

WAC 194-50-050 ASHRAE Standard 100, 2018—Section 5—Energy management plan.

Exception to 5.1.1 - Not adopted.

5.1.2.1 Energy accounting in accordance with Section 5.2.

5.1.2.2 In the initial year of compliance, the *building's weather normalized energy use intensity (WNEUI)* and *energy use intensity (EUI)*.

5.1.2.3 Annual updates of the *net energy use, WNEUI* and *EUI*.

5.1.2.4 Annual comparison of the net *WNEUI* and *EUI* to the energy target.

5.1.2.5 Documentation of original, current, and changes in number of occupants, weekly operating hours, or time of day scheduled for occupancy, production rates, and energy using equipment that would have caused change in the measured *WNEUI* and *EUI*.

Exceptions to 5.1.2.12:

1. *Buildings* and *grouped buildings* that meet the EUI_t .
2. *Buildings* that have implemented a utility program lighting upgrade covering 75 percent of the *building's* GFA, within the previous five years, can use the *lighting schedule* provided by the utility program.
3. *Tier 2 covered buildings*.
4. *Buildings* not meeting the definition of *covered building*.

5.1.2.13 The current lighting satisfaction survey and lighting checklist as described in Appendix D of *Performance Measurement Protocols for Commercial Buildings*¹ or as approved by the AHJ.

Exceptions to 5.1.2.13:

1. *Buildings* and *grouped buildings* that meet the EUI_t .
2. *Buildings* that have implemented a utility program lighting upgrade covering 75 percent of the *building's* GFA through a utility program within the previous five years.
3. *Tier 2 covered buildings*.
4. *Buildings* not meeting the definition of *covered building*.

5.1.2.14 Operations and Maintenance Plan including:

1. An operations and maintenance (*O&M*) program as defined in Section 6.
2. An *O&M* implementation plan as specified in Normative Annex L.
3. Implementation documentation as specified in L2.2.5 Documentation.

5.1.3 The *EM* shall provide access to the energy management plan to the *building* occupants annually.

5.2.1 Provide measured *net energy use* data for each *covered building*, including all forms of imported and exported energy from at least 12 consecutive months of data monitored in a period not to exceed two years prior to the efficiency audit. The net energy concept is illustrated in Figure 5-1, Table 5-1, Table 5-2 and is calculated in accordance with Section 5.2.4 as follows:

$$\text{Building net energy use} = (1a + 1b + 1c + 1d) - (3a + 3b + 3c + 3d + 3e)$$

Where 1a, 1b, 1c, and 1d are metered energy supplies that are used in the *building* (this includes bulk energy sources), and 3a, 3b,

3c, 3d, and 3e are metered energy excesses that are supplied to another *building* or grid as useful energy.

Table 5-2 Campus Energy Flow Definitions

Energy Input in to District Energy System(s)	Energy Delivered to Buildings (other than from District Energy System(s))	Campus Renewable Energy Production	Energy Exported from Campus for Beneficial Use
1a. Electrical	2a. Electrical	3a. Electrical	4a. Excess solar thermal
1b. Gas	2b. Gas	3b. Thermal	4b. Excess solar or wind electrical
1c. Bulk fuel	2c. Bulk fuel (coal/biomass/propane/oil)	3c. Waste heat	4c. Excess or recovered thermal energy
			4d. Excess co-gen electrical
			4e. Excess co-gen thermal

5.2.1.1 End use deductions. Where submetered from a *building's* meter, the following end use energy consumption may be deducted from the *building's* measured *net energy use*:

1. Electric vehicle charging equipment that transfers electricity to batteries or other energy storage devices in electric vehicles.
2. Electric loads related to broadcast antennas, on-site cell phone towers or other communications equipment that is unrelated to the primary purpose of the *building*.
3. The *AHJ* may add additional end use deductions based on technological advancements.

5.2.1.2 Connected buildings. Where energy use is not monitored at the *covered building* level:

1. *Tier 1 covered buildings*: *Net energy use* data may be provided at the *connected building* level.
2. *Tier 2 covered buildings*: *Net energy use* data shall be provided at the *connected building* level.

5.2.1.3 Campuses. *Campuses* with *district energy systems* use the *campus net energy use* outlined in Table 5-2. Provide measured *net energy use* data for the *campus* including all forms of imported and exported energy from at least 12 consecutive months of data monitored in a period not to exceed two years prior to the efficiency audit. Provide measured energy on the input side of the *district energy system* and include *net energy use* data for each *covered building*. *Campus net energy use* is calculated as follows:

$$\text{Campus net energy use} = (1a + 1b + 1c + 2a + 2b + 2c) - (4a + 4b + 4c + 4d + 4e)$$

5.2.1.4 Decarbonization plan. *Participating campuses' net energy use* data shall include all *buildings* on the *campus*. Thermal energy for the *campus* shall be measured at the input side of the *district energy system*.

5.2.2 Energy use data for each type of energy imported into and exported from the *building* shall be collected from utility or energy delivery bills (that must include the quantity of energy or fuel delivered) or by monitoring local energy meters (either utility or owner-provided meters). Owner-provided energy meters shall meet the metering accuracy, tolerances and testing requirements of Title 480 WAC or WAC 51-11C-40904 (Section C409.4 of the *WSEC*).

5.2.3 Energy conversion factors. The *site energy* content of different forms of purchased energy shall be converted from the purchased unit

to the standard *site energy* unit using the conversion factors incorporated in Energy Star portfolio manager.

5.2.4 The *energy accounting system* shall be Energy Star Portfolio Manager as specified in Normative Annex Z.

5.2.4.1 - Not adopted.

5.2.4.2 - Not adopted.

5.2.4.3 - Not adopted.

Table 5-2a Site Energy Conversion Factors - Table not adopted.

Table 5-2b Primary Energy Conversion Factors - Table not adopted.

[Statutory Authority: RCW 19.27A.210. WSR 24-16-041, § 194-50-050, filed 7/30/24, effective 8/30/24. Statutory Authority: RCW 19.27A.210 and 19.27A.250. WSR 24-03-033, § 194-50-050, filed 1/8/24, effective 2/8/24. Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-050, filed 10/30/20, effective 11/30/20.]