

BERDO REVIEW BOARD MEETING

January 12, 2026



Mayor Michelle Wu

BERDO REVIEW BOARD



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Board Chair



Gabriela Coletta Zapata
City Councilor



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Carbon Neutrality*



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Vasquez**

*BERDO Review Board
Manager*



**Zengel
"Ziggy" Chin**

*BERDO Review Board
Assistant*

Agenda

Today's Meeting



Public Hearing

- 1.** *Hardship Compliance Plan Application*

Public Meeting

- 2.** *Discussion and Vote on BERDO Procedures*
- 3.** *Approval of Meeting minutes*
- 4.** *Administrative Updates*
- 5.** *Adjournment*



Hardship Compliance Plan Application

Discussion and Vote

Types of Hardship Compliance Plans

Two types of HCPs are available:

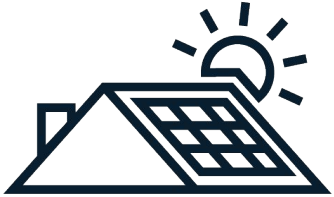
SHORT-TERM HCP

- May grant relief for 1 - 3 years.
- May be extended once due to extenuating conditions for up to 12 months.
- Special conditions and EJ benefits not required.

LONG-TERM HCP

- May grant relief for 4+ years.
- Review Board shall reassess approved plans every 5 years.
- Must include EJ benefits and special conditions may be added.

Using Local Renewable Energy in BERDO (Solar Arrangements)

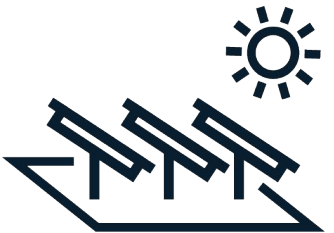


ON-SITE SOLAR LOCATED “BEHIND THE METER”

LOCATION: The solar array is physically installed on your property and **directly connected to your building's electric system**. The most common example is rooftop solar.

BILLING STRUCTURE: Your Eversource bill shows your **net electricity usage in kWh**. This means that on-site solar located behind-the-meter directly reduces the monthly kWh reported in your Eversource bill.

BERDO ELIGIBILITY: Always **eligible** without MA Class I REC retirement.



SOLAR NET-METERING CREDITS

LOCATION: The solar array is physically installed **outside of your property** or it is located **on-site but is not directly connected to your building's electric system**.

BILLING STRUCTURE: Your Eversource bill shows your **total electricity usage from the grid in kWh**, and you get **on-bill credits** for the share of solar power that you produced or purchased.

BERDO ELIGIBILITY: Only **eligible without MA Class I REC retirement if** (a) the solar array is located in Boston OR (b) the solar array is located in Eversource Eastern MA; the solar array began operation prior to 2024; and your building began receiving net metering credits from the solar array prior to 2024. **

*** Exemptions may be requested via solar exemption process or through a Hardship Compliance Plan.*

The background of the slide is a dark blue aerial wireframe map of a city, showing the outlines of numerous buildings and streets. A semi-transparent dark blue horizontal band runs across the middle of the image, serving as a backdrop for the text.

Commonwealth Zoological Corp.

Short-Term Hardship Compliance Plan





Public Hearing for the Tropical Forest Building at the Franklin Park Zoo

Zoo New England and PowerOptions

1/12/26

Table of Contents



1. Introduction

- Who We Are
- Mission
- Benefits to the City

2. Reason for Relief

- Tropical Forest Building Energy Usage
- Near Term Challenges

3. Proposal for Relief

- Alternative Emissions Schedule
- Additional Compliance Mechanism: Solar Exemption

4. Sustainability

- Pathway to Net Zero
- Commitments Upon Approval

5. Environmental Justice Benefits

- Environmental Justice Benefits Pt.1
- Environmental Justice Benefits Pt.2

Who We Are



- Zoo New England is a private, non-profit, 501(c)(3) organization.
- Oversees both Franklin Park Zoo (Boston) and Stone Zoo (Stoneham, MA).
- Franklin Park Zoo was founded in 1912
- Stewarding 70+ acres in Emerald Necklace
- 50+ buildings
- 1,000+ animals under our care
- Conservation organization preserving wildlife locally and abroad.
- Guiding Frameworks: Climate Action Plan, Decarbonization Plan, Sustainability Action Plan, Climate Team.



Our Mission



Zoo New England's mission is to:

Inspire people to protect and sustain the natural world for future generations by creating fun and engaging experiences that integrate wildlife and conservation programs, research, and education

Climate Statement (from ZNE Climate Action Plan)

Conservation is a cornerstone of Zoo New England's mission. In regard to climate action, we endeavor to be a leader in this field by identifying and implementing strategies focused on mitigation, resiliency, sustainability and environmental justice that will have positive impacts not only for our organizations, but very importantly for our guests, and the communities we serve.

ASSOCIATION
OF ZOOS &
AQUARIUMS

SAFETM
SAVING ANIMALS
FROM EXTINCTION

Benefits to the City



- 1,000,000 visitors per year
 - Major Cultural Destination / Institution
 - Cultural Anchor in Franklin Park
 - Big events: Boston Lights
-
- **Partnerships with several City of Boston Programs:**
 - Green Infrastructure Unit
 - PowerCorps Boston & Youth Options Unlimited (YOU)
 - GrowBoston
 - Green Ribbon Commission
 - BPL museum passes



Tropical Forest Building Energy Usage



- Houses dozens of animal species, many of which are critically endangered or threatened.
- Requires 24/7 energy usage to ensure comfortable temperature, humidity and lighting for the animals and plants



Near Term Challenges



- 2023 boiler replacement with a higher-efficiency gas boiler
- Previous boiler failed in the winter in 2023
 - Would need to upgrade electrical service to have electric fueled heating
 - A heat replacement project can only occur from June-September
 - Failed catastrophically requiring emergency replacement
- Teflon coated tent roofing – poor insulation and expensive replacement

Alternative Emissions Schedule



Alternative Emissions Reduction Schedule (kgCO2e/SF/yr)			
	2025	2026	2027
Default Schedule	7.8	7.8	7.8
Alternative Schedule	17.2	17.2	17.2

The proposed Alternative Schedule was calculated by averaging the last three years of operational emissions and uses and dividing the average by the Gross Floor Area of the building.

Additional Compliance Mechanism: Solar Exemption



- The Zoo is requesting the BERDO Review Board allow the 800,000 kWh/year of solar generation from the Stone Zoo array to be allocated to the Tropical Forest Building starting July 1, 2025.
- The Stone Zoo solar array is not automatically eligible as a BERDO compliance mechanism



Pathway to Net Zero



- In 2023, created a Pathway to Net Zero where the Zoo conducted a study to measure our GHG emissions and develop a plan to reduce them and set goals
 - Reduce emissions by 40% by 2030
 - Achieve net zero by 2050
- Planned initiatives include energy audits of our buildings, expanding EV charging stations, incorporating low-carbon heating in new construction

Commitments Upon Approval



- Provide an annual update to the Review Board on emissions reduction planning and implementation
- Share results from the refreshed ASHRAE Level II audit and will install any project with a payback of 8 years or less.
- Share results from any study conducted to investigate the Tropical Forest Building's roof lifetime and replacement.
- Exploring solar options at Franklin Zoo
- The Commonwealth Zoological Corporation near and mid term planning also include:
 - Acquiring quotes to upgrade the roof by end of 2026
 - Window upgrades by 2035
 - Ground Source Heat Pump and Electrical Service Feasibility Study by 2037

Environmental Justice Benefits



- 2024: Planted 250 trees in Dorchester and Roxbury to help with urban heat island effect and climate resilience.
- Founder of Partnership for Greening Dorchester & Roxbury (PGD&R): a program designed to mitigate the urban heat island effect by increasing tree canopy (2,000 trees) in Dorchester and Roxbury through 2027
- Franklin Park Zoo joined the B-COOL Heat Sensor Pilot Project to measure temperatures across Boston's neighborhoods that are more vulnerable to heat with the goal of providing more accurate heat emergencies throughout the city.



Environmental Justice Benefits



- Climate Justice goals from CAP: Leverage ZNE resources and partnerships to address climate-related equity challenges in the communities we serve.
- Free public food forests at both zoo locations
- Boston Family Days
 - Provides students who live in Boston and their families free access to many of the City's world-class cultural institutions.
- Boston Public Library Museum Pass Program
- Both Local and Global Conservation Efforts and Programs
- Renewable Energy
 - Geothermal-Powered Penguin Habitat
 - Smartflower Solar Panel Systems



The background of the slide is a dark blue aerial view of a city, overlaid with a white line-art map showing building footprints, streets, and parks. The map is semi-transparent, allowing the blue background to show through.

Staff Comments

Environment Department shares staff comments

Staff Comments



STAFF COMMENTS:

- The Commonwealth Zoological Corporation originally submitted an application for a Long-Term Hardship Compliance on July 1, 2024. The original application was deemed incomplete by BERDO staff. Following several meetings between the zoo, the Environment Department, and the consultant PowerOptions, the applicant decided to pursue a short-term hardship compliance as an in-between measure while it refines a long-term decarbonization strategy.
 - This application is the fifth submission and was deemed complete on November 13, 2025.

STAFF RECOMMENDATIONS:

- Staff recommend approving with standard conditions and recommended special conditions (next slide).

Staff Recommended Special Conditions

Reporting Updates

1. **Once a Year:** The zoo shall submit a brief written update by March 1 of each year regarding emissions reduction efforts for this building. Items to be included:
 - Updates on any emissions reduction efforts and renewable energy generation or procurement projects.
 - Updates on progress towards developing and implementing a long-term Decarbonization Plan.
 - Investments made and any funding that's being pursued.
 - The first written update shall be submitted by March 1, 2026.
2. **By March 1, 2026:** Provide a written update to staff and the Review Board with the results from the refreshed ASHRAE Level II audit completed in March, 2025 and any planned implementation plans resulting from the audit.
3. **By March 1, 2027:** The Commonwealth Zoological Corporation will share with staff and Review Board:
 - Quotes acquired by the end of 2026 to upgrade the roof.
 - Results from any study conducted to investigate the Tropical Forest Building's roof lifetime and replacement.

Acting on Stated Commitments

4. **For the duration of the Hardship Compliance Plan:** The Zoo must demonstrate good faith efforts towards the implementation of stated commitments or demonstrate good faith efforts to pursue similar commitments in the following categories:
 - Workforce development
 - Climate resilience
 - Energy cost and benefit sharing

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Board Q&A

Board Members may discuss and ask staff questions

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Public Comment Period

Members of the public may provide public comment

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Board Motion & Vote

Commonwealth Zoological Corporation



A nighttime photograph of a city street, likely in Berkeley, California. The street is lined with trees wrapped in white string lights. In the background, a building with a dome is visible. In the foreground, a man is walking towards the camera, and a woman is taking a photo with her phone. The overall atmosphere is festive and urban.

BERDO Procedures

Discussion and Vote

Streamlined Short-Term HCP Package Proposal

PREDETERMINED ELIGIBILITY CRITERIA

This streamlined Short-Term Hardship Compliance Plan (HCP) application will be available to under-resourced and equity priority building owners who meet the following eligibility criteria:

- Deed Restricted Affordable Housing
- Residential Condominium or Cooperative buildings that have a median assessed value of \$877,111 or less per unit.
 - Source: [Boston Assessing Property Assessment FY25](#) (average condo assessed value in Boston: \$877,110.74)
- Residential Condominium or Cooperative building with at least 50% of residents with an income at or below 120% AMI
- Rental buildings with 50% or more Section 8 tenants or with 50% or more residents with incomes at 120% AMI or below
- Rental buildings with 50% or more units with rents at or below the maximum affordable rates for 120% AMI
 - Source: [Mayor's Office of Housing Income and Rent Limits](#) (IDP limits will be used)
- Owned by a small business with fewer than 50 employees or less than \$5,000,000 in annual gross revenue
- Owned by a non-profit with fewer than 50 employees or less than \$5,000,000 in gross revenue
 - Source: [Office of Economic Opportunity and Inclusion \(OEI\) Small Business Report](#)

Streamlined Short-Term HCP Package Proposal

PREDETERMINED ELIGIBILITY CRITERIA

- Building or Building Portfolio is subject to an emissions standard starting in 2025.
- Building or Building Portfolio is in compliance with the most recent reporting and third-party verification requirements.
- The Building or Building Portfolio does not have an Individual Compliance Schedule or the owner is requesting to replace their Individual Compliance Schedule with a short-term Hardship Compliance Plan.
- The owner successfully demonstrates that they have an eligible hardship by adequately completing the application and providing any necessary supporting documentation.
- The owner demonstrates that ACPs would significantly impact their operations and/or ability to invest in emissions compliance efforts.
- (Optional) The building has additional technical circumstances:
 - Fueled with an oil heating system
 - Fueled with an electric resistance heating system
 - Pre-weatherization barriers (knob and tube wiring, asbestos, etc.)
 - Has been rejected for electric service upgrades by Eversource
 - Has been denied or is experiencing significant delays for government permits required for building decarbonization work

Streamlined Short-Term HCP Package Proposal

PREDETERMINED RELIEF

- **Length of Relief:** 3 years covering emissions compliance for 2025, 2026, and 2027.
 - Potential to extend to 2028 upon request of the applicant and approval of the BERDO Review Board
- **Type of Relief:** Alternative Emissions Standard
 - Alternative emissions standard shall be determined by the Environment Department by calculating the average of the building or Building Portfolio's emissions intensity for 2023, 2024, and 2025
 - If data is not available, emissions intensity from 2025 will be used.

After the short-term HCP expires, emissions standards will revert to their applicable default unless the owner acquires another flexibility measure.

PREDETERMINED SPECIAL CONDITIONS

- By submitting an application for a streamlined Short-Term HCP, the building owner commits to fulfilling the special conditions outlined in the applicable form upon approval of the HCP.
- The special conditions intend to demonstrate that the building owner is starting to plan for long-term BERDO emissions compliance as soon as possible and undertaking good faith efforts towards building decarbonization.
- Failure to comply with special conditions will result in the termination of the HCP and the Building or Building Portfolio shall be subject to default Emissions standards.

Streamlined Short-Term HCP Package Proposal

1. Within 12 months of approval, **engage with Mass Save** and provide evidence of Mass Save engagement.
 - Examples include a Comprehensive Building Assessment (CBA), a Home Energy Assessment or equivalent, rebates or incentives for energy conservation measures (ECMs), or other documentation approved by the Review Board staff.
2. If applicable, eligible, and beneficial, the owner must **apply for a Building Portfolio**.
3. Within 12 months of approval, **develop a Zero-Over-Time (ZOT) Plan**, a Mass Save Comprehensive Building Assessment, or an equivalent assessment that includes at a minimum the following:
 - Results from an energy audit or energy assessment.
 - An inventory of equipment.
 - A sequence of compliance efforts needed to achieve compliance with BERDO emissions standards from 2028 onwards, including specific ECMs.
 - Projected energy and emissions reductions resulting from the recommended ECMs.
 - Evaluation of BERDO Flexibility Measures and compliance options.
4. **Implement at least one ECM** within the duration of the HCP (by the end of 2027).
5. The owner must submit **brief progress reports via Google Form** annually to provide updates on the completion of special conditions and the implementation of the ZOT plan during the duration of the HCP. *Reports shall be due on March 1, 2027, March 1, 2028, and on March 1, 2029 if applicable.*
6. Attend at least one **annual virtual consultation with BERDO Staff** to report on progress and evaluate next steps during the duration of the HCP.



Streamlined Short-Term HCP Application

This Streamlined Short-Term Hardship Compliance Plan (HCP) application is available to under-resourced and equity priority building owners who meet the following eligibility criteria:

1. Building or Building Portfolio is subject to an emissions standard starting in 2025.
2. Building or Building Portfolio is in compliance with the most recent reporting year and third-party verification requirements.
3. The Building or Building Portfolio does not have an Individual Compliance Schedule or the owner is requesting to replace their Individual Compliance Schedule with a short-term Hardship Compliance Plan.
4. The owner successfully demonstrates that they have an eligible hardship by adequately completing this application and providing any necessary supporting documentation.
5. The building or Building Portfolio receiving the relief must meet one of the following ownership or Building Use types:
 - Deed Restricted Affordable Housing
 - Residential Condominium or Cooperative buildings that have a median

SECTION 3. EVALUATION OF BERDO COMPLIANCE MECHANISMS AND OPPORTUNITIES

Have you considered applying for a Building Portfolio? Please select * the option that best describes your case:

- ☐ I have an approved Building Portfolio
- ☐ I have applied for a Building Portfolio that is pending approval
- ☐ I have not applied for a Building Portfolio, but I am eligible to apply
- ☐ I am not eligible to apply for a Building Portfolio (e.g., I only own one BERDO Building)
- ☐ Other: _____

Have you engaged with Mass Save or other qualified service providers to understand and pursue building decarbonization opportunities in your building or Building Portfolio? Please check all that apply: *

- ☐ I have completed a Mass Save audit in the last 2 years.
- ☐ I have completed an energy audit through a third-party in the last 2 years (not Mass Save).
- ☐ I am waiting on a determination from Mass Save regarding eligibility for services or incentives.
- ☐ I am eligible for Mass Save services and incentives, but have not yet placed contracts in place
- ☐ Contracts with qualified service providers are in place to assess or implement decarbonization work.
- ☐ None of the above
- ☐ Other: _____

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Board Motion & Vote

Streamlined Short-Term Hardship Compliance Plan Application



A night-time photograph of a city street, likely in a historic district. The street is lined with buildings, some of which are decorated with strings of warm white lights. In the background, a church with a prominent dome is visible. The foreground shows a street lamp and the silhouettes of people walking. The overall atmosphere is festive and urban.

Approval of Meeting Minutes

Board votes on approving previous meeting's minutes

Administrative Updates

Staff presents administrative updates


2026 Review Board Meeting Schedule

Second and fourth Mondays of each month starting at 4:30pm



Zoom: Meetings are virtual via Zoom: [register in advance here](#)

HEARING DATES	
January 12	July 13
January 26	July 27
February 9	August 10
February 23	August 24
March 9	September 14
March 23	September 28
April 13	October 12
April 27	October 26
May 11	November 9
May 25	November 23
June 8	December 14
June 22	

A night-time photograph of a city street, likely in a historic district. The scene is illuminated by warm streetlights and festive white string lights draped over trees and buildings. In the background, a church with a prominent dome is visible. People are walking along the sidewalk, and a man in the foreground is taking a photo with his smartphone. The overall atmosphere is festive and urban.

Board Questions

Admin Updates

Adjourn

Thank you! A recording and slide deck for this meeting will be available at boston.gov/berdo-review-board.

