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: 10/15/2012

From: Joseph H. Cain, P.E. Joseph H. Cain
Name (Print or type) (Signature)

-- SolarCity Corporation, representing self
Agency, jurisdiction, chapter, company, association, individual, etc.

3055 Clearview Way | San Mateo | CA | 94402
Street | City | State | Zip

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

[**do not**] The Agency proposed modifications As Submitted on Section No. __3111_____

and request that this section or reference provision be recommended:

[ ] Approved [X] Disapproved [ ] Held for Further Study [ ] Approved as Amended

Suggested Revisions to the Text of the Regulations:

~~**IFC 605.11 reproduced here.**~~
~~***3111.1 Solar photovoltaic power systems.*** *Solar photovoltaic power systems shall be installed in accordance with Sections 3111.2 through 3111.5 and the California Electrical Code.*~~

~~***Exception:*** *Detached, nonhabitable Group U structures including, but not limited to, parking shade structures, carports, solar trellises and similar structures shall not be subject to the requirements of this section.*~~

~~***3111.2 Marking.*** *Marking is required on interior and exterior direct-current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects.*~~

~~***3111.2.1 Materials.*** *The materials used for marking shall be reflective, weather resistant and suitable for the environment. Marking as required in Sections 3111.2.2 through 3111.2.4 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.*~~

~~***3111.2.2 Marking content.*** *The marking shall contain the words* "WARNING: PHOTOVOLTAIC POWER SOURCE."~~

~~**3111.2.3 Main service disconnect.** The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.~~

~~**3111.2.4 Location of marking.** Marking shall be placed on interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm), within 1 foot (305 mm) of turns or bends and within 1 foot (305 mm) above and below penetrations of roof/ceiling assemblies, walls or barriers.~~

~~**3111.3 Locations of DC conductors.** Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes the total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.~~

~~**3111.4 Access and pathways.** Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 3111.4.1 through 3111.4.3.3.~~

~~**Exception:** Panels/modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.~~

~~**3111.4.1 Roof access points.** Roof access points shall be located in areas that do not require the placement of ground ladders over openings such as windows or doors, and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.~~

~~**3111.4.2 Residential systems for one- and two-family dwellings.** Access to residential systems for one- and two-family dwellings shall be provided in accordance with Sections 3111.4.2.1 through 3111.4.2.4.~~

~~**3111.4.2.1 Residential buildings with hip roof layouts.** Panels/modules installed on residential buildings with hip roof layouts shall be located in a manner that provides a 3-foot-wide (914 mm) clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. The access pathway shall be located at a structurally strong location on the building capable of supporting the live load of fire fighters accessing the roof.~~

~~**Exception:** These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.~~

~~**3111.4.2.2 Residential buildings with a single ridge.** Panels/modules installed on residential buildings with a single ridge shall be located in a manner that provides two, 3-foot-wide (914 mm) access pathways from the eave to the ridge on each roof slope where panels/modules are located.~~

~~**Exception:** This requirement shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.~~

~~**3111.4.2.3 Residential buildings with roof hips and valleys.** Panels/modules installed on residential buildings with roof hips and valleys shall be located no closer than 18 inches (457 mm) to a hip or a valley where panels/modules are to be placed on both sides of a hip or valley. Where panels are to be located on only one side of a hip or valley that is of equal length, the panels shall be permitted to be placed directly adjacent to the hip or valley.~~

~~**Exception:** These requirements shall not apply to roofs with slopes of two units vertical in 12 units horizontal (2:12) or less.~~

~~**3111.4.2.4 Residential building smoke ventilation.** Panels/modules installed on residential buildings shall be located no higher than 3 feet (914 mm) below the ridge in order to allow for fire department smoke ventilation operations.~~

~~**3111.4.3 Other than residential buildings.** Access to systems for occupancies other than one- and two-family dwellings shall be provided in accordance with Sections 3111.4.3.1 through 3111.4.3.3.~~

~~**Exception:** Where it is determined by the fire code official that the roof configuration is similar to that of a one- or two-family dwelling, the residential access and ventilation requirements in Sections 3111.4.2.1 through 3111.4.2.4 shall be permitted to be used.~~

~~**3111.4.3.1 Access.** There shall be a minimum 6- foot-wide (1829 mm) clear perimeter around the edges of the roof.~~

~~**Exception:** Where either axis of the building is 250 feet (76 200 mm) or less, there shall be a minimum 4-foot-wide (1290 mm)~~

~~clear perimeter around the edges of the roof.~~

~~**3111.4.3.2 Pathways.** The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:~~
~~1. The pathway shall be over areas capable of supporting the live load of fire fighters accessing the roof.~~
~~2. The centerline axis pathways shall be provided in both axes of the roof. Centerline axis pathways shall run where the roof structure is capable of supporting the live load of fire fighters accessing the roof.~~
~~3. Shall be a straight line not less than 4 feet (1290 mm) clear to skylights or ventilation hatches.~~
~~4. Shall be a straight line not less than 4 feet (1290 mm) clear to roof standpipes.~~
~~5. Shall provide not less than 4 feet (1290 mm) clear around roof access hatch with at least one not less than 4 feet (1290 mm) clear pathway to parapet or roof edge.~~

~~**3111.4.3.3 Smoke ventilation.** The solar installation shall be designed to meet the following requirements:~~
~~1. Arrays shall be no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in distance in either axis in order to create opportunities for fire department smoke ventilation operations.~~
~~2. Smoke ventilation options between array sections shall be one of the following:~~
~~2.1. A pathway 8 feet (2438 mm) or greater in width.~~
~~2.2. A 4 foot (1290 mm) or greater in width pathway and bordering roof skylights or smoke and heat vents.~~
~~2.3. A 4 foot (1290 mm) or greater in width pathway and bordering 4 foot by 8 foot (1290 mm by 2438 mm) "venting cutouts" every 20 feet (6096 mm) on alternating sides of the pathway.~~

~~**3111.5 Ground mounted photovoltaic arrays.** Ground mounted photovoltaic arrays shall comply with Sections 3111.1 through 3111.3 and this section. Setback requirements shall not apply to ground mounted, free standing photovoltaic arrays. A clear, brush free area of 10 feet (3048 mm) shall be required for ground mounted photovoltaic arrays.~~

Reason: [The reason should be concise if the request is for "Disapproval," "Further Study," or "Approve As Amend" and identify at least one of the 9-point criteria (following) of Health and Safety Code §18930.]

The proposed amendments duplicate the provisions of the 2012 International Fire Code and 2013 California Fire Code, in conflict with Item 1 of §18930 (below). We are concerned that should this language be updated in future versions of this code, identical code changes for IFC, IBC, and IRC would be required. As these future proposals might be heard by different committees, it would be difficult to maintain consistency in future codes.

(1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.

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:

(2) The proposed building standards do not conflict with, overlap, or duplicate other building standards.

(3) The proposed building standard is within the parameters established by enabling legislation and is not expressly within the exclusive jurisdiction of another agency.

(4) The public interest requires the adoption of the building standards.

(5) The proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part.

(6) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.

(7) The proposed building standard is not unnecessarily ambiguous or vague, in whole or in part.

(8) 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.

(9) The format of the proposed building standards is consistent with that adopted by the commission.

(10) 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.