

# GEW57-14

## 604.1

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**Revise as follows:**

**604.1 Establishing an open and interoperable automated demand-response (Auto-DR) infrastructure.** Where this section is indicated to be applicable in Table 302.1, buildings that contain heating, ventilating, air-conditioning (HVAC) or lighting systems shall comply with Sections 604.1 through 604.4. A building energy management and control system (EMCS) shall be provided and integrated with building HVAC systems controls and lighting systems controls to receive an open and interoperable automated demand-response (Auto-DR) relay or Internet signal. Building HVAC and lighting systems and specific building energy-using components shall incorporate preprogrammed demand response strategies that are automated with a demand response automation Internet software client.

**Exception:** Auto-DR infrastructure is not required for the following:

1. Buildings located where the electric utility, gas utility, or regional Independent System Operator (ISO) or Regional Transmission Operator (RTO) does not offer a demand response program to buildings regulated by this code.
2. Buildings with a peak electric or natural gas demand not greater than 0.75 times that of the standard reference design.
3. Buildings that have incorporated onsite renewable energy generation to provide 20 percent or more of the building's peak energy demand.

**Reason:** Currently, Section 604 does not address gas peak reductions in buildings even though some gas companies offer DR programs to customers. Moreover, gas supply infrastructure has become more taxed as exploration has increased in the United States.

Auto DR controls can reduce fossil fuel usage as well as electric usage (e.g., lower space heating thermostats and water heating thermostats in the winter). For item 2, it prevents any gaming by fuel switching. Lowering electric demand by increasing fossil fuel demand runs counter to the goals of a green building code.

Additionally, in cases where one energy demand occurs during one season (e.g., electric demand in the summer) and another energy demand occurs during a different season (e.g., fossil fuel demand in the winter), but the values are the same or very close to each other, the revised language will ensure that the building is designed to reduce all peak energy demands, and not allow any game playing that would result from fuel switching (such as increasing one energy type of peak demand to lower another energy type of peak demand).

**Cost Impact:** Will not increase the cost of construction.

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