

# UNDERSTAND THE BOSTON BUILDING ENERGY REPORTING METRICS

Buildings track and report their energy and water use through the Environmental Protection Agency's (EPA) [ENERGY STAR Portfolio Manager](#), which calculates a number of metrics:

**Building info:** The reported property name and address, along with the gross square footage, year of construction, and property use.

**Site energy use intensity, or EUI** (in kBtu/sq. ft.): This sums up all of the energy used in the building (electricity, gas, steam, etc.) each year, and divides by square footage. There are many drivers of energy use intensity, such as energy-intensive work, and, since EUI is not adjusted for these factors, it is not a definitive indicator of building efficiency. (This metric uses site energy, not [source energy](#).)

**ENERGY STAR score:** Portfolio Manager calculates a [1-100 score](#) for many types of buildings, though not all types are eligible for a score. The score uses details about the building and its location to adjust for how the building is used, and provides some measure of how it performs relative to similar buildings. A higher score means that the building uses less energy than similar buildings.

**ENERGY STAR certification:** Buildings with a score of 75 or higher can apply to be [ENERGY STAR-certified](#) by EPA.

**User-submitted contextual information:** This is a field in which the property owner can describe ongoing efficiency work or other related information. The Excel download contains the full text of longer submissions.

**On-site renewable energy** (in kWh): Buildings that have on-site solar panels or wind turbines can report the amount of electricity generated annually.

**Total site energy use** (in kBtu): This is a gross sum of all annual energy use in the building, not adjusted for size or uses.

**Electricity, gas, and steam intensity:** This indicates the percent of building energy use from each of these three common sources.

**GHG total and intensity** (in MTCO<sub>2</sub>e and kgCO<sub>2</sub>e/sq. ft.): Portfolio Manager uses averages for the regional electric grid and other fuels to estimate annual greenhouse gas emissions. Intensity divides this value by the building's gross floor area. Buildings and campuses that have central plants or buy bulk power may have different emissions than estimated.

**Water use intensity** (gallons/sq. ft.): The total water use divided by gross floor area.

**Tax Parcel:** The building reported property identification number aligned with the [City of Boston Tax Assessors Office](#).

In addition, the City has added the following additional information to the annual disclosure:

## 5 Year Energy Action and Assessment

**Requirement This Year:** This column indicates if buildings are required to [report their energy action or assessment](#) this year.

**5 Year Energy Action and Assessment Compliance Status:** If covered by Energy Action and Assessment this year, column indicates compliance status and pathway:

- **Compliant - 15% Efficiency Improvement:** Met the requirement by lowering its emissions onsite by 15% or more over the preceding 5 years.
- **Compliant - ASHRAE II Energy Audit:** Completing an ASHRAE Level II energy audit.
- **Compliant - Alternative Energy Audit:** Completing an approved energy audit.
- **Compliant - Energy Star Certification:** Maintained ENERGY STAR certification for three or more years.
- **Compliant - Institutional Master Plan:** Part of an institutional master plan that lowered emissions 15% or more portfolio wide over the preceding 5 years.
- **Compliant - LEED Certification:** Met the requirement by being Certified LEED Silver with at least 15 points in Energy and Atmosphere.
- **Compliant - Offsite Renewables:** Lowering its emissions by 15% or more over the preceding 5 years by procuring offsite renewable energy.
- **Extension:** Has a one-time 6 month extension to meet the requirement at time of disclosure.
- **Not Compliant:** Did not meet the requirement.

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## DEFINITIONS

*kWh = thousand kilowatt hours*

*kBTU = thousand British thermal units*

*kBTU/sq. ft. = thousand British thermal units per square foot*

*MTCO<sub>2e</sub> = metric tons of carbon dioxide equivalent*

*kgCO<sub>2e</sub>/sq. ft. = kilograms of carbon dioxide equivalent per square foot*