

BUILDING STANDARDS COMMISSION

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BUILDING STANDARDS INFORMATION BULLETIN 14-04

DATE: June 13, 2014

TO: LOCAL BUILDING DEPARTMENTS
STATE AGENCIES AND DEPARTMENTS
INTERESTED PARTIES

SUBJECT: 2013 California Electrical Code, Article 690, Section 690.10(E)
Utility-Interactive Systems

The purpose of this information bulletin is to provide clarification to local building departments, state agencies and interested parties regarding the intent and application of Section 690.(10) as related to Sections 408.36(D) and 705.12(D)(6) of the 2013 California Electrical Code (CEC), based on the 2011 National Electrical Code (NEC).

Background

The lack of clarity between Sections 408.36(D), 690.10(E) and 705.12(D)(5) of the 2013 CEC is reported to have had an impact on solar photovoltaic (PV) installations. This matter of clarity has reportedly resulted in the unnecessary replacement of service equipment in order to accommodate the installation of the additional fastener for back-fed circuit breakers in utility-interactive systems.

Pursuant to Section 89.101.7.2 of the 2013 CEC, "Where a specific provision varies from a general provision, the specific provision shall apply." Section 408.36(D) of the 2013 CEC provides a general requirement for equipment that requires plug-in-type backfed circuit breakers to be secured in place using an additional fastener. However, Section 705.12(D)(6) provides a specific exception for listed plug-in-type circuit breakers backfed from utility-interactive inverters that are listed and identified as interactive. In addition, Section 690.10(E) provides a specific requirement relating to plug-in-type back-fed circuit breakers that are connected to stand-alone inverter output. As such, the requirements of Section 705.12(D)(6) are applicable to utility-interactive systems, whereas the requirements of Section 408.36(D) are applicable to stand-alone systems.

National Fire Protection Association (NFPA) Amendment to 2014 NEC

Section 690.10(E) of the 2014 NEC was amended by the NFPA, by removing “*utility-interactive systems*” in order to clarify that the installation of an additional fastener applies only to those circuit breakers back-fed from stand-alone or multimode inverters in stand-alone systems (i.e. on stand-alone output and energized absent grid power).

Refer to the NFPA’s Technical Correlating Committee Reports on Proposals (ROP) A2013 <http://www.nfpa.org/Assets/files/AboutTheCodes/70/70-A2013-ROP.pdf> and Reports on Comments (ROC) A2013 <http://www.nfpa.org/Assets/files/AboutTheCodes/70/70-A2013-ROC.pdf> which reflect the NFPA’s decision to omit the fastener requirement by amending Section 690.10(E).

This 2014 NEC section in-part now reads:

“690.10 Stand-Alone Systems. ...

(E) Back-Fed Circuit Breakers. Plug-in type back-fed circuit breakers connected to a stand-alone or multimode inverter output in stand-alone systems shall be secured in accordance with 408.36(D). Circuit breakers marked “line” and “load” shall not be back-fed.”

This change in the 2014 NEC will be considered for adoption into the 2016 California Electrical Code, Part 3 of Title 24, California Code of Regulations during the 2015 Triennial Code Adoption Cycle. The 2016 California Electrical Code is scheduled to go into effect January 1, 2017.

Questions or comments regarding the subject NFPA amendment should be directed to the NFPA at 1-800-344-3555 or 1-617-770-3000 for technical questions on NFPA Codes and Standards or via its website at <http://www.nfpa.org/codes-and-standards/technical-questions>.

Questions regarding this information bulletin should be directed to the California Building Standards Commission (CBSC) at (916) 263-0916 or via e-mail at cbsc@dgs.ca.gov.



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