



Oregon

Theodore R. Kulongoski, Governor

Department of Consumer and Business Services

Building Codes Division

1535 Edgewater Street NW

PO Box 14470

Salem, OR 97309-0404

(503) 378-4133

FAX (503) 378-2322

bcd.oregon.gov

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Oregon Solar Energy Code Committee

November 5, 2009

Meeting Summary

****NOTE:** *The following is a summary of the committee's discussion.*

To review the meeting in its entirety, the archived video of the meeting is available on the committee's Web site at the following link: <http://www.bcd.oregon.gov/committees/10sec.html>

- Members Present:** Brian Crise, International Brotherhood of Electrical Workers (IBEW), Local 48
Jerry Henderson, Independent Contractor for Department Of Energy (DOE) **and** Energy Trust of Oregon (ETO)
Nathan Philips, National Electrical Contractors Association (NECA)
Robin Rabirotff, Oregon Solar Energy Industries Association (OSEIA) **and** EC Company
Len Ralston, Solar Installer for Dynalectric
Marcus Reed, State Fire Marshal
Jaimes Valdez, City of Portland – BPS/BDS
- Members Absent:** Doug Aljets, Electrical and Elevator Board **and** Solar Installer for NW Current Energy, LLC
Robert Lane, Three Phase Electric
Dave Mumford, Lear Electric
Robert Rice, Oregon Building Officials Association (OBOA) **and** Josephine County Building, Official
- Guests Present:** Greg Creal, Central Electrical Training Center
Kendal Hansen, Energy Trust
Dan Petrin, Frahler Electric
Tom Baumann, International Brotherhood of Electrical Workers Local 280
- Staff Present:** Chris Huntington, Policy and Technical Services Manager
Dennis Clements, Electrical Program Chief
Jim Denno, Policy Analyst
Shauna Parker, Rules Coordinator

Chris Huntington, policy and technical services manager, called the meeting to order at 1:40 p.m.

CHAPTER 3

Firefighter access

The committee [reviewed the proposed document](#) submitted by Marcus Reed relating to firefighter access provisions. The committee took a few minutes to review the document prior to discussing its contents.

Marcus Reed provided background information on the practice of roof access for firefighters, explaining that they usually want to have two ways for firefighters to exit the structure. What the fire industry is asking for are the minimum requirements for firefighters to work on a roof safely. Many of the provisions come from California regulations. He further stated he left the last bullet in the document, to provide an option for more space, however, doesn't know if that fits into the proposed code appropriately.

Jaimes Valdez asked about the residential guidelines for this section which seem to be different than past discussions. He asked for clarification on the intent of hip roof layout and the listed 3 foot walkway spacing of the ridgeline and if that means the panels could be located up to the ridge. Mr. Reed answered, no, that fire fighters need a walk way space.

Nathan Philips noted the proposal is not written in typical Building Code language, stating the committee should talk about the concepts behind the proposal in and of itself, not the language. Mr. Huntington replied, yes, although the committee is to look at the substantive language and stated at a later point the language will be revised into typical Building Code language.

The committee continued to discuss the logistics of providing firefighter access, discussing the technical structural components as well as the needs of the fire service. Greg Creal (audience member) pointed out some specific aspects relating to the design of roofs, noting his support for a 3 foot perimeter around the entire array of a residential dwelling roof. The committee continued to discuss at length their ideas and suggestions on roofs and roof types, beams, perimeters, ventilation, and arrays and how each of these areas fit into providing safe firefighter access.

It was decided an additional sub-committee would be formed to develop language pertaining to firefighter access and the issues discussed today. Committee members selected to be on the sub-committee are Marcus Reed, Nathan Philips, and Jerry Henderson. Building Codes Division (BCD) staff will include either Richard Rogers or Shane Sumption.

Mr. Creal commented that although the committee's discussion has been directed towards south facing roof slopes, it is important to note that with the use of micro-converters east-west facing slopes will become more popular to install equipment on.

Disconnecting Means

The committee discussed at length the information provided in Mr. Reed's [handout](#) on "disconnecting means." One concern voiced included what "remote" disconnect means. The answer given is an "*electrically operated*" remote disconnect. Discussion continued on AC/DC and combiner disconnects, integrated systems, remote and manual disconnects and industry's "best practice" for installations.

Break

Chapter 3

Committee members began discussing the suggested changes to [Chapter 3](#) submitted by Robert Rice.

301.2 Equipment Location

Committee members agreed to change the word “panels” to “modules” since modules is the commonly used term, which should not be confused with an “electrical panel box”.

Mr. Philips expressed his belief that terminology should remain consistent and understood by industry, or an explanation of the terminology should be added to the language.

301.1.1 Arrays: Roof Mounted

The committee discussed this topic and noted their concerns that this section should tie in with the administrative chapters and want to make sure the section does not conflict.

Mr. Philips suggested the first sentence of this section be modified from “...shall be anchored to roof structural components in a manner to resist...” to “...shall be *installed* in a manner to resist...”. *The committee agreed.*

301.1.2 Arrays: Pole or other structure mounted systems

The committee discussed the different types of mounted systems. Comments included whether or not a carport’s roof is considered an acceptable type of roof to have arrays installed on and what type of structure is considered “moisture sealed”. Mr. Valdez believes carports and similar types of structure will become more popular to mount arrays on.

Mr. Crise asked where the requirement for “six (6) inches above the ground level” came from, which is listed in the second section. *The answer given is the “panel” should be at least six (6) inches off the ground.* Mr. Crise expressed concern that six (6) inches may not be high enough off the ground to prevent a cutting blade (lawnmower/weed eater or other similar equipment), to prevent electrical wires being caught in a blade and sliced. *Mr. Huntington stated staff will follow-up on the issue to see if there is a better solution.*

301.4 Protection

The committee questioned the section and what is meant by “mechanical damage,” suggesting the damage be more general to cover more items rather than be limited to one type of damage.

301.5 Fire Safety Requirements/Fire Fighter Access

The committee quickly reviewed this section since this section was the primary focus of discussion throughout the meeting so far. They reviewed the language in paragraph two and three, once again discussing pathways and the difficulties associated with maintaining a pathway as needed by the fire service while trying to accommodate the structural components. They deferred discussion on this topic to the subcommittee developed earlier in the meeting.

Adjourn

Manager Huntington adjourned the meeting at 3:47 p.m.