

GEW135-14

610.2, 610.3, 610.5.1, 610.5.2

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Revise as follows:

610.2 Solar photovoltaic systems. Solar photovoltaic systems shall be sized to provide not less than 2 percent of the total estimated annual ~~electric~~ energy consumption of the building, or collective buildings on the building site in accordance with Section 610.1.1 or 610.1.2.

610.3 Wind energy systems. Wind energy systems shall be designed, constructed and sized to provide not less than 2 percent of the total estimated annual ~~electric~~ energy consumption of the building, or collective buildings on the building site in accordance with NFPA 70 and Section 610.1.1 or 610.1.2.

610.5.1 Metering. Renewable energy systems shall be metered separately from the building's electrical and fossil fuel meters and shall. ~~Renewable energy systems shall be metered to measure the amount of renewable electric or thermal energy generated on the building site in accordance with Section 603. Such metering shall include the renewable energy system output and time of production to facilitate the monitoring required by Section 610.5.2.~~

610.5.2 Monitoring. Renewable energy systems shall be monitored at least monthly to determine the coincidence between ~~measure~~ the peak electric or thermal energy generated by the renewable energy systems ~~during~~ and the building's ~~anticipated~~ peak electric or fossil fuel consumption period in accordance with Section 603.

Reason: This proposal addresses two issues:

1. a mismatch in scope between various sections on the amount of renewable energy required, and
2. cleans up awkward language on metering and monitoring.

1. Sections 610.1.1 and 610.1.2 establish minimum size requirements for on-site renewable energy facilities. Both of these sections require "2 percent of the total calculated annual energy use of the building" to be provided by on-site renewable energy systems. This would include the use of all energy sources including electricity, gas, propane, oil and any other fuel source. Sections 610.2 and 610.3, however, change the language to speak only to "2 percent of the total estimated **electric** energy consumption," not the broader scope of "total calculated annual energy consumption" as required in Sections 610.1 and 610.2. (emphasis added)

Even if a reading of these various sections could be tortured into making some sense, the incentive would be in direct conflict with green building goals as it would tend to encourage the use of on site fossil fuels in lieu of investing in on-site renewables.

Making these changes would also reconcile Sections 610.2 and 3 with Section 610.4 that requires 10 percent of the "building's annual estimated hot water energy usage," thus broadly addressing all fuels and not just electricity.

2. Sections 610.5.1 and 610.5.2 address metering and monitoring of renewable energy systems. The proposed change to Section 610.5.1 attempts to streamline the section and to add some specificity as to the metering output requirements. Currently, Section 610.5.2 requires "monitoring" but it does not provide any guidance; continuous monitoring? quarterly? The proposal simply attempts to require periodic and systematic monitoring.

Cost Impact: Will not increase the cost of construction.

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