

WATER HEATING EQUIPMENT



Type, Number, and Efficiency

Water Heating equipment may be installed only if the manufacturer has certified to the Commission that the equipment complies with all the applicable requirements, including efficiencies. Check the CF-1R for the type, number and minimum efficiencies for each project. Check the CF-2R for installer certification of efficiencies.

Code Reference: 2016 Title 24, Part 6 Standards §110.1



Small Storage Gas – 20 to 55 gallons

Small storage gas water heaters installed in new construction is basically a default (no penalty/no credit). It meets the prescriptive requirements. This requirement can also be met by installing a gas instantaneous water heater (See Option 3). Anything else must be modeled.

A “Small Storage Gas” water heater with:

1. A gas input rating $\leq 105,000$ Btu/h
2. A minimum efficiency of $EF = 0.675 - (0.0015 \times \text{volume})$
 1. 50 gal = 0.600 EF, 40 = 0.615 EF, 30 gal = 0.630 EF

Storage Gas – 55 to 100 gallons

A “Storage Gas” water heater with:

1. A gas input rating $\leq 105,000$ Btu/h
2. A minimum efficiency of $EF = 0.8012 - (0.00078 \times \text{volume})$
 1. 50 gal = 0.7622 EF, 40 = 0.77 EF, 30 gal = 0.7934 EF

Instantaneous Water Heater

Instead of the Small Storage Gas water heater described previously, an instantaneous gas water heater may be installed that has:

1. A gas input rating $< 200,000$ Btu/h
2. No supplemental storage tank installed
3. A minimum efficiency of $EF = 0.82 - (0.0019 \times \text{volume})$

Code Reference: Residential Compliance Manual Chapter 5.3

HIGH EFFICIENCY WATER HEATER READY

CODE



Electrical Power

To facilitate the future upgrade to a high efficiency water heater, all water heaters must have 120V receptacle located within 3 feet of the water heater and accessible to the water heater.

Code Reference: 2016 Title 24, Part 6 Standards §150.0(n)

CODE

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energycodeace.com](mailto:installation.feedback@energycodeace.com)

Venting

To facilitate the future upgrade to a high efficiency water heater, all water heaters must have either a Category III or IV vent, or a Type B vent that is straight with no bends (to facilitate easy upgrade to a Category III or IV).

Code Reference: 2016 Title 24, Part 6 Standards §150.0(n)

CODE

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Condensate Drain

The condensate drain must be no more than 2 in higher than the base of the installed water heater, and allow natural draining without pump assistance.

Code Reference: Title 24 2016 Standards §150.0(n)

CODE



Gas Supply Line

To facilitate the future upgrade to a high efficiency water heater, all water heaters must have a gas supply line with a capacity of at least 200,000 Btu/h. This typically requires a 3/4" pipe, while most water heaters usually only get a 1/2" pipe.

Code Reference: 2016 Title 24, Part 6 Standards §150.0(n)

Plumbing

HIGH EFFICIENCY WATER HEATER READY

Notes:
