

Selecting your building's baseline emissions—or starting point—to track improvements over time

The Basics

The Building Energy Use Disclosure Ordinance (BEUDO) requires owners of large buildings to reduce emissions over time. To achieve this, we need a starting point for all buildings subject to BEUDO to measure improvements over the years. This guide helps Property Owners understand your BEUDO baseline.

The Default Baseline uses emissions from 2018-2019 for buildings built before 2018. You can choose to use an Alternative Baseline, based on any two consecutive calendar years between 2010 and 2018, as long as complete and verifiable data are available.

For all Covered Properties, requests to use an Alternative Baseline must be submitted through the BEAM Owner Portal by December 31, 2025. Data verification is not due until May 1, 2027, but keep in mind that if you cannot provide verified data for your Alternative Baseline years, the Covered Property will need to use the Default Baseline averaged from 2018-2019.

Default Baseline: 2018-2019

The Default Baseline is calculated using greenhouse gas emissions averaged from two calendar years: 2018 and 2019. Unless you submit the form to request the use of an Alternative Baseline by December 31, 2025, your Covered Property will default to use this baseline.

Alternative Baseline: Considering an earlier baseline

The option to use an Alternative Baseline offers flexibility to Property Owners, recognizing that your decarbonization journey may have started before 2018. It allows you to change the start date on the timeline, accounting for changes like major energy efficiency improvements that may have taken place as early as 2010.

Requests to use an Alternative Baseline must be submitted by December 31, 2025 and must be approved by the City. Similar to the Default Baseline, the Alternative Baseline must be the average greenhouse gas emissions of two consecutive calendar years, **expanded to a range between 2010 and 2018**.

There are **additional requirements** for users of an Alternative Baseline. To ensure that properties that use an early baseline are still making reductions in line with our climate goals, these properties have adjusted, slightly higher reduction requirements for all future compliance periods. Emissions have generally been on a light downward trajectory for factors such as the greening of the electric grid, which includes more renewable electricity each year, and improving technology for energy efficient equipment, like LED lighting. Review of emissions trends for BEUDO buildings have shown that a building's emissions have gone down by 2.5 percent each year prior to 2018. As a result, properties that have an Alternative Baseline must achieve an additional emissions reduction of 2.5% for each year between the start of the chosen Alternative Baseline and the year 2018 (see next section).

Requirements for Greenhouse Gas Emissions Reduction

Table 1 shows the greenhouse gas emissions reduction requirement for the building(s) on a parcel with more than 100,000+ covered square feet (csf) and the years chosen to serve as the baseline.

For example, a large building using the Default Baseline of 2018-2019 will need to reduce emissions to no greater than 80 percent of the baseline in the first compliance year of 2026. Emissions must be cut by 20 percent by 2026.

If this building uses an Alternative Baseline with data averaged from 2013-2014, this same building must reduce emissions to no greater than 71.1% of the baseline in the year 2026. Emissions must be cut by 28.9%.

IS YOUR BUILDING NEW OR RENOVATED?

The first two full years of occupancy will be your baseline.

DON'T HAVE VERIFIABLE DATA BETWEEN 2010 AND 2018?

If, for example, the building changed ownership and data are not accessible, the two most recent full years of data will be your baseline.



Table 1. Emissions Requirements by Baseline Year for Non-residential Covered Properties 100,000+ covered square feet (csf)

Max. allowable emissions (as % of Baseline) for selected baseline years

		Default Baseline							
	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018-2019
Compliance Period 1: 2026 to 2029	66.7%	68.1%	69.6%	71.1%	72.7%	74.4%	76.2%	78.0%	80%
Compliance Period 2: 2030 to 2034	33.3%	34.0%	34.8%	35.6%	36.4%	37.2%	38.1%	39.0%	40%
Compliance Period 3: 2035 onwards	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%

Table 2 below shows the greenhouse gas emissions reduction requirement for the building(s) between 25,000 and 99,999 csf on a parcel.

In this example, a building using the Default Baseline of 2018-2019 will need to reduce emissions to no greater than 60 percent of baseline in their first compliance year of 2030. Emissions must be cut by 40 percent by 2030.

If this building uses an Alternative Baseline with data averaged from 2013-2014, this same building must reduce emissions to no greater than 53.3% of the baseline in the year 2030. Emissions must be cut by 46.7% by 2030.



Table 2. Emissions Requirements by Baseline Year for Non-residential Covered Properties 25,000 to 99,999 csf

Max. allowable emissions (as % of Baseline) for selected baseline years

	Alternative Baseline								
	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019
Compliance Period 1: 2026 to 2029	83.3%	85.1%	87.0%	88.9%	90.9%	93.0%	95.2%	97.6%	100%
Compliance Period 2: 2030 to 2034	50.0%	51.1%	52.2%	53.3%	54.5%	55.8%	57.1%	58.5%	60%
Compliance Period 3: 2035 to 2039	33.3%	34.0%	34.8%	35.6%	36.4%	37.2%	38.1%	39.0%	40%
Compliance Period 4: 2040 to 2044	16.7%	17.0%	17.4%	17.8%	18.2%	18.6%	19.0%	19.5%	20%
Compliance Period 5: 2045 to 2049	8.3%	8.5%	8.7%	8.9%	9.1%	9.3%	9.5%	9.8%	10%
Compliance Period 6: 2050 onwards	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0%



Note that emissions listed in *ENERGY STAR Portfolio Manager* differ from the emissions that apply under BEUDO. The ESPM does not factor in the BEUDO's Emissions Factors for electricity. For assistance in calculating BEUDO emissions, , and reference the *Technical Guide: Emissions Factors*.

The Baseline Calculator Tool in BEAM may be able to help estimate your emissions under different baseline scenarios. However, this tool is limited in that it reviews data from a single ESPM account at a time, and cannot incorporate RECs into the emissions calculation.

Future Changes to Baseline?

Once your baseline is established, it remains your baseline for measuring emissions reduction. **The baseline will only be reset if usage type changes significantly.** This applies if the building is "substantially rehabilitated" to the point where the renovation, addition, or alteration triggers a Change of Occupancy Classification, such as from retail to office, according to the Massachusetts Building Code 302. For example, if an industrial building was converted into a lab building, the lab building will not be subject to the energy use and emissions from when the building served a different function.

Note: this policy differs from the Fossil Fuel Free policy and the Specialized Energy Code.

Summary for BEUDO Property Owners

By December 31, 2025:

Create Your Owner Accounts for BEUDO Reporting

- ► Follow this step-by-step guide to create your ENERGY STAR Portfolio Manager Owner Account and connect it to your Covered Property: camb.ma/BEUDO-guide
- ▶ BEAM is a tool that imports data from ESPM. Access your BEAM Owner Portal: <u>camb.ma/BEAM</u>.

Calculate Your Baseline in BEAM Owner Portal

- Review scenarios using our Baseline Calculator Tool and identify the best baseline for you, based on two consecutive calendar years between 2010–2018 (if eligible).
- No action needed if you want to use the Default Baseline, which is the average of 2018–2019 energy use and emissions data.

Additional Steps for Buildings that were Not Operational in 2018-2019

- If the building was not operational during baseline years, use the first two full years of operation.
- ▶ If complete data from 2010–2018 are not available, use the two most recent years of data.

If you want to use an Alternative Baseline, submit your request in BEAM Owner Portal

- Review additional emissions reduction requirements for using an earlier baseline.
- ► Complete the Baseline Selection Form in the <u>BEAM Owner Portal</u>. Navigate to the side menu \rightarrow Help Desk \rightarrow New Ticket \rightarrow Baseline Selection Form. Instructions are on the landing page.

After December 31, 2025:

By May 1, 2027, Submit Documentation for Baseline Years

- Baseline data must be verified by a third party. Guidance on verification coming soon.
- ► Keep your baseline documentation organized. It will serve as the reference point for your building's future emissions goals.

Prepare for Emissions Reduction Targets

For 2026, properties larger than 100,000 csf must show emissions at no more than 80% of 2018–2019 baseline (or lower, if using an earlier baseline).

Need more help?

If you need additional support, email the BEUDO Help Desk: <u>beudo@cambridgema.gov</u>.

For more detailed information, review BEUDO policy documents on the BEUDO page: camb.ma/BEUDO.



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