

residential renewable definition

IECC: (New), TABLE R406.4

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2018 International Energy Conservation Code

Add new text as follows:

ON-SITE RENEWABLE ENERGY. Energy from *renewable energy resources* harvested at the *building site*.

RENEWABLE ENERGY RESOURCES. Energy derived from solar radiation, wind, waves, tides, landfill gas, biogas, biomass or extracted from hot fluid or steam heated within the earth.

Revise as follows:

**TABLE R406.4
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX ^a
1	57
2	57
3	57
4	62
5	61
6	61
7	58
8	58

- a. Where *on-site renewable energy* is included for compliance using the ERI analysis of Section R406.4, the building shall meet the mandatory requirements of Section R406.2, and the building thermal envelope shall be greater than or equal to the levels of efficiency and SHGC in Table R402.1.2 or Table R402.1.4 of the 2015 International Energy Conservation Code.

Reason Statement: There has been a definition of "onsite renewable energy" since 2012 in the commercial IECC. The term was first used in the IECC residential code in 2018, but no definition was included at that time. This proposal adds an updated version of that definition that is simultaneously being proposed for the commercial IECC. Some of the modifications are based on language that has been deliberated by an ASHRAE workgroup for over six months and is pending at ASHRAE 90.1 (at the time of this submittal). This proposal could establish consistency between IECC-residential, IECC-commercial, and ASHRAE 90.1, thereby simplifying compliance and enforcement for onsite renewable energy installations.

The listed energy resources in the definition are similar to those found in the current IECC definition with the exception of "extracted from hot fluid or steam heated within the earth". That proposed revision from the current definition makes the distinction between geothermal energy sources and geothermal heat pumps.

The proposal also italicizes the the correct term in Footnote a to Table R406.4.

Bibliography: Addendum by to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings; ASHRAE, January 2018. (pending at the time of submittal)

Cost Impact: The code change proposal will not increase or decrease the cost of construction. This proposal is a definition of renewable energy that will not have an impact on construction costs.