

# Modify C406.2.3.1.3 (2256)

IECC: C406.2.3.1.3

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## 2024 International Energy Conservation Code [CE Project]

Revise as follows:

**C406.2.3.1.3 W03 Efficient fossil fuel water heater.** The combined input-capacity-weighted-average equipment rating of all gas water heating equipment in the *building* shall be not less than 95 percent  $E_t$  or 0.93 UEF. Adjustments shall apply as follows:

1. Where the *service water heating* system is required to comply with Section C404.2.1, this measure shall achieve 30 percent of the listed base W03 energy credits in Tables C406.2(1) through C406.2(9).
2. Where the installed *building service water heating* capacity is less than 200,000 Btu/h (59 kW) and weighted UEF is less than 0.93 UEF and not less than 0.82, this measure shall achieve 25 percent of the base W03 credit in Tables C406.2(1) through C406.2(9).
3. Where the combined input-capacity-weighted-average equipment rating of all gas water heating equipment in the building exceeds 95 percent  $E_t$  or 0.93 UEF, the base W03 energy credits in Tables C406.2(1) through C406.2(9) will be adjusted based on any of the following equations:  $W03_{adjusted} = W03_{base} \times (E_{t_{actual}}/E_{t_{base}})$  or  $W03_{adjusted} = W03_{base} \times (UEF_{actual}/UEF_{base})$  or  $W03_{adjusted} = W03_{base} \times (COP_{actual}/COP_{base})$  Where:  $COP_{base} = 0.95$

**Reason:** This proposal expands the option for this measure to include Gas-Fired Heat Pumps. There are a number of gas-fired heat pumps in the market today with more in development. GFHPs have efficiencies above 1.0 COP and up to 1.4 COP. They provide another good option for the credits table and should allow for more credits based on the higher efficiencies.

**Cost Impact:** The code change proposal will neither increase nor decrease the cost of construction. This is simply another option in the Additional Energy Efficiency Credits tables and should have minimal if any affect to the cost of construction if selected.

**Cost Impact (Detailed):** Increase

**Estimated Immediate Cost Impact:**

It may have a minimal impact to first cost if selected as an option.

**Estimated Immediate Cost Impact Justification (methodology and variables):**

It may have a minimal impact to first cost if selected as an option.