BEUDO REGULATIONS

Regulatory language pertaining to the Ordinance entitled "Building Energy Use," Chapter 8.67 of the Municipal Code of the City of Cambridge ("Ordinance").

BEUDO Regulations – Phases I, II, and III

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I. <u>Definitions</u>

A. BEUDO Procedures - The published document containing information related to any Emission Factors for each compliance period, as well as other relevant information. Said document can be downloaded from the City's BEUDO webpage or requested from BEUDO@cambridgema.gov.

B. Compliance Year - A single year in a Compliance Period.

C. Commercial Operation Date - the date upon which construction of a Renewable Energy facility has completed and the facility is commercially operational.

D. Generation Facility - System producing electricity, and, optionally, hot water, steam, or chilled water for use in powering, heating or cooling one or more Covered Properties.

E. Massachusetts Class I Renewable Portfolio Standard (RPS) - The program administrated by the Commonwealth of Massachusetts referenced in 225 CMR 14.07.

F. Multi-Use Covered Property - If a Covered Property contains one or more non-residential buildings with more than one residential unit, but less than or equal to 75% of the Covered Square Feet being used for residential or dwelling purposes, that Covered Property may apply to the city to be considered as a Multi-Use Covered Property. Approved Multi-Use Covered Properties will benchmark and reduce emissions as Non-Residential Properties, with the option to exclude the energy used to power Residential areas from benchmarking, baseline calculations, and emission reduction calculations. Notwithstanding the above, Covered Properties containing 50 or more Dwelling Units shall be required to benchmark the residential energy usage. Covered Properties which are unable to separate the energy use from Residential and Non-Residential areas may not comply as a Multi-Use Covered Property and must comply as a Non-Residential Covered Property. The City may request proof or attestation as to the building usage as needed.

G. Residential – When determining whether a Covered Property is a Residential Property, as defined in 8.67.010(26), the term Residential shall refer to space which is designated for any of the listed Residential Uses set forth in Section IV. All Covered Properties which are categorized as Residential must contain at least one (1) Dwelling Unit.

H. Substantial Rehabilitation – Without regard to other laws, statutes or regulations as to the use of the term "substantial rehabilitation," for purposes of Chapter 8.67.010(22) only, a building existing on a BEUDO Covered Property which undergoes renovations, additions or alterations that result in a Change of Occupancy Classification Group under Massachusetts Building Code 302 shall be considered a "Substantial Rehabilitation."

I. All definitions contained in Chapter 8.67 of the Cambridge Municipal Code are applicable to these regulations.

II. Reporting Process [this section intentionally left blank]

III. Third Party Verification

A. Requirements for Third-Party Data Verification

i. Owners shall submit proof of Third-Party Data Verification of reported data per the schedule in 8.67.110. This submittal process is described in BEUDO Procedures Section III.

ii. The individual submitting Third-Party Data Verification for a Covered Property's submitted data may not be employed by the Owner or the designated property management company for the property.

iii. The individual submitting Third-Party Data Verification for a Covered Property may not be the same individual submitting Benchmarking Information for that Covered Property.

B. Approved Verification Bodies

i. Data must be verified by an individual certified by an Approved Verification Body. Organizations qualified as Approved Verification Bodies, and acceptable certifications, are listed in BEUDO Procedures Section III.

ii. Owners shall submit the credential, verifier name, and organization name of the Approved Verification Body when submitting Third-Party Data Verification.

IV. Property Ownership and Configuration

A. Defining an Owner

i. The default Owner for any given Covered Property (and all buildings contained on that property) will be the person or entity listed in Massachusetts Registry of Deeds.

ii. The Owner of a Covered Property receives annual notifications of obligation to comply, and warning or violation notices. The Owner of a Covered Property (or of a Campus comprised of multiple Covered Properties) is legally responsible for ensuring compliance with all aspects of BEUDO.

iii. Covered Properties may apply to designate an approved alternate Owner (per 8.67.010 (23)) for certain purposes, including communications and submission of data and compliance information. Covered Properties that elect to designate an alternate Owner must annually attest the approved alternate. Nothing herein will prevent any enforcement against the default Owner. The process and deadlines to submit a change of Owner are found in BEUDO Procedures Section IV.

B. Defining a Property

i. All buildings on a parcel of land classified as a Covered Property per 8.67.010 (11) are subject to and must comply with BEUDO.

ii. Residential Uses

1. Any Covered Property which is defined as Residential for all purposes of 8.67.00 must contain at least one Dwelling Unit (8.67.010(14)), as stated in definition 8.67.010(26).

a. The following use types, as provided in the Table of Use Regulations from Section 4.30 of the Zoning Ordinance of the City of Cambridge (“Zoning Ordinance”), are considered “Residential Uses” for the purposes of these regulations when determining the percentage of the Covered Property which is a Residential Property:

Use Code and Use Name	
4.31.a	Dwelling, single-family
4.31.b	Dwelling, two-family
4.31.d	Townhouse development or semi-detached dwelling
4.31.e	Elderly oriented congregate housing
4.31.g	Dwelling, multi-family
4.31.i	Lodging House
4.33.b.7	Dormitory, resident fraternity or sorority

2. In the event that an amendment to the Zoning Ordinance results in the removal of one or more of the above referenced uses from the Zoning Ordinance, said use(s) may no longer be considered a “Residential Use” or “Residential Uses” for the purposes of these regulations when determining the percentage of the Covered Property.

3. In the event that an amendment to the Zoning Ordinance results in one or more of the above referenced uses being moved to different locations in the Zoning Ordinance, the uses may still be considered “Residential Uses” “whose use is primarily . . . residential” for the purposes of these regulations when determining the percentage of the Covered Property, but new “Use Codes” as provided by any Zoning Ordinance amendments will be used.

iii. Default Configuration

1. By default, the Covered Property definition (8.67.010(11)) applies at the parcel (also referred to as tax lot or map lot) level. Owners are required to benchmark, assign baselines, and reduce emissions collectively for all buildings on a parcel as one compliant entity, unless the Owner requests an Alternative Configuration.

iv. Alternative Configuration

1. Owners may request to report and reduce emissions by individual buildings, or subsets of buildings, on a parcel. If approved, this configuration election will be referred to as the Covered Property and must comply with all BEUDO requirements. The following conditions must be met for this configuration to be granted:

    a. Requests to report in Alternative Configuration must be submitted by December 31 of the first Compliance Year for the parcel. Information regarding deadlines and processes to request can be found in BEUDO Procedures Section IV.

    b. The building(s) which request to report as a subset of the default Covered Property must be defined structures per the Cambridge GIS Building ID database, available at the City of Cambridge’s GIS Department website.

    c. Each non-Municipal Covered Property, regardless of configuration, must meet the minimum requirement of 25,000 total Covered Square Feet. Municipal Covered Properties must meet the minimum requirement of 10,000 total Covered Square Feet.

    d. The Energy used and reported for each building or group of buildings under an Alternative Configuration must be fully contained within Portfolio Manager report(s) specific to those buildings.

e. The Owner must be able to provide complete and accurate data for the baseline years of all buildings under the Alternative Configuration.

2. A Covered Property which has been approved to report and reduce in an Alternative Configuration may then submit applications for the resulting Covered Properties to comply as a Multi-Use Covered Property if they meet the requirements in Section I.F.

   a. The timeline for reducing emissions is based on the Non-Residential Covered Square Feet of the Covered Property.

   b. Covered Properties complying as Multi-Use with less than 25,000 Non-Residential Covered Square Feet, and with fewer than 50 Dwelling Units are not considered a Covered Property for BEUDO compliance.

3. Parcels with a shared property line that are owned by the same Owner may elect to combine all buildings on adjoining parcels into a singular Covered Property.

   a. The timeline for reducing emissions for the resulting Covered Property is based on the total Covered Square Feet of the Covered Property.

   b. Owners who elect to combine Parcels with shared property lines may further configure the resulting Covered Property and all included buildings into Alternative Configuration(s) or Multi-Use Covered Properties.

v. New Buildings

1. As defined in the Ordinance, a New Covered Property has either, in 2018 or later, received a Certificate of Occupancy, or has undergone Substantial Rehabilitation as defined herein. New Covered Properties have distinct requirements for compliance in 8.67.100(3).

2. In the event that a singular building is newly constructed or Substantially Rehabilitated on a parcel with existing buildings:

   a. The buildings may comply together under the Default Configuration (see Section IV.B.iii), with all buildings using the same baseline years as the newly constructed or Substantially Rehabilitated building.

   b. The buildings may comply under an Alternative Configuration as long as requirements in Section IV.B.iv are met. The New building will use baseline years comprising the first two complete years in operation after Certificate of Occupancy or completion of the Substantial Rehabilitation, and existing buildings will continue to use previously selected baselines.

c. New Covered Properties will reduce their emissions based on the Reduction Schedules in BEUDO Procedures Section V.

vi. Sale or Transfer of a Property

1. If a Covered Property is sold, the previous Owner is obligated per 8.67.110 (7) to provide the new Owner all energy and water information necessary to report complete Benchmarking Information for the entire year. The previous Owner is required to share building energy and water use data needed for benchmarking within 30 days of documented request by the new Owner.

2. The Owner purchasing the building or Covered Property is required to meet the annual emission reduction requirements of the Covered Property for the Compliance Year in which the sale occurred, and going forward.

3. A Covered Property which is sold to a new Owner may, by April 1 of the year following the Compliance Year in which the sale occurred, request changes in the following, so long as all other requirements are met in accordance with these regulations and the Ordinance:

   a. Covered Property Configuration - See Section IV.B
   The property configuration will go into effect for the year in which the sale occurred, unless otherwise approved pursuant to BEUDO Procedures Section IV.

   b. Baseline selection – See Section V.
   The new Baseline selection will go into effect for the year in which the sale occurred, unless otherwise approved pursuant to BEUDO Procedures Section V.

vii. Demolition of a Property

1. A Covered Property which is fully demolished, in that every building on the Parcel is no longer standing or using energy, will be exempted from all BEUDO requirements in the year in which the demolition occurs. Submission of this exemption is due to the City by May 1 of the year following the demolition year.

V. <u>Baselines</u>

A. Alternative Baselines

i. A Covered Property may choose to use the average emissions of two consecutive years dating back to 2010 as the Alternative Baseline emissions for that property, so long as the following conditions are met:

1. Requests to reduce a Covered Property's emissions using an Alternative Baseline must be submitted to the City prior to the Covered Property's first Compliance Year,

and any request for Alternative Configuration of the default Covered Property (see Section IV.B.iii) must be approved by the City prior to approval of an Alternative Baseline request.

2. If an Alternative Baseline is approved, 8.67.100(4) requires that such Covered Property's emission reduction requirements include an additional 2.5% reduction for every year between the start of its Baseline and 2018. A table detailing this is found in BEUDO Procedures Section V.

B. Obtaining Baseline Year Data

i. If verifiable data are not obtainable for Alternative Baseline years, the Owner must use default Baseline years for the Covered Property.

ii. If verifiable data are not available for the default Baseline years, due to one of the circumstances below, the Owner must use the two earliest consecutive years after 2018 for which verifiable data are available as the Baseline.

1. Change of Ownership

2. Inability to obtain data from energy provider

3. Other circumstances approved by the City, pursuant to BEUDO Procedures Section V.

VI. Campus Compliance

A. Ownership

i. Covered Properties wishing to comply as a Campus must either:

1. Contain 5 or more Covered Properties having the same Owner, as defined in 8.67.010 (23) or,

2. Contain any number of Covered Properties having the same Owner as defined in 8.67.010 and all of which consist of Affordable Housing.

ii. Covered Properties that are controlled through a legally authorized affiliate or subsidiary of an Owner may be asked to submit proof of this relationship to the City of Cambridge when applying for a campus designation, and such Covered Properties may comply as a Campus upon approval, pursuant to BEUDO Procedures Section VI.

iii. An Owner, along with all subsidiaries or affiliates, may only create a single Campus for the purposes of compliance with BEUDO.

B. Creating a Campus

i. Per 8.67.100 (10), a Campus may choose to comply at the level of each Covered Property or at the level of the aggregate Campus, and the Owner shall determine the method by which the Covered Properties intend to comply, and once determined, this method shall be used for all Compliance Periods.

ii. Owners of Covered Properties that meet the criteria in Section VI.A and intend to comply as a Campus must submit such designation to the City by April 1 of the year following the first Compliance Year in which the Campus designation is to be applied.

iii. A Campus electing to comply in aggregate may apply Credits (Renewable Electricity, Verified Carbon, and Alternative Compliance Credits) and may submit Hardship Plans as a Campus rather than as individual Covered Properties.

iv. All Covered Properties electing to comply as a Campus must have completed Property Configuration Forms and Alternative Baseline Selection Forms, if applicable.

C. Baselines

i. Owners will select a Baseline for each Covered Property included in a Campus.

ii. Any Covered Property included in a Campus will be required to use the Default Baseline unless an Alternative Baseline Form has been submitted.

D. Changes to a Campus

i. Adding a New Covered Property to an existing campus:

1. In the event that an Owner wishes to add a New Covered Property (per 8.67.010 (22)) to an existing Campus, the Owner must submit this designation pursuant to the steps in BEUDO Procedures Section VI.

2. The request to add the New Covered Property must be submitted during the first two Baseline years applicable to the New Covered Property, and

3. The addition of the New Covered Property to the Campus will go into effect beginning the calendar year following its Baseline years.

ii. Adding an existing Covered Property to a Campus:

1. Existing BEUDO Covered Properties may be added to a previously designated Campus in the following circumstances:

a. Change of Ownership (e.g., purchase of a Covered Property)

b. Change of use (Residential to Non-Residential)

2. Property Configuration and Baseline are eligible to be updated within 60 days following the purchase of a Covered Property per Section IV.B.v. Any such updates to Property Configuration and Baseline must be submitted prior to adding a Covered Property to a Campus.

3. The request to add a Covered Property to a Campus must be submitted by April 1 of the year following the purchase of or change of use of the Covered Property and will be effective for the year in which the purchase occurred.

iii. Adding a building which is not a BEUDO Covered Property:

1. Per 8.67.100 (10), an Owner may elect to voluntarily include in a Campus one or more properties under 25,000 Covered Square Feet or any residential building; such properties shall be subject to the requirements for Non-Residential Covered Properties of 25,000 to 99,999 Covered Square Feet.

2. A property that is not considered a Covered Property per the criteria in 8.67.010 (11) may not count as one of the 5 Covered Properties necessary to meet minimum requirements to form a Campus.

3. The Owner must complete a Property Configuration Form to submit a building or parcel which is not a BEUDO Covered Property for consideration.

4. Buildings that are not BEUDO Covered Properties may be added to a Campus only when the Campus is initially created, or in circumstances described in VI.D.ii.1.

5. The removal of such a voluntarily included property from the Campus is subject to the requirements of Section VI.D.iv.

iv. Removal of a Covered Property from a Campus

1. A Covered Property may be removed from an existing Campus in the following circumstances:

   a. Change of Ownership

   b. Change of use (Non-Residential to Residential)

2. If removal of a Covered Property results in a Campus with less than 5 Covered Properties:

   a. The Owner may add one or more Covered Properties that were not previously included in the Campus in order to meet the minimum requirement.

b. The Owner may continue to report as a Campus with the remaining Covered Properties for the remainder of the Compliance Period in which the Covered Property was removed.

c. If by April 1 of the first year of the subsequent Compliance Period, the Owner has not replaced the Covered Property in the Campus to bring the total to a minimum of five, the remaining Covered Properties will lose Campus designation and revert to meeting BEUDO requirements individually.

E. Campus Renewable Energy Purchases

i. An Owner of a Campus may apply qualifying Renewable Electricity per 8.67.010(25) to any Covered Property within the Campus, or to the Campus in aggregate.

1. Submission of the quantity of RECs applied to the Campus or individual Covered Properties must follow the requirements of Section VIII.

ii. An Owner of a Campus may apply Verified Carbon Credits per 8.67.010(31) to any Covered Property within the Campus, or to the Campus in the aggregate.

1. The use of Verified Carbon Credits is limited to the total Verified Carbon Credits allowed for the individual Covered Properties, as determined by 8.67.100(5).

F. Reporting as a Campus

1. Covered Properties which comprise an approved Campus may be required to alter the organization of accounts in Energy Star Portfolio Manager (ESPM). These requirements will be outlined in BEUDO Procedures Section VI and any informational guidance provided to Owners.

VII. Emission Factors

A. Pursuant to 8.67.010 (15), by January 1 of each year prior to each standard Compliance Period, Emission Factors to be used by all Covered Property Owners in the determination of Greenhouse Gas emissions of their Covered Properties will be published. Emission Factors to be used for each period, along with any alterations to methodology used in determining them, will be publicized by:
January 1, 2025 (for Compliance Period 1: 2026 to 2029)
January 1, 2029 (for Compliance Period 2: 2030 to 2034)
January 1, 2034 (for Compliance Period 3: 2035 to 2039)
January 1, 2039 (for Compliance Period 4: 2040 to 2044)
January 1, 2044 (for Compliance Period 5: 2045 to 2049)

Emission Factors for years 2010-2025 will be published by January 1, 2025 in BEUDO Procedures Section VII for use in calculating Baseline emissions.

B. All Emission Factors for Energy use, along with additional information on the methodology used in determining them, will be published for each Compliance Period in BEUDO Procedures Section VII by their required deadlines.

C. Emission Factors for natural gas, propane, fuel oil, diesel oil, and kerosene will be based on the standard scientific values utilized by the Environmental Protection Agency's Energy Star Portfolio Manager or, as necessary, another data source as published in BEUDO Procedures Section VII.

D. Emission Factors for electricity purchased from the grid will be calculated using a residual factor methodology, taking into account the Massachusetts Class I Renewable Energy Portfolio Standard (RPS).

   i. The emissions of a Covered Property's electricity use shall be calculated using the following equation:

$$\begin{array}{c}\text{Electric Emissions}\\ \text{[kg CO2e]}\end{array} = \left[\left(\begin{array}{c}\text{Electricity}\\ \text{consumed from}\\ \text{the grid [MWh]}\end{array} \times \begin{array}{c}\text{[100\% - Annual}\\ \text{RPS Minimum}\\ \text{Requirement]}\end{array} \right) - \begin{array}{c}\text{voluntary RE}\\ \text{purchases}\\ \text{[MWh]}\end{array} \right] \times \begin{array}{c}\text{Electric Grid}\\ \text{Residual Factor}\\ \text{[kg CO2e/MWh]}\end{array}$$

   ii. A Time of Use methodology will be available for Covered Property Owners who are able to provide hourly profiles for the use of grid electricity. The emission factor for each hour shall be determined using a time-of-use residual factor methodology as outlined in BEUDO Procedures Section VII. Building data and the calculation of emissions must be provided in hourly intervals.

      1. A Covered Property that uses a Time of Use methodology shall also use such methodology for its Baseline years.

   iii. Annually, the City may choose to publish an Emission Factor for grid electricity for a Compliance Year which is calculated with the above equation, using up to date data from Massachusetts portfolio standards. If published, this Emission Factor will be available by April 1. In the event that the annually published factor is lower than the projected factor for that Compliance Year, the City will apply the lower of the two calculated factors unless the Covered Property Owner elects to use the higher number. The process for submitting a request to use the higher emission factor is found in BEUDO Procedures Section VII.

E. Generation Facilities

   i. Emission Factors for steam, hot water, chilled water, and electricity produced by a Generation Facility will be calculated using the Efficiency methodology of the World Resources Institute (WRI) Greenhouse Gas Protocol.

1. Generation Facility owners may request the Energy Content method, endorsed by the WRI for use in Cogeneration/CHP plants, to be used in calculating the output Emission Factors of their plants provided that:

    a. The Generation Facility owner agrees to use the "Energy Content" method for the remainder of the Compliance Periods in which connected Covered Property/Properties receive the outputs of said Generation Facility.

    b. The request is submitted one year prior to the first Compliance Period.

    c. Emission Factors for the Generation Facility's outputs for the Baseline years of connected Covered Property/Properties must be calculated using the same methodology.

2. A Generation Facility which singularly produces electricity to power one or more Covered Properties may elect to use the nameplate efficiency value of the installed system in order to determine the Emission Factor of the generated electricity.

ii. Prior to the first Compliance Period for which a Generation Facility's Emission Factors will be used, the Generation Facility owner shall confirm the appropriate application of the chosen WRI methodology to the specific configuration of their facility, following the below process.:

1. The Generation Facility owner shall submit information sufficient to characterize the facility for purposes of applying the WRI methodology. Further detail on submission requirements and deadlines are outlined in BEUDO Procedures Section VII as needed.

2. The City, in its review of the owner's submission, may request additional information or clarification before providing written confirmation of the application of the methodology.

3. The Generation Facility Owner shall provide an annual attestation confirming that the Emission Factors submitted for each calendar year are calculated in accordance with the confirmed methodology. Further detail on submission and deadlines are outlined in BEUDO Procedures Section VII as needed.

4. If changes are made to the Generation Facility—including fuel or heat sources, system configuration, equipment systems, energy outputs, or other modifications that could affect the application of the methodology—the Owner must have completed the above steps to submit and clarify information on the updated configuration to the City by April 1 of the year following the Compliance Year in which the changes to the Generation Facility occurred.

iii. All Generation Facility owners are required to submit complete verified data needed to calculate the Emission Factor of every energy output of their facility for the previous calendar year, as well as the final calculated Emission Factors, by April 1 of each year beginning in 2025.

iv. Verification by an Approved Verification Body (§ 8.67.010 (3)) is required for annual submission of data and factor calculations beginning in 2027 (for energy outputs produced in 2026 and onwards). Verification shall confirm the accuracy and completeness of reported data and the correct application of the confirmed methodology.

1. Data and the resulting emission factors submitted in 2025 and 2026 (for energy produced in years 2024 and 2025, respectively) are not required to be verified.

v. In the event that a Generation Facility, which is owned by a Covered Property Owner and connected to the Owner's Covered Property/Properties, does not provide complete and verified data to the city by the required date of a given Compliance Year, Emission Factors published in BEUDO Procedures Section VII will be applied to the energy inputs for the Generation Facility, and the resulting emissions will be apportioned across the connected buildings by the Gross Floor Area of the building.

vi. For Generation Facilities which is not owned by a Covered Property Owner and connected to the Owner's Covered Property/Properties,
failure to provide complete and accurate data by the above date will result in application of standard scientific values utilized by Energy Star Portfolio Manager, or other similar values published by state or federal agencies, for generated products (electricity, steam, chilled or hot water, or otherwise) utilized by the connected Covered Property/Properties.

vii. Data submitted from Generation Facility owners will be used to calculate Emission Factors for each output of the facility, using the formula below:

Allocate the total emissions to each output stream
Use the following formula:

$$E_i = \frac{\frac{Q_i}{e_i}}{\sum_{i=1}^{n} \frac{Q_i}{e_i}} \times E_T$$

where:

E_i	=	emissions allocated to output stream i
Q_i	=	energy content of output stream i
e_i	=	efficiency of the production of output stream i
E_T	=	total emissions of the district energy system
n	=	number of output streams

Further information to calculate Emission Factors of outputs will be included in BEUDO Procedures Section VII as needed.

viii. Any thermal output of a Generation Facility that is produced using Renewable Electricity shall have an Emission Factor of zero (0) kgCO2e/MMBTU, provided that:

1. The Renewable Electricity is procured, and resulting Renewable Energy Certificates are retired, in accordance with 8.67.010 (25) and the requirements in Section IX, except:

    a. The requirements for the Covered Property Owner in Section IX may be fulfilled by the Generation Facility owner.

ix. Owners of Generation Facilities may only subtract Renewable Electricity from electricity consumption created by the Generation Facility if the facility can demonstrate that the Emission Factor of producing electricity locally was equal to or less than the Emission Factor of purchasing grid electricity at the time of generation.

1. This comparison shall be conducted in accordance with any equations and information specified in BEUDO Procedures Section VII.

    a. For the purposes of this comparison, the grid Emission Factor for comparison shall be the load-weighted, all–locational marginal unit marginal CO_2 emission rate for the ISO New England control area, as published by ISO New England. The applicable grid Emission Factor shall be the most temporally granular version available from ISO New England for the relevant year. The City shall annually publish this factor for comparison after it has been made available by ISO New England.

    b. For the Generation Facility Emission Factor, Owners may elect to use either (i) a third-party verified Emissions Factor calculated at the same temporal granularity as the applicable grid Emission Factor, in accordance with the methodology described in Section VII.E.i. for the production of electricity or (ii) the applicable annual Emissions Factor as published in BEUDO Procedures.

2. By April 1 of the year following the Compliance Year, Owners of Covered Properties or Campuses which receive electricity from a Generating Facility must submit to the City:

    a. Intent to apply Renewable Electricity for compliance, as relevant, and

    b. The temporal granularity selected for that year.

3. Within one month of ISO New England's publication of the grid emissions factor data:

    a. Generation Facility Owners must submit documentation comparing the Generation Facility performance relative to the Grid for the Compliance Year, and

    b. Owners of Covered Properties or Campuses which receive electricity from a Generation Facility must submit Documentation of assignment and retirement of allowable RECs per Section VIII.

VIII. Renewable Electricity Procurement and Use

A. A Covered Property Owner may utilize and then subtract qualified Renewable Electricity in order to determine a Covered Property's electric BEUDO emissions. To comply with BEUDO, Renewable Electricity may be sourced from newly built on-site or off-site renewable energy generating facilities that meet the criteria set forth in this Section VIII and BEUDO Procedures Section VIII:

   i. Renewable Energy must be generated by photovoltaic systems, solar thermal power plants, wind turbines, geothermal power plants, or other renewable energy generating facilities that may be submitted to and certified by the Department.

   ii. Renewable Electricity must be from a project that is newly built, meaning that the procurement contract for the renewable energy was executed prior to the Commercial Operation Date of the facility.

   iii. Use of Qualified Renewable Electricity shall be evidenced by the retirement of Renewable Energy Certificates (RECs) for the benefit of the Covered Property as attested by the Covered Property Owner and reflected in the relevant REC registry. Notwithstanding the above, if RECs resulting from a newly built renewable energy generation facility are assigned by law or regulation to the Local Distribution Company pursuant to a clean energy incentive program, such as the Massachusetts SMART program, then a Covered Property Owner may purchase and retire an equivalent quantity of MA Class 1 RECs, and such Renewable Electricity shall qualify for BEUDO compliance purposes.

B. On-Site Renewable Electricity. To qualify as on-site electricity (8.67.010 (25)), the renewable energy generation facility must be located either on the same Covered Property which will use the resulting RECs, or on another property in Cambridge which is owned by the same Owner that will use the resulting RECs for compliance.

   i. The use of electricity from an on-site renewable electricity generation facility, such as solar panels, shall be reported in the Covered Property's Energy Star Portfolio Manager account.

C. Off-site Renewable Electricity. Off-site purchases of Renewable Electricity, as defined in 8.67.010 (25), must meet the following requirements to be subtracted from the electric emissions of a Covered Property in calculating Greenhouse Gas Emissions pursuant to 8.67.010 (19).

   i. A Covered Property Owner must submit information regarding new contracts for Renewable Electricity (proposed or completed) to the City for review and approval by April 1 of the year following the Compliance Year in which RECs will be applied. Renewable Electricity resulting from purchases that have not been approved by the City may not be subtracted from the electric emissions of a Covered Property.

ii. The Renewable Electricity procurement must support a newly built generating facility, meaning the procurement contract was executed prior to the Commercial Operation Date of the renewable energy generating facility (or expansion thereof). This includes:

1. Contracts that are executed by a Covered Property Owner or a Tenant occupying a Covered Property.
2. Contracts for an expansion of capacity at an existing renewable energy generating facility, up to the amount of the capacity expansion.
3. Contracts for Renewable Electricity produced by a generating facility that was in existence or operation prior to the contract execution, but that is undergoing a repowering as defined by the United States Internal Revenue Service (Notice 2016-31) and will be considered to be again fully operational after the date on which the Covered Property Owner or Tenant executes the contract to support the repower.
4. Renewable Electricity resulting from the extension of an existing contract which was initially approved by the City.

iii. The following types of Renewable Electricity procurements are compliant, provided that they meet other eligibility criteria from this Section VIII:

1. RECs from Power Purchase Agreements (PPA), including virtual Power Purchase Agreements, from Renewable Electricity generating facilities connected to an electric grid in the jurisdiction of the North American Electric Reliability Corporation.
2. Unbundled REC purchases not associated with a PPA or VPPA, provided that they meet the qualifications of RPS Class I eligibility, outlined in 225 CMR 14.05, as those criteria may be amended from time to time, and that the purchase qualifies as newly built.
3. Other types of procurements and contracts which may be submitted by a Covered Property Owner for review by the City and, upon approval, may be listed as an approved project type in BEUDO Procedures Section VIII.

iv. In the event that a Covered Property Owner is unable to secure Renewable Electricity due to breach of contract or a Force Majeure event without cause or fault of the Covered Property Owner, the owner may apply for a Hardship Compliance Plan. Applications must follow guidelines and deadlines as per Section XI.

D. Renewable Energy Certificates (RECs) and other environmental attributes produced by on or off-site renewable electricity which are intended for use in compliance with BEUDO shall be assigned to the Owner of a Covered Property or Campus in Cambridge, retired, and the quantity submitted to the City by the May 1 reporting deadline.

i. In calculating Greenhouse Gas Emissions through procuring and using Renewable Electricity efficiently and consistent with industry norms and market technical requirements, a REC may be subtracted from a Covered Property's electricity use in a given Compliance Year if the REC was generated within the Compliance Year in which they are applied, or the preceding twelve months. Pursuant to 8.67.100(7), the REC must be obtained in the year in which it is applied, which means the generation period set forth above as well as the following four (4) months thereafter to allow for utility energy use reporting, emissions calculations and technical requirements of REC generation, creation, administration and reporting.

ii. Assignment and tracking will be carried out pursuant to a tracking system recognized by the United States Environmental Protection Agency. Documentation attesting to REC assignment and retirement is described in BEUDO Procedures Section VIII. Transactions of RECs used in Covered Properties must be completed and annually reported by the May 1 reporting deadline.

iii. Owners of Covered Properties or Campuses which receive electricity from a Generation Facility and plan to use Renewable Electricity should comply with requirements in Section VII.

IX. <u>Verified Carbon Credits [this section intentionally left blank]</u>

X. <u>Hardship Compliance Plans and Deferral Plans</u>

A. Types of Hardship Compliance Plans and Deferral Plans

i. Owners of Covered Properties may seek temporary relief from compliance with Emission Reduction Requirements in 8.67.100 through a Hardship Compliance Plan or a Deferral Plan, through application to the Review Board. References to “Plan” in this section may refer to any of the below types of Hardship or Deferral Plan. Additional information regarding the Plan types and their requirements for complete applications is provided in BEUDO Procedures Section X.
Owners may apply for one of the following types of Hardship Compliance Plans:

1. Administrative Modifications are intended to address operational circumstances that affect the ability of a Covered Property to comply with emissions reductions.
2. Short-term Alternative Compliance Plans are intended for limited circumstances in which the Hardship criteria will affect the Covered Property’s or Campus’s ability to comply for a period not to exceed five (5) years.
3. Long-Term Alternative Compliance Plans are intended for limited circumstances in which the Hardship criteria will affect the Covered Property or Campus’s ability to comply for a period greater than 5 years.

ii. A Campus Owner may apply for a Hardship Compliance Plan for a Covered Property(ies) or for the aggregate Campus as follows:

1. Individual Covered Property(ies): If applying for specific Covered Properties that are part of an existing Campus, adhere to the application process in Section X.E.
2. Aggregate Campus: If applying for the Campus as a whole, the application must:

a. Select one criterion that is applicable to all Covered Properties comprising the Campus.

b. Submit a GHG reduction schedule that assigns an annual percentage reduction target for the Campus for the duration of the Plan.

c. In lieu of an energy audit for each Covered Property comprising the Campus, the Owner may provide other evidence or documentation.

iii. Deferral Compliance Plans allow a Covered Property Owner to defer compliance with any Greenhouse Gas Emissions requirements for up to five years, provided 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.

B. Qualifying Criteria for Hardship Compliance Plans

An Owner seeking consideration for a Hardship Compliance Plan must demonstrate that one or more of the following criteria are met:

i. Financial Distress:

1. Owner has declared bankruptcy for all or part of a Compliance Year.

2. The minimum cost of achieving compliance exceeds the funds the Owner can access or raise.

3. The Owner is experiencing denial or delays in approvals, through utility or other decarbonization incentive programs, for significant compliance-related work.

ii. Ownership Structure Consisting of Individual Non-Residential Condominiums:

1. The Covered Property consists of two or more Non-Residential Condominiums, with two or more separate owners owning parts of the Covered Property in such a way that it creates constraints in allocating energy use, scheduling, and/or completing significant compliance-related work.

iii. Regulatory or Contractual Designation:

1. The Owner has a long-term non-electricity energy contract without reopeners for a significant portion of a Covered Property's energy demand.

2. The Owner has a long-term lease without reopeners signed prior to June 26, 2023 that explicitly prohibits any significant compliance-related work at a property, and the tenant is not required or willing to work with the owner to allow work necessary for compliance to be performed.

3. The Owner is experiencing delays in delivery of renewable energy credits pursuant to an executed Power Purchase Agreement caused by delays in initial commercial operation of the generating facility for reasons beyond the Owner's control.

4. The Owner is experiencing delays in electric system interconnection or adequate delivery of electricity for reasons outside the 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 Reduction Requirements compliance deadlines.

5. The Owner is experiencing denial or delays in government permits or approvals, for significant compliance-related work, and the inability to receive such permits or approvals prevents the Owner from being able to afford the work, provided that applications for such permits or approvals were made in a timely manner in light of planned work and Emissions Reduction Requirements compliance deadlines.

6. The Owner is required to meet government regulations or accreditation and certification standards affecting energy use, provided that any hardship arises from reducing Emissions of such Energy use.

iv. Technical or Operational

1. Building and/or parcel space constraints exist which prevent the Owner from completing significant compliance-related work necessary to meet Emissions Reduction Requirements.

2. The Covered Property has high manufacturing process loads, provided that any hardship arises from reducing Emissions from such Energy use.

3. The Covered Property is designated as a Historical Property, as defined in defined in Chapter 2 of the International Energy Conservation Code 2021, preventing completion of specific compliance-related work.

4. The Covered Property was unoccupied or not fully occupied and/or operational during default Baseline years.

v. Other circumstances or characteristics, including:

1. Delays in significant compliance-related work due to a natural disaster or declared state of emergency.

2. Other documented circumstances and characteristics, including financial, regulatory, contractual, technical or operational circumstances and characteristics, that, in its discretion, the Review Board deems relevant on a case-by-case basis.

3. The Owner has adopted a long-term, comprehensive decarbonization strategy for their Covered Property or Campus with annual emissions targets that demonstrate alignment with the greenhouse gas emissions reductions in BEUDO.

C. Types of Relief

At its discretion, the Review Board may grant an Owner one or more of the following types of relief for a defined period of time. Relief may apply to some or all of an Owner's compliance obligations.

i. Hardship Plans

1. An alternative schedule for complying with the Emissions Reduction Requirements in the Ordinance.

2. Allowance of an Alternative Baseline of two consecutive years after 2018 that is otherwise not permitted by 8.67.100.

3. Allowance of a Covered Property configuration that does not meet the criteria required in Section IV.B.iii.

4. Exemption of specified Energy use(s) from specific processes or equipment, in whole or in part, from a Covered Property Owner's compliance obligations.

5. Additional compliance mechanisms that the Review Board determines are consistent with achieving Emission Reductions.

ii. Deferral Plans

1. An alternative schedule for complying with the Emissions Reduction Requirements in the Ordinance which fulfills the requirements of 8.67.100(8).

D. Application Requirements

All applications must comply with these and any further application instructions issued through BEUDO Procedures Section X.

i. Covered Property or Campus Compliance Status

1. The Covered Property or Campus applying for a Plan must be in compliance with Section 8.67.040 and/or 8.67.050 of the Ordinance for the most recent Compliance Year.

ii. Based on type of relief requested, Hardship Compliance Plan Applications are required to include some or all of the below items. BEUDO Procedures, Section X, further defines the requirement based on criteria and relief requested:

1. A description, accompanied by supporting documentation, of the existence and scope of the criteria in Section X.B that apply to the Owner, Covered Property or Campus.

2. Address the use of compliance mechanisms and flexibility measures authorized by the Ordinance.

3. An evaluation, based on an energy audit or similar assessment, as defined for each hardship criteria.

4. The proposed Hardship Compliance Plan, which shall establish:

    a. The requested type, scope, and length of relief the Owner is requesting for a Covered Property or Campus, and

    b. For each Covered Property, the amount of emission reduction that the Owner expects to achieve in each year of the Hardship Compliance Plan term.

iii. Deferral Plan Applications are required to include the below supporting items. BEUDO Procedures, Section X, further defines the requirement based on criteria and relief requested:

1. A brief narrative description of the reasons that a deferral is being sought including but not limited to a description of other planned work at the Covered Property that is proposed to be undertaken in conjunction with planned emissions reduction activities. The narrative should demonstrate in detail why it is advantageous to defer emissions reduction activities based on a cost analysis and/or description of how the emission reduction activities are going to be combined with other work at the property.

2. Address the use of compliance mechanisms and flexibility measures authorized by the Ordinance.

3. The proposed Deferral Plan, which shall establish:

    a. The requested scope and length of deferral the Owner is requesting for a Covered Property, not to exceed 5 years;

    b. Alternative annual schedule of GHG emissions reduction through 2050 demonstrating that total cumulative emissions do not exceed those of the standard schedule of 8.67.100. This schedule will replace the Covered Property's annual GHG emissions reduction targets in 8.67.100.

E. Timelines for Hardship Compliance Plans and Deferral Plans

Applications may be submitted on a rolling basis in accordance with the following schedule:

i. Applications for new or adjusted Administrative Modifications and Short-Term Alternative Compliance Plans must be submitted by October 1 for a Hardship Compliance Plan to be used beginning in that same year, with the exception that:

   1. Applications submitted in 2026 affecting Compliance Year 2026 are due December 1, 2026

   2. Owners may apply for a Short-Term Alternative Compliance Plan after the applicable deadline in a given year, if the Owner has experienced unforeseeable events or conditions outside the Owner's control that occurred or were identified after such deadline, provided that:

      a. The application must be submitted before December 31 of such year; and

      b. The application must include any information necessary for the Review Board to determine whether accepting such untimely application is appropriate including, but not limited to, the underlying event or condition and how it causes the Owner's need for a Short-Term Alternative Compliance Plan. The Review Board shall have sole discretion to reject any such application for untimeliness if it determines that the Owner has not met the foregoing requirements of this paragraph.

ii. Applications for new or adjusted Long-Term Alternative Compliance Plans and Deferral Plans must be submitted by July 1 to be used that same year, with the exception that:

   1. Applications submitted in 2026 to be applied beginning in Compliance Year 2026 are due October 1, 2026

iii. The Review Board shall make its determinations at a public meeting held within sixty-five (65) days after the filing of a complete application for hardship or deferral, or such further time as the applicant may allow.

iv. A written copy of the Review Board's decision to approve, approve with conditions, or deny an application or an adjustment to an approved Plan shall be provided in writing to an Owner within twenty-one (21) Days of the vote.

v. With the exception of Compliance Year 2026, a pending application for a new or adjusted Plan shall not change an Owner's compliance obligations under the BEUDO Ordinance or Regulations.

vi. A Covered Property may apply for no more than one (1) new or adjusted Short Term Alternative Compliance Plan, Long Term Alternative Compliance Plan, or Deferral Plan in a given Compliance Year, unless the Owner or Covered Property has experienced unforeseeable events or conditions outside the Owner's control that require an additional plan to be considered.

F. Implementation of Hardship Compliance Plans and Deferral Plans

i. Approval of any Plan by the Review Board will not under any circumstance remove the obligation of a Covered Property or Campus from the requirement to submit energy information annually, along with any required documentation showing that the Covered Property or Campus is in compliance with annual Greenhouse Gas Emission limits of the approved Plan.

ii. If a Covered Property or Campus is sold to a new Owner, the new Owner must apply for an adjustment of an existing Plan or for a new Plan during the Compliance Year in which the sale occurred, or the Compliance Year thereafter.

iii. After the conclusion of a Plan's approved duration, the Covered Property or Campus is required to continue compliance with the standard annual Emission Reduction Requirements in Section 8.67.100 and all applicable sections of the Regulations and Procedures.

XI. Review Board

A. Members of the Review Board

i. All individuals seeking to become a member of the Review Board must submit a formal application for consideration through a process prescribed by the City of Cambridge.

ii. To serve on the Review Board, a person must meet the description of one or more of the following:

1. Representative of the Real Estate or Business sectors (2 members);
2. Member of a Climate Advocacy Organization (2 members);
3. Technical expert who understands the urgency of climate change (5 members).

iii. Members of the Review Board need not reside within the City of Cambridge but must be able to attend in-person meetings in the City of Cambridge, if deemed necessary.

iv. Review Board members may not be elected officials in the City of Cambridge or paid employees of the City.

v. Members shall not receive any monetary compensation for their service on the Review Board.

B. Terms and Administration

i. Members of the Review Board shall serve terms of up to three (3) years.

ii. Every three years, beginning in 2026, members will elect a Chair of the Review Board who must be an appointed member of the Board. Five members shall constitute a quorum of the Board.

iii. In the event that a member of the Review Board is no longer able to serve prior to the end of their appointed term, the board may continue to operate and approve applications until a new member can be appointed.

iv. Board vacancies will be filled following City of Cambridge processes for Boards and Commissions.

C. Records and Meetings

i. The Review Board is expected to meet at least monthly, depending on case load.

ii. All records of the Review Board shall be public unless an exemption applies under the Massachusetts public records law, G. L. c. 66, § 10.

XII. Enforcement [this section intentionally left blank]

Adopted:

Effective Date: ______________________

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Melissa Peters

Assistant City Manager for Community Development

Cambridge Community Development Department