penalties may be enforced pursuant to M.G.L. c. 40, s. 21D, M.G.L. c. 111, s. 31C and/or M.G.L. c. 40U, s. 12.

**Consider size by parcel summed**

	No of Parcels	No of Buildings	Unique Owners	Finished Sqft	MtCO2e
City Owned	16	16	1	709,311	2,697
Commercial	101	159	87	10,203,323	69,405
Residential	38	84	30	3,483,768	9,275
Condos	25	25	1,121	1,285,331	3,159
Totals	180	284	1,239	15,681,733	84,536

Notes

BEDRDO is written by building not parcel  
City owned are just the buildings

**Consider Size by Buildings Only**

	No of Parcels	No of Buildings	Unique Owners	Finished Sqft	MtCO2e
City Owned	16	16	1	709,311	2,697
Commercial	96	121	80	9,863,757	68,343
Residential	33	38	31	3,145,670	8,391
Condos	25	25	1121	1,285,331	3,159
Totals	170	200	1233	15004069	82589.50749

Notes

Condos numbers are by parcel not by building. Parcel and Building numbers can go up or down.  
City owned are just the buildings

**Just Commercial over 100,000 sqft by building**

	No of Parcels	No of Buildings	Unique Owners	Finished Sqft	MtCO2e
Commercial		30	19	5,916,074	50,636
Appt > 25		1	1	57,117	128

**Phase of BERDO Implementation**

	No of Buildings	Finished Sqft	No Owners	MtCO2e
<b>Phase 1</b>				
City Buildings	16	709,311	1	2,697
Commercial + Residential >= 20,000	130	7,150,470	93	26,225
Commercial >100000 and res <25	29	5,858,957	19	50,508
<b>Total</b>	<b>175</b>	<b>13,718,738</b>	<b>113</b>	<b>79,430</b>

	No of Buildings	Finished Sqft	No Owners	MtCO2e
<b>Phase 2</b>				
Condos	25	1,285,331	1,121	3,159
<b>Total</b>	<b>200</b>	<b>15,004,069</b>	<b>1,234</b>	<b>82,590</b>

**All Buildings**

No of Parcels	No of Buildings	Unique Owners	Finished Sqft	MtCO2e
	8,936		35,570,309	133,624

**Numbers**

buildings effecting	2%
100k building ghg	38%
100k building sqft	17%
build ghg	62%

Account	Building No.	Location	Parcel ID	LUC	Assessing Category	Owner	Owner 2	Mailing Address	Living Area	Living Units	Portfolio Type Definition	Portfolio		MTCO2e electric	MTCO2e gas	Estimated	
												Median	KBTU			Total	MTCO2e
2601	1	465 MT AUBURN ST	012010000100035	9620	Religious Group Other	ARMENIAN APOSTOLIC CHURCH	OF WATERTOWN	465 MT AUBURN ST, WATERTOWN, MA 02472	33532	1	Religious worship	39.3	1,317,808	28	49	77	
4149	1	46 BELMONT ST	016080000100002	9620	Religious Group Other	ROMAN CATHOLIC ARCHBISHOP OF B		770 MT AUBURN ST, WATERTOWN, MA 02472	20304	0	Religious worship	39.3	797,947	17	30	47	
4419	1	CHESTNUT ST LOT B	002050004000000	9610	Rectory	BOSTON CATHOLIC TELEVISION CTR		23 CHESTNUT ST, WATERTOWN, MA 02472	29386	10	Religious worship	39.3	1,154,870	25	43	68	
119	1	80 MT AUBURN ST	010990002200000	9600	Religious Group	ST. JOHN 'S METHODIST EPISCOPAL		80 MT AUBURN ST, WATERTOWN, MA 02472	27334	1	Religious worship	39.3	1,074,226	23	40	63	
4442	1	MAIN ST	002060000100000	9600	Religious Group	ROMAN CATHOLIC ARCHBISHOP OF B		25 CHESTNUT ST, WATERTOWN, MA 02472	21368	1	Religious worship	39.3	839,762	18	31	49	
3084	1	47 NICHOLS AV	012280000100000	9540	Function Hall	ARMENIAN CULTURAL AND EDUCATION		47 NICHOLS AVE, WATERTOWN, MA 02472	33200	1	Religious worship	39.3	1,304,760	28	49	76	
9240	8	175 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	113522	1	Education	50.2	5,698,804	121	212	333	
9240	11	175 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	75624	1	Education	50.2	3,796,325	81	141	222	
9240	2	175 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	55553	1	Education	50.2	2,788,761	59	104	163	
9240	9	175 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	52978	1	Education	50.2	2,659,496	57	99	156	
8937	1	57 STANLEY AV	008070001B00000	9430	Private School Other	JEWISH COMMUNITY DAY SCH INC		57 STANLEY AV, WATERTOWN, MA 02472	45312	1	Education	50.2	2,274,662	48	85	133	
9240	1	175 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	40331	1	Education	50.2	2,024,616	43	75	118	
9240	13	175 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	32088	1	Education	50.2	1,758,908	37	66	103	
3834	1	69 GROVE ST	015010026A00000	9430	Private School Other	ATRIUM SCHOOL INC		69 GROVE ST, WATERTOWN, MA 02472	24416	1	Education	50.2	1,225,683	26	46	72	
9240	12	175 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	22766	1	Education	50.2	1,142,853	24	43	67	
9240	1	75 NO BEACON ST	009110000100000	9430	Private School Other	PERKINS SCHOOL FOR THE BLIND		175 NO BEACON ST, WATERTOWN, MA 02472	20388	1	Education	50.2	1,023,478	22	38	60	
10404	1	25 WHITES AV	00321000010000A	9310	City of Watertown	WATERTOWN BOYS & GIRLS CLUB LESSEE		25 WHITES AVENUE, WATERTOWN, MA 02472	21760	1	Public services	65.8	1,431,808	30	53	84	
10817	1	321 ARSENAL ST	01301000010001A	9030	Municipal Property?	TOWN OF WATERTOWN		149 MAIN ST, WATERTOWN, MA 02472	31633	1	Services	27.8	879,397	19	33	51	
921	1	143 WALNUT ST	010340000600000	430C	Telephone Exchange	NEW ENGLAND TELEPHONE	C/O VERIZON NEW ENGLAND INC	C/O DUFF & PHELPS, ADDISON, TX 75001	28970	1	Utility	32.1	929,937	20	35	54	
3369	12	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		PO BOX 847, CARLSBAD, CA 92018	453821	1	Technology/science	179.5	81,460,870	1,733	3,034	4,767	
4207	1	705 MT AUBURN ST	016110003400000	404C	Research & Development	705 MOUNT AUBURN LLC		C/O SPEAR ST CAPITAL LLC	441781	1	Technology/science	179.5	79,288,381	1,687	2,953	4,640	
3369	1	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	386100	1	Technology/science	179.5	69,304,950	1,475	2,581	4,056	
3369	13	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	333966	1	Technology/science	179.5	59,898,432	1,275	2,231	3,505	
4207	2	705 MT AUBURN ST	016110003400000	404C	Research & Development	705 MOUNT AUBURN LLC		1 MARKET PLAZA, #4125, SAN FRANCISCO, CA 94105	322080	1	Technology/science	179.5	57,813,360	1,230	2,153	3,383	
9343	1	99 COOLIDGE AV	014010003B0000A	404C	Research & Development	ARE-MA REGION NO. 77, LLC		PO BOX 847, CARLSBAD, CA 92018	268303	1	Technology/science	179.5	48,160,389	1,025	1,794	2,818	
933	1	250 ARSENAL PLACE	010360001A00000	404C	Research & Development	BP3-BOS4 85 WALNUT STREET LLC		P O BOX 927729, SAN DIEGO, CA 92129	239194	1	Technology/science	179.5	42,935,323	914	1,599	2,513	
977	1	66 GALEN ST	001050006E00000	404C	Research & Development	GALEN STREET OWNER, LLC	C/O THE DAVIS COMPANIES	125 HIGH STREET, S-2111, BOSTON, MA 02110	220671	1	Technology/science	179.5	39,610,445	843	1,475	2,318	
9534	1	486 ARSENAL WAY	012140001F00002	404C	Research & Development	486 ARSENAL WAY LLC		486 ARSENAL WAY, WATERTOWN, MA 02472	200670	1	Technology/science	179.5	36,133,350	769	1,346	2,115	
2809	1	490 ARSENAL WAY	012140001F00003	404C	Research & Development	OFFICE PROP. LLC COLUMBIA MA	C/O JLL	21 CUSTOM HOUSE STREET, BOSTON, MA 02210	199311	1	Technology/science	179.5	35,776,325	761	1,332	2,094	
3549	2	99 COOLIDGE AV	014010003B0000A	404C	Research & Development	ARE-MA REGION NO. 77, LLC		PO BOX 847, CARLSBAD, CA 92018	189738	1	Technology/science	179.5	34,057,971	725	1,268	1,993	
8951	1	580 PLEASANT ST	008100000100007	404C	Research & Development	G&J/GP4 580 PLEASANT LLC	C/O GRIFFITH PROPERTIES	22 BOSTON WHARF RD 7TH FL, BOSTON, MA 02210	171756	1	Technology/science	179.5	30,830,202	656	1,148	1,804	
11298	1	100 FORGE ROAD	013010002DBGLIAB	404C	Research & Development	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	166800	1	Technology/science	179.5	30,299,600	645	1,128	1,773	
9533	1	480 ARSENAL WAY	012140001F00001	404C	Research & Development	ARE-480 ARSENAL STREET LLC		P O BOX 847, CARLSBAD, CA 92018	141536	8	Technology/science	179.5	25,405,712	541	946	1,487	
933	2	250 ARSENAL PLACE	010360001A00000	404C	Research & Development	BP3-BOS4 85 WALNUT STREET LLC		P O BOX 927729, SAN DIEGO, CA 92129	134952	1	Technology/science	179.5	24,223,884	515	902	1,418	
3369	15	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	121072	1	Technology/science	179.5	21,732,424	462	809	1,272	
3369	6	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	120672	1	Technology/science	179.5	21,713,577	462	809	1,271	
3832	1	65 GROVE ST	015010002300000	404C	Research & Development	BRE-BMR GROVE LLC		C/O RYAN LLC, CARLSBAD, CA 92018	115464	1	Technology/science	179.5	20,725,788	441	772	1,213	
11334	1	200 ARSENAL YARDS BLVD	013010002DBALAB	404C	Research & Development	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	108818	1	Technology/science	179.5	19,532,831	416	727	1,143	
3369	14	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	108031	1	Technology/science	179.5	19,391,565	413	722	1,135	
3832	2	65 GROVE ST	015010002300000	404C	Research & Development	BRE-BMR GROVE LLC		C/O RYAN LLC, CARLSBAD, CA 92018	95808	1	Technology/science	179.5	17,197,536	366	640	1,006	
4312	1	64 PLEASANT ST	002020001E00000	404C	Research & Development	BERKELEY PLEASANT ST OWNER, LLC	C/O BERKELEY INVESTMENTS, INC	125 HIGH STREET SUITE 531, BOSTON, MA 02110	95031	1	Technology/science	179.5	17,058,065	363	635	998	
3259	1	500 ARSENAL ST 510	012340001A00000	404C	Research & Development	ARE-500 ARSENAL STREET LLC		P O BOX 847, CARLSBAD, CA 92018	93662	3	Technology/science	179.5	16,812,329	358	626	984	
3264	1	23 ELM ST 29	01236000040000G	404C	Research & Development	WATERTOWN 23 ELM OWNER LLC		125 CAMBRIDGE PARK DRIVE STE 301, CAMBRIDGE, MA 021	87201	1	Technology/science	179.5	15,652,580	333	583	916	
3369	2	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	69036	2	Technology/science	179.5	12,391,962	264	462	725	
8953	1	650 PLEASANT ST	00810000040001A	404C	Research & Development	HSRE-WATERBIO, LLC		444 WEST LAKE STREET STE 2100, CHICAGO, IL 60606	68504	1	Technology/science	179.5	12,296,468	262	458	720	
2809	2	490 ARSENAL WAY	012140001F00003	404C	Research & Development	OFFICE PROP. LLC COLUMBIA MA	C/O JLL	21 CUSTOM HOUSE STREET, BOSTON, MA 02210	61976	1	Technology/science	179.5	11,124,692	237	414	651	
3369	7	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	60939	4	Technology/science	179.5	10,938,551	233	407	640	
4589	1	313 PLEASANT ST	002180001100001	404C	Research & Development	BRODER 313 LLC		38 NEWBURY ST - 3RD FLR, BOSTON, MA 02116	47880	6	Technology/science	179.5	8,594,460	183	320	503	
8947	1	560 PLEASANT ST	0080900002D00000	404C	Research & Development	BDPF PLEASANT STREET OWNER, LLC		7315 WISCONSIN AVE. STE 350W, BETHESDA, MD 20814	47722	1	Technology/science	179.5	8,566,099	182	319	501	
3369	4	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	44997	3	Technology/science	179.5	8,076,962	172	301	473	
3923	1	134 COOLIDGE AV	015070008C0000C	404C	Research & Development	BMR-134 COOLIDGE AV LLC		P O BOX 847, CARLSBAD, CA 92018	37440	2	Technology/science	179.5	6,720,480	143	250	393	
4606	1	396 PLEASANT ST	002200000400022	404C	Research & Development	FHP, LLC		400 PLEASANT ST, WATERTOWN, MA 02472	37000	1	Technology/science	179.5	6,641,500	141	247	389	
3369	3	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	36322	2	Technology/science	179.5	6,519,799	139	243	382	
3369	5	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	29136	3	Technology/science	179.5	5,229,912	111	195	306	
959	1	108 WATER ST	0010400001800000	404C	Research & Development	FARBRO REALTY LIMITED		120 ADAMS ST, NEWTON, MA 02460-0003	23372	2	Technology/science	179.5	4,159,374	89	155	243	
3369	8	311 ARSENAL ST	013010000100001	404C	Research & Development	ARE-MA REGION NO. 75 LLC		C/O ALEXANDRIA REAL ESTATE	22072	1	Technology/science	179.5	3,961,924	84	148	232	
3913	1	149 GROVE ST	015040006B00000	404C	Research & Development	ROSENBERG STEVEN D TRUSTEE		75 CAMBRIDGE PKWY, STE 100, CAMBRIDGE, MA 02142	20140	1	Technology/science	179.5	3,615,130	77	135	212	
8877	1	70 COOLIDGE HILL RD	015030002500000	402C	Office of Manufacturing	AIRASIAN LLC		76 COOLIDGE HILL RD, WATERTOWN, MA 02472	27216	4	Manufacturing/Industrial	38.2	1,039,651	22	39	61	
3928	1	15 ARLINGTON ST	015090000100000	401C	Warehouse of Manufacture	MASREAL COMPANY INC	C/O BT-NEWYO, LLC	55 GLENLAKE PKWY NE, ATLANTA, GA 30328	122889	1	Manufacturing/Industrial	38.2	4,694,360	100	175	275	
8935	1	10 MANLEY WAY 30	0080600001D00000</														

1617	1 410 BELMONT ST	011200000100000	3800	Golf Course	OAKLEY COUNTRY CLUB	410 BELMONT ST, WATERTOWN, MA 02472	31074	1	Other	32.5	1,009,905	21	38	59	
3371	615 ARSENAL ST #2	013010000200001	344C	Office?	615 ARSENAL HOLDING LLC	800 BOYLSTON ST STE 1390, BOSTON, MA 02199	157200	1	Office	42.4	6,665,280	142	248	390	
10717	500 FORGE ROAD U2	0130100002D0002B	344C	Office?	ARSENAL YARDS 500 FORGE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST STE 1390, BOSTON, MA 02199	79200	1	Office	42.4	3,358,000	71	125	197
11336	102 ARSENAL YARDS BLVD 122	0130100002DBR02	344C	Office?	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	66836	6	Office	42.4	2,833,846	60	106	166
11338	80 ARSENAL YARDS BLVD 100	0130100002DBR02	344C	Office?	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	44785	86	Office	42.4	1,898,884	40	71	111
9539	615 ARSENAL ST 1 #1	01301000020001A	344C	Office?	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST SUITE 1390, BOSTON, MA 02199	33823	1	Office	42.4	1,434,095	31	53	84
11348	20 ELDRIDGE AVE 24	0130100002DE1RET	344C	Office?	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	31624	14	Office	42.4	1,340,858	29	50	78
11337	41 BOND STREET 69	0130100002D02RET	344C	Office?	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	28113	6	Office	42.4	1,191,991	25	44	70
11347	535 ARSENAL ST 545	0130100002DBCR02	344C	Office?	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	26420	14	Office	42.4	1,120,208	24	42	66
11340	105 ARSENAL YARDS BLVD 129	0130100002DBDR02	344C	Office?	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	20444	14	Office	42.4	866,826	18	32	51
3373	1 485 ARSENAL ST	0130100002A00001	342C	Medical Office	ARSENAL YARDS HVMA HOLDING LLC	800 BOYLSTON ST - SUITE 1390, BOSTON, MA 02199	47577	1	Healthcare	78.8	3,749,068	80	140	219	
949	2 70 PHILLIPS ST	0103800003E00000	342C	Medical Office	MORWAY JOHN TRUSTEE	SAJOVIC JOSHUA CHICO TRUSTEE	41 SACRAMENTO STREET, CAMBRIDGE, MA 02138	21340	1	Healthcare	78.8	1,681,592	36	63	98
4319	1 60 MAIN ST	0020300004000000	341C	Bank	WATERTOWN SAVINGS BANK	60 MAIN ST, WATERTOWN, MA 02472	35117	1	Banking/financial services	50.3	1,766,385	38	66	103	
924	1 121 WALNUT ST 125	0103500003000000	340C	General Office	ARSENAL VIEW LLC	149 ARSENAL ST, WATERTOWN, MA 02472	119912	14	Office	42.4	5,084,269	108	189	298	
8945	1 480 PLEASANT ST	008080000700003	340C	General Office	GRE RIVERWORKS, LLC	900 NORTH MICHIGAN AVE, CHICAGO, ILL 60611	117012	1	Office	42.4	4,961,309	106	185	290	
4313	1 7 GALEN ST 9	002020000206865	340C	General Office	RMR OPFCP LP	9 GALEN ST, WATERTOWN, MA 02472	97268	21	Office	42.4	4,124,163	88	154	241	
923	1 260 ARSENAL PLACE	0103500001000000	340C	General Office	CARBON PROP CO 2021 LLC	301 COMMERCE ST STE 3300, FORT WORTH, TX 76102	95596	5	Office	42.4	4,053,270	86	151	237	
968	1 51 WATER ST 57	0010500001100000	340C	General Office	51 WATER STREET LLC	93 UNION ST-STE 315, NEWTON CENTRE, MA 02459	85781	7	Office	42.4	3,637,114	77	135	213	
8943	1 5 BRIDGE ST	0080800005000005	340C	General Office	GRE RIVERWORKS, LLC	900 NORTH MICHIGAN AVE, CHICAGO, ILL 60611	79086	6	Office	42.4	3,353,246	71	125	196	
4313	2 7 GALEN ST 9	002020000206865	340C	General Office	RMR OPFCP LP	9 GALEN ST, WATERTOWN, MA 02472	73830	1	Office	42.4	3,130,392	67	117	183	
4221	1 64 GROVE ST	0161300007B00000	340C	General Office	64 GROVE LLC	C/O SPEAR ST CAPITAL	1 MARKET PLAZA, #4125, SAN FRANCISCO, CA 94105	60423	1	Office	42.4	2,561,935	55	95	150
8640	1 84 ROSEDALE RD 86	00712000025B00000	340C	General Office	BRODER PLEASANT LLC	38 NEWBURY STREET 3RD FLR, BOSTON, MA 02116	38601	1	Office	42.4	1,636,682	35	61	96	
2793	1 85 SCHOOL ST	012110004A000000	340C	General Office	SDC WATERTOWN PARTNERS LLC	150 EAST 58TH ST, 21ST FLOOR, NEW YORK, NY 10028	32000	2	Office	42.4	1,356,800	29	51	79	
4906	1 75 MAIN ST 85	00319000010002B	340C	General Office	75-85 MAIN STREET REALTY LLC	IN CARE OF HALLKEEN MANAGEMENT	P O BOX 830, BROOKLINE, MA 02446	30816	1	Office	42.4	1,306,598	28	49	76
2797	1 200 DEXTER AV 206	0121200002000000	340C	General Office	DEXTER REALTY GROUP LLC	29 DENBY RD, ALLSTON, MA 02134	27842	8	Office	42.4	1,180,501	25	44	69	
4335	1 116 MAIN ST 126	002040000500007A	340C	General Office	EWS RESIDENTIAL PROPERTY OWNER, LLC	C/O O'CONNOR CAPITAL PARTNERS	535 MADISON AVE, 6TH FL, NEW YORK, NY 10022	26226	18	Office	42.4	1,111,982	24	41	65
957	1 50 HUNT ST	001040016A000000	340C	General Office	50 HUNT ST PROPERTY LLC	C/O EASTPORT REAL ESTATE SERVICES	107 AUDUBON RD 2-301, WAKEFIELD, MA 01880	22474	15	Office	42.4	952,898	20	35	56
9048	1 275 ARSENAL ST	0090500001A00000	332C	Auto Repair	275 ARSENAL STREET, LLC	121 OLD SUDBURY ROAD, WAYLAND, MA 01778	20190	1	Manufacturing/industrial	38.2	771,258	16	29	45	
922	1 330 ARSENAL ST	0103400007000000	330C	Auto Sales	ARSENAL VIEW LLC	149 ARSENAL ST, WATERTOWN, MA 02472	57117	1	Manufacturing/industrial	38.2	2,181,869	46	81	128	
9180	1 43 NO BEACON ST	0090600004800011	330C	Auto Sales	NORTH BEACON PROPERTIES LLC	C/O HARRY J HEALER JR	59 WESTVIEW DR P O BOX 533, PETERBOROUGH, NH 03451	45422	1	Manufacturing/industrial	38.2	1,735,120	37	65	102
8985	2 135 ARSENAL ST 151	0090200007A00001	330C	Auto Sales	BEACON REALTY LLC	149 ARSENAL ST, WATERTOWN, MA 02472	33210	1	Manufacturing/industrial	38.2	1,268,622	27	47	74	
3263	1 36 ARLINGTON ST	0123600003F00000	325C	Small Retail	36 ARLINGTON STREET LLC	C/O HEALTHWORKS FITNESS	35 WHITE STREET, CAMBRIDGE, MA 02140	45132	1	Retail	53.5	2,414,562	51	90	141
2805	1 458 ARSENAL ST	0121300000700000	325C	Small Retail	ARE-MA REGION NO.91 HOLDINGLLC	PO BOX 847, CARLSBAD, CA 92018	28000	2	Retail	53.5	1,498,000	32	56	88	
4637	1 15 MAIN ST 25	0030100003000000	325C	Small Retail	GHASSEMI BAHRAM TRUSTEE	AMINPOUR HABIB TRUSTEE	17 MAIN ST - SUITE 201, WATERTOWN, MA 02472	22843	9	Retail	53.5	1,222,101	26	46	72
8958	1 700 PLEASANT ST	0081200001000003	324C	Supermarket	BREM SIMBA 700 PLEASANT, LLC	C/O EQUITY INDUSTRIAL PARTNERS	CI 20 PICKERING STREET SUITE 200, NEEDHAM, MA 02492	67063	1	Retail	53.5	3,587,871	76	134	210
3260	1 550 ARSENAL ST	0123400002000000	323C	Shopping Center	ARE-MA REGION NO.90 HOLDING,	P O BOX 847, CARLSBAD, CA 92018	264549	24	Retail	53.5	14,153,372	301	527	828	
2874	1 171 WATERTOWN ST	0011220001200000	323C	Shopping Center	KF REALTY ASSOCIATES	C/O THE STOP + SHOP CO	194621	7	Retail	53.5	10,412,224	222	388	609	
8921	1 40 GREEN RIVER WY	0080300005000003	318C	Other Storage Distribution	DIV GREEN RIVER WAY	125 HIGH STREET, BOSTON, MA 02110	35536	1	Warehouse/storage	8.2	291,395	6	11	17	
4615	1 17 BRIDGE ST	002210020C000000	318C	Other Storage Distribution	BARLETTA, TRUSTEE VINCENT F.	GILLIS, JR. TRUSTEE RONALD J.	40 SHAWMUT ROAD, CANTON, MA 02021	28440	1	Warehouse/storage	8.2	233,208	5	9	14
3311	1 201 ARLINGTON ST 203	012390026B000000	316C	Other Storage Distribution	DONATO MARK F TRUSTEE	203 ARLINGTON ST REALTY TRUST	1211 WASHINGTON ST, WEST NEWTON, MA 02165	20240	8	Warehouse/storage	8.2	165,968	4	6	10
3919	1 114 COOLIDGE AV	0150700002000000	314C	Trucking Terminal	MASREAL COMPANY INC	C/O B T NEWYO LLC	55 GLENLAKE PARKWAY NE, ATLANTA, GA 30328	24000	1	Warehouse/storage	8.2	196,800	4	7	12
3925	1 59 COOLIDGE HILL RD	015080010A000000	304C	Nursing Home	59 COOLIDGE PROP CO LLC	59 COOLIDGE HILL RD, WATERTOWN, MA 02472	48985	158	Healthcare	78.8	3,860,018	82	144	226	
3265	1 570 ARSENAL ST	0123600005H00000	300C	Hotel	BP WATERTOWN HOTEL, LLC.	13215 BEE CAVE PKW, AUSTIN, TX 78738	110448	1	Lodging/residential	42.0	4,638,816	99	173	271	
11342	1 25 BOND STREET	0130100002DH0TEL	300C	Hotel	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	108975	146	Lodging/residential	42.0	4,576,950	97	170	268
3922	1 150 COOLIDGE AV	0150700006000000	0310	Multi-Commercial	EP 150 COOLIDGE AVE REALTY LLC	C/O EDGEWATER PROPERTIES LLC	14 MICA LANE SUITE 202, WELLESLEY, MA 02481	26250	1	Mixed use	51.5	1,351,875	29	50	79

Account	Building No.	Location	Parcel ID	LUC	Assessing Category	Owner	Owner 2	Mailing Address	Living Area	Living Units	Portfolio Type Definition	Portfolio Median EUI	KBTU	MtCO2e electric	MtCO2e gas	Estimated Total MtCO2e	
5222	1	55 WAVERLEY AV	003410000900068	9700	Housing Authority	WATERTOWN HOUSING AUTHORITY		55 WAVERLEY AVE, WATERTOWN, MA 02472	98252	162	Lodging/residential	42.0	4,126,584	88	154	241	
8064	1	100 WARREN ST	006100000400248	9700	Housing Authority	WATERTOWN HOUSING AUTHORITY		55 WAVERLEY AVE, WATERTOWN, MA 02472	92519	122	Lodging/residential	42.0	3,885,798	83	145	227	
9508	1	341 MT AUBURN ST	010280000100001	1250	Other Congregate Housing	BRIGHAM HOUSE ASSOC LESSEE	C/O HALLKEEN MANAGEMENT	1400 PROVIDENCE HIGHWAY, NORWOOD, MA 02062	55744	62	Lodging/residential	42.0	2,341,248	50	87	137	
4602	1	270 PLEASANT ST	002190006800000	112C	> 8 Residential Units	RIVERBEND GARDEN LP, ET AL		999 WATERSIDE DRIVE SUITE 2300, NORFOLK, VA 23510	211350	135	Lodging/residential	42.0	8,876,700	189	331	519	
8936	1	1 REPTON CR	008060000300000	112C	> 8 Residential Units	VRS/MCRT WATERTOWN MEWS LLC	BOZZUTO MGMT -ATTN: ACCTS PAY	1 REPTON PL, WATERTOWN, MA 02472	174472	142	Lodging/residential	42.0	7,327,824	156	273	429	
11343	1	22 BOND STREET	013010002DBFCAPT	112C	> 8 Residential Units	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	136098	130	Lodging/residential	42.0	5,716,116	122	213	335	
3374	1	455 ARSENAL ST 465	013010002800001	112C	> 8 Residential Units	ARSENAL ASSOCIATES	C/O GILBANE DEVELOPMENT CO.	7 JACKSON WALKWAY, PROVIDENCE, RI 02903	112611	124	Lodging/residential	42.0	4,729,662	101	176	277	
5200	1	275 MAIN ST	003380003800000	112C	> 8 Residential Units	WHITNEY TOWERS LLC		275 MAIN ST, WATERTOWN, MA 02472	107616	92	Lodging/residential	42.0	4,519,872	96	168	265	
11345	1	88 ARSENAL YARDS BLVD	013010002DBFAPT	112C	> 8 Residential Units	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	97269	86	Lodging/residential	42.0	4,085,298	87	152	239	
92	1	20 SUMMER ST	010080003A00000	112C	> 8 Residential Units	WATERTOWN PROPCO, LLC		444 WEST LAKE STREET SUITE 2100, CHICAGO, IL 60606	94171	90	Lodging/residential	42.0	3,955,182	84	147	231	
11344	1	66 BOND STREET	013010002DBDAPT	112C	> 8 Residential Units	ARSENAL YARDS CORE HOLDING LLC	C/O BOYLSTON PROPERTIES	800 BOYLSTON ST, STE 1390, BOSTON, MA 02199	89145	91	Lodging/residential	42.0	3,744,090	80	139	219	
9564	2	100 WOODVIEW WAY	008070001800001	112C	> 8 Residential Units	BLACKSTONE REAL ESTATE	C/O PROP TAX DEPT	P O BOX A3956, CHICAGO, IL 60690	78670	80	Lodging/residential	42.0	3,304,140	70	123	193	
9564	3	100 WOODVIEW WAY	008070001800001	112C	> 8 Residential Units	BLACKSTONE REAL ESTATE	C/O PROP TAX DEPT	P O BOX A3956, CHICAGO, IL 60690	78032	68	Lodging/residential	42.0	3,277,344	70	122	192	
4293	1	120 PLEASANT ST	002010001600008	112C	> 8 Residential Units	AIMCO PLEASANT STREET, LLC		13155 NOEL ROAD #100 LB73, DALLAS, TX 75240	76746	44	Lodging/residential	42.0	3,223,332	69	120	189	
8936	2	REPTON CR	008060000300000	112C	> 8 Residential Units	VRS/MCRT WATERTOWN MEWS LLC	BOZZUTO MGMT -ATTN: ACCTS PAY	1 REPTON PL, WATERTOWN, MA 02472	55208	64	Lodging/residential	42.0	2,318,736	49	86	136	
4026	1	319 ARLINGTON ST	016020001300000	112C	> 8 Residential Units	COOLIDGE SCHOOL LLC, LESSEE	C/O MITCHELL PROPERTIES LLC	319 ARLINGTON ST, WATERTOWN, MA 02472	52623	38	Lodging/residential	42.0	2,210,166	47	82	129	
5199	3	245 MAIN ST	003380001A00000	112C	> 8 Residential Units	HAMILTON ON MAIN LLC		39 BRIGHTON AVE, BOSTON, MA 02134	52080	51	Lodging/residential	42.0	2,187,360	47	81	128	
5199	1	245 MAIN ST	003380001A00000	112C	> 8 Residential Units	HAMILTON ON MAIN LLC		39 BRIGHTON AVE, BOSTON, MA 02134	52080	51	Lodging/residential	42.0	2,187,360	47	81	128	
5199	2	245 MAIN ST	003380001A00000	112C	> 8 Residential Units	HAMILTON ON MAIN LLC		39 BRIGHTON AVE, BOSTON, MA 02134	52080	51	Lodging/residential	42.0	2,187,360	47	81	128	
1595	1	550 BELMONT ST	1118A0002600000	112C	> 8 Residential Units	HAMILTON BELMONT LLC		39 BRIGHTON AV, BOSTON, MA 02134	38408	29	Lodging/residential	42.0	1,613,136	34	60	94	
4902	1	17 WINTER ST	003180005800000	112C	> 8 Residential Units	SABAB REALTY LLC		10 CONVERSE PLACE SUITE 301, WINCHESTER, MA 0189C	35102	28	Lodging/residential	42.0	1,474,284	31	55	86	
2545	1	101 MORSE ST	001160000800045	112C	> 8 Residential Units	LACOURT AFFORDALE TR LLC		30 COLLEGE AVENUE, SOMERVILLE, MA 02144	29078	37	Lodging/residential	42.0	1,221,276	26	45	71	
115	1	96 MT AUBURN ST	010090018E00000	112C	> 8 Residential Units	DILAN ARMEN ROUBEN TRUSTEE	DILAN ARDASH ET PHYLLIS TRUSTEE	PALFREY STREET TRUST, WATERTOWN, MA 02472	25023	12	Lodging/residential	42.0	1,050,966	22	39	62	
8533	1	590 MAIN ST	007060004500000	112C	> 8 Residential Units	MAIN CARE LLC	ATTENTION: JAMES DUFFY	80 CHARLES ST #2, BOSTON, MA 02114	22067	14	Lodging/residential	42.0	926,814	20	35	54	
45	1	43 IRVING ST	010060001800001	112C	> 8 Residential Units	DEMIS PAUL & MABEL TRUSTEES	PAUL & MABEL DEMIS TRUST	5 TOMKINS LN, FRAMINGHAM, MA 01701	21645	23	Lodging/residential	42.0	909,090	19	34	53	
44	1	31 IRVING ST	0100600019F00003	112C	> 8 Residential Units	BERARDINELLI ERNEST TRUSTEE	ATTENTION: TAD GULESERIAN	31 IRVING STREET REALTY TRUST	14 PEARL ST, WATERTOWN, MA 02472	21645	23	Lodging/residential	42.0	909,090	19	34	53
4164	1	805 MT AUBURN ST	016090000100000	0140	Multi-Residential	805 ADAMS, LLC		16 GARDEN ST, CAMBRIDGE, MA 02138	47768	48	Mixed use	51.5	2,460,052	52	92	144	
8023	1	2 ROSARY DR	006100000302427	0140	Multi-Residential	ST JOSEPH HALL APARTMENTS LLC	C/O MANAGEMENT OFFICE	2 ROSARY DRIVE, WATERTOWN, MA 02472	31488	25	Mixed use	51.5	1,621,632	35	60	95	
1903	1	462 MT AUBURN ST	011340000100230	0140	Multi-Residential	RAJ REALTY LLC		P.O. BOX 724, WINCHESTER, MA 01890	22704	24	Mixed use	51.5	1,169,256	25	44	68	
942	1	204 ARSENAL ST	010370000100000	0130	Multi-Residential	WATERTOWN GABLES LLC		3399 PEACHTREE RD SUITE 600, ATLANTA, GA 30326	336518	296	Mixed use	51.5	17,330,677	369	645	1,014	
1065	1	20 WATERTOWN ST 30	001070001A00001	0130	Multi-Residential	ASN WATERTOWN LLC	ARCHSTONE COMMUNITIES	P O BOX 87407, CHICAGO, IL 60680	181668	134	Mixed use	51.5	9,355,902	199	348	548	
943	2	130 ARSENAL ST 150	010380000100002	0130	Multi-Residential	GUGV UNION MARKET WATERTOWN	PROPERTY OWNING LLC	750 BERING DRIVE SUITE 300, HOUSTON, TX 77057	174056	149	Mixed use	51.5	8,963,884	191	334	525	
943	1	130 ARSENAL ST 150	010380000100002	0130	Multi-Residential	GUGV UNION MARKET WATERTOWN	PROPERTY OWNING LLC	750 BERING DRIVE SUITE 300, HOUSTON, TX 77057	139240	133	Mixed use	51.5	7,170,860	153	267	420	
4595	1	330 PLEASANT ST	002190001A00000	0130	Multi-Residential	PSCD TRINITY, LLC		P O BOX 95025, NEWTON, MA 02495	123998	100	Mixed use	51.5	6,385,897	136	238	374	
10319	1	233 PLEASANT ST	002170000300000	0130	Multi-Residential	RIVERBEND GARDEN LP, ET AL		999 WATERSIDE DRIVE SUITE 2300, NORFOLK, VA 23510	42453	36	Mixed use	51.5	2,186,330	47	81	128	
4398	1	166 MAIN ST	002050003400000	0130	Multi-Residential	166 VENTURES LLC	C/O SARACEN PROPERTIES	275 WASHINGTON ST, SUITE 110, NEWTON, MA 02458	29424	35	Mixed use	51.5	1,515,336	32	56	89	
4625	1	385 PLEASANT ST	002210003100000	0130	Multi-Residential	AMSTEL HERITAGE WATERTOWN LLC		28 BROOKS ST, BRIGHTON, MA 02135	28824	16	Mixed use	51.5	1,484,436	32	55	87	
4585	5	45 BACON ST	002170008A00008	0130	Multi-Residential	CHAUNCY PLACE CORPORATION	C/O THE BUCKMINSTER GROUP	665 BEACON STREET, BOSTON, MA 02215	27795	20	Mixed use	51.5	1,431,443	30	53	84	

Account	Building No.	Location	Street Addr only	Parcel ID	LUC	Living	Living	Master	Portfolio Type	Portfolio		MtCO2e	MtCO2e	Estimated
						Area	Units			Median	KBTU			
						Summed	Summed	addr	Definition	EUI		electric	gas	Total MtCO2e
3633		125 COOLIDGE AV #809	COOLIDGE AV 125	014010009B00809	1020	129672	84	COOLIDGE AV 125	Lodging/residential	42	5,446,224	116	203	319
9879		32 WHITES AV F8808	WHITES AV 32	003380001AF8808	1020	120885	137	WHITES AV 32	Lodging/residential	42	5,077,170	108	189	297
3487		199 COOLIDGE AV 903	COOLIDGE AV 199	014010002801064	1020	99204	66	COOLIDGE AV 199	Lodging/residential	42	4,166,568	89	155	244
3685		151 COOLIDGE AV 302	COOLIDGE AV 151	014010009E1050A	1020	79312	68	COOLIDGE AV 151	Lodging/residential	42	3,331,104	71	124	195
3815		141 COOLIDGE AV 720	COOLIDGE AV 141	014010009E01180	1020	79055	66	COOLIDGE AV 141	Lodging/residential	42	3,320,310	71	124	194
1052		50 WATERTOWN ST 610	WATERTOWN ST 50	001070000101075	1020	78374	71	WATERTOWN ST 50	Lodging/residential	42	3,291,708	70	123	193
516		10 WILLIAMS ST 30	WILLIAMS ST 10	001020001201140	1020	64735	74	WILLIAMS ST 10	Lodging/residential	42	2,718,870	58	101	159
3823		131 COOLIDGE AV 728	COOLIDGE AV 131	014010009E01188	1020	64633	55	COOLIDGE AV 131	Lodging/residential	42	2,714,586	58	101	159
10491		4 REPTON CR 4415	REPTON CR 4	008060000304415	1020	55417	60	REPTON CR 4	Lodging/residential	42	2,327,514	50	87	136
10506		5 REPTON CR #5415	REPTON CR 5	008060000305415	1020	55369	60	REPTON CR 5	Lodging/residential	42	2,325,498	49	87	136
10476		3 REPTON CR 3415	REPTON CR 3	008060000303415	1020	54836	59	REPTON CR 3	Lodging/residential	42	2,303,112	49	86	135
10288		290 PLEASANT ST 320	PLEASANT ST 290	002190000300320	1020	53590	56	PLEASANT ST 290	Lodging/residential	42	2,250,780	48	84	132
438		164 GALEN ST #88	GALEN ST 164	001020001201062	1020	51690	63	GALEN ST 164	Lodging/residential	42	2,170,980	46	81	127
1547		456 BELMONT ST #24	BELMONT ST 456	011170001X00024	1020	38952	24	BELMONT ST 456	Lodging/residential	42	1,635,984	35	61	96
3893		104 COOLIDGE HILL RD 16	COOLIDGE HILL RD 104	015030002601216	1020	29278	16	COOLIDGE HILL RD 104	Lodging/residential	42	1,229,676	26	46	72
11229		101 NO BEACON ST U312	NO BEACON ST 101	009070002200312	1020	26369	28	NO BEACON ST 101	Lodging/residential	42	1,107,498	24	41	65
3196		56 BIGELOW AV 38	BIGELOW AV 56	012290069C01066	1020	26080	24	BIGELOW AV 56	Lodging/residential	42	1,095,360	23	41	64
4375		111 PLEASANT ST 37	PLEASANT ST 111	002050002301021	1020	25711	21	PLEASANT ST 111	Lodging/residential	42	1,079,862	23	40	63
2230		210 BELMONT ST 16	BELMONT ST 210	011430000801028	1020	24856	16	BELMONT ST 210	Lodging/residential	42	1,043,952	22	39	61
3172		48 BIGELOW AV #38	BIGELOW AV 48	012290069C01042	1020	24820	23	BIGELOW AV 48	Lodging/residential	42	1,042,440	22	39	61
10760		134 MT AUBURN ST 8	MT AUBURN ST 134	01011000090000H	1020	21485	8	MT AUBURN ST 134	Lodging/residential	42	902,370	19	34	53
3216		64 BIGELOW AV 29	BIGELOW AV 64	012290069C01086	1020	20365	20	BIGELOW AV 64	Lodging/residential	42	855,330	18	32	50
3149		40 BIGELOW AV 29	BIGELOW AV 40	012290069C01019	1020	20345	20	BIGELOW AV 40	Lodging/residential	42	854,490	18	32	50
90		31 SPRING ST 508	SPRING ST 31	010080012A00508	1020	20226	23	SPRING ST 31	Lodging/residential	42	849,492	18	32	50
9177		20 RIVERSIDE ST #3-8	RIVERSIDE ST 20	009060000401104	1020	20072	30	RIVERSIDE ST 20	Lodging/residential	42	843,024	18	31	49

Account	Building No.	Location	Parcel ID	LUC	Assesing Category	Owner	Owner 2	Mailing Address	Living Area	Living Units	Portfolio Type Definition	Portfolio Median EUI	KBTU	MtCO2e electric	MtCO2e gas	Estimated Total MtCO2e
4909	1	123 MAIN ST	003200000100000	9310	City of Watertown	WATERTOWN, TOWN OF LIBRARY (MAIN BRANCH)		149 MAIN ST, WATERTOWN, MA 02472	20,772	1	Public services	65.8	1,366,797.60	29.08	50.90	79.98
4911	1	99 MAIN ST	003200000200000	9350	Watertown Public Safety	WATERTOWN, TOWN OF FIRE STATION		149 MAIN ST, WATERTOWN, MA 02472	13,569	1	Public services	65.8	892,840.20	19.00	33.25	52.25
4913	1	149 MAIN ST	003210000100000	9310	City of Watertown	WATERTOWN, TOWN OF TOWN HALL		149 MAIN STREET, WATERTOWN, MA 02472	29,762	1	Public services	65.8	1,958,339.60	41.67	72.93	114.60
5031	1	124 ORCHARD ST	003280000200000	9350	Watertown Public Safety	WATERTOWN, TOWN OF PUBLIC WORKS		149 MAIN ST, WATERTOWN, MA 02472	15,608	1	Public services	65.8	1,027,006.40	21.85	38.25	60.10
5427	1	68 WAVERLEY AV	003520000100000	9340	Watertown Education	WATERTOWN, TOWN OF MARSHALL SPRING WEST JR		149 MAIN ST, WATERTOWN, MA 02472	105,778	1	Public services	65.8	6,960,192.40	148.10	259.21	407.31
5435	2	25 WESTMINSTER AV	003530000100000	9300	City of Watertown	WATERTOWN, TOWN OF MOXLEY FIELD		149 MAIN ST, WATERTOWN, MA 02472	62,524		Public services	65.8	4,114,079.20	87.54	153.22	240.75
6054	1	123 LOWELL AV	004150000100000	9340	Watertown Education	WATERTOWN, TOWN OF	JAMES RUSSELL LOWELL SCHOOL	149 MAIN ST, WATERTOWN, MA 02472	84,344	1	Public services	65.8	5,549,835.20	118.09	206.69	324.77
8155	1	126 WARREN ST	006160000600000	9340	Watertown Education	WATERTOWN, TOWN OF CUNNIFF SCHOOL		149 MAIN ST, WATERTOWN, MA 02472	80,001	1	Public services	65.8	5,264,065.80	112.01	196.04	308.05
8598	1	552 MAIN ST	007090002A00000	9340	Watertown Education	WATERTOWN, TOWN OF BROWNE SCHOOL		149 MAIN ST, WATERTOWN, MA 02472	34,536	1	Public services	65.8	2,272,468.80	48.35	84.63	132.98
8952	1	PARAMONT PL	008100000300000	9310	City of Watertown	WATERTOWN, TOWN OF SKATING RINK		149 MAIN ST, WATERTOWN, MA 02472	33,280	1	Public services	65.8	2,189,824.00	46.59	81.55	128.15
220	1	30 COMMON ST	010110000700000	9340	Watertown Education	WATERTOWN, TOWN OF PHILLIPS SCHOOL	AND SENIOR CENTER	149 MAIN ST, WATERTOWN, MA 02472	27,332	1	Public services	65.8	1,798,445.60	38.27	66.98	105.24
648	1	1 CONCORD RD	010260000100000	9340	Watertown Education	WATERTOWN, TOWN OF HOSMER SCHOOL		149 MAIN STREET, WATERTOWN, MA 02472	145,572	1	Public services	65.8	9,578,637.60	203.81	356.73	560.54
3370	1	440 TALCOTT AV	013010000100002	931R	City of Watertown	WATERTOWN, TOWN OF COMMANDERS MANSION		149 MAIN ST, WATERTOWN, MA 02472	7,470	1	Public services	65.8	491,526.00	10.46	18.31	28.76
2576	1	124 WATERTOWN ST	001180000200000	0310	Multi-Commercial	CITY OF WATERTOWN	ATT: MELISSA MORRISSEY	149 MAIN STREET, WATERTOWN, MA 02472	41,224	12	Mixed use	51.5	2,123,036.00	45.17	79.07	124.24
2065	1	564 MT AUBURN ST	011380000300000	9350	Watertown Public Safety	WATERTOWN, TOWN OF FIRE STATION #2		149 MAIN ST, WATERTOWN, MA 02472	3,395	1	Public services	65.8	223,391.00	4.75	8.32	13.07
5626	1	270 ORCHARD ST	00367000180001A	9350	Watertown Public Safety	WATERTOWN, TOWN OF FIRE STATION		149 MAIN ST, WATERTOWN, MA 02472	4,144	1	Public services	65.8	272,675.20	5.80	10.15	15.96



3800	Golf Course	Other
384C	Marinas	Other
400C	Manufacturing	Manufacturing/industrial
401C	Warehouse of Manufacture	Manufacturing/industrial
402C	Office of Manufacturing	Manufacturing/industrial
404C	Research & Development	Technology/science
410C	Sand & Gravel Mining	Services
424C	Electric Substation	Services
430C	Telephone Exchange	Utility
432C	Cable TV	Utility
9030	Municipal Property?	Services
9050	Charitable Org?	Services
905R	Charitable Org?	Services
906R	Place of Worship?	Services
9290	Massachusetts Other	Services
9300	City of Watertown	Public services
9310	City of Watertown	Public services
931R	City of Watertown	Public services
9340	Watertown Education	Public services
9350	Watertown Public Safety	Public services
9430	Private School Other	Education
9510	Charitable Other	Religious worship
951R	Charitable Other	Religious worship
9530	Cemeteries	Religious worship
9540	Function Hall	Religious worship
9560	Library Musuems	Religious worship
956R	Library Musuems	Religious worship
9570	Charitable Service	Religious worship
9590	Charitable Housing	Religious worship
959R	Charitable Housing	Religious worship
9600	Religious Group	Religious worship
9610	Rectory	Religious worship
961R	Rectory	Religious worship
9620	Religious Group Other	Religious worship
962R	Religious Group Other	Religious worship
9700	Housing Authority	Lodging/residential

**GHG Calculations from MEI 2022**

electric	0.000242	MtCO2e per kilowatt hour	kWh =KBTU /3.412
gas	0.005319	MtCO2e per Therm	

Using MEI data from 2022 the split between gas and electric MtCO2e was approx 70% gas and 30% electric

30% electric

70% gas