

GG293-14

1003.2.1

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Revise as follows:

1003.2.1 Metering devices. Dedicated individual utility or private metering devices that measure and verify energy ~~and or~~ water use within the building or space shall be provided for at least one of the following for each type of energy used in the building:

1. Electrical energy consumption for individual tenant spaces.
2. Water consumption for individual tenant spaces.
3. Natural gas, propane, or fuel oil consumption for individual tenant spaces.
4. Lighting ~~loads~~.
5. Motors and drives ~~loads~~.
6. Chiller ~~part load~~ efficiency.
7. Cooling system ~~loads~~.
8. Economizer and heat recovery system ~~loads~~.
9. Boiler / furnace ~~efficiencies~~ efficiency.
10. Building process systems and equipment ~~loads~~.
11. Water consumption for landscape irrigation.
12. Heating system.
13. Water consumption for heating and cooling equipment.
14. Water consumption for building process systems and equipment.

Exception: Metering devices are not required for buildings that are less than 25,000 square feet (2323 m²) in total building floor area.

Reason: The proposed changes will ensure that all forms of energy used in a building, not just one form of energy (that could represent less than 10% of the total energy usage of the building), are covered by this requirement.

The changes will help to close loopholes in the current requirement.

In addition, edits are made to clarify the intent of the metering provision. For example, metering equipment measures efficiency at all loads, not just at part load. Also, a meter would measure the efficiency of the cooling system, not the cooling load.

There are also additions that will provide more options and more flexibility to the building owner to meet this provision.

The language on buildings that are less than 25,000 square feet is consistent with the philosophy of the submetering requirements shown in Chapter 6. New buildings under 25,000 square feet are required to have the infrastructure to be submetered at a later date, but are not required to install submetering equipment.

Cost Impact: Will increase the cost of construction. Costs will be increased for buildings equal to or greater than 25,000 square feet that use two types of energy (e.g., electricity and natural gas). However, costs will be decreased for buildings that are less than 25,000 square feet.