

THE HOTEL ENERGY CODES YOU NEED TO KNOW

Understand energy code adoption and enforcement for hotel guest rooms in your state.

WHICH ENERGY CODES ARE REQUIRED FOR HOTEL GUEST ROOMS?

For commercial hospitality applications, each state has different code requirements that hotel owners and developers need to follow. Commercial energy codes can seem overwhelming, but they're critical for building planning and design. For hotels, there are specific energy codes that pertain to the guest room. To learn how to comply, first you need to understand what's required for your state.

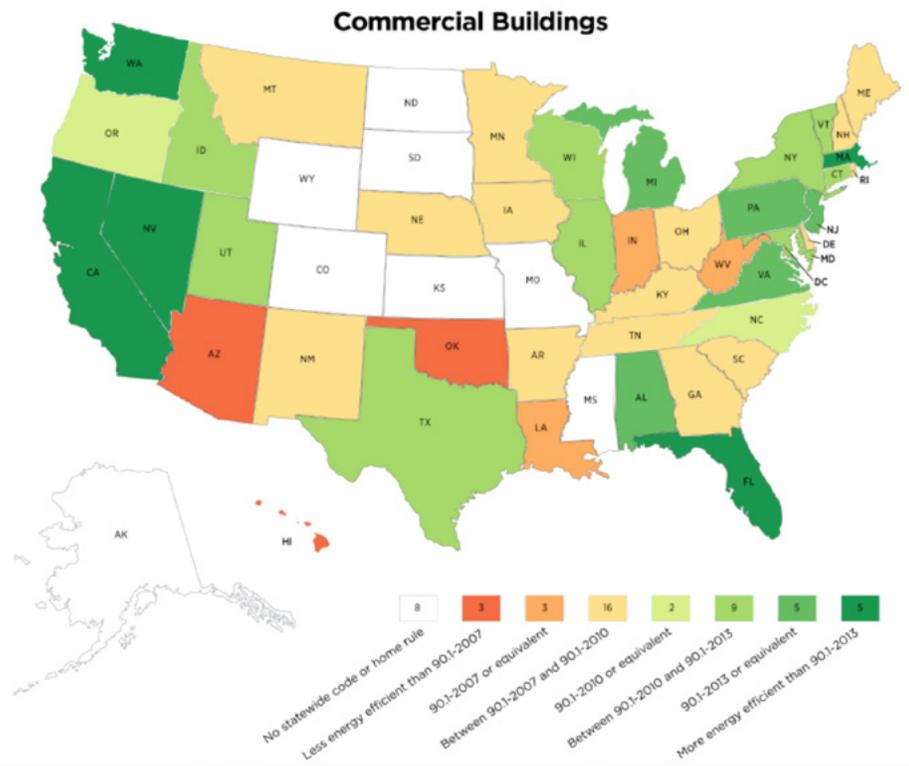
There are several important codes to consider when designing a hotel guest room, and these particular ones relate to master switching and automatic shutoff:

ASHRAE 90.1 2016 - 9.4.1.3

IECC 2018 C405.2.4

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As stated above, each state differs slightly in their adoption and enforcement of these codes. For a complete listing of each state's requirements, visit this [INTERACTIVE MAP](#).



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WHAT IS MASTER SWITCHING?

Many hotels are interested in master switching, but it can be difficult to understand. It depends on the version of code that is adopted, which varies by state. Regardless, master switching is important and necessary in many hotels.

HOW MASTER SWITCHING WORKS

Master switching is a way of controlling lighting and power with one switch, the master switch. It's convenient for guests because they can instantly turn off everything when they leave a room. It's also beneficial for hotel owners because it can cut down energy costs.

The master switch is typically placed by the front door in the guest room, but there can also be a secondary location, such as near the bed. The master switch is required to control all of the installed lighting and switched receptacles within the guest room. When a guest enters the room, they must operate the master switch to turn on the system. They can then turn on accent lamps and other luminaries, or they operate lighting plugged into switched receptacles connected to this control system. Likewise, when they leave, they can operate the master switch to turn off all lighting and lighting plugged into switched receptacles connected to that system.

WHAT IS AUTOMATIC SHUTOFF?

Some codes require automatic shutoff with an option for captive key or card key control. This means that in most instances all lighting and switched receptacles in the room must turn off automatically 20 minutes after occupants leave the guest room or 30 minutes after the occupants have left the bathroom.

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ELECTRICAL CODE DEFINITIONS

While adoption and enforcement differ for each state, most include the following code provisions.

ASHRAE 90.1 2016 - 9.4.1.3

b. GUESTROOMS

1. All lighting and all switched receptacles in guestrooms and suites in hotels, motels, boarding houses, or similar buildings shall be automatically controlled such that the power to the lighting and switched receptacles in each enclosed space will be turned off within 20 minutes after all occupants leave that space. **Exception:** Enclosed spaces where the lighting and switched receptacles are controlled by captive key systems and bathrooms are exempt.
2. Bathrooms shall have a separate control device installed to automatically turn off the bathroom lighting within 30 minutes after all occupants have left the bathroom. **Exception:** Night lighting of up to 5W per bathroom is exempt.

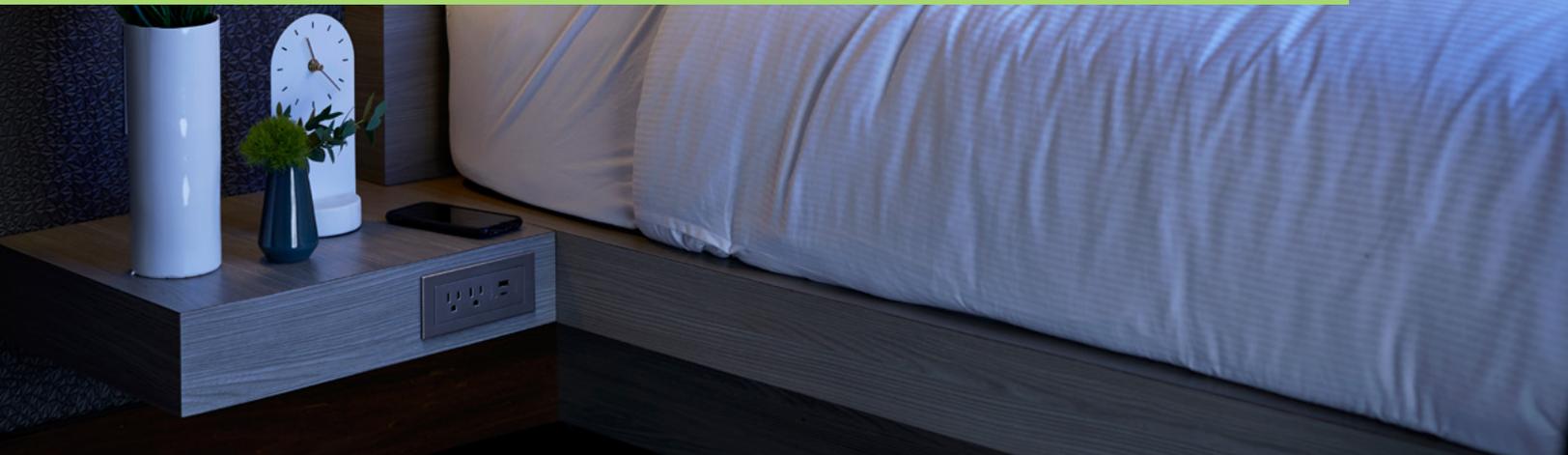
c. All supplemental task lighting, including permanently installed under-shelf or under-cabinet lighting, shall be controlled from either (1) a control device integral to the luminaires or (2) by a wall-mounted control device that is readily accessible and located so that the occupant can see the controlled lighting.

WHAT DOES THIS MEAN?

ASHRAE 90.1 requires automatic shutoff for guest rooms. All power to the lighting and switched receptacles in the room must turn off within 20 minutes after people leave the room. Bathrooms, however, need to do this within 30 minutes and require a separate method of control from the rest of the room.

There are a couple of exceptions here. A captive key system would replace automatic shutoff in the guest room. In bathrooms, night lighting is an exception to automatic shutoff. Additionally, there are some requirements for lamps and light fixtures, even if they're permanently installed (see section c). Please note that section C (task lighting) does not apply to lighting connected to the headboard; that lighting is viewed as permanently installed and must be controlled.

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IECC 2018 C405.2.4

C405.2.4 Specific application controls.

Specific application controls shall be provided for the following:

1. Display and accent light shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.
2. Lighting in cases used for display case purposes shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.
3. Hotel and motel sleeping units and guest suites shall have a master control device that is capable of automatically switching off all installed luminaires and switched receptacles within 20 minutes after all occupants leave the room. **Exception:** Lighting and switched receptacles controlled by captive key systems.
4. Supplemental task lighting, including permanently installed under-shelf or under-cabinet lighting, shall have a control device integral to the luminaires or be controlled by a wall-mounted control device provided that the control device is readily accessible.
5. Lighting for non-visual applications, such as plant growth and food warming, shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.
6. Lighting equipment that is for sale or for demonstrations in lighting education shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.

WHAT DOES THIS MEAN?

IECC Chapter 4 (CE) also has specific requirements for lighting controls and switched receptacles. This code requires a dedicated control for lighting (see above for details about the types of lighting) and automatic shutoff after 20 minutes for installed luminaires and switched receptacles through a master control device. Again please note that lighting mounted into the headboard is considered permanently installed.

For more information on energy codes for hotels in your state, consult a local authority.

For more information on hospitality power and lighting solutions that meet code, visit legrand.us/hospitality.