



California State Fire Marshal **CODE INTERPRETATION**

Date Issued	December 16, 2014	Interpretation	14-014
Topic	Solar PV AC Markings		
Code Section(s)	2013 CBC §3111.2, 3111.2.4, 3111.3; CRC R331.2, R331.2.4, R331.3; CFC 605.11.1, 605.11.1.4, 605.11.2;		
Requested by	Chula Vista Fire Department Justin Gipson, Deputy Chief / Fire Marshal		
Date Received	September 30, 2014		

Question:

1. Does California Fire Code §605.11.1, 605.11.1.4, and 605.11.2 apply to solar panels systems employing the use of micro-inverters at the solar panel module; thus making all conductors that lead away from panel modules of the alternating current (AC) type?
2. If yes to Question 1, would this also apply to the California Residential Code §R331.2, R331.2.4, and R331.3.

Answer:

California Building Code §3111.2, 3111.2.4, 3111.3; California Residential Code §R331.2, R331.2.4, R331.3; California Electric Code Article 690; and California Fire Code §605.11.1, 605.11.1.4, 605.11.2 do not require the markings of alternating current (AC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects, or set forth the requirements for AC conductor locations. The intent of the code is to provide emergency responders with appropriate visual warning and guidance with respect to working around and isolating the PV system. All AC components need to be able to be de-energized at the main disconnect, for PV systems that have micro-inverters at the solar panel module or PV systems that provide backup generation. If the AC components cannot be de-energized at the main disconnect, then DC marking and conductor location requirements should apply to the AC components.