RE2D-69-23 Mod 2

Notes This modification includes all changes approved for RE2D-59 and proposes to:

1. Change credits for Option (9) as shown highlighted in yellow.
2. Move the row for Option (9) to just below Option (5) to match up with climate zones
3. Move the language for “HVAC options applicable to all climate zones” for Option (9) to just below Option (5).
4. Modify previously approved RE2D-66, Mod 2 by striking the row for Option (9) and replacing it with the Option (9) credits per this proposal (RE2D-66 mods highlighted in green).
5. Keep the RE2D-66 changes for Option (10) as previously approved.
6. Strike the new footnote e per the previously approved RE2D-66.

IECC RE: TABLE R408.2

2024 International Energy Code [RE] [RE:EnnadE:5.9 (0.9c001Y (40)QyEn)P9-. 3D

R408.2.2(1)	**Ground source heat pump**	**4**	**8**	**12**	**19**	**14**	**25**	**32**	**35**	**46**
R408.2.2(2)	**High Performance Cooling (Option 1)**	**5**	**4**	**3**	**2**	**1**	**1**	**1**	**1**	**1**
R408.2.2(3)	**High Performance Cooling (Option 2)**	**6**	**4**	**3**	**2**	**1**	**1**	**1**	**1**	**1**
R408.2.2(4)	**High Performance Gas furnace (Option 1)**	**0**	**1**	**2**	**5**	**3**	**6**	**7**	**7**	**9**
R408.2.2(5)	**High Performance Gas furnace (Option 2)**	**0**	**1**	**2**	**4**	**3**	**5**	**6**	**7**	**8**
R408.2.2(9)	**High Performance Gas furnace and heat**	**15**	**13**	**11**	**~~7~~ NA ~~11~~**	**~~NA~~ 9**	**~~NA~~ 10**	**~~NA~~ 10**	**~~NA~~ 10**	**~~NA~~ 10**

	pump (Option 1)									
R408.2.2(6)[b]	High									

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.

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

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.

Reason Statement: Hybrid systems using a heat pump with gas furnace back-up will become more popular, especially in cold climates, as programs, incentives, policies and codes continue to promote or require the installation of heat pumps. A more affordable option, not requiring a more expensive cold climate heat pump and 95% furnace, should also be available in cold climate zones and will still offer significant energy savings.