RE2D-66-23 MOD2

Changes are highlighted in yellow and shown relative to RED2-59

 (RE2D-59 changes approved by the Modeling Subcommittee are shown in red and blue for context)

Note: This change addresses the use of HVAC measures in Climate Zone 4.

**IECC RE: TABLE R408.2**

2024 International Energy Code [RE] [RE Project] R3

**Revise as follows:**

 TABLE R408.2 CREDITS FOR ADDITIONAL ENERGY EFFICIENCY

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Measure Number | Measure Description | Credit Value |   |   |   |   |   |   |   |   |
|   |   | Climate Zone 0 & 1 | Climate Zone 2 | Climate Zone 3 | Climate Zone 4 except Marine | Climate Zone 4 Marine | Climate Zone 5 | Climate Zone 6 | Climate Zone 7 | Climate Zone 8 |
| *Note: Rows not shown -- no changes* |
| R408.2.2(9)b | High Performance Gas furnace and heat pump (Option 1) | ~~13~~15 | ~~12~~13 | ~~9~~11 | ~~7~~NAe | NA | NA | NA | NA | NA |
| R408.2.2(10)b | High Performance Heat pump with electric resistance backup (Option 1) | 13 | 12 | 11 | 12~~NA~~ | NA | NA | NA | NA | NA |

a.    Where the measure is selected, each dwelling unit, sleeping unit, and common areas where the measure is applicable must have the measure installed.

b.    Where multiple heating or cooling systems are installed, credits shall be determined using a weighted average of the square footage served by each system.

c.    Where the measure is selected, each dwelling unit and sleeping unit must comply with the measure.

d.    Where the measure is selected, each dwelling unit shall be served by a water heater meeting the applicable requirements. Where multiple service water heating systems are installed, credits shall be determined using a weighted average of the square footage served by each system.

e. 11 credits are available for climate zone 4 where the following measure is used: Gas Furnace and Heat Pump (Option 3): greater than or equal to 95% AFUE fuel gas furnace and 7.8 HSPF2, 15.2 SEER2 and 10.0 EER2 air source heat pump.

SEER2: Seasonal Energy Efficiency Ratio, HSPF2: Heating Season Performance Factor, EER2: Energy Efficiency Ratio, COP: Coefficient of Performance

**R408.2.2 More efficient HVAC equipment performance option.** Heating and cooling equipment shall meet one of the following efficiencies as applicable for the climate zone. Where multiple heating or cooling systems are installed serving different zones, credits shall be earned based on the weighted average of square footage of the zone served by the system. Centrally Ducted Systems:

**HVAC options applicable to all climate zones:**

1. Ground source Heat Pump -Greater than or equal to 16.1 EER and 3.1 COP ground

source heat pump.

2. Cooling (Option 1)-Greater than or equal to 15.2 SEER2 and 12.0 EER2 air conditioner.

3. Cooling (Option 2)-Greater than or equal to 16.0 SEER2 and 12.0 EER2 air conditioner.

4. Gas Furnace (Option 1)-Greater than or equal to 97 % AFUE fuel gas furnace.

5. Gas Furnace (Option 2)- Greater than or equal to 95% AFUE fuel gas furnace.

**HVAC options applicable to climate zones 0, 1, 2, and 3:**

6. Gas Furnace (Option 3)-Greater than or equal to 90% AFUE fuel gas furnace.

7. Gas Furnace and Cooling (Option 1)- Greater than or equal to 90% AFUE fuel gas

furnace and 15.2 SEER2 and 10.0 EER2 air conditioner.

8. Gas Furnace and Cooling (Option 2) - Greater than or equal to 95% AFUE fuel gas

furnace and 16.0 SEER2 and 10.0 EER2 air conditioner.

9. Gas Furnace and Heat Pump (Option 1) - Greater than or equal to 90% AFUE fuel gas

furnace and 7.8 HSPF2, 15.2 SEER2 and 10.0 EER2 air source heat pump.

10. Heat Pump (Option 1)–Greater than or equal to 7.8 HSPF2, 15.2 SEER2, and 11.7

EER2 air source heat pump.

**HVAC options applicable to climate zones 4, 5, 6, 7, and 8:**

11. Gas Furnace and Cooling (Option 3)-Greater than or equal to 95% AFUE fuel gas

furnace and 15.2 SEER2 and 12.0 EER2 air conditioner.

12. Gas Furnace and Cooling (Option 4)-Greater than or equal to 97% AFUE fuel gas

furnace and 16.0 SEER2 and 12.0 EER2 air conditioner.

13. Gas Furnace and Heat Pump (Option 2)- Greater than or equal to 95% AFUE fuel gas

furnace and 8.1 HSPF2 and 15.2 SEER2 air source heat pump capable of meeting a

capacity ratio ≥ 70% of heating capacity at 5 °F versus rated heating capacity at 47 °F.

14. Heat Pump (Option 2)-Greater than or equal to 8.1 HSPF2 and 15.2 SEER2 air source

heat pump capable of meeting a capacity ratio ≥ 70% of heating capacity at 5 °F versus

rated heating capacity at 47 °F.

**R408.2.2.1 More efficient HVAC equipment for Climate Zone 4.** For Climate Zone 4, the following HVAC options shall also apply:

a. Gas Furnace and Heat Pump (Option 3) - Greater than or equal to 95% AFUE fuel gas

furnace and 7.8 HSPF2, 15.2 SEER2 and 10.0 EER2 air source heat pump.

b. Heat Pump (Option 1)–Greater than or equal to 7.8 HSPF2, 15.2 SEER2, and 11.7

EER2 air source heat pump.