

RECD1-4-22 As Modified (note: any approved RED1s to R404.6.1 would take precedence)

2024 International Energy Conservation Code [RE Project]

CHAPTER 2 [RE] DEFINITIONS

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

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

CHAPTER 2 [RE] DEFINITIONS One- and two-family dwellings and

townhouses shall comply with Sections R404.6.1.1 through R404.6.1.4.

Exceptions:

1. A dwelling unit with a permanently installed, on-site renewable energy system.



2. A dwelling unit with a solar-ready zone



R404.6.1.2 Obstructions. Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

R404.6.1.3 Electrical service reserved space. The main electrical service panel shall have a reserved space for a dual pole circuit breaker and shall be labeled "For Future Solar Electric." The reserved space shall be at the opposite (load) end of the busbar from the primary energy source.

R404.6.1.4 Electrical interconnection. An electrical junction box shall be installed within 24 inches (610 mm) of the main electrical service panel and shall be connected to a capped roof penetration sleeve or a location in the attic that is within 3 feet (914 mm) of the solar-ready zone by a minimum 1 inch (25 mm) nonflexible metallic conduit or



zone areas. Each sub-zone shall be not less than 5 feet (1524 mm) in width in the narrowest dimension.

R404.6.2.4 Obstructions. Solar-ready zones shall be free from obstructions, including pipes, vents, ducts, HVAC equipment, skylights and roof-mounted equipment.

R404.6.2.5 Roof loads and documentation. A collateral dead load of not less than 5 pounds per square foot (5 psf) (24.41 kg/m²) shall be included in the gravity and lateral design calculations for the solar-ready zone. The structural design loads for roof dead load and roof live load shall be indicated on the construction documents.

R404.6.2.6 Interconnection pathway. Construction documents shall indicate pathways for routing of conduit or plumbing from the solar-ready zone to the electrical service panel or service hot water system.

R404.6.2.7 Electrical service reserved space. The main electrical service panel shall have a reserved space to allow installation of a dual-pole circuit breaker for future solar electric and shall be labeled "For Future Solar-Renewable Electric." The reserved spaces shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

R404.6.2.8 Construction documentation certificate. A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location ~~by the builder or registered design professional.~~

Reason: We cannot point to an Appendix for requirements; the requirements have to be stated in the section itself. This proposal takes the requirements from the referenced Appendix CB and copies it into the R404.6.2 section. There are some edits to consider, given that the R404.6.1 section that applies to other residential buildings does not contain some of these sub-sections, as they are covered in R103 and R401.

Cost Impact: None. Rather than pointing to an Appendix for a requirement, it brings the requirement text into the actual section.

Bibliography: Appendix CB from 2024 IECC-C, 1st public comment draft [https://www.iccsafe.org/wp-content/uploads/IECC2024P1CE_2022-09-07-clean-gray-red2.pdf]