

**WAC 194-50-070 ASHRAE Standard 100, 2018—Section 7—Energy use analysis and target requirements.**

**7.1 Building activity type and energy targets.**

**7.1.1 Building activity type.** *Buildings* are divided into activity types as shown in Table 7-1 Normative Annex Z. Building activity types are defined by the *AHJ* in Table 7-4.

**7.1.2 Energy targets.** Energy targets for each building activity type are listed in Table 7.2a, Normative Annex Z.

**7.1.3 Building operating shifts normalization factors.** *Building* operating shifts normalization factors for each building activity type are listed in Table 7-3, Normative Annex Z.

**7.2.1** For *Tier 1 covered buildings* the *qualified person* or for *Tier 2 covered building* the *qualified energy manager* shall determine the *energy use intensity target (EUI<sub>t</sub>)* according to Section 7.2.2 for *single-type/activity buildings* and Section 7.2.3 for *mixed-use buildings*, and shall complete Form B.

**Note:** *Buildings in participating campuses* pursuing compliance through Normative Annex W, or at the *connected building* or campus-level shall determine the *EUI<sub>t</sub>* as an area weighted aggregate of building-level *EUI<sub>t</sub>*. Development of the *EUI<sub>t</sub>* shall not include *nontarget buildings*.

**Exceptions to 7.2.1:**

1. *Tier 2 covered buildings* unable to develop *EUI<sub>t</sub>* in accordance with Section 7.2.2 or 7.2.3 of this standard shall report Energy Star portfolio manager median site *EUI*.

2. *EUI<sub>t</sub>* programs developed and implemented by the *building's* local government and approved as equivalent or more stringent by the *AHJ* may be used as an alternative to the requirement in Section 7.2.1.

**7.2.1.1 Additional target for more recently built buildings:** In addition to the requirements of section 7.2.1, *more recently built buildings* shall create a second *EUI<sub>t</sub>* that is 15 percent less than the target developed for compliance with section 7.2.1. This shall be the *building EUI<sub>t</sub>* and shall be included on Form B.

**7.2.2** Energy targets for *buildings* with a single activity shall be calculated as follows:

$$(EUI_t) = S \times (EUI_{t1})$$

where *(EUI<sub>t1</sub>)* is the *building* activity energy target value in Table 7-2a for the appropriate *building* activities/types and climate, and *S* is the *building* operating shifts normalization factor in Table 7-3.

**7.2.3** Energy targets for *buildings* with multiple activities shall be determined using weighted averages of *building* activity energy target for each area with a single activity, per the following equation, and reported on Normative Annex C Form B:

$$EUI_t = (A \times S \times EUI_{t1})_1 + (A \times S \times EUI_{t1})_2 + \dots + (A \times S \times EUI_{t1})_i + \dots + (A \times S \times EUI_{t1})_n$$

Where:

- $(A)_i$  = percentage of the *gross floor area* with single *building* activity *i*
- $(EUI_{t1})_i$  = *building* activity target from Table 7-2a for space *i*
- $(S)_i$  = operating shifts normalization factor from Table 7-3 for space *i*
- $(A \times S \times EUI_{t1})_i$  = the weighted space *EUI* target for space *i*

**Exceptions to 7.2.3:** The energy use intensity target ( $EUI_t$ ) of a building may be modified using the following exceptions. These exceptions shall not be applied at the grouped building level. To develop the  $EUI_t$  for grouped buildings, apply the exceptions at the building-level, then calculate the weighted average  $EUI_t$  for the grouped buildings. None of these exceptions may be used to change the total gross floor area as it applies to Normative Annex Z, Section Z3.1 Compliance schedule.

1. **Majority of building is single-use:** Spaces where more than 75 percent of the gross floor area has a single building activity type listed in Table 7-1 shall be reported as a single-use building or as a multiuse building in accordance with either Section 7.2.2 or Section 7.2.3.

2. **Similar building activity types:** Spaces less than 10 percent of the gross floor area with building activity type listed in Table 7-1 can combine their floor area with the floor area within the building that has a similar building activity type and similar  $EUI_t$  as determined by the qualified person.

3. **Nontarget spaces 10 percent:** Nontarget spaces in buildings with multiple activities can be excluded from building energy target calculations if the nontarget spaces total combined area  $\Sigma A_{nontarget}$  comprise less than 10 percent of the building gross floor area  $A_{gross}$  and both:

- a. Energy use of such space is metered separately.
- b. Nontarget spaces comply with Sections 4.1 and 4.2.

The energy target for the remaining part of the building shall be calculated after deducting the floor area of the nontarget spaces from the building gross floor area ( $A_{gross} - \Sigma A_{nontarget}$ ). Nontarget spaces shall be limited to the floor area occupied by the nontarget activity and shall not include supporting spaces such as corridors, common areas or other building activity types listed in Table 7-1.

4. **Nontarget spaces 50 percent:** Nontarget spaces in buildings with multiple activities can be excluded from building energy target calculations if the nontarget spaces total combined area  $\Sigma A_{nontarget}$  comprise less than 50 percent of the building gross floor area  $A_{gross}$  and both:

- a. Energy use of such space is metered separately.
- b. Nontarget spaces comply with Sections 4.1, 4.2, 4.3.1, and 4.3.3.

The energy target for the remaining part of the building shall be calculated after deducting the floor area of the nontarget spaces from the building gross floor area ( $A_{gross} - \Sigma A_{nontarget}$ ). Nontarget spaces shall be limited to the floor area occupied by the nontarget activity and shall not include supporting spaces such as corridors, common areas or other building activity types listed in Table 7-1.

5. **Nontarget buildings in grouped buildings:** Nontarget buildings within grouped buildings shall:

- a. Be metered separately and not included in the  $EUI_t$  development.
- b. Nontarget buildings shall comply with Sections 4.1, 4.2, 4.3.1, and 4.3.3.

The energy target for the remaining grouped buildings shall be calculated after deducting the floor area of the nontarget buildings from the grouped building gross floor area ( $A_{gross} - \Sigma A_{nontarget}$ ).

#### 7.2.4 Energy targets for vacant and partially vacant buildings.

**Exception to 7.2.4 Vacant and partially vacant buildings:** If the *building* did not have *physical occupancy* by owner or tenant for at least 50 percent of the conditioned floor area throughout the consecutive 12-month period prior to the *building* compliance date, the *building owner* may apply for an exemption as specified in Normative Annex Z.

**7.2.4.1 Vacant space - use unchanged:** The energy target for vacant spaces shall be based on its prevacancy activity if the intended use of the *building* will be unchanged.

**7.2.4.2 Vacant space - unconditioned:** If the total floor area of a nonheated, noncooled, and nonilluminated vacant part of a *building* is smaller than 50 percent of the *gross floor area*, then it shall be excluded from the *gross floor area*, and the energy target shall be determined based on the remainder of the *building* as described in Section 7.2.3. This allowance may not be used to change the total *gross floor area* as it applies to Normative Annex Z, Z3.1 Compliance schedule.

**7.2.4.3 Vacant space - conditioned:** If the vacant part of a *building* is heated and/or cooled, and the *building* energy use data for a consecutive 12-month period when the *building* was occupied within two years prior to the compliance date is not available, the vacant space shall be included in the *gross floor area*, and the energy target for the vacant space shall be determined based on Section 7.2.4.1.

**Table 7-1 Building Activity Types/Activities**

Table 7-1 adopted as modified and published in Section Z7

**Table 7-2a Building Activity Site Energy Targets (EUI<sub>t1</sub>) (I-P Units)**

Table 7-2a adopted as modified and published in Section Z7

**Table 7-2a Building Activity Site Energy Targets (EUI<sub>t1</sub>) (SI Units)** - Not adopted

**Table 7-2b Building Activity Source Energy Targets (EUI<sub>t1</sub>) (I-P Units)** - Not adopted

**Table 7-2b Building Activity Source Energy Targets (EUI<sub>t1</sub>) (SI Units)** - Not adopted

**Table 7-2c Building Activity Electricity Site Energy Use Targets (ELUI<sub>t1</sub>) (I-P Units)** - Not adopted

**Table 7-2c Building Activity Electricity Site Energy Use Targets (ELUI<sub>t1</sub>) (SI Units)** - Not adopted

**Table 7-2d Building Activity Fossil Fuel Site Energy Use Targets (FEUI<sub>t1</sub>) (I-P Units)** - Not adopted

**Table 7-2d Building Activity Fossil Fuel Site Energy Use Targets (FEUI<sub>t1</sub>) (SI Units)** - Not adopted

**Table 7-3 Building Operating Shifts Normalization Factor**

Table 7-3 adopted as modified in Section Z7

**Table 7-4 Building Activity Type Definitions Table**

[Statutory Authority: RCW 19.27A.210. WSR 24-16-041, § 194-50-070, filed 7/30/24, effective 8/30/24. Statutory Authority: RCW 19.27A.210 and 19.27A.250. WSR 24-03-033, § 194-50-070, filed 1/8/24, effective 2/8/24. Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-070, filed 10/30/20, effective 11/30/20.]