Review Draft of ASHRAE Standard 100, section 4 and additional administrative features

**Background on Rules Development for HB 1257**

The Department of Commerce is authorized by HB 1257 to develop rules for the adoption of the Washington State Energy Performance Standard for Commercial Buildings. HB 1257 requires Commerce to use ANSI/ASHRAE/IES standard 100-2018, Energy Efficiency in Existing Buildings (standard) as the basis for these rules. Rules will be implemented that adopt the standard by reference, with amendments.

Amendments to the standard will be made to make the standard consistent with the features prescribed in HB 1257. The standard will also be modified to clarify administrative procedures. Additional rules may be required outside of this standard as well.

The following draft rule has been developed by Commerce staff. Then modifications to the various sections of the standard are made to provide consistency between the rule and HB 1257.

Interested parties are encouraged to review standard 100 and modifications made by Commerce staff. Input can be provided on any element that will align the standard with the legislation or existing state laws, clarify application, or improve administrative procedures.

Stakeholders are invited to participate in workshops scheduled to review specific sections of this work. Commerce request that written post workshop comments relating to sections covered at each workshop be received within by the scheduled time period posted on the Commerce Clean Buildings Web site. All comments will be posted on the buildings web site.

Submit comments via email; [buildings@commerce.wa.gov](mailto:buildings@commerce.wa.gov).

Review comments and schedules on the Commerce Clean Buildings web site: <http://commerce.wa.gov/buildings>

When editing the standard, please use a standard markup format that includes the following:

* Copy the entire sub-section to be edited
* Underline text to be added
* Use cross out text to indicate deletions
* Provide a reason statement for the change

For any new sections, provide suggested location in the document by referencing the previous section.

**Additional Reference Documents**

ASHRAE Standards.

A free read only copy of ASHRAE Standard 100-2018 [ASHRAE Standard 100-2018](https://www.ashrae.org/technical-resources/standards-and-guidelines/read-only-versions-of-ashrae-standards) (link)

Purchase a copy of the following standards -

* ASHRAE Standard 100-2018 <https://www.techstreet.com/ashrae/searches/27415471>
* ASHRAEStandard211-2018 <https://www.techstreet.com/ashrae/standards/ashrae-211-2018?product_id=2016437>

Previous Review Drafts developed by Commerce for ASHRAE Standard 100

* [Sections one, two, and three](https://www.commerce.wa.gov/wp-content/uploads/2020/05/Discussion-Draft-Sec-1_2_3.docx) (.docx)
* [Section five](https://www.commerce.wa.gov/wp-content/uploads/2020/05/Section-5-discussion-draft.docx) (.docx)
* [Section six](https://www.commerce.wa.gov/wp-content/uploads/2020/05/Section-6-discussion-draft.docx) (.docx)
* [Sections seven, eight, and nine](https://www.commerce.wa.gov/wp-content/uploads/2020/05/Section-789-Comment-Draft-1.docx) (.docx)
* [Normative Annex X](https://www.commerce.wa.gov/wp-content/uploads/2020/05/Straw-man-Normative-Annex-X-Investment-Criteria.docx) (.docx)
* [Energy Star Portfolio Manager](https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager) (link)

# Comments Specific to this Draft

This draft includes proposed modifications to standard section 4 and the addition of normative annex Z. Normative annex Z has been developed to provide detailed administrative instructions specific to Washington law, as well as to create reporting specifications that will be implemented by commerce (AHJ). There are few sections noted at the end that have not been developed and will be covered in a future meeting.

Numbering of normative annex Z is not complete. For the most part, sections need the addition of a primary figure to better distinguish the primary section from other primary sections. Of course, complete review of numbering will be required as part of developing a comprehensive final draft of the change.

Enjoy your review.

**Draft Amendments to Standard 100**

**4. COMPLIANCE REQUIREMENTS**

**4.1 Building Type Requirements**

**4.1.1 Nonresidential Building**

4.1.1.1 A building or complex of buildings whose majority of gross floor area has activities number 1 through 48 and/ or 53 in Table 7-1 shall comply with the requirements of Sections 4.2 and 4.3.

4.1.1.2 The qualified person determining compliance shall a. determine whether or not the building seeking compliance has an energy target (EUIt) according to Section 7,

b. establish the energy target (EUIt) according to Section 7,

c. complete Form B,

~~d. indicate on Form A if this compliance is for the wholebuilding or for individual tenant spaces in a multitenant building, and~~

~~e.~~d. submit Forms A, B, and C to the authority having jurisdiction (AHJ).

**~~4.1.2 Residential Building~~**

~~4.1.2.1 A building with activities number 49 through 52 in Table 7-1 shall comply with the requirements of Section 10.~~

~~4.1.2.2 The qualified person determining compliance shall indicate on Form A if this compliance is for the whole building or for individual dwellings in a multidwelling building and submit Forms A, B, and C to the AHJ.~~

~~4.1.3 Buildings with Residential and Nonresidential activities~~

~~4.1.3.1 Individual dwelling units in a multitenant building seeking compliance apart from the building shall comply with Section 10.~~

~~4.1.3.2 The qualified person determining compliance for buildings with both residential and nonresidential activities shall comply with Section 4.1.1.2.~~

**4.2 Energy Management Plan and Operations and Maintenance Program**

**4.2.1 Operations and Maintenance.** The building manager shall comply with the operations and maintenance (O&M) requirements of Section 6. The qualified person determining compliance shall state in writing on Form A that the operating and maintenance requirements of Section 6 have been met according to the following subsections.

**4.2.1.1** For first-time applicants, for the previous year.

**4.2.1.2** For previously compliant buildings, since the previous validation of compliance.

**4.2.2 Energy Management Plan.** The building manager shall comply with the energy management requirements of Section 5. The qualified person determining compliance shall state in writing on Form A that the energy management program described in Section 5 has been developed and is being maintained as of the date on Form A.

**4.3 Building Energy Use**

**4.3.1 Measured EUI.** The qualified person shall calculate the building’s measured energy-use intensity (EUI) by completing Form C according to Section 5.2.

**4.3.2 Buildings with Energy Targets**

**4.3.2.1** Building Meets the Energy Target (EUIt). If the building’s measured EUI is less than or equal to its energy target, the building complies.

**4.3.2.2 Building Does not Meet the Energy Target (EUIt) or does not have comprehensive energy metering.** A qualified energy auditor shall complete an energy audit according to Section 8, and EEMs that will reduce energy use to meet the energy target shall be implemented according to Section 9. Upon completion of the implementation of all required EEMs, a building shall be granted conditional compliance.

**Exception to 4.3.2.2:** No individual requirement need be met that would compromise the historical integrity of a building or part of a building designated by a government body for long-term preservation in its existing state, such as historical monuments. Documentation of historic significance must be provide to the AHJ in accordance with normative annex Z Certification of a building of historic significance.

**4.3.2.3 Verification of Compliance.** Within fifteen months after the completion of Section 4.3.2.2, the EUI shall be recalculated by the energy manager (EM) from 12 consecutive months of measured energy use, and Form A shall be resubmitted to the AHJ. If the building’s postimplementation measured EUI is less than or equal to the energy target, the building complies with the standard. If the building’s postimplementation measured EUI is greater than the energy target, the building does not comply with the standard and the conditional compliance is suspended until either

a. additional EEMs have been implemented that reduce the subsequently measured EUI to below the energy target and the forms specified in normative annex Z ~~a new Form A~~ is submitted to the AHJ or

b. the AHJ revokes conditional compliance.

**4.3.3 Buildings without Energy Targets and buildings without comprehensive energy metering.**

4.3.3.1 A qualified energy auditor shall conduct an energy audit according to Section 8, and the optimized bundle of EEMs shall be identified according to Section 9.1.1.2.

4.3.3.2 Implement EEMs. The entire optimized bundle of EEMs identified shall be implemented. Upon completion of the implementation of the optimized bundle of EEMs, a building shall be granted conditional compliance in accordance with Section 9.1.1.2.

Exception to 4.3.3.2: No individual requirement need be met that would compromise the historical integrity of a building or part of a building designated by a government body for long-term preservation in its existing state, such as historical monuments. This exception must be documented using the Certification of a building of historic significance form from normative annex Z**.**

**4.3.3.3 Verification of Compliance.** If the building complies with Section 4.2, then within 15 months following the completion of implementation of the optimized bundle of EEMs, building owners with conditional compliance or the *qualified person* representing the *building owner* shall submit verification that measured postimplementation energy savings meet or exceed 75% of the energy savings projected in the energy audit report to the *AHJ*. Energy savings shall be compared at the whole-*building* consumption level in common units for electricity, fossil fuels, and other sources. If the measured postimplementation energy savings of the package of *EEMs* do not meet or exceed 75% of the energy savings projected in the energy audit, the *conditional compliance* is suspended until either

1. additional *EEMs* are implemented that reduce the subsequently measured energy savings of the package of *EEMs* so that it meets or exceeds 75% of the energy savings projected in the energy audit or
2. the *AHJ* revokes *conditional compliance*.

**4.4 General**

**4.4.1 Administrative Requirements.** Administrative requirements relating to permits, enforcement by the *AHJ*, locally adopted energy standards including energy performance targets, interpretations, claims of exemption, and rights of appeal are specified by the *AHJ in normative annex Z*.

**4.4.2 Alternative Energy Targets (EUI*t*).** The *qualified person* determining compliance shall demonstrate to the *AHJ* that they have met the required *energy targets* on either a *site energy* or *source energy* basis in accordance with Section 7 or ~~Section 10 or~~ have met the requirements in Section 4.3.3 for *buildings* without *energy targets* or *comprehensive energy metering*. Alternative performance requirements, such as those in Normative Annex A, are permitted to be specified by the *AHJ*.

***Procedures for more recently constructed buildings to be developed.***

**Appendix Z, Washington State Reporting Requirements**

**Building owner notifications by the AHJ and building owner response.**

**Z1. Notification to building owners of covered commercial buildings by the AHJ**

**Z1.1** Based on records obtained from each county assessor and other available information sources, the *AHJ* must create a database of *covered commercial buildings* and *building owners* required to comply with the standard established in accordance with this section. The database will include buildings and *building complexes* presumed to meet the definition of *covered commercial building* and *multifamily buildings* greater than 50,000 square feet in floor area.

**Z1.1.1.** The database will contain information about buildings that may be subject to compliance, their owners, and information about multifamily residential buildings eligible for incentives. The database will also contain information necessary and sufficient for tracking and reporting on building owner compliance, and incentive application and distribution. Commerce will create a method for tracking building owner notification responses. Each building or building complex will be assigned a unique building identifier.

**Z1.2** By July 1, 2021, the department must provide the owners of covered buildings with notification of compliance requirements.

**Z1.4** Failure by the *AHJ* to notify the *building owner* does not release the *building owner* of the legal obligation to comply with this law.

**Z1.5** By July 1, 2021, the department must provide notifications to the building owners of multifamily residential building where the floor area exceeds fifty thousand gross square feet, excluding the parking garage area.

**Z2. Building owner response to notifications.**

**Z2.1 Correction of errors.** *Building owners* are responsible for reviewing the property and building information provided by the AHJ through notification. This may include but is not limited to *building* or *building complex* ownership details, *gross conditioned floor area*, occupancy type or other information as identified by the *building owner*.

**Z2.1.2** For the purpose of correction errors in notifications, building owners may choose to respond to the AHJ by completing the form Documentation of Compliance through Exemption, primarily to document building gross floor area or building occupancy type exemptions. This does not substitute for completing this the form Documentation of Compliance through exemptions required for compliance.

**Washington State Reporting Requirements for Building Owners**

**Z1. General Compliance.** The building owner of a covered commercial building must report the building owner's compliance with the standard to the department in accordance with the schedule established under **section Z1.2** and every five years thereafter. For each reporting date, the building owner must submit documentation to demonstrate that:

(a) The weather normalized energy use intensity of the covered commercial building measured in the previous calendar year is less than or equal to the energy use intensity target (Buildings that Meet Their Energy Targets); or

(b) The covered commercial building has received conditional compliance from the department based on energy efficiency actions prescribed by the standard; or

(c) The covered commercial building is exempt from the standard by demonstrating that the building meets one of the criteria for an exemption.

**Z1.2 Compliance Schedule.** A building owner of a covered commercial building must meet the following reporting schedule for complying with the standard established under this section:

(a) For a building with more than two hundred twenty thousand gross square feet, June 1, 2026;

(b) For a building with more than ninety thousand gross square feet but less than two hundred twenty thousand and one gross square feet, June 1, 2027; and

(c) For a building with more than fifty thousand gross square feet but less than ninety thousand and one square feet, June 1, 2028.

**Z1.2.2 Application for conditional compliance** must be submitted to the AHJ 180 days prior to the compliance date to receive conditional compliance approval prior to the compliance date.

**Z1.2.3 Application for exemptions** must be submitted to the AHJ 180 days prior to the compliance date to receive conditional compliance approval prior to the compliance date.

**Z2. Documentation of Compliance with the Standard**

Documentation of compliance shall be submitted to the AHJ demonstrating the building owner has complied with the Standard through submission of documentation in accordance with section Z2.1, Z2.2, Z2.3, Z2.4 or Z2.5. Additional requirements for continued reporting may be required as specified in Z2.6.

**Z2.1 Documentation of Compliance through Exemptions.** Building owners seeking approval of an application for exemption shall submit to the AHJ the form Documentation of Compliance through Exemption.

**Z2.2 Buildings that meet the EUIt.** Building owners must provide the following documentation to verify that the building weather normalized EUI is less than the building EUIt and that the energy management plan is complete and being implemented.

* Form A
* Form B
* Form C

**Z2.3 Buildings that will meet the building investment criteria prior to the compliance date.** Building owners must provide the following documentation to verify that the building has implemented all EEMs that meet the cost effectiveness criteria resulting from the energy audit and economic evaluation criteria from normative annex X. The energy management plan must be completed and implemented and all EEMs must be installed and commissioned prior to the compliance date.

* Form A
* Form B
* Form C, except buildings without comprehensive energy metering.
* Energy Audit Report
  + Level 2 Energy Audit
  + Level 3, Economic Evaluation of EEMs

**Z2.4 Buildings that will meet the EUIt through conditional compliance.** Building owners must provide the following documentation to verify that the building weather normalized EUI is projected to be less than the building EUIt at the end of the measurement and verification period and that the energy management plan is complete and being implemented. EEMs required to meet the EUIt must be installed and commissioned prior to the compliance date. Should the building fail to meet the EUI after the measurement and verification requirements required in section 4.3.3.3 Verification of Compliance have been completed, the building shall implement additional EEMs to and demonstrate the building EUI is less than the EUIt.

* Form A
* Form B
* Form C
* Energy Audit Report
  + Level 2 Energy Audit
  + Level 3, Economic Evaluation of EEMs
* Continued Reporting Until Completion as specified in **Section 2.6**

**Z2.5 Buildings that will meet the building investment criteria through conditional compliance.** Building owners must provide the following documentation to verify that the building has implemented all EEMs that meet the cost effectiveness criteria resulting from the energy audit and economic evaluation criteria from normative annex X. The energy management plan must be completed and implemented and all EEMs must be installed and commissioned prior to the compliance date. Should the building fail to meet the EUI after the measurement and verification requirements required in 4.3.3.3 Verification of Compliance have been completed, the building shall implement additional EEMs to meet the projected target.

* Form A
* Form B
* Form C, except buildings without comprehensive energy metering
* Energy Audit Report
  + Level 2 Energy Audit
  + Level 3, Economic Evaluation of EEMs
* Continued Reporting Until Completion as specified in **Section 2.6**

**Exception: Phased Implementation:** The implementation plan may include phased implementation such that the building owner is not required to replace a system or equipment before the end of the system or equipment's useful life. System or equipment fitting this description shall be included in the energy audit submission with a schedule for replacement.

**Z2.6 Continued Reporting Until Completion.** Continued reporting is required as specified in sections 2.6.1 and 2.6.2 until completion when; a) measurement and verification extends one year or more beyond the compliance date, or b) implementation is extended phased implementation.

**Z2.6.1 Annual Reporting:** The following up to date reports shall be submitted to the AHJ annually, (date specific).

* Form A
* Form B
* Form C, except buildings without comprehensive energy metering

**Z2.6.2 Completion Reporting:** The following up to date reports shall be submitted to the AHJ when all conditions of compliance have been verified and documented.

* Form A
* Form B
* Form C, except buildings without comprehensive energy metering.

# Reporting Requirements Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Z 2.2 Meet EUIt | Z 2.3 Meet Investment Criteria | Z 2.4 Meet EUIt Conditional Compliance | Z 2.5 Meet Investment Criteria, Conditional Compliance |
|  | By Compliance Date | By compliance Date | 180 Days Prior to Compliance Date | 180 Days Prior to Compliance Date |
| Form A. | x | x | x | x |
| Form B. | x | x | x | x |
| Form C. | x | x | x | x |
| Energy Audit Report |  | x | x | x |
| Level 2 Energy Audit |  | x | x | x |
| Level 3, Economic Evaluation of EEMs |  | x | x | x |
|  |  |  |  |  |
| Annual Update |  |  |  |  |
| Form A. |  |  | x | x |
| Form B. |  |  | x | x |
| Form C. |  |  | x | x |
|  |  |  |  |  |
| Completion Report |  |  |  |  |
| Form A. |  |  | x | x |
| Form B. |  |  | x | x |
| Form C. |  |  | x | x |

**Normative Annex C- Forms, as amended for the Washington state building energy performance standard**

The following section replaces NORMATIVE ANNEX C FORMS in Standard 100. *Building owners* are required to submit the forms A-C and the required supporting information to demonstrate compliance with the standard. The *AHJ* will make these forms available in an electronic format for submission to the *AHJ*.

**Form A—Compliance with Standard 100**

1. Building Identification
   1. WA State Building ID
   2. County
   3. County parcel number (s)
2. Portfolio Manager Property ID number
3. Property Name
4. Parent Property Name
5. Address 1 (Street)
6. Address 2
7. City
8. State
9. Postal Code
10. Contact Information:
11. *Building Owner* Name(s)
12. Contact Name
13. Address 1 (Street)
14. Address 2
15. City
16. State
17. Postal Code
18. Telephone Number
19. Email Address

*3. Qualified person*

* 1. *Qualified person* nameAddress 1 (Street)
  2. Address 2
  3. City
  4. State
  5. Postal Code
  6. Telephone Number
  7. Email Address
     1. Licensed, certified *(select all that apply)*
     2. Licensure or Certifying Authority

*4. energy manager* (if different than the qualified person)

* 1. Energy Manager Name
  2. Address 1 (Street)
  3. Address 2
  4. City
  5. State
  6. Postal Code
  7. Telephone Number
  8. Email Address

2). This compliance report is for:

* 1. Building that meets the EUIt.
  2. Building that meets the building investment criteria prior to the compliance date.
  3. Building that will meet the EUIt through conditional compliance.
  4. Building that will meet the building investment criteria through conditional compliance.
  5. Annual Reporting
  6. Completion Reporting

1. Summary data
   1. *Energy utilization index target* (EUIt) (KBtu/ft2‧yr) based on completed Form B.
   2. Measured Site EUI (kBtu/ft²) for the compliance year for this building based on Form C
   3. Measured *Weather Normalized Site EUI* (kBtu/ft²) for the compliance year based on Form C.
   4. List the months/year of the collected data (mm/yyyy – mm/yyyy) for the compliance year for this building from Form C.
2. Have the energy management requirements of Section 5 been met? [ ] Yes [ ] No
   1. Upload energy management plan as specified by the AHJ.
3. Have the operation and maintenance requirements of Section 6 been met? [ ] Yes [ ] No
   1. Upload operation and maintenance implementation documentation as specified by the AHJ.
4. Date the ~~Level I or II~~ audit and economic evaluation was completed (N/A if none required).
   1. Upload audit reports as specified by Form D.
5. Have all EEMs required by Section 8 been implemented? [ ] Yes [ ] No
6. Have the requirements of Section 9 been completed? [ ] Yes [ ] No
7. We state that this building complies with ANSI/ASHRAE/IES Standard 100 as amended by the AHJ to conform with RCW 19.27A.210:
   1. Signature of *building owner*:
      1. Date:
   2. Signature of *qualified person*:
      1. Date:
   3. Signature of *energy manager*:
      1. Date:
   4. Signature of *authority having jurisdiction*:
      1. Conditional or Final Compliance
      2. Date:

**Form B—Building Activity and Energy Target (EUIt)**

**Complete Form B with the Following Information on the form provided by the AHJ**

~~a. A building identifier (optional) and a building address, including city, state, country, and zip code.~~

General Building Information:

WA State Building ID

County

County parcel number (s)

Portfolio Manager Property ID number

Property Name

Parent Property Name

Address 1 (Street)

Address 2

City

State

Postal Code

b. List the building location climate zone, 4C or 5B. Determine the climate zone using ASHRAE climate zone as found on the map in Informative Annex G. Buildings located in Climate Zone 6 shall use climate zone 5B.

~~The ASHRAE climate zone as found on the map in Infor-mative Annex G.~~

c. The gross floor area in square feet ~~(square metres)~~ shall be reported as defined in Section 3.

d. If entire building is single activity/type not listed in Table 7-1, it should be listed as “building without target” on Form A. List “Energy target” as “N/A” on Form B and Form B is considered complete.

e. Fill in fraction of gross floor area (A)i for each activity. For single-activity buildings this is 1.0.

f. Fill in the operating shifts normalization factor (S)i from Table 7-3 for each activity that has an area entered from Step 6.

g. Fill in the activity energy target (EUIt1)i from Table 7-2 (or table from AHJ) for each activity that has an area entered from Step 6.

h. Calculate weighted space EUI target (A × S × EUIt1)i for each activity that has an area entered from Step 6.

i. Add up fraction of floor area and enter sum in “Total fraction of floor area with target,” and add up all weighted space EUI targets and enter sum as the “Energy target” on Forms B and A.

j. If more than 50% of gross floor area has no target, it should be listed as “building without target” on Form A. List “Energy target” as “N/A” on Form B.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **~~Building identifier:~~** | | |  |  |  |  |  |  |  |
| **~~Address:~~** | | |  |  |  |  |  |  |  |
| **~~City, State, Country, Zip (mail) Code:~~** | | |  |  |  |  |  |  |  |
| **ASHRAE climate zone as found on the map in Annex F:** | | | |  |  |  |  |  |  |
| **The gross floor area of the building in ft2 (m2):** | | | |  |  |  |  |  |  |
| **Building Activity/Type** | **Fraction Floor Area (**  ***A***  **)**  ***i*** | **Operating Shifts (**  ***S***  **)**  ***i*** | **Activity Energy Target (EUI**  ***t***  **1**  **)**  ***i*** | **Space (EUI**  ***t***  **)**  ***i*** | **Building Activity/Type** | **Fraction Floor Area (**  ***A***  **)**  ***i*** | **Operating Shifts (**  ***S***  **)**  ***i*** | **Activity Energy Target (EUI**  ***t***  **1**  **)**  ***i*** | **Space (EUI**  ***t***  **)**  ***i*** |
| Admin/professional office |  |  |  |  | Preschool/daycare |  |  |  |  |
| Bank/other financial |  |  |  |  | Other classroom education |  |  |  |  |
| Government office |  |  |  |  | Fast food |  |  |  |  |
| Medical office (nondiagnostic) |  |  |  |  | Restaurant/cafeteria |  |  |  |  |
| Mixed-use office |  |  |  |  | Other food service |  |  |  |  |
| Other office |  |  |  |  | Hospital/inpatient health |  |  |  |  |
| Laboratory |  |  |  |  | Nursing home/assisted living |  |  |  |  |
| Distribution/ship center |  |  |  |  | Dormitory/fraternity/sorority |  |  |  |  |
| Nonrefrigerated warehouse |  |  |  |  | Hotel |  |  |  |  |
| Convenience store |  |  |  |  | Motel or inn |  |  |  |  |
| Convenience store and gas |  |  |  |  | Other lodging |  |  |  |  |
| Grocery/food market |  |  |  |  | Vehicle dealership/showroom |  |  |  |  |
| Other food sales |  |  |  |  | Retail store |  |  |  |  |
| Fire/police station |  |  |  |  | Other retail |  |  |  |  |
| Other public order/safety |  |  |  |  | Post office/postal center |  |  |  |  |
| Medical office (diagnostic) |  |  |  |  | Repair shop |  |  |  |  |
| Clinic/other outpatient health |  |  |  |  | Vehicle service/repair shop |  |  |  |  |

For single-activity *buildings* this is 1.0.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Building Activity/Type** | **Fraction Floor Area (**  ***A***  **)**  ***i*** | **Operating Shifts (**  ***S***  **)**  ***i*** | **Activity Energy Target (EUI**  ***t***  **1**  **)**  ***i*** | **Space (EUI**  ***t***  **)**  ***i*** | **Building Activity/Type** | **Fraction Floor Area (**  ***A***  **)**  ***i*** | **Operating Shifts (**  ***S***  **)**  ***i*** | **Activity Energy Target (EUI**  ***t***  **1**  **)**  ***i*** | **Space (EUI**  ***t***  **)**  ***i*** |
| Refrigerated warehouse |  |  |  |  | Vehicle storage/maintenance |  |  |  |  |
| Religious worship |  |  |  |  | Other service |  |  |  |  |
| Entertainment/culture |  |  |  |  | Strip shopping mall |  |  |  |  |
| Library |  |  |  |  | Enclosed mall |  |  |  |  |
| Recreation |  |  |  |  | **Residential Building Activity/Type** |  | | |  |
| Social/meeting |  |  |  |  | Mobile home |  |  |  |  |
| Other public assembly |  |  |  |  | SF-detached |  |  |  |  |
| College/university |  |  |  |  | SF-attached |  |  |  |  |
| Elementary/middle school |  |  |  |  | Apartment building (2 to 4 units) |  |  |  |  |
| High school |  |  |  |  | Apartment building (5+ units) |  |  |  |  |
| **Total fraction of floor area with target:** | | | | | |  |  | |  |
|  | | | | | | **Energy target (EUI*t*):** | | |  |

**Form B—Building Activity and Energy Target (EUI*t*) *(Continued)***

**Form C—Energy-Use intensity Calculations**

Energy Use Intensity Calculations shall be reported via the U.S. EPA’s ENERGY STAR Portfolio Manager ([www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)). The *energy manager* is responsible for creating Energy Star Portfolio manager record for each building.

**Exception:** buildings without comprehensive energy metering demonstrating compliance with sections Z2.3 or Z2.5.

The ENERGY STAR Portfolio Manager building record shall be identical to the building activity/type, fraction floor area, operating shifts (hours of operation) and gross floor area of the building as reported on Form B. All inputs shall be up to date prior to reporting as required in section Z2 and annually as required in section 5.1.2.3 Annual updates of the *net energy* use and *EUI*.

Prior to submitting reports run the Energy Star Portfolio Manager Data Quality Checker and make all corrections required to complete the report.

The *energy manager* shall use the EPA’s ENERGY STAR Portfolio Manager Share Properties feature and share the property data with the AHJ by enabling the Read Only Access and Exchange Data feature.

For each report submitted under section **Z2,** the *energy manager* shall create and submit a report documenting the required data fields listed (below) for the reporting period. This shall be submitted using the Washington State Report specified in energy star portfolio manager.

Report fields shall include:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Metric Group** | **User Interface Metric Name** | **Unit of Measure** | **Link to Glossary Description** | Draft Proposal |
| Property ID Numbers | Portfolio Manager Property ID | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyId) | X |
| Property ID Numbers | Portfolio Manager Parent Property ID | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyId) | X |
| Property Information | Property Name | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyId) | X |
| Property Information | Parent Property Name | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyId) | X |
| Property Information | Address 1 | n/a |  | X |
| Property Information | Address 2 | n/a |  | X |
| Property Information | City | n/a |  | X |
| Property Information | County | n/a |  | X |
| Property Information | State/Province | n/a |  | X |
| Property Information | Postal Code | n/a |  | X |
| Property Information | Primary Property Type - Self Selected | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyType) | X |
| Property Information | Primary Property Type - EPA Calculated | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyType) | X |
| Property Information | List of All Property Use Types at Property | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyTypesAtYourProperty) | X |
| Property Information | National Median Reference Property Type | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NationalMedian) |  |
| Property Information | Property GFA - Self-Reported (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyGFASelfReported) | X |
| Property Information | Property GFA - EPA Calculated (Buildings and Parking) (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GrossFloorArea) | X |
| Property Information | Property GFA - EPA Calculated (Buildings) (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GrossFloorArea) | X |
| Property Information | Property GFA - EPA Calculated (Parking) (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GrossFloorArea) | X |
| Property Information | Largest Property Use Type | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyTypesAtYourProperty) | X |
| Property Information | Largest Property Use Type - Gross Floor Area (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyTypesAtYourProperty) | X |
| Property Information | 2nd Largest Property Use Type | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyTypesAtYourProperty) | X |
| Property Information | 2nd Largest Property Use - Gross Floor Area (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyTypesAtYourProperty) | X |
| Property Information | 3rd Largest Property Use Type | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyTypesAtYourProperty) | X |
| Property Information | 3rd Largest Property Use Type - Gross Floor Area (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyTypesAtYourProperty) | X |
| Property Information | Year Built | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#YearBuilt) | X |
| Property Information | Number of Buildings | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NumberOfBuildings) |  |
| Property Information | Occupancy | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#Occupancy) | X |
| Property Information | Property Notes | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#Notes) | X |
| Property Information | Property Data Administrator | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyDataAdministrator) | X |
| Property Information | Property Data Administrator - Email | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#PropertyDataAdministrator) | X |
| Property Information | Service and Product Provider | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SPP) |  |
| Property Information | Last Modified Date - Property | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#LastModifiedDateProperty) | X |
| Property Information | Last Modified Date - Electric Meters | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#LastModifiedDateElectricMeters) | X |
| Property Information | Last Modified Date - Gas Meters | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#LastModifiedDateGasMeters) | X |
| Property Information | Last Modified Date - Non-Electric Non-Gas Energy Meters | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#LastModifiedDateNonElectricNonGasEnergyMeters) | X |
| Property Information | Metered Areas (Energy) | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#MeteredAreas) |  |
| Property Information | Metered Areas (Water) | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#MeteredAreas) |  |
| Property Information | Irrigated Area (ft²) | ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#IrrigatedArea) |  |
| Property Information | Last Modified Date - Water Meters | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#LastModifiedDateWaterMeters) |  |
| Property ID Numbers | Local Standard ID(s) WA State Building Standard | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#StandardId) | X |
| Property Use Details | Data Center - Energy Estimates Applied | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#DataCenterApplyEnergyEstimates) | x |
| Energy Use by Fuel Source | Electricity Use - Monthly (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#ElectricityUseMonthly) |  |
| Energy Use by Fuel Source | Natural Gas Use - Monthly (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NaturalGasUseMonthly) |  |
| Energy Use by Fuel Source | Electricity Use - Grid Purchase and Generated from Onsite Renewable Systems (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Electricity Use - Grid Purchase (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Electricity Use – Generated from Onsite Renewable Systems and Used Onsite (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Natural Gas Use (therms) | therms | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Fuel Oil #1 Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Fuel Oil #2 Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Fuel Oil #4 Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Fuel Oil #5 & 6 Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Diesel #2 Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Kerosene Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Propane Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | District Steam Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | District Hot Water Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | District Chilled Water Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Coal - Anthracite Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Coal - Bituminous Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Coke Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Wood Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Other Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Data Accuracy | Default Values | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#DefaultDataFlag) | x |
| Data Accuracy | Temporary Values | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#TemporaryDataFlag) | x |
| Data Accuracy | Estimated Data Flag - Electricity (Grid Purchase) | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EstimatedDataFlag) | x |
| Data Accuracy | Estimated Data Flag - Natural Gas | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EstimatedDataFlag) | x |
| Data Accuracy | Alert - Data Center does not have an IT Meter | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Alert - Gross Floor Area is 0 ft2 | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Alert - Property has no uses | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Data Quality Checker - Date Run | n/a |  | x |
| Data Accuracy | Data Quality Checker Run? | n/a |  | x |
| Data Accuracy | Alert - Energy Meter has less than 12 full calendar months of data | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Alert - Energy Meter has gaps | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Alert - Energy Meter has overlaps | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Alert - Energy - No meters selected for metrics | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Alert - Energy Meter has single entry more than 65 days | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) | x |
| Data Accuracy | Estimated Values - Energy | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EstimatedDataFlag) | x |
| Data Accuracy | Estimated Values - Water | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EstimatedDataFlag) |  |
| Data Accuracy | Alert - Water Meter has less than 12 full calendar months of data | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) |  |
| Data Accuracy | Alert - Water Meter has gaps | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) |  |
| Data Accuracy | Alert - Water Meter has overlaps | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) |  |
| Data Accuracy | Alert - Water - No meters selected for metrics | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AlertMetrics) |  |
| Energy Performance Metrics | ENERGY STAR Score | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyStarScore) | x |
| Energy Performance Metrics | National Median Site Energy Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NationalMedian) |  |
| Energy Performance Metrics | National Median Source Energy Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NationalMedian) |  |
| Energy Performance Metrics | National Median Site EUI (kBtu/ft²) | kBtu/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NationalMedian) |  |
| Energy Performance Metrics | National Median Source EUI (kBtu/ft²) | kBtu/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NationalMedian) |  |
| Energy Performance Metrics | % Difference from National Median Site EUI | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NationalMedian) |  |
| Energy Performance Metrics | % Difference from National Median Source EUI | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#NationalMedian) |  |
| Energy Performance Metrics | Site Energy Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SiteEnergy) | x |
| Energy Performance Metrics | Source Energy Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SourceEnergy) |  |
| Energy Performance Metrics | Site EUI (kBtu/ft²) | kBtu/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SiteEnergy) | x |
| Energy Performance Metrics | Source EUI (kBtu/ft²) | kBtu/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SourceEnergy) |  |
| Energy Performance Metrics | Weather Normalized Site Energy Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SiteEnergy) | x |
| Energy Performance Metrics | Weather Normalized Source Energy Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SourceEnergy) |  |
| Energy Performance Metrics | Weather Normalized Site EUI (kBtu/ft²) | kBtu/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SiteEnergy) | x |
| Energy Performance Metrics | Weather Normalized Source EUI (kBtu/ft²) | kBtu/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SourceEnergy) |  |
| Energy Performance Metrics | Weather Normalized Site Electricity (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SiteEnergy) | x |
| Energy Performance Metrics | Weather Normalized Site Electricity Intensity (kWh/ft²) | kWh/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SourceEnergy) | x |
| Energy Performance Metrics | Weather Normalized Site Natural Gas Use (therms) | therms | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SiteEnergy) | x |
| Energy Performance Metrics | Weather Normalized Site Natural Gas Intensity (therms/ft²) | therms/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#SiteEnergy) | x |
| Energy Performance Metrics | Energy Current Date | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#MetricDate) | x |
| Water Performance Metrics | Water Current Date | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#MetricDate) |  |
| Water Performance Metrics | Water Use (All Water Sources) (kgal) | kgal | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#WaterUse) |  |
| Water Performance Metrics | Water Use Intensity (All Water Sources) (gal/ft²) | gal/ft² | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#WaterUse) |  |
| Water Performance Metrics | Indoor Water Use (All Water Sources) (kgal) | kgal | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#WaterUse) |  |
| Water Performance Metrics | Outdoor Water Use (All Water Sources) (kgal) | kgal | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#WaterUse) |  |
| Water Performance Metrics | Water Score (Multifamily Only) | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#WaterScore) |  |
| Greenhouse Gas Emissions | Total GHG Emissions (Metric Tons CO2e) | Metric Tons CO2e | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GHGemissions) |  |
| Greenhouse Gas Emissions | Direct GHG Emissions (Metric Tons CO2e) | Metric Tons CO2e | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GHGemissions) |  |
| Greenhouse Gas Emissions | Indirect GHG Emissions (Metric Tons CO2e) | Metric Tons CO2e | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GHGemissions) |  |
| Renewable Energy & Green Power | Electricity Use – Generated from Onsite Renewable Systems (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) | x |
| Renewable Energy & Green Power | Electricity Use – Generated from Onsite Renewable Systems and Exported (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) | x |
| Renewable Energy & Green Power | Green Power - Onsite (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) |  |
| Renewable Energy & Green Power | Green Power - Offsite (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) |  |
| Renewable Energy & Green Power | Avoided Emissions - Onsite Green Power (Metric Tons CO2e) | Metric Tons CO2e | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AvoidedAndNetEmissions) |  |
| Renewable Energy & Green Power | Avoided Emissions - Offsite Green Power (Metric Tons CO2e) | Metric Tons CO2e | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AvoidedAndNetEmissions) |  |
| ENERGY STAR Certification | ENERGY STAR Certification - Year(s) Certified | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyStarCertificationYearsCertified) |  |
| ENERGY STAR Certification | ENERGY STAR Certification - Eligibility | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyStarCertificationEligibility) |  |
| Energy Use by Fuel Source | Electricity Use - Grid Purchase and Generated from Onsite Renewable Systems (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Electricity Use - Grid Purchase (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Electricity Use – Generated from Onsite Renewable Systems and Used Onsite (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Energy Use by Fuel Source | Natural Gas Use (kBtu) | kBtu | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#EnergyUseByType) | x |
| Renewable Energy & Green Power | Percent of Total Electricity Generated from Onsite Renewable Systems | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) | x |
| Renewable Energy & Green Power | Percent of RECs Retained | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) |  |
| Renewable Energy & Green Power | Green Power - Onsite and Offsite (kWh) | kWh | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) |  |
| Renewable Energy & Green Power | Percent of Electricity that is Green Power | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#GreenPower) |  |
| Renewable Energy & Green Power | Avoided Emissions - Onsite and Offsite Green Power (Metric Tons CO2e) | Metric Tons CO2e | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AvoidedAndNetEmissions) |  |
| Renewable Energy & Green Power | Net Emissions (Metric Tons CO2e) | Metric Tons CO2e | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#AvoidedAndNetEmissions) |  |
| Property Information | Cooling Degree Days (CDD) (°F) | °F | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#DegreeDays) | x |
| Property Information | Heating Degree Days (HDD) (°F) | °F | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#DegreeDays) | x |
| Property Information | Weather Station Name | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#WeatherStation) | x |
| Property Information | Weather Station ID | n/a | [Glossary Definition](https://portfoliomanager.energystar.gov/pm/glossary#WeatherStation) |  |

**Forms D and E.**

From D and E shall be deleted and replaced with the following form or an equivalent form as required by the AHJ.

**Audit Level 2 Form (adopted from ASHRAE Standard 211 NORMATIVE ANNEX C REPORTING FORMS)**

The forms located at <http://www.ashrae.org/211-2018> are mandatory reporting requirements for Level 1 and Level 2 energy audits. The qualified energy auditor shall provide these as part of any compliant energy audit. The forms report basic building characteristics, energy use, and recommended energy efficiency measures in a standardized format. To comply with the standard, reports must use the data and the format shown on these forms. Alternatively, the qualified energy auditor may report information on these forms via direct electronic data submission through a standard electronic format approved by the AHJ, provided that the electronic format includes all of the data in these forms at the same level of accuracy and completeness. The template is provided in Excel for convenience but can be in any file format. The Level 2 forms, along with the additional information specified in worksheet “Asset Score Inputs,” provide the minimum data required to determine a Building Energy Asset Score using the DOE’s online Energy Asset Score tool. <https://buildingenergyscore.energy.gov/> However, inclusion of the asset score value itself is not required for compliance with the standard. Fields that are required to obtain an asset score evaluation are marked with an asterisk (\*).

**Audit Level 3 Economic Evaluation Tool**

Building owners shall complete and submit the following documentation when demonstrating compliance with sections Washington State Reporting Requirements for Building Owners sections Z2.3, Z2.4, Z2.5.

An economic evaluation tool capable of providing life cycle cost assessment compliant the NIST Standard 135 shall be developed and implemented by the AHJ.

Example tool to be modified:

[Life cycle cost tool](https://ofm.wa.gov/sites/default/files/public/budget/forms/LifeCycleCostTool.xlsb) - Aug. 2019 (Excel)

* [Life cycle cost tool instructions](https://ofm.wa.gov/sites/default/files/public/budget/instructions/capital/LCCT_Instructions.pdf)
* [Introduction to the life cycle cost tool webinars](https://vimeo.com/album/3598715)
* [Life cycle cost tool training webinars](https://vimeo.com/album/3462314)

**Application for Exemption Certificate**

1.The *building owners* shall demonstrate they meet the condition for exemption by submitting evidence to the AHJ that their building qualifies for one of the exemptions listed in Section 4.

(a) Compliance with the exemption must be verified by the owner based on the building as it is anticipated to be occupied and operating on the compliance date.

(b) Applications for exemptions may be submitted no sooner than 1 years prior to the compliance date and submitted to the AHJ no later than 180 days prior to the compliance date.

(c) Exemptions certificates are only valid for the current review cycle.

2. Covered commercial buildings eligible for exemption from the standards meet the following criteria:

(a) The building did not have a certificate of occupancy or temporary certificate of occupancy for all twelve months of the calendar year prior to the building owner compliance schedule established under Z Washington State Reporting Requirements for Building Owners Z1.2 Compliance Schedule.

(b) The building did not have an average physical occupancy for at least fifty percent of the *conditioned floor area* throughout the calendar year prior to the building owner compliance schedule established under Normative Annex Z Washington State Reporting Requirements for *building owners* Z1.2 Compliance Schedule.

(c) The sum of the *building*s *gross floor area* minus *unconditioned* and *semi-conditioned spaces*, as defined in the Washington State Energy Code, is less than fifty thousand square feet;

(d) More than 50% of the *gross floor area* of the building is manufacturing or other industrial purposes, as defined under the following use designations of the Washington State edition of the International Building Code: (A) Factory group F; or (B) High hazard group H;

(e) The building is an *agricultural structure*;

(f) The building is vacant due to renovation or pending demolition; or

(g) The building meets at least one of the following conditions of financial hardship:

(i) The building had arrears of property taxes or water or wastewater charges that resulted in the building's inclusion, within the prior two years, on a city's or county's annual tax lien sale list;

(ii) The building has a court appointed receiver in control of the asset due to financial distress;

(iii) The building is owned by a financial institution through default by a borrower;

(iv) The building has been acquired by a deed in lieu of foreclosure within the previous twenty-four months;

(v) The building has a senior mortgage subject to a notice of default;

(3) To apply for an exemption certificate by submitting the following documentation to the *building owner* in the form specified by the AHJ. The application must include:

Building Identification

* 1. WA State Building ID
  2. County
  3. County parcel number (s)

1. Portfolio Manager Property ID number
2. Property Name
3. Parent Property Name
4. Address 1 (Street)
5. Address 2
6. City
7. State
8. Postal Code

Contact Information:

1. *Building Owner* Name(s)
2. Contact Name
3. Address 1 (Street)
4. Address 2
5. City
6. State
7. Postal Code
8. Telephone Number
9. Email Address

Building information:

a. Primary building activity from table 7-1, or a description of the non-listed building type.

b. Building gross floor area

c. Building gross conditioned floor area

Reason for exemption, based on exemptions listed in section 2.

A list all of documents enclosed and any facts in support of this application. Provide at least two of the acceptable documents listed below.

(a) municipal or county records

(b) documents from a qualified person

(c) construction permit

(d) certificate of Occupancy or application for certificate of occupancy.

(e) demolition permit

(f) financial statements such as statement of assets; liabilities, capital, and surplus, statement of revenue and expenses; or statement of case flow.

(g) a letter from the building owner stating facts and explaining financial hardships

Signature and statement of *building owner* stating that the authorized representative of the building, affirm and attest to the accuracy, truthfulness and completeness of the statements of material fact provided in this form.

(4) After documents have been submitted and reviewed, the AHJ will send notification of approval or denial.

(a) If the exemption is approved the AHJ shall notify the applicant stating the application has been approved and update the AHJ records for the building.

(b) If the exemption is denied the AHJ shall notify the applicant stating the application has been denied and update the AHJ records for the building.

(5) When an application for exemption is denied the *building owner* must proceed with the process to demonstrate compliance with one of the compliance options in Washington State Reporting Requirements for Building Owners Z2.3-Z2.5.

**Additional Sections to Be Developed**

* Certification of a building of historic significance
* Notice of Violation of Non-Compliance
* Administrative Penalties
* Appeal Process