

# 2025 BERDO Regulations Update Listening Session



*June 25, 2025*

*Mayor Michelle Wu*

# Agenda



- **Scope of 2025 BERDO Regulations Update**
- **Presentation and Q&A on Key Proposed Changes**
- **Overview of Other Draft Language**



The background of the slide is a detailed line-art map of a city, viewed from an aerial perspective. The map is rendered in a light blue color against a dark blue background. A semi-transparent dark blue horizontal band runs across the middle of the image, serving as a backdrop for the title text.

# Background

# 2025 BERDO Regulations Update Scope



ORDINANCE

REGULATIONS

POLICIES AND  
PROCEDURES

GUIDANCE

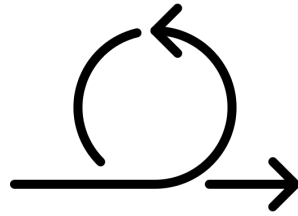
We are updating **Regulations** and **Policies and Procedures** related to:

- Flexibility measure application processes
- Third-party verification
- Clarifying language related to already existing BERDO procedures (e.g., reporting of buildings with shared systems, Campus reporting, emissions calculation formulas, etc.).

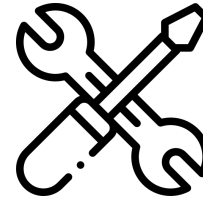
**OTHER SUBSTANTIAL CHANGES TO THE REGULATIONS  
ARE NOT BEING CONSIDERED**

# Why?

## EQUITABLE IMPLEMENTATION



ITERATIVE  
LEARNING



RECTIFY  
UNFORESEEN  
BURDENS AND  
CHALLENGES



RESPONSIVE TO  
COMMUNITY  
NEEDS

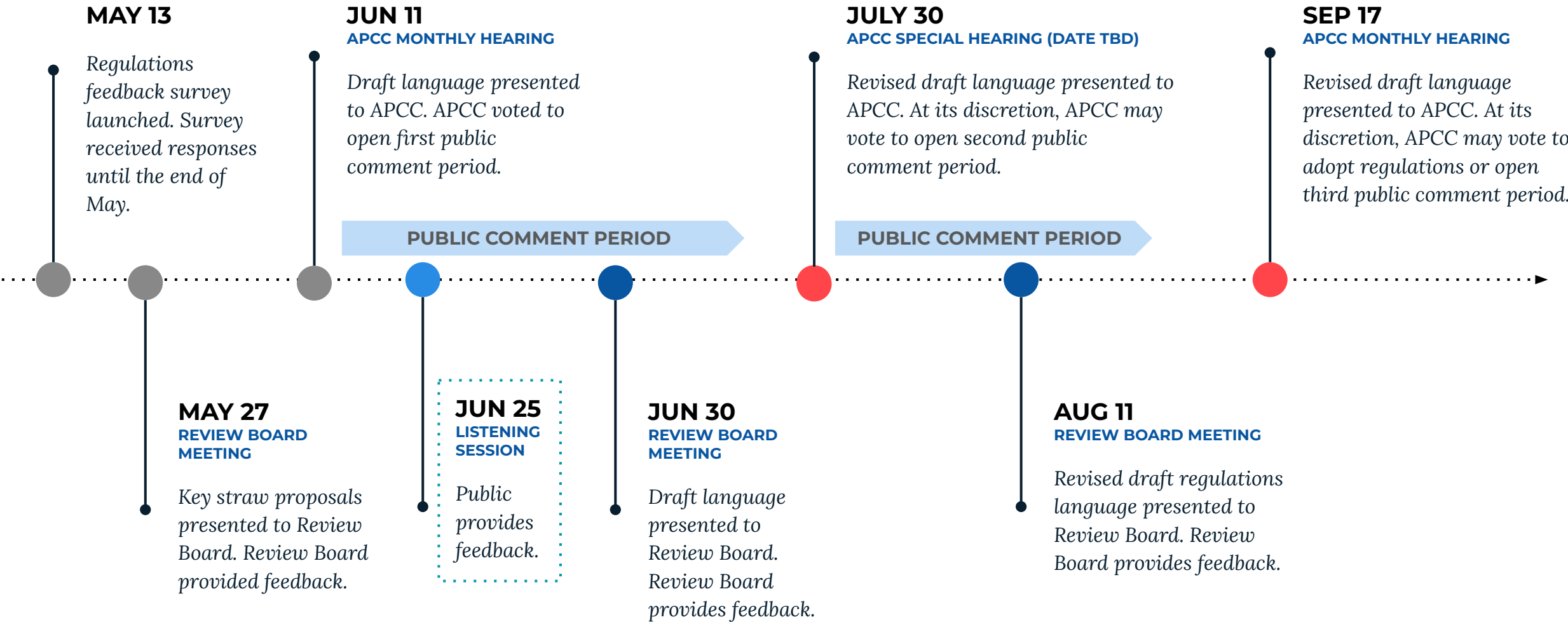
We are seeking to respond to challenges and lessons learned we have identified through:

1. Help desk and day-to-day implementation of BERDO
2. BERDO Review Board meetings and processes
3. Virtual Building Consultations
4. In-Person BERDO Workshops



# 2025 BERDO Regulations Update Tentative Timeline

Timeline subject to change at the discretion of the Air Pollution Control Commission (APCC)





The background of the slide is a dark blue aerial view of a city grid, rendered in white line art. The lines represent building footprints, streets, and parks, creating a complex geometric pattern. A semi-transparent dark blue horizontal band runs across the middle of the image, serving as a backdrop for the title text.

# Key Proposed Changes

# Proposed Draft Language

*Key proposed changes in draft language*



The Environment Department is proposing six key changes in the 2025 BERDO Regulations Update:

- 1. Streamlining requirements for third-party verification**
- 2. Modifying application deadlines for flexibility measures**
- 3. Enabling building owners to extend voting timelines for flexibility measures**
- 4. Removing requirement to record decisions related to flexibility measures in the Registry of Deeds for most flexibility measures**
- 5. Enabling the Review Board to grant exemptions on solar requirements without a Hardship Compliance Plan**
- 6. Delineating roles between the APCC, Review Board, and Environment Department**



# 1. Streamlining requirements for third-party verification

Key proposed changes in draft language

CURRENT REQUIREMENTS	PROPOSED CHANGES
In 2026 and every Verification Year thereafter, <b>all building owners</b> are required to provide a third-party verification of their reported data <b>for the five calendar years prior</b> .	<p>Section XII.c.</p> <p><b>For 2025 Buildings (35+ units; 35,000+ sq. ft.):</b></p> <ul style="list-style-type: none"><li>• “[...] Owners shall provide a third-party verification of their 2025 calendar year data in 2026.</li><li>• For every Verification Year thereafter, Owners shall provide a third-party verification for the five calendar years prior.”</li></ul> <p><b>For 2030 Buildings (15 - 34 units; 20,000 - 34,999 sq. ft.):</b></p> <ul style="list-style-type: none"><li>• “[...] Owners are not required to provide third-party verification in 2026.</li><li>• Owners shall provide a third-party verification of their 2030 calendar year data in 2031.</li><li>• For every Verification Year thereafter, Owners shall provide a third-party verification for the five calendar years prior.”</li></ul>

Note: All Buildings would still be required to provide third-party verification for the first year of reporting.

## 2. Modifying application deadlines for flexibility measures

Key proposed changes in draft language

	CURRENT REQUIREMENTS	PROPOSED CHANGES
BUILDING PORTFOLIOS	September 1 of the <b>previous</b> year  (e.g. to use a Building Portfolio in 2025, apply by Sep 1 2024)	Section XI.c. “Applications must be submitted by <b>September 1</b> for Building Portfolios to be used <b>that same year</b> , provided that <b>the Review Board may extend this deadline for a given year at its discretion.</b> ”  (e.g. to use a Building Portfolio in 2025, apply by Sep 1 2025)
INDIVIDUAL COMPLIANCE SCHEDULES	September 1 of the <b>previous</b> year	Section XII.c. “Applications must be submitted by <b>September 1</b> to use the Individual Compliance Schedule <b>in the same year</b> , provided that <b>the Review Board may extend this deadline for a given year at its discretion.</b> ”
SHORT-TERM HARDSHIP COMPLIANCE PLANS	<b>October 1</b> of the <b>previous</b> year (or during the same year only for unexpected circumstances)	Section XIII.h.i. “Applications for short-term Hardship Compliances Plans must be submitted by <b>October 1</b> for the Hardship Compliance Plan to be used <b>that same year, provided that the Review Board may extend this deadline for a given year at its discretion.</b> ”
LONG-TERM HARDSHIP COMPLIANCE PLANS	<b>April 1</b> of the <b>previous</b> year	Section XIII.h.ii. “Applications for long-term Hardship Compliances Plans must be submitted by <b>July 1</b> for the Hardship Compliance Plan to be used <b>that same year, provided that the Review Board may extend this deadline for a given year at its discretion.</b> ”

### 3. Enabling building owners to extend voting timelines for flexibility measures

*Key proposed changes in draft language*

	CURRENT REQUIREMENTS	PROPOSED CHANGES
<b>BUILDING PORTFOLIOS</b>	Requirement to vote on an application within 45 / 60 / 90 Days from the Environment Department's finding of completeness.	<b>Section XI.c.</b> "Within 45 / 60 / 90 Days of the Environment Department's finding of completeness, <b>or at a later date upon request of the Owner</b> , the Review Board shall vote to approve [...] or deny an application."
<b>INDIVIDUAL COMPLIANCE SCHEDULES</b>	Requirement to vote on an application within 90 Days from the Environment Department's finding of completeness.	<b>Section XII.e.</b> "Within 90 Days of the Environment Department's finding of completeness, <b>or at a later date upon request of the Owner</b> , the Review Board shall vote on an application."
<b>SHORT-TERM &amp; LONG-TERM HARDSHIP COMPLIANCE PLANS</b>	Requirement to hold hearing on an application within 45 Days from the Environment Department's finding of completeness.	<b>Section XIII.h.</b> "[...] the Review Board shall hold a public hearing on an application within 45 Days of the Environment Department's finding of completeness, <b>or at a later date upon request of the Owner.</b> "



# 4. Removing requirement to record decisions in the Registry of Deeds for most flexibility measures

Key proposed changes in draft language

	CURRENT REQUIREMENTS	PROPOSED CHANGES
BUILDING PORTFOLIOS	Required to record decisions related to approvals, modifications, and terminations.	Section XI. No recording required. Related language was removed.
INDIVIDUAL COMPLIANCE SCHEDULES	Required to record decisions related to approvals, modifications, and terminations.	Section XII. No recording required. Related language was removed.
SHORT-TERM HARDSHIP COMPLIANCE PLANS	Required to record decisions related to approval, modifications, and terminations.	Section XIII. No recording required. Related language was removed.
LONG-TERM HARDSHIP COMPLIANCE PLANS	Required to record decisions related to approvals, modifications, and terminations.	Section XIII. “Owners must record decisions that approve a long-term Hardship Compliance Plan with the Registry of Deeds and send proof of such recording to the Environment Department within 30 Days of issuance of the decision. This requirement does not apply to Deed Restricted Residential Buildings or City Buildings. [...]”

# 5. Enabling the Review Board to grant exemptions on solar requirements without a Hardship Compliance Plan

Key proposed changes in draft language

CURRENT REQUIREMENTS	PROPOSED CHANGES
<p>Building owners can use solar electricity or associated generation credits <b>without</b> MA Class I REC retirement if:</p> <ul style="list-style-type: none"><li>• Solar is located in Boston; OR</li><li>• Solar is located in Eversource Eastern MA territory; the system began operation before 2024; AND the Building began receiving electricity or net metering credits before 2024.</li></ul> <p>Building owners may apply for a Hardship Compliance Plan and request the Review Board’s approval to use solar systems that do not meet these requirements as an alternative compliance mechanism.</p>	<p><b>Section X.d. “Based on extenuating circumstances, Owners may request the Review Board to approve the use of electricity or associated generation credits without corresponding REC retirement from solar generating systems located in Eversource’s Eastern Massachusetts territory that do not meet [these requirements].”</b></p>

# 6. Delineating roles between the APCC, Review Board, and Environment Department

Key proposed changes in draft language

CURRENT REQUIREMENTS	PROPOSED CHANGES
Historically, Policies and Procedures have been presented alongside Regulations and adopted by the APCC at the same time.	<b>Following the 2025 Regulations Update, Policies and Procedures should be adopted by the Review Board moving forward.</b> (Language reflected throughout Regulations and Policies and Procedures)
Regulations often make reference to “guidance” adopted by the APCC or the Environment Department.	<b>We are proposing to clarify that guidance is created by the Environment Department.</b> (Language reflected throughout Regulations and Policies and Procedures)

In summary, the proposed changes would clarify that:

- **Regulations are adopted by the APCC**
- **Policies and Procedures are adopted by the Review Board**
- **Guidance is adopted by the Environment Department**



The background of the slide is a detailed, monochromatic blue line drawing of a city's architectural footprint. It shows a dense grid of buildings of various sizes, with a prominent curved road or boulevard cutting through the center. The drawing is composed of white lines on a dark blue background, creating a technical, architectural feel.

# Other Draft Language

# Additional Draft Language in Regulations

## Regulations

### SECTION III. DEFINITIONS

- **Fixed** typos and capitalization of terms.\*\*

### SECTION IV. REPORTING PROCESS

- **IV. Updated** language referring to ENERGY STAR Portfolio Manager to clarify that the Environment Department may designate an alternative reporting platform.\*\*
- **IV.a. Energy and Water Use.** **Clarified** name of BCCE program and related language.\*\*
- **IV.b. Calculation of Gross Floor Area (GFA).** **Clarified** that supporting documentation used to calculate GFA must be provided for purposes of third-party verification and/or upon request.
- **IV.c. Building Use Classifications.** **Updated** that Appendix A has been moved to Policies and Procedures.
- **IV.h. New Information.** **Clarified** that any new information reported by Owners after May 15 will be included in the annual disclosure as long as the updates are submitted by the Owner prior to September 30 of the relevant year.
- **IV.j. Requesting Alternative Reporting Dates.** **Clarified** language regarding deadlines to request reporting extensions.

### SECTION V. OWNERSHIP CHANGES AND DESIGNATIONS

- **Added** that previous and new Owners may request the Environment Department to provide a notice of compliance status for a Building.

### SECTION VI. BUILDINGS WITH SPECIAL CONDITIONS

- **VI.a. Buildings with Shared Energy or Water Systems.**
  - **Updated** language regarding reporting procedures for buildings with shared energy or water systems to align with existing guidance from the Environment Department.
  - **Updated** that the Review Board may approve alternative apportionment processes proposed by the Owner, instead of APCC.
- **VI.f. Buildings that Serve as Standalone Power Plants or Central Power Generation Facilities.** **Added** new section to set reporting procedures for buildings that serve as power plants based on already existing guidance from the Environment Department.

### SECTION VII. THIRD-PARTY VERIFICATION

- **VII.c. Vacant Buildings.** **Removed** section because the same requirement is already covered by Section VI.e.

# Additional Draft Language in Regulations

## Regulations

### SECTION VIII. EMISSIONS FACTORS

- **VIII.a.**
  - **Updated** deadline for Environment Department to publish annual Emissions Factors to April 15, instead of April 1.
  - **Added** that the Review Board may determine an alternative source to ENERGY STAR Portfolio Manager for Emissions Factors.\*\*
  - **Updated** that Review Board may adopt Emissions Factors via Policies and Procedures, instead of the APCC.

### SECTION IX. EMISSIONS STANDARDS

- **IX.a. Emissions Standards.** **Clarified** language regarding updates to Emissions standards due to a change of the primary Building Use.
- **IX.b. Blended Emissions Standards.**
  - **Updated** language to explicitly allow Owners to opt-in or opt-out of a blended Emissions standard upon change of ownership.
  - **Clarified** language regarding updates to blended Emissions standards due to changes of primary Building Uses.

### SECTION XI. BUILDING PORTFOLIOS

- **XI.c. Application Process for Building Portfolios.** **Added** that a pending application for a new or modified Building Portfolio, or an appeal of a Review Board decision regarding a Building Portfolio, shall not stay an Owner's compliance obligations under the Ordinance or Regulations.
- **XI.e. Modifications of Approved Building Portfolios.** **Updated** language so that, following the modification of a Building Portfolio that is required to provide an Emissions standard compliance plan, the Owner will only be required to provide a short update in the next required annual progress report, instead of a new and separate modified Emissions standard compliance plan.

### SECTION XII. INDIVIDUAL COMPLIANCE SCHEDULES (ICS)

- **XII.b. Applications for ICS for Individual Buildings.** **Added** that a pending application for a new or modified ICS, or an appeal of a Review Board decision regarding an ICS, shall not stay an Owner's compliance obligations under the Ordinance or Regulations.
- **XII.c. Applications for ICS for Building Portfolios.** **Added** that a pending application for a new or modified ICS, or an appeal of a Review Board decision regarding an ICS, shall not stay an Owner's compliance obligations under the Ordinance or Regulations.



# Additional Draft Language in Regulations

## Regulations

### SECTION XIII. HARDSHIP COMPLIANCE PLANS

- **XIII.Modifications of Approved Hardship Compliance Plans.**
  - **Updated** that newly constructed Buildings, and new Buildings that begin zoning review or apply for a building permit after approval of a long-term Hardship Compliance Plan, may be added to a Building Portfolio with a Hardship Compliance Plan, provided that said Buildings meet their Building-specific Emissions standards every year regardless of any relief granted to the Building Portfolio in a Hardship Compliance Plan.
  - **Removed** the restriction that existing Buildings added to a Building Portfolio with a short-term Hardship Compliance Plan may not be subject to short-term Hardship Compliance Plans.

### SECTION XVI. REVIEW BOARD

- **XVI.b. Selection of Review Board Members.**
  - **Removed** that nominations that are selected by the Mayor but not approved by the City Council within 3 months shall be presumed to have been approved.
  - **Clarified** language regarding vacancies.

- **XVI.c. Review Board Procedures.** **Updated** language so that, if any member should fail to attend 6 consecutive meetings or more than 50% percent of total meetings in a calendar year, their seat may be considered vacated.

### SECTION XVII. EQUITABLE EMISSIONS INVESTMENT FUND

- **XVII. Funding Decisions.** **Clarified** that the requirement to hold a public hearing applies to vote on any final funding decision.

# Additional Draft Language in Policies and Procedures

## Regulations

### SECTION 2. DEFAULT ENERGY USE VALUES

- **Fixed** reference to Regulations Section.

### SECTION 3. THIRD-PARTY VERIFICATION

- **Fixed** reference to Regulations Section.
- **B. Added** Phius Certified Rater to list of credentials for third-party verifiers.

### SECTION 4. SPECIAL CONDITIONS

- **4. Removed** Section because the same requirement is already covered by Section VI.e of the Regulations.

### SECTION 4. EMISSIONS FACTORS (RENUMBERED)

- **A. Updated** that Emissions factor methodologies will be reviewed by the Review Board, instead of APCC.
- **B. Electric Grid Emissions Factors. Added** the Renewable Energy Portfolio Standard (RPS) Class I minimum annual requirements as part of the factors included in the calculations of the electric grid emissions factors.
- **C. Boston Municipal Aggregation Program. Clarified** name of BCCE program and related language.

### SECTION 5. CALCULATING BUILDING EMISSIONS (RENUMBERED)

- **B - C. Added** procedures to calculate emissions from grid electricity consumption and BCCE.
- **D. Clarified** language related to Emissions intensity.
- **E. Added** that the Environment Department may provide additional guidance to calculate Building Emissions.

### SECTION 6. BLENDED EMISSIONS STANDARDS (RENUMBERED)

- **G. Clarified** supporting documentation that can be used to verify primary Building Uses.

### SECTION 8. BUILDING PORTFOLIOS (RENUMBERED)

- **A. Applications. Added** that the Environment Department may determine an alternative source to U.S. EPA for data related to asthma rates and the Air Toxics Respiratory Hazard Index.
- **B. Emissions Standard Compliance Plans and Progress Reports. Updated** language regarding annual progress report updates for modified Building Portfolios to align with proposed Regulations change.

# Additional Draft Language in Policies and Procedures

## Regulations

### SECTION 9. ICS (RENUMBERED)

- **A. Data Sources for Baseline Year.** **Added** that the Review Board may determine an alternative source to ENERGY STAR Portfolio Manager for Emissions Factors.

### SECTION 10. HARDSHIP COMPLIANCE PLANS (RENUMBERED)

- **A. Clarified** that the “Department” refers to the Environment Department.

### SECTION 11. REVIEW BOARD POLICIES (RENUMBERED)

- **B. Designation of Community-Based Organizations.** **Updated** that the Review Board may updated the definition of Greater Boston as it relates Community-Based Organizations, instead of the APCC.

### APPENDIX A. BUILDING USE CLASSIFICATIONS

- Moved Appendix A from Regulations to Policies and Procedures.
- Added new property types from ENERGY STAR Portfolio Manager.

### APPENDIX B. PROJECTED GRID EMISSIONS FACTORS (RENUMBERED)

- Updated Projected Grid Emissions Factors to be applicable for 2027 - 2050.



# Updated Projected Emissions Factors

YEAR	OLD PROJECTIONS [Average Emissions Factors] (kg/MWh)	UPDATED PROJECTIONS [Semi-Residual Emissions Factor]* (kg/MWh)
2025	249	**
2026	242	**
2027	235	265
2028	227	265
2029	220	264
2030	213	259
2031	206	254
2032	199	249
2033	192	243
2034	185	237
2035	178	231
2036	171	224
2037	163	217
2038	156	211
2039	149	204

YEAR	OLD PROJECTIONS [Average Emissions Factors] (kg/MWh)	UPDATED PROJECTIONS [Semi-Residual Emissions Factor]* (kg/MWh)
2040	142	198
2041	135	192
2042	128	187
2043	121	182
2044	114	177
2045	107	173
2046	99	168
2047	93	163
2048	85	159
2049	78	155
2050	71	150

\* Updated projections use a “semi-residual” emissions factor approach that “takes out” the MA RPS Class I load to avoid double counting of renewable energy in MA. This aligns with the methodology used to calculate BERDO’s annual grid emissions factors.

\*\* In compliance with Section 4.b.i of Policies and Procedures, 2025 and 2026 projected emissions factors have not been updated as any new projections shall be published at least 2 years prior to use.



# Projected Grid Emissions Factor Comparison

## OLD PROJECTIONS WITH NO RPS CREDIT

$$\text{Electricity Use} \times \text{Average Emissions Factor}$$

- Does not adequately credit building owners with the RPS Class I
- Outdated projections with old RPS Class I requirements and grid conditions

## OLD PROJECTIONS WITH RPS CREDIT

$$\text{Electricity Use} \times (100\% - \text{RPS Class I}) \times \text{Average Emissions Factor}$$

- Any electricity use already covered by RPS Class I has zero emissions
- Partially double counts RPS Class I
- Outdated projections with old RPS Class I requirements and grid conditions
- Projections do not align with methodology for annual grid emissions factors

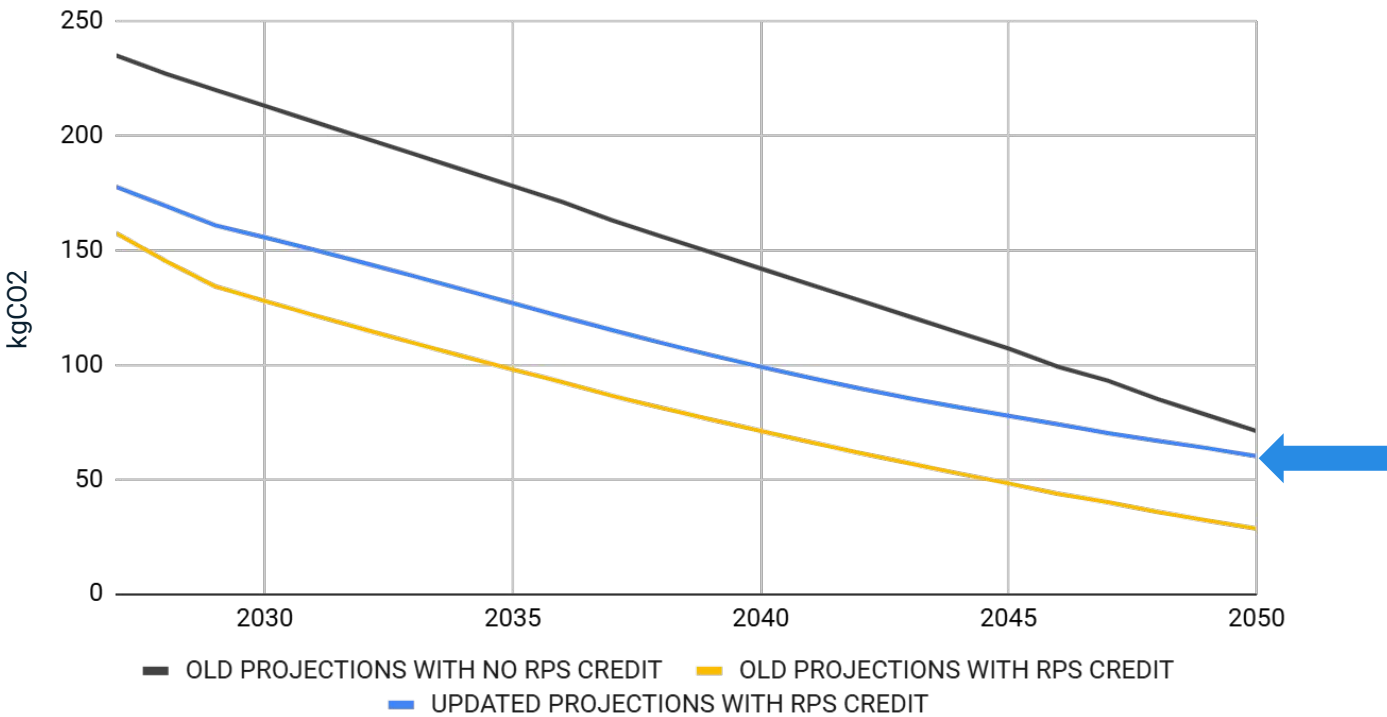
## NEW PROJECTIONS WITH RPS CREDIT

$$\text{Electricity Use} \times (100\% - \text{RPS Class I}) \times \text{Semi-Residual Emissions Factor}$$

- Any electricity use already covered by RPS Class I has zero emissions
- Credits building owners with RPS Class I without double counting
- Updated projections with most recent RPS Class I requirements and grid conditions
- Projections align with methodology for annual grid emissions factors

YEAR	kgCO2		
	OLD PROJECTIONS WITH NO RPS CREDIT	OLD PROJECTIONS WITH RPS CREDIT	UPDATED PROJECTIONS WITH RPS CREDIT
2027	235	157	178
2028	227	145	169
2029	220	134	161
2030	213	128	156
2031	206	122	150
2032	199	115	144
2033	192	109	139
2034	185	104	133
2035	178	98	127
2036	171	92	121
2037	163	86	115
2038	156	81	109
2039	149	76	104
2040	142	71	99
2041	135	66	94
2042	128	61	90
2043	121	57	85
2044	114	52	81
2045	107	48	78
2046	99	44	74
2047	93	40	70
2048	85	36	67
2049	78	32	64
2050	71	28	60

# Emissions Comparison for 1 MWh of Electricity Use



- The updated projections give credit to building owners for the RPS Class I without double counting renewable energy generation in Massachusetts.

The background of the slide is a dark blue aerial view of a city, overlaid with a white line-art map of the city's street grid and building footprints. The map is centered on a large, rectangular building complex in the lower-left quadrant, which appears to be a government or institutional building. The text "Next Steps" is written in a large, white, sans-serif font across the middle of the image.

# Next Steps

# Next Steps



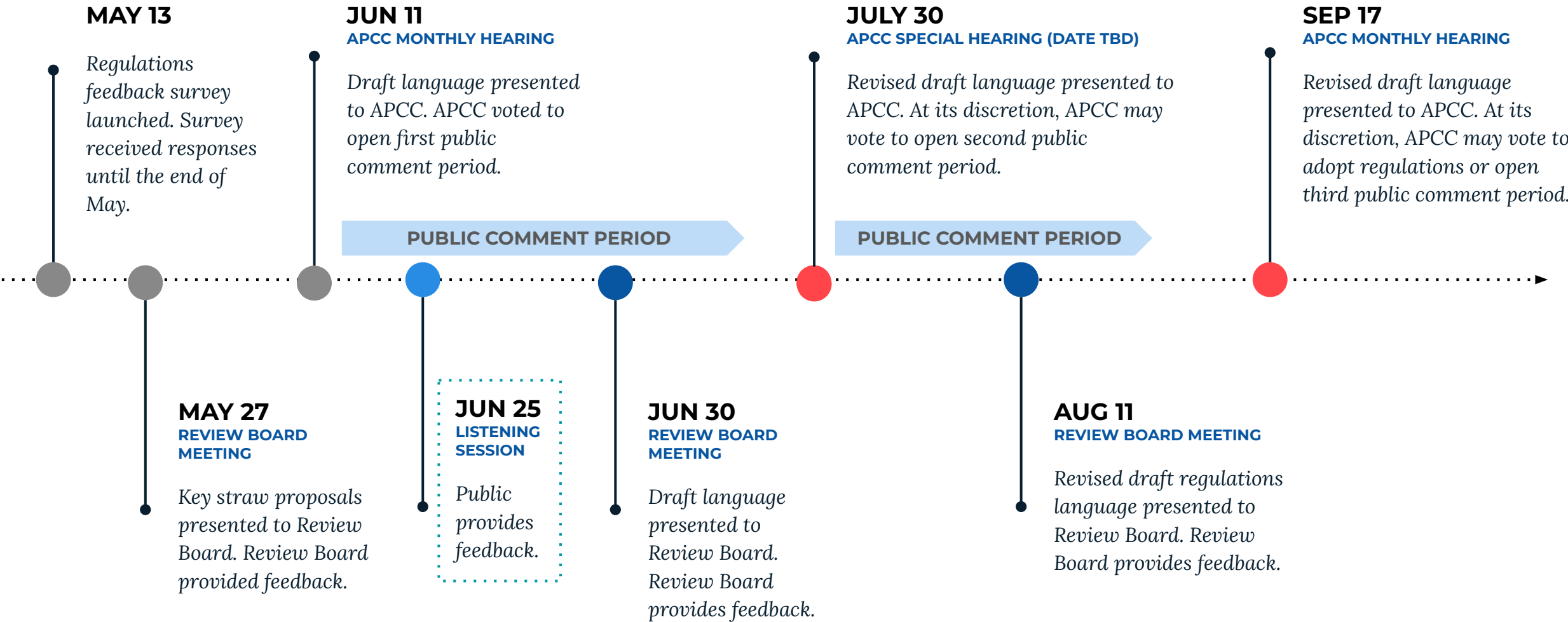
- **Public comment period** on the draft language for BERDO Regulations and Policies and Procedures is open until **July 15, 2025 at 5:00 p.m.**
  - *You can find the draft Regulations and Policies and Procedures (clean and redlined versions) [here](#).*
  - *If you would like to provide comments on this draft language, you may submit written comments to [apcc@boston.gov](mailto:apcc@boston.gov) or the Air Pollution Control Commission, Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201.*
- The BERDO team will work to analyze public comments and make revisions to the draft language accordingly.
- Revised draft language will be presented to the APCC on **July 30, 2025.**





# 2025 BERDO Regulations Update Tentative Timeline

Timeline subject to change at the discretion of the Air Pollution Control Commission (APCC)





# Adjourn

*Thank you for your participation!*

