

(Effective until March 15, 2024)

WAC 51-11C-40904 Section C409.4—Measurement devices, data acquisition system and energy display.

C409.4 Measurement devices, data acquisition system and energy display.

C409.4.1 Meters. Meters and other measurement devices required by this section shall have local displays or be configured to automatically communicate energy data to a data acquisition system. Source meters may be any digital-type meters. Current sensors or flow meters are allowed for end use metering, provided that they have an accuracy of +/- 5%. All required metering systems and equipment shall provide at least hourly data that is fully integrated into the data acquisition and display system per the requirements of Section C409.

C409.4.2 Data acquisition system. The data acquisition system shall store the data from the required meters and other sensing devices in a single database for a minimum of 36 months. For each energy supply and end use category required by C409.2 and C409.3, it shall provide real-time energy consumption data and logged data for any hour, day, month or year.

C409.4.3 Energy display. For each building subject to Section C409.2 and C409.3, either a visible display in a location with ready access, or a single web page or other electronic document available for access to building management or to a third-party energy data analysis service shall be provided in the building available for access by building operation and management personnel. The display shall graphically provide the current energy consumption rate for each whole building energy source, plus each end use category, as well as the total and peak values for any day, week, month, and year.

C409.4.4 Commissioning. Energy metering and energy consumption management systems shall be commissioned in accordance with Section C408.

[Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-40904, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40904, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-13-089, § 51-11C-40904, filed 6/15/16, effective 7/16/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40904, filed 2/1/13, effective 7/1/13.]

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C409.4 Measurement devices, data acquisition system and energy display.

C409.4.1 Meters. Meters and other measurement devices required by this section shall be configured to automatically communicate energy data to a data acquisition system and energy display. Source meters may be any digital-type meters. Current sensors or flow meters are allowed

for end use metering, provided that they have an accuracy of +/- 5%. All required metering systems and equipment shall provide data that is fully integrated into the data acquisition and display system per the requirements of Section C409. Electrical meters shall be configured to communicate data to the data acquisition system and energy display for both consumption (e.g., kWh) and consumption rate (e.g., kW). Other meters and measurement devices shall be configured to communicate data to the data acquisition system for consumption.

C409.4.2 Data acquisition system. The data acquisition system shall store the data from the required meters and other sensing devices in a single database for a minimum of 36 months. For each energy supply and end use category required by C409.2 and C409.3, it shall provide energy consumption logged in one-hour or less intervals and energy consumption rate logged in 10-minute or less intervals. Data from the data acquisition system shall be viewable via the energy display in accordance with the requirements of Section C409.4.3.

C409.4.3 Energy display. For each building subject to Section C409.2 and C409.3, either a single visible display in a location with ready access, or a single web page or other electronic document available for access to building operation and management personnel or to a third-party energy data analysis service shall be provided in the building; for metering data acquisition systems and energy displays monitored by a third-party energy data analysis service, building operation and management personnel shall retain access to the metering data acquisition system and energy display. The display shall numerically provide the current energy consumption rate and energy consumption total for each whole building energy source and each end use category. The energy display shall also graphically and numerically display logged data from the data acquisition system for energy consumption for each whole building energy source and energy consumption rate for whole building electrical use and each end use category for any selected day, week, month, or year.

C409.4.4 Commissioning. Energy metering and energy consumption management systems shall be commissioned in accordance with Section C408.6.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapters 19.27A and 19.27 RCW. WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40904, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24. Statutory Authority: RCW 19.27A.025, 19.27A.045 and chapter 19.27 RCW. WSR 20-21-080, § 51-11C-40904, filed 10/19/20, effective 2/1/21. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-40904, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-13-089, § 51-11C-40904, filed 6/15/16, effective 7/16/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-40904, filed 2/1/13, effective 7/1/13.]