FORM FOR PROPOSAL FOR 2014 NATIONAL ELECTRICAL CODE®

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Type or print **legibly** in **black** ink. Use a separate copy for each proposal. Limit each proposal to a **SINGLE** section. All proposals **must be received by NFPA by 5 p.m., EST, Friday, November 4, 2011**, to be considered for the 2014 National Electrical Code. Proposals received after 5:00 p.m., EST, Friday, November 4, 2011, will be returned to the submitter. If supplementary material (photographs, diagrams, reports, etc.) is included, you may be required to submit sufficient copies for all members and alternates of the technical committee.

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Please indicate organization represented (if any) PV INDUSTRY FORUM

1. Section/Paragraph 705.60(A)

2. Proposal Recommends (check one): ☐ new text ☒ revised text ☐ deleted text

3. Proposal (include proposed new or revised wording, or identification of wording to be deleted): [Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

Revise Section 705.60(A) and add the Informational Note as follows:

705.60 Circuit Sizing and Current.

(A) Calculation of Maximum Circuit Current. The maximum current for the specific circuit shall be calculated in accordance with 705.60 (A)(1) and (A)(2).

(1) Inverter ~~Source Circuit~~ Input Currents. The maximum current shall be the connected PV output circuit maximum current in accordance with 690.8(A) ~~rated input current of the inverter~~.

Informational Note: The inverter input circuit is sized based on the connected array output. There is no direct relationship between the inverter maximum input current specification and the maximum rated current from the PV array which is based on the module short-circuit current. UL Standard 1741 requires that the inverters have internal protection from excessive input currents. Inverter manufacturers typically recommend over sizing the array to account for the fact that array power drops below the rated power under operating conditions due to array heating.

(2) Inverter Output Circuit Current. The maximum current shall be the inverter continuous output current rating.

4. Statement of Problem and Substantiation for Proposal: (Note: State the problem that would be resolved by your recommendation; give the specific reason for your Proposal, including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)

The title of 705.60(A)(1) is modified to reflect that the section is talking about the inverter input current since the term "inverter source circuit currents" has no meaning. There is only one current so the plural "s" is removed.

This input circuit to the inverter is sized based on the short-circuit current output of the connected PV array and this current is calculated in the referenced 690.8(A).

The Informational Note is self explanatory

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Signature (Required) John C. Wiles Jr.

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