WAC 194-50-170 Normative Annex W—Washington state participating campus district energy system decarbonization plan general compliance and reporting requirements—This is a normative annex and is part of the district energy systems decarbonization requirements of this standard.

W1. Building owner notifications to the AHJ.

W1.1 Notification to the AHJ by participating campus owners with a district energy system. By June 30, 2024, owner or owner's designated representative of a *state campus district energy system* shall notify the *AHJ* that they are developing a *decarbonization plan*. Designated representatives of a *campus district energy system* may submit to the *AHJ* a request to opt-in to the *decarbonization plan* process. *Participating campuses* must comply with all of the *decarbonization plan* requirements in accordance with Normative Annex W.

Provide the following information to the *AHJ*:

For *participating campus*:

- State agency name or owner organization name;
- Agency or owner organization mailing address;
- *Campus* name;
- *Campus* owner name;
- Main point of contact: Name, email, phone;
- *District energy system* utility name and whether they are publicly or privately owned.

For each *building* connected to the *district energy system*:

- *Building* name and associated *gross floor area* (*GFA*);
- Address;
- Parcel number;
- Commerce *building* ID - where applicable.

W2. AHJ reporting.

W2.1 Summary report. The *AHJ* must provide a summary report on the *decarbonization plans* required to decarbonize *district energy systems* in accordance with the clean buildings performance standard (CBPS) and Normative Annex W to the Governor and the appropriate committees of the legislature by December 1, 2025. The *AHJ's* report may include *campuses* that fail to submit a *decarbonization plan* or fail to comply with the requirements, including the implementation schedule defined within the plan.

W3. Washington state reporting requirements for participating campus district energy systems.

W3.1 General compliance.

W3.1.1 District energy system decarbonization plan requirements: By June 30, 2025, the owner of a *participating campus* must develop a *district energy system decarbonization plan* to provide a strategy for up to 15 years and submit it to the *AHJ*. The *AHJ* may approve a *decarbonization plan* that is based on an implementation schedule longer than 15 years.

The *decarbonization plan* must include:

1. **Decarbonization:** Mechanisms to replace fossil fuels in the *district energy system* heating plants to provide 100 percent of the *campus* design load, including a schedule for replacement:

a. A *campus* with a *district energy system* providing cooling only shall evaluate:

i. Addition of a *district energy system* heating plant, in compliance with Normative Annex W;

ii. Mechanisms to replace fossil fuels of the heating systems at the building-level;

b. A *campus* with a *district energy system* providing cooling only may extend compliance schedule in accordance with Section W3.2, where decarbonization of the *campus* heating system is pursued in accordance with Section W3.1.1 (1)(a);

Exceptions to W3.1.1(1):

1. Fossil fuel or electric resistance sources may account for a maximum of 10 percent of:

a. A *district energy system* heating plant's annual output; or

b. Building-level heating system output when complying in accordance with Section W3.1.1 (1)(b).

2. Decommissioning of the *district energy system* heating plant is an acceptable alternative if a life-cycle cost analysis demonstrates implementation of decarbonized heating systems at the building-level saves more energy and is more cost-effective over the life of the measure, in accordance with Normative Annex X. If decarbonizing by decommissioning the *district energy system* heating plant, provide the following:

a. *Decarbonization plan* representing implementation of decarbonized heating systems at the building-level in lieu of decarbonization of the *district energy system's* heating plant, in accordance with Normative Annex W.

b. Life-cycle cost analysis (LCCA), evaluating implementation of decarbonized heating systems at the building-level vs. decarbonization of the *district energy system* heating plant, in accordance with Normative Annex W.

c. Evaluation of potential beneficial and cost-effective use of existing distribution system.

2. **Waste heat and cooling:** An evaluation of possible options to partner with nearby sources and uses of waste heat and cooling;

3. **Expansion:** An examination of opportunities to add *buildings* or other facilities to the *district energy system* once it is decarbonized, a strategy to incentivize growth of a decarbonized system, and requirements for facilities joining the system;

4. **CBPS performance target:** An evaluation, prioritization, and scheduled plan for meeting the requirements of Sections 4.1 and 4.3.1 for the *campus*.

a. When a *decarbonization plan* is fully implemented, the *campus* shall meet the requirements of Section 4.3.2 or 4.3.3.

5. **CBPS EMP and O&M program:** Compliance with the requirements of Section 4.2 in accordance with the compliance schedule of Z3.2, Y3.2, and W3.2 as applicable for all *buildings* connected to the *campus*. The requirements of Section 4.2 shall apply to all *buildings* connected to the *campus*.

W3.1.2 Recommended district energy system decarbonization plan considerations: *Participating campuses* are encouraged to include the following considerations in a *decarbonization plan*:

1. Distribution network upgrades;

2. On-site energy storage facilities;

3. Space cooling for residential facilities;

4. Labor and workforce, including state registered apprenticeship utilization;

5. Options for public-private partnerships;

6. Incorporation of industrial symbiosis projects or networks as described in chapter 308, Laws of 2021.

W3.1.3 Utility engagement: *Participating campuses* must consult with the electric utility and the natural gas utility serving the site of the system during *decarbonization plan* development.

W3.2 Compliance Schedule. *Participating campuses* must:

1. **Develop decarbonization plan:** Begin developing a *decarbonization plan* by June 30, 2024, in accordance with the reporting requirements of Section W1.1.

2. **Final decarbonization plan:** Submit a final *decarbonization plan* to the *AHJ* by June 30, 2025, in accordance with the reporting requirements of Sections W3.1.1 and W4.1.

3. **Energy management plan and operations and maintenance program:** Implement EMP and O&M in accordance with compliance schedule in Section Z3.2 for *Tier 1 covered buildings*, Section Y3.2 for *Tier 2 covered buildings*, and by July 1, 2030, for *buildings* not covered, connected to the *district energy system*. Submit EMP and O&M to the *AHJ* with the first *decarbonization plan* progress reporting.

4. **Decarbonization plan progress reports:** Every five years after June 30, 2025, until full implementation of the *decarbonization plan* and compliance with the standard has been met, *decarbonization plans* must be resubmitted by July 1st, along with a progress report including revisions to the implementation of the *decarbonization plan*, to the *AHJ* in accordance with Section W4.2. A *campus* with a *district energy system* providing cooling only, which does not decarbonize their heating systems, is required to submit completion reporting in lieu of progress reporting by July 1, 2030.

5. **Completion reporting:** Upon full implementation of *decarbonization plan* and compliance with the standard, submit completion report by July 1, 2040, or the alternatively approved *decarbonization plan* completion date to the *AHJ*, in accordance with Sections W4.3 through W4.5, as applicable. A *campus* with a *district energy system* providing cooling only, which does not decarbonize their heating systems, shall submit completion reporting by July 1, 2030, or the alternatively approved *decarbonization plan* completion date to the *AHJ*, in accordance with Sections W4.3 through W4.5, as applicable.

W3.2.1 Decarbonization plan review and evaluation: Upon submittal to the *AHJ*, *decarbonization plans* will be reviewed and approved by the *AHJ* in accordance with Normative Annex W. The *AHJ* may ask for a *decarbonization plan* to be revised and resubmitted if it does not meet standards as determined by the *AHJ*.

W4. Performance standard compliance reporting through decarbonization plan.

W4.1 Decarbonization plan reporting. *Participating campus* owners must provide a final *decarbonization plan*.

1. *Decarbonization plan*;
2. Form J - Grouped buildings compliance with Standard 100;
3. Form K - Decarbonization plan reporting;
4. Form B - Building activity and energy use intensity target (EUI_t);
5. Form C - Energy Star portfolio manager energy use intensity calculations;
6. Form D - Audit Template energy audit form, as applicable and if revised;

7. ASHRAE Level 2 energy audit report developed by the *qualified energy auditor*, as applicable;

8. Form F - Life-cycle cost analysis (LCCA), as applicable and if revised.

W4.2 Decarbonization plan progress reporting. *Participating campus* owners must provide status updates and revised *decarbonization plans* until *decarbonization plan* is fully implemented. A minimum of one energy management plan (EMP) must be completed and the operations and maintenance (O&M) program must be implemented for the *campus*. Submit EMP and O&M to the AHJ with the first decarbonization plan progress reporting.

1. Revised *decarbonization plan*;
   a. Status updates;
   b. Identify any revisions to *decarbonization plan*;
2. Energy management plan (EMP);
3. EMP reporting tool;
4. Operations and maintenance (O&M) program;
5. O&M reporting tool;
6. Form J - Grouped buildings compliance with Standard 100;
7. Form K - Decarbonization plan reporting;
8. Form B - Building activity and energy use intensity target (EUI_t);
9. Form C - Energy Star portfolio manager energy use intensity calculations;
10. Form D - Audit Template energy audit form, as applicable and if revised;
11. ASHRAE Level 2 energy audit report developed by the *qualified energy auditor*, as applicable;
12. Form F - Life-cycle cost analysis (LCCA), as applicable and if revised.

W4.3 Documentation of exempt buildings connected to a district energy system. There are no exemptions for a whole *campus*. *Participating campus* owners seeking approval of *building* exemption shall submit to the *AHJ* Form H, "Application for Exemption Certificate," in accordance with Section Z6.7 for *Tier 1 covered buildings* or Section Y6.7 for *Tier 2 covered buildings*.

W4.4 Campus that meets the EUI_t through the decarbonization plan. *Participating campus* owners must provide the following documentation to verify that the *campus weather normalized EUI* is less than the *campus* EUI_t and that a minimum of one energy management plan (EMP) must be completed and the operations and maintenance (O&M) program must be implemented for the *campus*.

1. *Decarbonization plan*;
2. Energy management plan (EMP);
3. EMP reporting tool;
4. Operations and maintenance (O&M) program;
5. O&M reporting tool;
6. Form J - Grouped buildings compliance with Standard 100;
7. Form K - Decarbonization plan reporting;
8. Form B - Building activity and energy use intensity target (EUI_t);
9. Form C - Energy Star portfolio manager energy use intensity calculations;

10. Form F - Life-cycle cost analysis (LCCA), when complying with the *decarbonization plan* through decommissioning in accordance with Section W3.1.1 Exception 2.

W4.5 Campus that meets the investment criteria through the decarbonization plan. *Participating campus* owners must provide the following documentation to verify that the *campus* has implemented all *EEMs* that meet the cost-effectiveness criteria resulting from the energy audit and economic evaluation criteria from Normative Annex X. The cost-effectiveness criteria does not apply to the decarbonization of the *district energy system* heating plant. The energy management plan (EMP) must be completed and the operations and maintenance program (O&M) must be implemented for the *campus*, and all *EEMs* must be installed and commissioned, prior to the approved *decarbonization plan* implementation schedule.

1. *Decarbonization plan*;
2. Energy management plan (EMP);
3. EMP reporting tool;
4. Operations and maintenance (O&M) program;
5. O&M reporting tool;
6. Form J - Grouped buildings compliance with Standard 100;
7. Form K - Decarbonization plan reporting;
8. Form B - Building activity and energy use intensity target (EUI_t);
9. Form C - Energy Star portfolio manager energy use intensity calculations;
10. Form D - Audit Template energy audit form;
11. ASHRAE Level 2 energy audit report developed by the *qualified energy auditor*;
12. Form F - Life-cycle cost analysis (LCCA).

W5. Assessment of administrative penalties.

W5.1 Issuing NOVC. The *AHJ* may issue a NOVC in accordance with Sections Z5 and Y5, when a *building owner* has failed to submit a *decarbonization plan*, approved by the *AHJ*, and has not met the requirements of this standard. Approved *decarbonization plans* extend Normative Annexes Z and Y compliance dates to the schedule specified in the approved *decarbonization plan*. Progress reporting submitted in accordance with Section W4.2, is required to maintain compliance date extension and avoid penalty.

W6. Compliance forms.

W6.1 Grouped Buildings Compliance with Standard 100 (Form J).

Note: Grouped Buildings Compliance with Standard 100 (Form J) is used instead of Form A for *grouped buildings*.

1. *Grouped buildings* identification:
   a. Washington state *grouped buildings* ID;
   b. County;
   c. County parcel number(s);
   d. Portfolio manager property ID number;
   e. Property name;
   f. Parent property name;
   g. Address 1 (street);
   h. Address 2;
   i. City;
   j. State;
   k. Postal code.
2. Contact information:

a. *Grouped buildings owner* name(s);
b. Contact name;
c. Address 1 (street);
d. Address 2;
e. City;
f. State/province;
g. Country;
h. Postal code;
i. Telephone number;
j. Email address.
3. *Qualified person*:
a. *Qualified person* name;
b. Address 1 (street);
c. Address 2;
d. City;
e. State;
f. Postal code;
g. Telephone number;
h. Email address;
i. Licensed, certified (select all that apply):
i. Licensure; or
ii. Certifying authority.
4. *Energy manager* (if different than the *qualified person*):
a. *Energy manager* name;
b. Address 1 (street);
c. Address 2;
d. City;
e. State/province;
f. Postal code;
g. Country;
h. Telephone number;
i. Email address.
5. *Decarbonization plan* author, where applicable:
a. Company name;
b. Contact name;
c. Address 1 (street);
d. Address 2;
e. City;
f. State;
g. Postal code;
h. Telephone number;
i. Email address.
6. This compliance report is for:
a. *Grouped buildings* that meets the EUI_t;
b. *Grouped buildings* that meets the investment criteria prior to the compliance date;
c. *Grouped buildings* that will comply with the *decarbonization plan*, in addition:
i. Progress reporting for *decarbonization plan*;
ii. Completion reporting.
7. Summary data:
a. **EUI_t**. *Energy use intensity target* (EUI_t) (kBtu/ft^2/yr) based on Section Z6.2 Form B;

Note: *Grouped buildings* without an *energy target* unable to develop EUI_t in accordance with Section 7.2.2 or 7.2.3 shall report:
• National median site *EUI* (kBtu/ft^2) as calculated by the Energy Star portfolio manager account on Form C.

b. **EUI.** Measured site *energy use intensity* (*EUI*) (kBtu/ft^2) for the *grouped buildings'* compliance year based on Section Z6.3 Form C;

c. **WNEUI.** Measured *weather normalized* site *energy use intensity* (*WNEUI*) (kBtu/ft^2) for the *grouped buildings'* compliance year based on Section Z6.3 Form C.

Note: In addition to the compliance year *WNEUI*, *baseline WNEUI* is also required for *grouped buildings* that will meet investment criteria with a measurable *EUI*.

d. **Date range.** List the months/year of the collected data (mm/yyyy - mm/yyyy) for the *grouped building's* compliance year from Section Z6.3 Form C.

Note: In addition to the compliance year date range, *baseline* date range is also required for *grouped buildings* that will meet investment criteria with a measurable *EUI*.

8. Have the energy management requirements of Section 5 been met in accordance with the compliance schedule outlined in Section Z3.2 for *Tier 1 covered buildings*, Section Y3.2 for *Tier 2 covered buildings*, and for *campuses* participating in the *decarbonization plan* by July 1, 2030, for *buildings* not covered, but connected to the *district energy system*? [ ] Yes [ ] No

• Upload energy management plan as specified by the *AHJ*.

9. Have the operation and maintenance requirements of Section 6 been met in accordance with the compliance schedule outlined in Section Z3.2 for *Tier 1 covered buildings*, Section Y3.2 for *Tier 2 covered buildings*, and for *campuses* participating in the *decarbonization plan* by July 1, 2030, for *buildings* not covered, but connected to the *district energy system*? [ ] Yes [ ] No

• Upload operation and maintenance implementation documentation as specified by the *AHJ*.

10. Date the audit and economic evaluation was completed (N/A if none required).

• Upload audit reports as specified by Section Z6.4 Form D.

11. Have all *EEMs* required by Section 8 been implemented? [ ] Yes [ ] No

12. Have the requirements of Section 9 been completed? [ ] Yes [ ] No

13. We state that these *grouped buildings* comply with ANSI/ASHRAE/IES Standard 100 as amended by the *AHJ* to conform with RCW 19.27A.210:

a. Signature of *grouped buildings owner*:

• Date:

b. Signature of *qualified person*:

• Date:

c. Signature of *energy manager*:

• Date:

d. Signature of *authority having jurisdiction*:

• Final compliance:

• Date:

W6.2 Building activity and energy use intensity target (EUI_t) (Form B). See Section Z6.2.

W6.3 Energy use intensity calculations (Form C). See Section Z6.3.

W6.4 End use analysis requirements. *Building owners* shall demonstrate compliance with Form D by providing the documentation required by Section Z6.4.1 for all *Tier 1 covered buildings* of *campuses* pursuing compliance through the investment criteria.

W6.5 Normative Annex X, "Investment Criteria," Tool (Form F). See Section Z6.5 for all *Tier 1 covered buildings* of *campuses* pursuing compliance through the investment criteria.

W6.6 Documentation of a building of historic significance (Form G). See Section Z6.6.

W6.7 Application for exemption certificate (Form H). See Section Z6.7 for *Tier 1 covered buildings* or Section Y6.7 for *Tier 2 covered buildings*.

W6.8 Decarbonization plan reporting requirements (decarbonization plan content outline) (Form K).

1. **This decarbonization plan report is for:**

a. Final *decarbonization plan* submittal [ ] Yes [ ] No

b. Progress reporting [ ] Yes [ ] No

c. Completion reporting [ ] Yes [ ] No

2. **Decarbonization project scope of work:**

a. Summary of existing *district energy system* and *campus* layout including:

i. List of all *buildings* served by the *district energy system*;

ii. List of all *buildings* served by the *district energy system* heating and/or cooling plant, peak load;

iii. Description of current *district energy system* including, but not limited to, heating and cooling system type(s), configuration(s), output capacity(ies), thermal distribution loop(s);

iv. Energy monitoring (*benchmarking*):

• Identification of current *benchmarking* configuration:

- *Campus* [ ] Yes [ ] No
- *Connected building* [ ] Yes [ ] No
- Campus-level [ ] Yes [ ] No

v. *Energy use intensity target* (EUI_t) (kBtu/ft^2/yr) based on completed Section Z6.2;

vi. Measured site *EUI* (kBtu/ft^2) for the identified *benchmarking* configuration at time of *decarbonization plan* submittal based on Section Z6.3 Form C;

b. Proposed decarbonized *district energy system* and *campus* layout including:

i. List of all *buildings* to be served by the *district energy system*;

ii. List of all *buildings* to be served by the *district energy system* heating plant, peak load;

iii. List of all *buildings* to be served by the *district energy system* cooling plant, peak load;

iv. Description of proposed *district energy system* including, but not limited to, heating and cooling system type(s), configuration(s), output capacity(ies), thermal distribution loop(s);

• An inventory and evaluation of possible options to partner with nearby sources and uses of waste heat and cooling;

• An inventory and evaluation of expanding *district energy system* to other *buildings*;

v. Identification of heating plant backup type, fuel source, capacity;

vi. Identification of proposed *energy efficiency measures* (*EEMs*) required to meet the requirements of the standard;

c. Proposed *building performance target*:

i. Compliance pathway:

• EUI_t [ ] Yes [ ] No

• Investment criteria - (include within progress report) [ ] Yes [ ] No

- Plans for Level 2 energy audit, on *Tier 1 covered buildings*

- Plans for LCCA

ii. Energy monitoring (*benchmarking*):

• Identification of proposed *benchmarking* configuration:

- *Campus* [ ] Yes [ ] No

- *Connected building* [ ] Yes [ ] No

- Campus-level [ ] Yes [ ] No

• Proposed *energy use intensity target* (EUI_t) (kBtu/ft^2/yr) developed in accordance with the standard;

• Projected site *EUI* (kBtu/ft^2) for the identified *benchmarking* configuration after implementation of *decarbonization plan* based on Section Z6.3 Form C;

• Form D documenting proposed *energy efficiency measures* (*EEMs*);

• Form F documenting the life-cycle cost analysis if pursuing the investment criteria of the standard;

d. Proposed metering configuration:

i. Shall include metering to measure *district energy system* heating and/or cooling plant input to individual *buildings*;

ii. Shall be configured in a manner to measure proposed *benchmarking* configuration;

iii. Shall include independent end use metering of *district energy system* backup heating plant.

3. **Recommended district energy system decarbonization plan considerations:** *Participating campuses* are encouraged to include the following considerations in a *decarbonization plan*:

a. Distribution network upgrades;

b. On-site energy storage facilities;

c. Space cooling for residential facilities;

d. Labor and workforce, including state registered apprenticeship utilization;

e. Options for public-private partnerships;

f. Incorporation of industrial symbiosis projects or networks as described in chapter 308, Laws of 2021.

4. **Utility engagement:** Narrative of steps taken including the date range of communications, for *participating campuses* consultation with the electric utility and the natural gas utility serving the site of the system during *decarbonization plan* development.

5. **Proposed project timeline shall provide implementation details and dates for:**

a. Energy management plan and operations and maintenance program, implemented in accordance with Section W3.1.1(5);

b. *Energy efficiency measures* (*EEMs*) required to meet the standard;

c. All phases of *district energy system decarbonization plan*;

i. *Decarbonization plan* shall determine implementation schedule, project timeline, compliance schedule;

6. **Other considerations:**

a. Communication engagement including, but not limited to, occupants, utilities, funders, and public;

b. Are funding mechanisms in place? [ ] Yes [ ] No

c. Are there cost projections in place? [ ] Yes [ ] No

i. What are your current/updated estimated costs? _____

ii. What are your current expended costs? _____

d. Changes to plan required to meet changes in codes, laws, and standards including any future reductions in EUI_t.

[Statutory Authority: RCW 19.27A.210 and 19.27A.250. WSR 26-15-112, s 194-50-170, filed 7/21/26, effective 8/21/26. Statutory Authority: RCW 19.27A.210. WSR 24-16-041, § 194-50-170, filed 7/30/24, effective 8/30/24.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.