

**WAC 194-50-090 ASHRAE Standard 100, 2018—Section 9—Implementation and verification requirements.**

**9.1.1 Requirements.** *Buildings* that have an energy target shall comply with the requirements of Section 9.1.1.1. *Buildings* that do not have an energy target shall comply with the requirements of Section 9.1.1.2. All *buildings* shall implement an energy management plan as described in Section 5. The energy management plan shall be integrated into the *building's capital management plan* as described in Section 5. The energy management plan shall include the elements listed in Section 5.

**9.1.1.1 Buildings with energy targets.** For *buildings* having energy targets, *energy efficiency measures (EEMs)* identified from the energy audit shall be implemented in order to meet the *building's* energy target. Develop a written plan for maintaining the *building's energy use intensity (EUI)* at or below the energy target.

**Exceptions to Section 9.1.1.1:**

1. *Buildings* may demonstrate compliance by implementing all of the *EEMs* that achieve the investment criteria in Normative Annex X.

2. Implementation of *EEMs* to *campus district heating and/or cooling system(s)* in lieu of *EEMs* implemented directly to *campus buildings* is acceptable provided the energy audit demonstrates the energy savings from the *campus district heating and/or cooling system EEMs* will be greater than the *EEMs* identified for the *buildings*. Energy savings shall be measured as a reduction in Btu per year.

3. Implementation of *EEMs* to non-Tier 1 covered *buildings* complying at the campus-level or *connected building* level is acceptable, provided the energy audit demonstrates the energy savings from the *EEMs* implemented at the campus-level or *connected building* level will be at or below the energy target of campus-level or *connected building* level.

4. *Tier 2 covered buildings*.

**9.1.1.2 Buildings without energy targets.** *Buildings* that do not have an energy target shall implement all of the *EEMs* that achieve the investment criteria in Normative Annex X.

**Exceptions to 9.1.1.2:**

1. Implementation of *EEMs* to *campus district heating and/or cooling system(s)* in lieu of *EEMs* implemented directly to *campus buildings* is acceptable provided the energy audit demonstrates the energy savings from the *campus district heating and/or cooling system EEMs* will be greater than the *EEMs* identified for the *buildings*. Energy savings shall be measured as a reduction in Btu per year.

2. *Tier 2 covered buildings*.

**9.1.1.2.1** - Not adopted.

**9.1.1.2.2** - Not adopted.

**9.1.2.1 Training of Building Staff.** An ongoing written training plan shall be implemented. *Building* occupants and staff shall be trained, at a minimum, as established by the operations and maintenance (O&M) program defined in Section 6.

**9.1.2.2 Multiple buildings.** A multiple-*building* plan shall be implemented to coordinate *EEM* implementation and measurement of the *EUI* among *buildings* when complying at the *campus*, campus-level or *connected building* level.

**9.1.2.3 Implementation and commissioning of EEMs.** *EEMs* shall be implemented and commissioned in accordance with the Washington State Energy Code. Washington state energy code (*WSEC*) exceptions based on mechanical system or service water heating capacity shall not be applied when developing the scope for commissioning. For example, the 2018 *WSEC*, Section C408.1 General, the exceptions do not apply. The *qualified energy auditor* or *qualified person* shall review the commissioning report and certify that the *EEMs* are functioning as intended.

**Informative Note:** For guidance on commissioning protocols, refer to ASHRAE Guideline 0.2-2015 Commissioning Process for Existing Systems and Assemblies and ASHRAE Guideline 1.2-2019 Technical Requirements for the Commissioning Process for Existing HVAC&R Systems and Assemblies.

**9.1.2.4 Energy efficiency sequencing.** Implementation of *EEMs* shall be prioritized to take advantage of the life cycle of *building* systems and to minimize the disruption of *building* occupants. Delayed implementation shall be evaluated using the methodology included in Normative Appendix X and reported in the energy management plan.

**9.2.2 Verification of implemented EEMs for Buildings without Energy Targets.** Upon implementation of *EEMs*, the affected end-use systems shall be monitored for one year to verify *EEM* energy savings. The *qualified energy auditor* or *qualified person* shall review the results of the *EEM* energy monitoring and certify that the energy savings of the package of *EEMs* meets or exceeds 75 percent of the energy savings projected in the energy audit as required. For *buildings* unable to meet the requirements of Section 5.2 Building energy monitoring, the *qualified energy auditor* or *qualified person* shall provide verification using the methods of the *International Performance Measurement & Verification Protocol, Concepts and Options for Determining Energy and Water Savings Volume I*<sup>11</sup> options A through D.

**9.3 Compliance.** The *qualified person* shall complete the compliance documentation as required in Normative Annex Z.

**ASHRAE Standard 100, 2018—Section 10** - Not adopted.

[Statutory Authority: RCW 19.27A.210 and 19.27A.250. WSR 24-03-033, § 194-50-090, filed 1/8/24, effective 2/8/24. Statutory Authority: RCW 19.27A.210. WSR 20-22-059, § 194-50-090, filed 10/30/20, effective 11/30/20.]