



Residential Energy Requirements for Additions and Remodels

For remodels that do not add conditioned floor area these are the minimum requirements:

- Roof or ceiling insulation: Match the existing, but not less than R-19
- Wall insulation: Match the existing, but not less than R-13
- Floor insulation: Match the existing, but not less than R-19
- Fenestration or glazing: Minimum U of 0.32 and maximum SHGC of 0.25
Glazing assemblies must be labeled for efficiency and infiltration standards.
- HVAC equipment: If new equipment is installed it must meet current Federal efficiency standards. Duct testing is required for new ductwork installations.

For additions where the conditioned floor area is expanded, a Title 24 performance compliance analysis must be performed, or compliance shown to meet the prescriptive requirements of Climate Zone 7, Standard Building Design:

Zone 7 Prescriptive Requirements:

- Roof/ceiling insulation: R-30
- Wall insulation: R-15 + 4 or R-13 + 5
- Raised Floor insulation: R-19
- Radiant Barrier: NR
- Glazing: Max. Area: 20% of floor area.
Max. West Exposure: 5% of floor area.
U Value: 0.32
SHGC: 0.25
- Duct insulation: R-6
- Duct testing: Required
- Electric resistance heating: Not Allowed

Notes:

1. Lofts and floor addition that do not increase the conditioned volume of the building can be treated as remodels and not additions.
2. The area of existing glazing removed because of the addition may be added to the 20% of the floor area for additional allowable glazing area.

Duct Testing

- When new ducting is installed, the installer must test and certify the system for leakage in all cases.
- When sealed duct testing is specified on the CF-1R, after the installer has installed and certified the ductwork, a HERS Rater must be hired to perform a test and certification of the ductwork installations.

New 2013 Lighting Requirements

- High Efficacy Fixtures are defined as follows:

Lamp Power	Required Lamp Efficacy
Less than 15 watts	40 Lumens per watt
15 to 40 watts	50 Lumens per watt
40 watts plus	60 Lumens per watt

The fixtures must be “high efficacy” code compliant. These are typically “wired” fluorescent fixtures. Screw in fluorescent bulbs are not allowed.

- Kitchen lighting must be high efficacy fixtures, except that 50% of the kitchen lighting wattage may be incandescent. Fixtures that are part of kitchen appliances are exempt from this requirement.
- Bathrooms must have high efficacy fixtures, or controlled by vacancy sensors.
- Garages, utility rooms, laundry rooms, etc. shall have high efficacy fixtures or controlled by vacancy sensors.
- All other habitable rooms, hallways and closets over 70 sq. ft. shall have high efficacy fixtures, or controlled by vacancy sensors or with dimmer switches.
- Outdoor lighting shall be high efficacy fixtures, fixtures controlled by motion detectors, or controlled by time clocks with photo controls.