

# BERDO

*Building Emissions Reduction and Disclosure Ordinance*



## CITY OF BOSTON STAFF



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# **AGENDA**

*Today's Meeting*

- 1. Berdo Requirements**
- 2. Emissions Compliance Options**
- 3. Flexibility Measures**
- 4. Additional Services & Resources**
- 5. Q&A Session**

An aerial wireframe illustration of a cityscape, showing various building footprints and street layouts in a light blue color against a darker blue background. The perspective is from a high angle, looking down on the city.

# BERDO REQUIREMENTS



## OBLIGATIONS UNDER BERDO



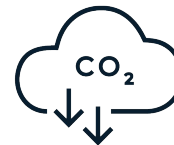
### REPORTING

*Annual reporting of total energy and water use from the previous calendar year*



### THIRD-PARTY VERIFICATION

*Third-party verify reported data on their first year of reporting and every "Verification Year" thereafter.*



### EMISSIONS REDUCTIONS

*Reduce annual emissions below a default emissions standard (emissions limit).*



An aerial wireframe illustration of a cityscape, showing various buildings, streets, and structures in a light blue color against a darker blue background. The perspective is from a high angle, looking down on the city.

# EMISSIONS COMPLIANCE OPTIONS

# HOW CAN BUILDING OWNERS COMPLY WITH EMISSIONS STANDARDS?



## REDUCE ENERGY USE IN THEIR BUILDING(S)

Implement building retrofits or improvements. Examples include upgrading to high efficiency electric appliances and lighting, upgrading systems for heating, cooling, water heating, and cooking, improving insulation, tightening window seals, etc.



## OBTAIN RENEWABLE ENERGY

Use on-site or off-site local renewable generation (rooftop solar, community solar, etc.), enroll into Boston Community Choice Electricity, purchase and retire eligible Renewable Energy Certificates (RECs), or enter into eligible Power Purchase Agreements (PPAs)



## INVEST IN THEIR COMMUNITY'S DECARBONIZATION

Mitigate emissions from electricity and fossil fuel use by making Alternative Compliance Payments (ACPs). ACPs are collected into the new Equitable Emissions Investment Fund to support building decarbonization projects that prioritize benefits to Environmental Justice communities in Boston.

# RENEWABLE ENERGY OPTIONS

In all cases, only non-emitting renewable energy can be **used to mitigate electricity related emissions only**

Renewable Energy Options	Key Requirements	Geographic scope or requirements
<b>Boston Community Choice Electricity (BCCE)</b>	MA Class I RECs purchased on behalf of residents and businesses enrolled in either the standard or Green 100 options of the BCCE program.	ISO New England grid
<b>MA Class I Renewable Energy Certificates (RECs)</b>	Unbundled MA Class I RECs bought and retired independently OR bundled MA Class I RECs bought and retired as part of a Power Purchase Agreement.	ISO New England grid
<b>Power Purchase Agreement (PPA) outside the ISO New England grid</b>	<p>Energy contract requiring the purchase of <b>both</b> electricity and its associated RECs. This includes virtual PPAs.</p> <p>PPAs need to be signed prior to the commercial operation of the renewable energy project (additionality requirement)</p>	Any grid in the contiguous U.S. or Canada
<b>Local renewable generation</b>	<p>Non-emitting renewable energy generation systems, either located on-site (e.g., rooftop solar in BERDO building) or off-site (e.g., community solar, solar in rooftop leases, Power Purchase Agreements)</p> <p>REC retirement is not required if:            (a) purchasing from solar system in Eastern MA that began operation before 2024; or            (b) purchasing from any type of non-emitting renewable energy system located inside the City of Boston.</p>	<p>Eastern Massachusetts for solar installed before 2024</p> <p>City of Boston for any system installed in or after 2024</p> <p>Otherwise, MA Class I REC retirement is required.</p>



# FLEXIBILITY MEASURES

*A building may be eligible for flexibility measures\* that adjust its emissions limits and pathway to net-zero emissions*

*\*Subject to meeting eligibility criteria and application approval from the [BERDO Review Board](#).*



# FLEXIBILITY MEASURES UNDER BERDO



## BLENDING EMISSIONS STANDARD

Takes into account the mix of primary uses present in building(s). This allows for an emissions standard that is based on the size of different primary uses in a building and may increase emissions limit.



## BUILDING PORTFOLIOS

Allows owners of multiple BERDO Buildings to comply with a single **portfolio-level emissions standard** instead of a building-by-building approach. This allows owners to align capital planning with BERDO compliance and get more flexibility to achieve emissions reductions.



## INDIVIDUAL COMPLIANCE SCHEDULES

Allows owners to comply with an alternative **absolute emissions reduction schedule** that is based on a **baseline year**. This allows owners to take advantage of emissions reductions that they have achieved prior to 2021 and adjust their emissions obligations based on their building operations.



## HARDSHIP COMPLIANCE PLANS

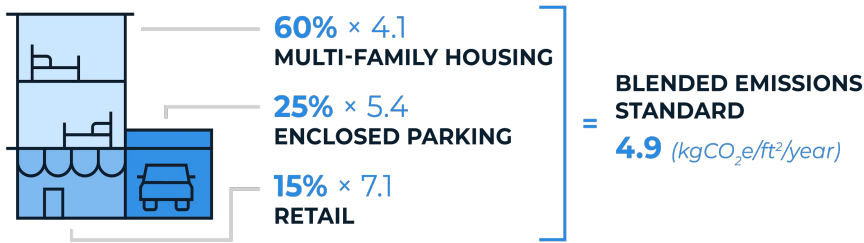
Allows owners facing an **eligible hardship** to request with an **alternative emissions reduction target and/or schedule**.

# BLENDING EMISSIONS STANDARD

Takes into account the mix of primary uses in your building or Building Portfolio. This allows you to have an emissions standard that better reflects your building's operations and may increase your emissions limit.

## BLENDING EMISSIONS STANDARD EXAMPLE FOR 2025

Multiply the percentage of each primary use's square footage by its associated emissions standard from the chart, then add those values together\*.



## ✓ ELIGIBLE PRIMARY USES

Building owners may use a Blending Emission Standard if their building or Building Portfolio has two or more primary uses. A primary use means that at least one of the following is true:

- ❑ The building use occupies at least 10% of a building's total square footage
- ❑ The building use accounts for more than 10% of a building's total annual energy use
- ❑ The building use accounts for more than 10% of a building's total annual CO<sub>2</sub>e emissions

🕒 **REVIEW BOARD APPLICATION:** None required

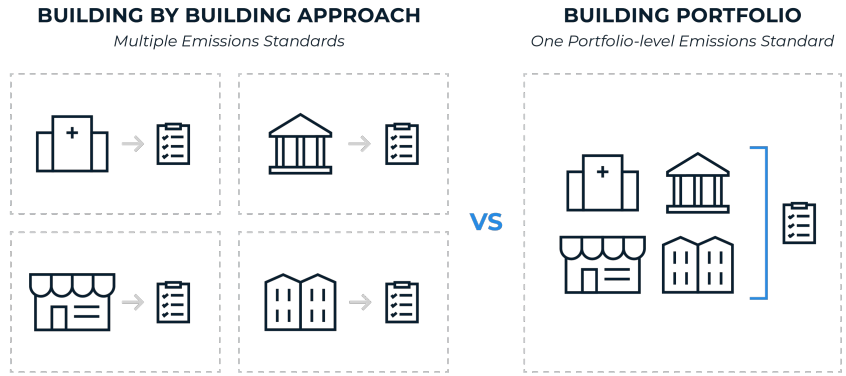
⊕ **MAY BE COMBINED WITH:** Building Portfolios

➔ **BLENDING EMISSIONS STANDARD TEMPLATE**

\*refer to the [Policies & Procedures](#) for a detailed methodology

# BUILDING PORTFOLIOS

Building owners with multiple buildings can comply with emissions standards through a Building Portfolio. This approach replaces individual emissions limits for each building with a Blended Emissions Standard across the entire portfolio.



🕒 **REVIEW BOARD APPLICATION DEADLINE:** September 1

⊕ **MAY BE COMBINED WITH:**

- Individual Compliance Schedules
- Hardship Compliance Plans

**➔ BUILDING PORTFOLIO APPLICATION**

✔ **ELIGIBILITY**

**Building owners may apply if the following is true:**

- All buildings have the same owner or are part of the same Institutional Master Plan.

**In addition to shared ownership, building owners will be asked to demonstrate the following eligibility criteria at the time of application:**

- Building uses, Gross Floor Area, and annual energy and emissions data for all buildings in the Building Portfolio have been third party verified during the last verification year.
- All buildings in the Building Portfolio are in compliance with applicable reporting, third-party verification, and emissions requirements.
- There are no vacant buildings in the Building Portfolio.

# PORTFOLIO PATHWAYS



## PATHWAY OPTIONS

### **PATHWAY ZERO**

Building Portfolio only contains a group of buildings located in a single parcel that collectively sum to at least 20,000 sq. ft. or 15 units, but would not otherwise be individually subject to BERDO. All buildings meet all eligibility criteria.

### **PATHWAY ONE**

Building Portfolio contains a group of buildings that are individually subject to BERDO, meet all eligibility criteria, and do not require an environmental justice review.

### **PATHWAY TWO**

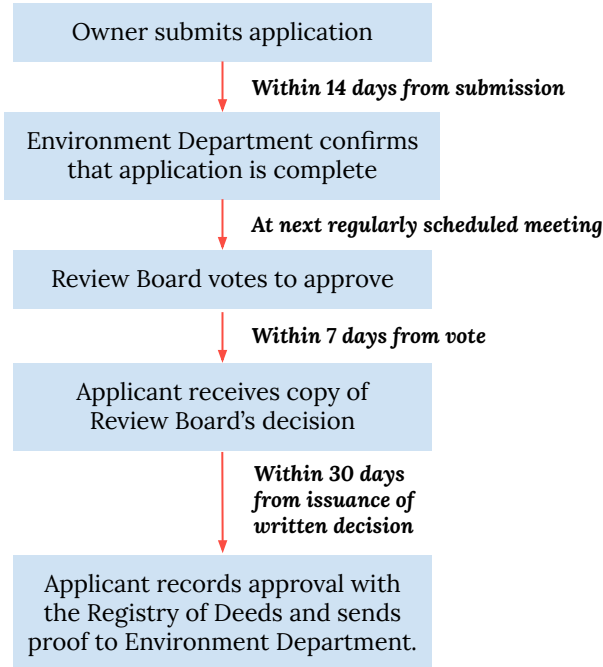
Building Portfolio contains a group of buildings that are individually subject to BERDO, meet all eligibility criteria, and require an environmental justice review.

### **PATHWAY THREE**

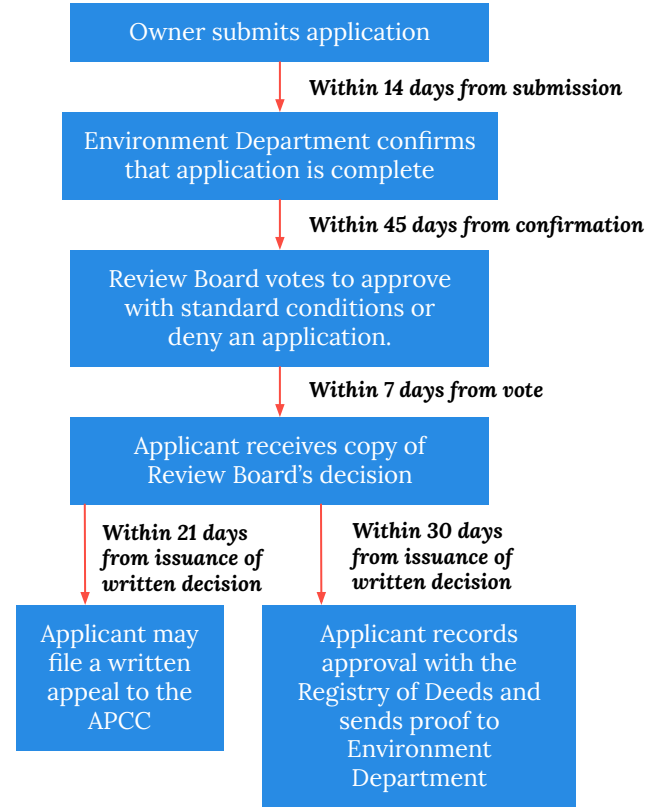
Building Portfolio contains buildings that do not meet the eligibility criteria and/or the owner is applying for an Individual Compliance Schedule for the Building Portfolio at the same time.



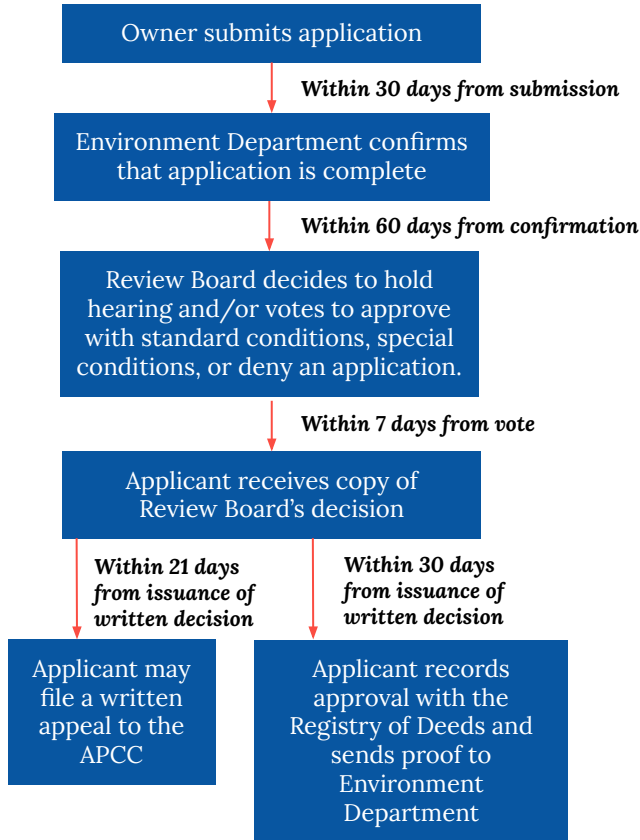
## PATHWAY 0



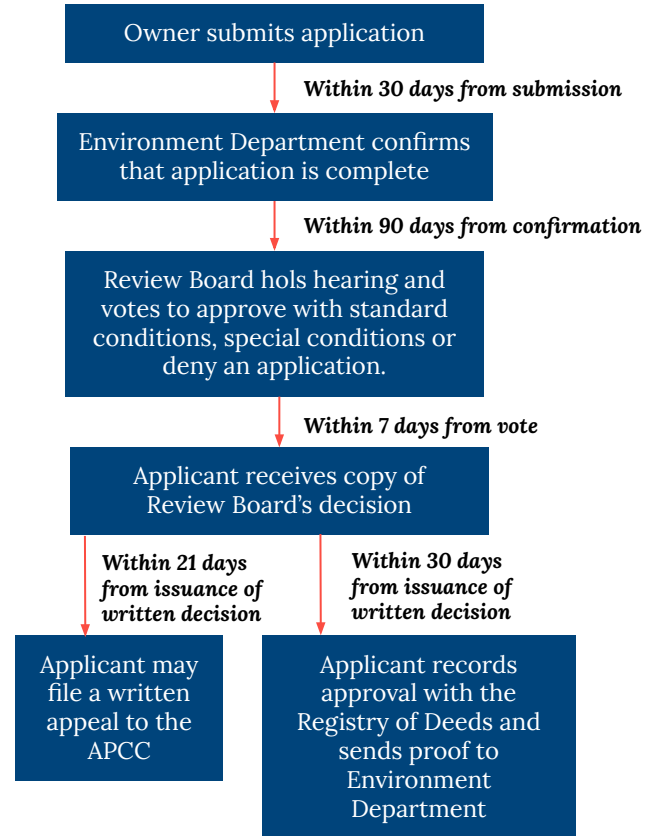
## PATHWAY 1



## PATHWAY 2



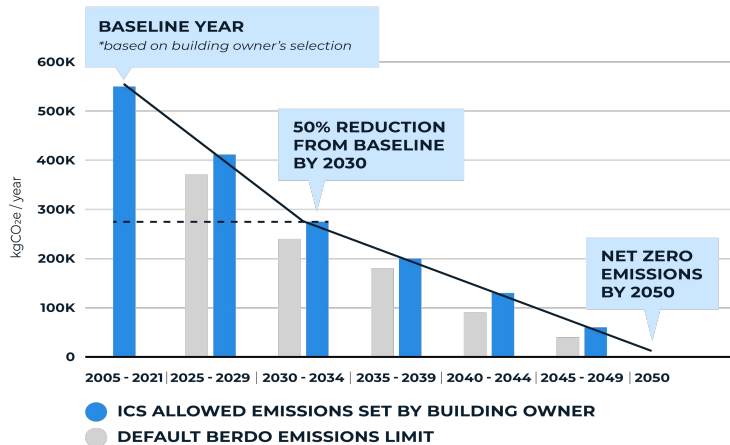
## PATHWAY 3



# INDIVIDUAL COMPLIANCE SCHEDULES (ICS)

Offers an alternative compliance schedule based on a building's historical emissions and operations, allowing owners to benefit from prior emissions reductions.

## EXAMPLE ICS REDUCTION SCHEDULE



## ✓ ELIGIBILITY

Building owners will be asked to demonstrate the following eligibility criteria for each building at the time of application:

- ❑ You can provide and third-party verify the building use(s), Gross Floor Area, and annual energy and emissions data for the selected baseline year.
- ❑ Each building's total Gross Floor Area has not been reduced by more than 10%.
- ❑ Each building's largest primary use has remained the same from the baseline year to present day.
- ❑ Each building is in compliance with applicable reporting, third-party verification, and emissions requirements.

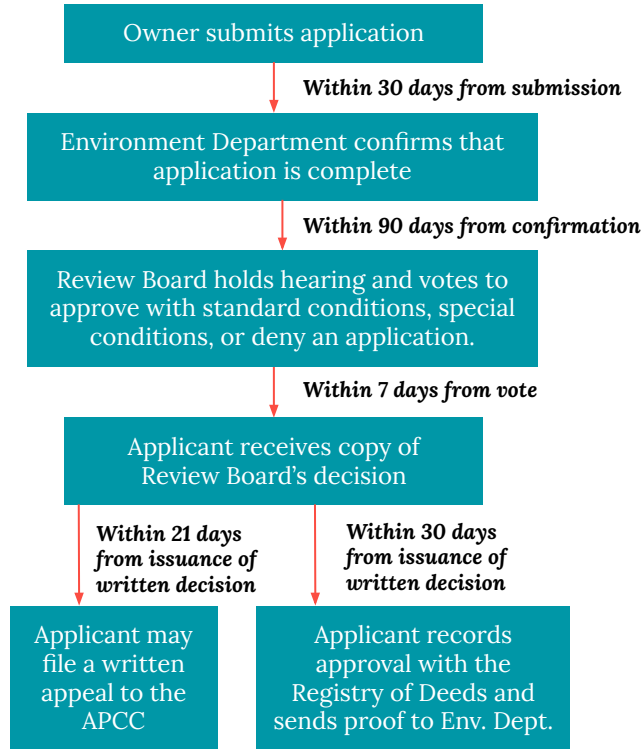
🕒 **REVIEW BOARD APPLICATION DEADLINE:** September 1

⊕ **MAY BE COMBINED WITH:** Building Portfolios

➔ **INDIVIDUAL COMPLIANCE APPLICATION**

# APPLICATION TIMELINE

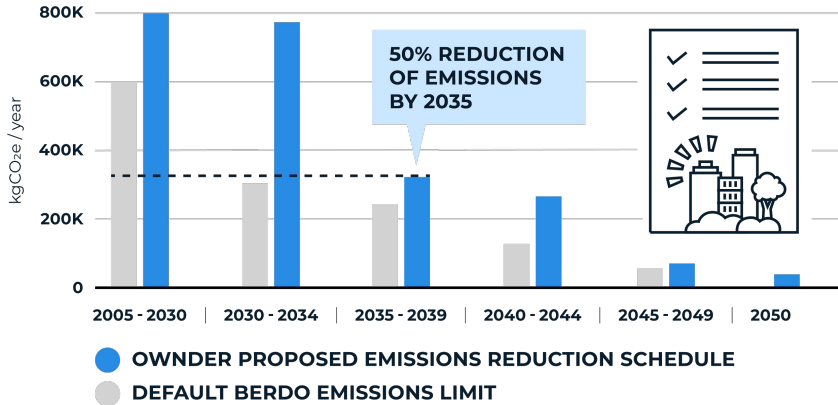
## *Individual Compliance Schedules*



# HARDSHIP COMPLIANCE PLANS (HCP)

Hardship Compliance Plans (HCP) allow building owners with eligible hardships to request alternative emissions reduction timelines and/or limits.

## EXAMPLE HCP REDUCTION SCHEDULE



### REVIEW BOARD APPLICATION DEADLINE:

- July 1, 2024 for long-term HCP\*
- October 1 for short-term HCP

**MAY BE COMBINED WITH:** Building Portfolios

**HARDSHIP COMPLIANCE PLAN APPLICATION**

### **ELIGIBLE HARDSHIPS INCLUDE**

- When compliance with emissions standards requires space, equipment, or electric service that is not available;
- When compliance with emissions standards significantly interfere with the ability to, or significantly increase the cost to, provide services that are critical to community health and safety; and/or
- When compliance with emissions standards creates an unreasonable difficulty on a building owner in terms of costs.

*\*After 2024, long-term HCP applications are due on April 1.*



# HARDSHIP COMPLIANCE PLANS (HCP)

## ✓ ELIGIBILITY CRITERIA

Building owners may apply for an HCP if **all** of the following are true:

- ❑ You are able to demonstrate the existence of one or more of the circumstances and characteristics affecting compliance described in the regulations.
- ❑ You have considered all emissions compliance and flexibility options under BERDO.
- ❑ You can show, with proof, that the combination of the building's specific circumstances and characteristics and allowable compliance options create one of the three eligible hardship described on the previous slide.

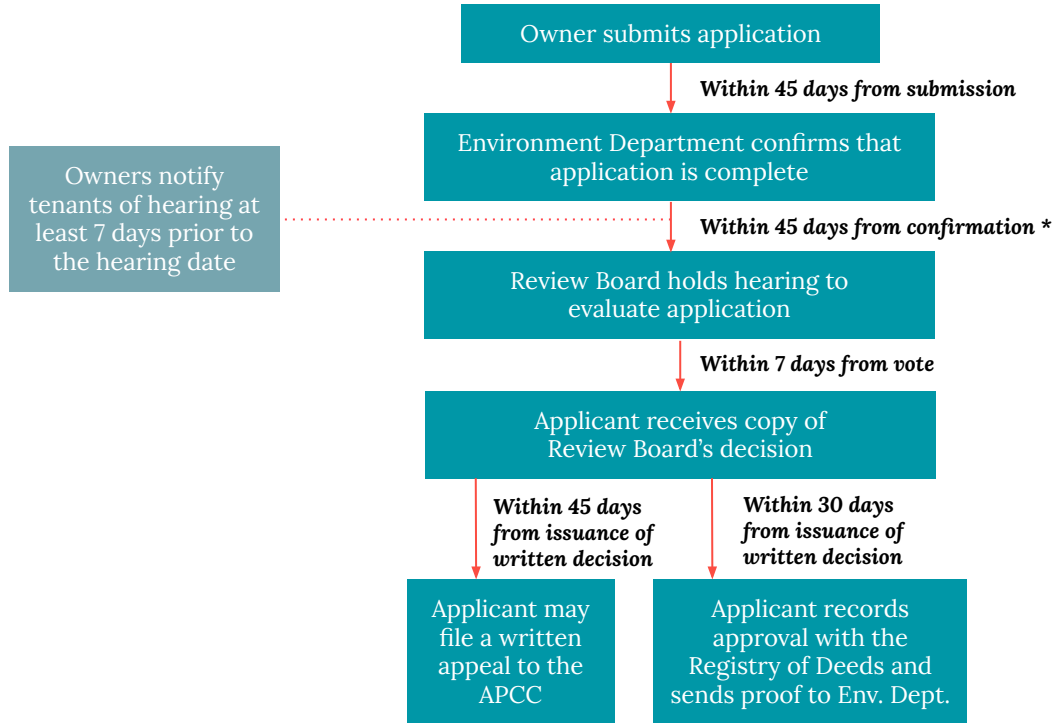
## ☆ TYPES OF RELIEF

Under any HCP, building owners must still show they are reducing emissions, but eligible relief measures include:

- Alternative emissions reduction schedule
- Alternative emissions standards
- Exemption of specified energy use(s), in whole or in part
- Adjusted compliance obligations in light of third-party barriers or delays to significant energy efficiency or electrification projects
- Additional compliance mechanisms approved by the Review Board
- Other relief the Review Board may deem appropriate on a case-by-case basis

# APPLICATION TIMELINE

## Hardship Compliance Plans



\* If seeking relief that would begin in the next 2 years

# APPLICATION DEADLINES FOR FLEXIBILITY MEASURES

Building Portfolios, Individual Compliance Schedules, and Hardship Compliance Plans

## Key Deadlines for Building Owners

<b>May 15</b>	Reporting deadline for energy and water use.
<b>July 1, 2024*</b>	Long-term Hardship Compliance Plan application deadline.
<b>September 1</b>	Building Portfolio application deadline.
	Individual Compliance Schedule application deadline.
<b>October 1</b>	Short-term Hardship Compliance Plan application deadline.
*After July 1, 2024, long-term Hardship Compliance Plan applications are due <b>9 months before</b> the first year the HCP would be used.	

## HOW WE ARE HELPING BUILDING OWNERS

- Help desk phone and email
- [BERDO Emissions Calculator tool \(Guide\)](#)
- [BERDO webinar series](#) (recordings available at [boston.gov/berdo](https://boston.gov/berdo))
  - *Education on flexibility measures and emissions compliance*
- [Free assistance for BERDO reporting and third-party verification](#)
  - *Targeting self-managed residential buildings, small non-profit owners, or commercial buildings with small business tenants. Staff will prioritize owners with limited English proficiency, digital literacy, financial resources, located in EJ communities, and/or facing unusual challenges.*
- [Weekly office hours for emissions compliance](#)
- [One-on-one building emissions consultations](#)
- [How to Report Guide](#)
- Developing BERDO Handbook for Condo Associations

# **RESOURCES**



[BERDO Homepage](#)

[BERDO Regulations](#)

[Retrofit Resource Hub](#)

[BERDO Emissions Calculator](#)



## **CONTACT US:**

**Emissions Compliance:** [retrofit@boston.gov](mailto:retrofit@boston.gov)

**Energy Reporting:** [energyreporting@boston.gov](mailto:energyreporting@boston.gov)



An aerial, wireframe-style illustration of a cityscape, rendered in a light blue color against a darker blue background. The buildings are represented by simple geometric shapes and lines, creating a sense of depth and perspective. The city is dense with various structures, including tall skyscrapers and smaller, more complex buildings. A prominent feature is a large, curved structure in the center, possibly a stadium or a large public building. The overall aesthetic is clean and modern, with a focus on architectural forms.

# Q&A