

STATE OF CALIFORNIA
STATE AND CONSUMER SERVICES AGENCY
CALIFORNIA BUILDING STANDARDS COMMISSION
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Office Use Item No. _____

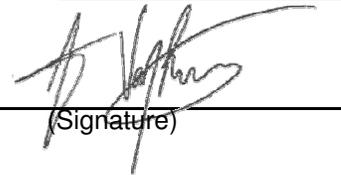
PARTICIPATION COMMENTS FOR THE NOTICE DATED AUGUST 31, 2012
Written comments are to be sent to the above address.

WRITTEN COMMENT DEADLINE: OCTOBER 15, 2012

Date: Oct 9, 2012

From:

Ajay Friesen
Name (Print or type)


(Signature)

-- SunPower Corporation
Agency, jurisdiction, chapter, company, association, individual, etc.

1414 Harbour Way, South Richmond CA 94804
Street City State Zip

I/We (do)(do not) agree with:

The Agency proposed modifications As Submitted on Section No. DSA Part 2, Section 1509.7.1

and request that this section or reference provision be recommended:

Approved Disapproved Held for Further Study Approved as Amended

Suggested Revisions to the Text of the Regulations:

1509.7.1 Wind resistance. Rooftop mounted photovoltaic systems shall be designed for wind loads for component and cladding in accordance with Chapter 16 using an effective wind area in accordance with Chapter 16 and ASCE 7 Section 26.2 ~~based on the dimensions of a single unit frame.~~

Reason: The proposed 1509.7.1 is inconsistent with H&SC section 18930 item 4. The requirement that wind loads on PV be calculated in accordance with components and cladding sections of the code is rejected in SEAC's PV2-2012 report "Wind Design for Low-Profile Solar Photovoltaic Arrays on Flat Roofs". SEAC states in the report that:

"[...] designers often attempt to use a hybrid approach of the ASCE 7 components and cladding tables [...]. The hybrid approach can lead to unconservative results[...]"

The proposed language contradicts the recommendations by SEAC paper, which states that the method proposed may be unconservative and is not in the interests of the public.

The proposal to base effective wind area on the dimensions of a single unit frame violate both items 4 and 5 from the H&SC section 18930. Effective wind area is already defined in ASCE Section 26.2, and the proposal contradicts this definition. SEAOC also discussed effective wind area in their PV2-2012 report and recommends the following language:

“EFFECTIVE WIND AREA, A for solar arrays: The area used to determine GCm per Figure 29.9-1 is equal to the tributary area for the structural element being considered [...].”

As such, the dimensions of a single unit frame requirement for effective wind area is arbitrary, and increases the costs of these types of systems unnecessarily.

HEALTH & SAFETY CODE SECTION 18930

SECTION 18930. APPROVAL OR ADOPTION OF BUILDING STANDARDS; ANALYSIS AND CRITERIA; REVIEW CONSIDERATIONS; FACTUAL DETERMINATIONS

- (a) Any building standard adopted or proposed by state agencies shall be submitted to, and approved or adopted by, the California Building Standards Commission prior to codification. Prior to submission to the commission, building standards shall be adopted in compliance with the procedures specified in Article 5 (commencing with Section 11346) of Chapter 3.5 of Part 1 of Division 3 of Title 2 of the Government Code. Building standards adopted by state agencies and submitted to the commission for approval shall be accompanied by an analysis written by the adopting agency or state agency that proposes the building standards which shall, to the satisfaction of the commission, justify the approval thereof in terms of the following criteria:
- (1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.
 - (2) The proposed building standard is within the parameters established by enabling legislation and is not expressly within the exclusive jurisdiction of another agency.
 - (3) The public interest requires the adoption of the building standards.
 - (4) The proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part.
 - (5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.
 - (6) The proposed building standard is not unnecessarily ambiguous or vague, in whole or in part.
 - (7) The applicable national specifications, published standards, and model codes have been incorporated therein as provided in this part, where appropriate.
 - (A) If a national specification, published standard, or model code does not adequately address the goals of the state agency, a statement defining the inadequacy shall accompany the proposed building standard when submitted to the commission.
 - (B) If there is no national specification, published standard, or model code that is relevant to the proposed building standard, the state agency shall prepare a statement informing the commission and submit that statement with the proposed building standard.
 - (8) The format of the proposed building standards is consistent with that adopted by the commission.
 - (9) The proposed building standard, if it promotes fire and panic safety as determined by the State Fire Marshal, has the written approval of the State Fire Marshal.