



## Advanced energy metering

Possible 2 points

### Intent

To support energy management and identify opportunities for additional energy savings by tracking building-level and system-level energy use.

### Requirements

#### Establishment

Install advanced energy metering for the following:

- all whole-building energy sources used by the building; and
- major end uses that represent 20% or more of the total annual consumption of the building minus plug load use.

The advanced energy metering must have the following characteristics.

- Meters must be permanently installed, record at intervals of one hour or less, and transmit data to a remote location.
- Electricity meters must record both consumption and demand. Whole-building electricity meters should record the power factor, if appropriate.
- The data collection system must use a local area network, building automation system, wireless network, or comparable communication infrastructure.
- The system must be capable of storing all meter data for at least 36 months.
- The data must be remotely accessible.
- All meters in the system must be capable of reporting hourly, daily, monthly, and annual energy use.

#### Performance

Program the facility's energy management system to set an alarm whenever the energy consumption and peak demand rise above the anticipated amount by more than 5%. The anticipated consumption and peak should be determined by analyzing historical facility performance and weather and operating conditions and should be set on at least monthly, preferably daily.

Demand measurements must be taken in time increments no longer than the increments used for utility billing or in one-hour increments, whichever is less time.

On at least a monthly basis, report the facility's utility peak demand and total consumption and compare it with the data for the previous month and the same month from the previous year.