

**FINAL STATEMENT OF REASONS**

**PROPOSED REGULATIONS FOR THE  
HOMEBUYER SOLAR OPTION AND SOLAR OFFSET PROGRAM**

**California Code of Regulations, Title 20, Division 2, Chapter 9  
Adopt Article 1 and Sections 2700-2704**

**CALIFORNIA ENERGY COMMISSION  
Docket Number 10-SOPR-1**

**OFFICE OF ADMINISTRATIVE LAW  
NOTICE FILE NO. Z-2010-1012-05**

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## **INTRODUCTION**

In 2006, Governor Schwarzenegger signed into law Senate Bill 1 (SB 1, Murray, Chapter 132, Statutes of 2006) a bill that expanded the Governor's "Million Solar Roofs Initiative" and builds on the California Public Utilities Commission's (CPUC) California Solar Initiative Program, the California Energy Commission's New Solar Homes Partnership and existing publicly owned utility solar energy system incentive programs. SB 1 directs total expenditures of up to \$3.3 billion by 2017 with goals to install solar energy systems with generation capacity equivalent of 3,000 megawatts, to establish a self-sufficient solar industry so that in 10 years solar energy systems are a viable mainstream option for homes and commercial buildings, and to put solar energy systems on 50 percent of new homes by the end of the program. The overall goal is to help build a self-sustaining solar electricity market combined with improved energy efficiency in the state's residential and non-residential buildings.

Public Resources Code Section 25405.5, enacted by SB 1, requires a seller of production homes to offer a solar energy system option to all customers negotiating to purchase a new production home constructed on land for which an application for a tentative subdivision map has been deemed complete on or after January 1, 2011. Section 25405.5 also directs the Energy Commission to develop an offset program that allows a developer or seller of production homes to forgo this requirement to offer a solar energy system by installing a separate solar energy system generating specified amounts of electricity on other projects.

These regulations establish procedures that govern the solar energy system option requirement, known in the regulations as the Homebuyer Solar Option Program. Further, these regulations establish requirements for the Solar Offset Program and include a description of the methodology required to calculate the appropriate size of solar energy systems used for offset purposes. These regulations also establish reporting and verification requirements for both the homebuyer solar option and solar offset program.

## **PROCEDURAL HISTORY OF THE RULEMAKING**

On January 13, 2010, the Energy Commission approved an Order Instituting Rulemaking to adopt guidelines for the administration of the solar as an option and solar offset program.

Energy Commission staff met with stakeholders in February 2010 and after those meetings were conducted, the *Solar Offset Program Pre-Rulemaking* staff paper was developed outlining issues and concerns raised regarding the development of comprehensive regulations. This paper was published in May 2010. Energy Commission staff conducted a workshop on May 20, 2010 to discuss the staff paper

and to receive comments from interested parties. After the workshop, staff developed draft regulations.

In September 2010, the *Solar Offset Program Pre-Rulemaking Draft Regulations* staff report was posted on the Energy Commission's website. This report outlined draft regulations staff had developed. Staff received comments from stakeholders and considered those comments when developing the proposed regulations.

On October 21, 2010, the Energy Commission published the Express Terms (45-Day Language), as well as the Notice of Proposed Action (NOPA), Initial Statement of Reasons (ISOR), and an Economic and Fiscal Impact Statement (Form 399), as required by the Administrative Procedure Act (APA). The NOPA was published in the California Regulatory Notice Register on October 22, 2010, and copies of the NOPA, the ISOR and the 45-Day Language Express Terms were made available to all interested persons, such as the builders trade associations, solar industry, environmental groups, electrical and natural gas utilities and state and local governments. All persons and entities on the Renewable, Go Solar California, NSHP Communities and PV Calculator electronic List Server were expressly noticed. The notification was also published on the Energy Commission's website.

On November 19, 2010, the Energy Commission published 15-Day Language, revised ISOR and Notice of Addition of Documents and Information to Rulemaking File. The 15-Day Language included a new definition (single-family residence) and the ISOR was revised to include additional clarification regarding the proposed regulations.

The NOPA designated December 7, 2010, as the date for the public hearing to receive comments from interested stakeholders. The NOPA designated December 29, 2010 as the hearing date to consider adoption of the proposed regulations. On December 29, 2010, the Energy Commission adopted the regulations during its Business Meeting.

## **AUTHORITY AND REFERENCE**

At the December 29, 2010 Business Meeting, the Energy Commission adopted the proposed regulations under the authority of Public Resources Code sections 25405.5. The proposed regulations implement, interpret, and make specific provisions of Public Resources Code section 25405.5.

## **UPDATE TO THE INFORMATIVE DIGEST**

The Energy Commission finds that changes in the 15-Day Language warrant an update to the Informative Digest described in the Notice of Proposed Action for the Solar Offset Program.

## Summary of Effect

The Energy Commission has made the following changes to the original proposed regulations that were subsequently adopted.

In the **Definitions** section, 2701, the following changes were made:

2701(o)(1) *Production Home*, the Energy Commission removed the word, “planned” and added the word “additional.” The change was made to avoid potential confusion with this definition.

2701(r) *Single-Family Residence* definition was added to clarify the *Production Home* definition.

In the **Requirements for Solar Offset Program** section, 2703(a)(3), the Energy Commission removed the word “planned” and added the word “additional.” The change was made to avoid potential confusion with this section.

There were no changes to any other sections of the proposed regulations.

## UPDATE TO THE INITIAL STATEMENT OF REASONS

Changes made to the proposed regulations, that are in addition to those contained in the Initial Statement of Reasons proposed under this rulemaking, are identified and summarized below.

### Section 2701. Definitions

Staff updated the ISOR to include the explanation and rationale for each definition.

Subsection 2701(a) of this section was amended to add clarifying language describing the definition of Alternating Current (AC). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(b) of this section was amended to add clarifying language describing the definition of Banking. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(c) of this section was amended to add clarifying language describing the definition of Building Energy Efficiency Standards for Residential and Nonresidential Buildings. This information was omitted in the 45-Day Language and is required to

provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(d) of this section was amended to add clarifying language describing the definition of Climate Zone. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(e) of this section was amended to add clarifying language describing the definition of Development. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(f) of this section was amended to add clarifying language describing the definition of Energy Commission. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(g) of this section was amended to add clarifying language describing the definition of Investor-Owned Utility (IOU). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(h) of this section was amended to add clarifying language describing the definition of Kilowatt (kW). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(i) of this section was amended to add clarifying language describing the definition of Megawatt (MW). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(j) of this section was amended to add clarifying language describing the definition of Minimal Shading. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(k) of this section was amended to add clarifying language describing the definition of New Solar Homes Partnership (NSHP). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(l) of this section was amended to add clarifying language describing the definition of Offset Solar Energy System. This information was omitted in the 45-

Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(m) of this section was amended to add clarifying language describing the definition of Phased Final Map. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(n) of this section was amended to add clarifying language describing the definition of Publicly-Owned Utility (POU). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(o) of this section was amended to add clarifying language describing the definition of Production Home. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(p) of this section was amended to add clarifying language describing the definition of Photovoltaic (PV). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(q) of this section was amended to add clarifying language describing the definition of Reference Solar Energy System. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(r) of this section was added to describe the new definition of Single-Family Residence. The specific purpose for this change was to add clarity that is necessary to improve compliance with the regulations and to clarify the Production Home definition.

Subsection 2701(s) of this section was amended to add clarifying language describing the definition of Solar Energy System. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(t) of this section was amended to add clarifying language describing the definition of Solar Offset Program Calculator. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(u) of this section was amended to add clarifying language describing the definition of Subdivision. This information was omitted in the 45-Day Language and

is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(v) of this section was amended to add clarifying language describing the definition of Tentative Subdivision Map. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2701(w) of this section was amended to add clarifying language describing the definition of Time-Dependent Valuation (TDV). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

### **Section 2703. Requirements for Solar Offset Program**

Subdivision 2703(a)(2) of this section was edited to add the word “additional.” The specific purpose for this change was to add clarity that is necessary to improve compliance with the regulations.

Subdivision 2703(a)(3) of this section was edited to remove the word “planned” and add the word “additional.” The specific purpose for this change was to add clarity that is necessary to improve compliance with the regulations.

Subdivision 2703 (c)(6) of this section was revised adding clarifying language regarding the Major Solar Energy System Components. The specific purpose and rationale for this change was to add language that was previously omitted in the 45-Day Language to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8) of this section was revised adding clarifying language regarding Initial Reporting. The specific purpose and rationale for this change was to add language that was previously omitted in the 45-Day Language to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(A) of this section was amended to add clarifying language regarding the requirement of written proof from utility of interconnection of the offset solar energy system to the utility grid. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(B) of this section was amended to add clarifying language regarding the date the offset system was interconnected to the utility grid. This information was omitted in the 45-Day Language and is required to provide consistency

with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(C) of this section was amended to add clarifying language regarding the requirement that the developer/seller report expected Time Dependent Valuation energy calculations. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(D) of this section was amended to add clarifying language regarding the executed written agreement that a developer/seller must submit. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(D)(1) of this section was amended to add clarifying language regarding the requirement that a developer/seller must identify the address location of the offset solar energy system. The information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(D)(2) of this section was amended to add clarifying language regarding the requirement that a developer/seller must disclose the total dollar amount contributed towards the cost of the installation of the offset solar energy system. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(D)(3) of this section was amended to add clarifying language regarding the requirement that a developer/seller must disclose the total installed cost of the offset solar energy system. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(c)(8)(E) of this section was amended to add clarifying language which states that the Energy Commission may make initial reporting information available to the public. This was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(d) of this section was amended to add clarifying language regarding the reference solar energy system. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(d)(3) of this section was amended to add clarifying language regarding the reference solar energy system and the use of the most commonly used PV module. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(d)(4) of this section was amended to add clarifying language regarding the reference solar energy system and the use of the most commonly used inverter. This language was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(d)(5)(A) of this section was amended to add the subdivision heading. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(d)(5)(B) of this section was amended to add the subdivision heading and clarifying language. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(2)(A) of this section was amended to add clarifying language regarding the requirement requesting the name of developer/seller. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(2)(B) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the capacity of the offset solar energy system (in kW AC). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(2)(C) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the expected annual TDV energy from the offset solar energy system. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(2)(D) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the city location of the offset solar energy system. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(2)(E) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the utility territory of the offset solar energy system. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(2)(F) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the interconnection date of the offset solar energy system. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(3)(A) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the legal description of the proposed subdivision(s) being offset. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(3)(B) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the date the offset system was applied to a proposed subdivision. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(3)(C) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the total number of homes in the proposed subdivision(s) that are being offset, and where applicable, the total number of planned homes identified. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(3)(D) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the number of homes that are being offset (20 percent of homes in the proposed subdivision). This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703(e)(3)(E) of this section was amended to add clarifying language regarding the requirement that the developer/seller shall disclose the climate zone of the subdivision being offset. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subdivision 2703 (e)(4) of this section was amended to add clarifying language regarding the requirement that the Energy Commission will disclose specific solar offset

bank balance information to the developer/seller. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2703(e)(4)(A) of this section was amended to add clarifying language regarding the requirement that the Energy Commission will disclose to the developer/seller the balance of the required TDV energy equivalency per home for the proposed subdivision being offset. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2703(e)(4)(B) of this section was amended to add clarifying language regarding the requirement that the Energy Commission will disclose to the developer/seller the balance of the required TDV energy equivalency for the proposed subdivision being offset. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

Subsection 2703(e)(4)(C) of this section was amended to add clarifying language regarding the requirement that the Energy Commission will disclose to the developer/seller the balance of TDV energy that a developer/seller has at any given time. This information was omitted in the 45-Day Language and is required to provide consistency with related sections of the regulations and is necessary to improve compliance with the regulations.

## **UPDATE TO DOCUMENTS RELIED UPON**

There are no new documents upon which the Energy Commission was relying upon.

## **UPDATE TO THE LIST OF DOCUMENTS INCORPORATED BY REFERENCE**

There are no new documents that were incorporated by reference.

## **DETERMINATION WHETHER REGULATIONS IMPOSED A MANDATE UPON LOCAL AGENCIES OR SCHOOL DISTRICTS**

In the December 29, 2010 Adoption Order (No. 10-1229-7), the Energy Commission found that the adopted regulations “will impose no direct cost or direct or indirect requirements on state agencies, local agencies, or school districts, including but not

limited to, costs that are required to be reimbursed under Part 7 (commencing with Section 17500) of the Government Code.”

## **ALTERNATIVES TO LESSEN IMPACTS ON SMALL BUSINESSES**

In the December 29, 2010 Adoption Order (No. 10-1229-7), the Energy Commission found that the adopted regulations “will not result in significant statewide adverse impact directly affecting business, including the ability of California business to compete with businesses in other states;” “will have no significant adverse effect on business in general or small business in particular;” and “will have no significant costs that a representative person or business would incur in compliance.”

## **FINDINGS**

Based on the record of the rulemaking proceeding, the Energy Commission noted all findings required by the Administrative Procedure Act, such as those related to costs on businesses and local agency mandates, in the December 29, 2010 Adoption Order. The December 29, 2010 Adoption Order reflected most of the initial findings in the NOPA, which includes a more detailed discussion of the rationales for the findings. There were no comments on these findings.

## **SUMMARY OF COMMENTS RECEIVED AND THE ENERGY COMMISSION’S RESPONSES**

### Summary and Response to Comments – Initial Notice Period of October 22, 2010 through December 6, 2010

No comments were received during this period.

### Summary and Response to Comments Received during the Public Hearing held on December 7, 2010

#### **Section 2702(c)(1)**

Comment No. 1: Michael Hodgson, representing the California Building Industry Association (CBIA) and California Business Properties Association provided written and oral testimony at the public hearing (see Appendix A, page A15). Mr. Hodgson stated that the CEC is requesting that “the reported information be endorsed by a principal or corporate officer of the seller’s company.” Industry indicated that such limitation on who can endorse this technical document might be overly restrictive and that we would

prefer an expansion of the sphere of acceptable signatures to those required for the CF-1R and CD-6R energy efficiency compliance forms.

In the Energy Commission Response, staff indicated that it is appropriate for a principal or corporate representative of the company to endorse the report. Industry agrees with this position and would respectively suggest that the CEC provide some manner of written interpretation indicating that a “corporate representative” who is authorized to formally commit on behalf of the corporation is considered acceptable.

Energy Commission response: CBIA posed a similar question to the Energy Commission in a letter regarding comments to the “Solar Offset Program Pre-Rulemaking Draft Regulations” dated September 29, 2010 (See Appendix A, page A1).

The Energy Commission responded to the question in a letter dated November 3, 2010 as follows:

“This annual reporting requirement is meant as verification that a seller of production homes is complying with the Homebuyer Solar Option program as specified in these regulations. As such, staff believes it is appropriate for a principal or *corporate representative* of the company to endorse the report.

Staff’s reference to “corporate representative” in its November 3, 2010 response was a misstatement. Section 2702(c)(1) of the proposed regulations provide that this annual reporting requirement must be “endorsed by a principal or *corporate officer* of the seller’s company under penalty of perjury.” Thus, it is necessary for a principal or corporate officer of the seller’s company to endorse the report. Staff apologizes for any confusion or misunderstanding that resulted from this misstatement.”

### **Section 2703(a)(1)**

Comment No. 2: Michael Hodgson, stated that the industry needs a definition or interpretation for “prospective home buyers” that links the requirement to actual number of “homes sold.” The SB 1 statute does not define the term “prospective homebuyers” and it was certainly clear during the legislative debate that took place that the intent was to apply this to 20% of the homes in the project. Depending on the economy, there may well be a high number of parties who show interest in purchasing a specific home; however, there are a finite number of homes in a given project.

Energy Commission Response: The term “prospective home buyers” was chosen because the phrase is used in Senate Bill 1. Public Resources Code Section 25405.5(c) states “...assuming 20 percent of the prospective buyers would have installed solar energy systems.” Thus, in order to be consistent with the legislation, the term “prospective home buyers” was used in the proposed regulations.

That said, staff agrees with CBIA that to determine the number of homes to use for offset purposes the seller shall assume that solar energy systems would have been installed on 20 percent of the planned homes identified on the Tentative Subdivision Map and 20 percent of any additional homes identified on any subsequently filed Phased Final Maps, as these terms are defined in the proposed regulations.

### **Section 2703(b)**

Comment No. 3: Michael Hodgson, stated that after the standards are adopted, industry would like to work with the CEC to see if a simplified alternative can be developed for the proposed “offset solar energy” calculation methodology currently proposed in the regulations. For example; could the CEC allow as an acceptable alternative something along the lines of:  $(X)(20\%)(2kW)$  where X is the number of homes in the project?

Energy Commission Response: CBIA posed a similar question to the Energy Commission in a letter regarding comments to the “Solar Offset Program Pre-Rulemaking Draft Regulations” dated September 29, 2010.

The Energy Commission responded to the question in a letter dated November 3, 2010 as follows:

“PRC 25405.5(c) specifically states that the offset solar energy system is required to generate an equal amount of electricity as would have been generated by the installation of solar energy systems on 20% of homes in the development that is being offset. Capacity of a solar energy system cannot be used for the offset system requirement due to the phrasing “amount of electricity. To be consistent with the valuation of energy in the New Solar Homes Partnership (NSHP) and the Building Energy Efficiency Standards, staff recommends that the offset system requirement continue to be based on expected TDV energy. The use of expected TDV energy was discussed at the May 20, 2010 Staff Workshop (slide 12, <http://tinyurl.com/2bauxbh>) and in the May 18, 2010 Staff Paper (page 7, <http://tinyurl.com/2834okk>).”

In order to clarify how to calculate equivalent TDV, staff has developed the attached tutorial, “How to Calculate Required TDV Energy Equivalency of the Offset Solar Energy System.” The tutorial has also been posted on the Energy Commission website at: [www.energy.ca.gov/2010-SOPR-1/documents/index.html](http://www.energy.ca.gov/2010-SOPR-1/documents/index.html).

Comment No. 4: Received via email on December 7, 2010 by Dina Predisik after the Public Hearing concluded. Her comments were general in nature and she did not refer to any specific section of the regulations.

Ms. Predisik states who is responsible for assuring Production Home Builders comply with this law?

Energy Commission response: Developers and sellers of production homes will be responsible for ensuring that their subdivisions are in compliance with the proposed regulations. More specifically, developers and sellers will be required to submit specific information to the Energy Commission on an annual basis if they elect to offer solar as an option or if they install an offset solar energy system. The Energy Commission will be responsible for verifying this information.

Comment No. 5: Ms. Predisik states, how is the CEC reaching out to builders? Is there a link we can provide our Building Department for developers of single family homes?

Energy Commission response: During the development of the proposed regulations the Energy Commission contacted various stakeholders, including representatives and members of the building industry. Furthermore, representatives of the building industry attended a workshop on the proposed regulations in May of 2010 and submitted comments to the proposed regulations. Most recently, representatives of the building industry recommended that the Energy Commission adopt the proposed regulations at the public hearing held on December 7, 2010.

Staff expects to hold a second workshop on how to comply with the proposed regulations that will be targeted at members of the building industry and local government building and planning departments.

All interested parties can access the rulemaking web page to review the proposed regulations. The Solar Offset Program Rulemaking web page is located at:  
[www.energy.ca.gov/2010-SOPR-1/index.html](http://www.energy.ca.gov/2010-SOPR-1/index.html)

Comment No. 6: Ms. Predisik states, how will CEC confirm the reports that are submitted?

Energy Commission Response: The Energy Commission will perform detailed reviews on a random sample of the reporting documents received in order to confirm their accuracy. Further, the information submitted on an annual basis for the solar as an option reporting requirement shall be signed by a principal or corporate officer of the seller's company under penalty of perjury. In addition, all reported information may be made available to the public.

Comment No. 7: Ms. Predisik states, will the CEC require confirmation from the City of Anaheim as far as permitting, etc?

Energy Commission Response: The proposed regulations do not require local building or planning departments to directly report to the Energy Commission. However, the Energy Commission expects to seek assistance from local building and planning departments to track the issuance of building permits to large developments.

Comment No. 8: Ms. Predisik states, How is date of interconnection defined?

Energy Commission Response: The interconnection date is the date the utility grants authorization to interconnect the solar energy system.



# APPENDIX A

## Stakeholder Comments Received and Responses

California Building Industry Association Comments Submitted at May 20, 2010 Workshop.....	A1
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 Roseville

September 29, 2010

California Energy Commission  
 Dockets Office, MS-4  
 1516 Ninth Street  
 Sacramento, Ca. 95814-5512

RE: Docket No. 09-SOPR-1

The following comments are submitted on behalf of the California Building Industry Association (CBIA) and the California Business Properties Association (CBPA).

For the most part, our comments have been indexed by page number and topic issue as they appear in the CEC Document 300-2010-009-SF entitled "Solar Offset Program Pre-Rulemaking Draft Regulations" dated September 2010.

**General Comments:**

From the onset, we would like to express our sincere appreciation to the CEC Staff for having addressed our two greatest issues with the initial draft proposal issued in May of 2010.

**Increased Energy Efficiency Mandate:**

We were deeply concerned that the earlier proposal to require a 15% increase in the energy efficiency requirements for those dwellings participating in the "Solar Offset Program" would have proven very costly and would have threatened the viability of this program. CEC Staff has removed this proposed requirement from the draft regulations.

**Solar as an Option: Proposed Reporting Requirements:**

In addition, the initial proposal would have required builder reporting of various items, including: "*The total installed cost of the PV system to the home buyer per AC watt (both offered and paid price).*" CEC Staff has revised this portion of the draft regulations and now proposes to require reporting of only the "installed cost" of the PV system. We propose clarifying alternative language below (see comment on **Section 2702(a)(1)**).

**Homebuyer Solar Option and Solar Offset Program**

**(Page 1) Section 2700 (3<sup>rd</sup> paragraph, last sentence):** The last sentence concludes with the statement: "*...assuming 20% of the prospective home buyers would have installed solar energy systems.*" The reference to "*prospective home buyers*" is somewhat confusing, especially the word "prospective". We would suggest deleting the phrase "prospective home buyers" and inserting the phrase "homes in the project" so that the revised sentence would read "*...assuming 20% of the homes in the project would have installed solar energy systems.*"

**(Page 2) Section 2701(j):** The first sentence in the definition for “minimal shading” states: “*Minimal Shading means that no existing, **planned, or potential** shading obstructions are closer than a distance of twice the height that the obstruction extends above the nearest point on the PV array.*” It should be clarified that the phrase “planned, or potential” refers only to those items under the direct control of the developer/builder prior to the homes purchase. Without this clarification, the phrase “planned or potential” could be interpreted to cover landscaping and or construction that take place post-purchase and to which the builder has no control.

Therefore, we suggest the following clarification of the existing language:

*2701 (j) Minimal Shading means that no existing shading obstructions, or planned or potential shading obstructions (i.e., such items that are shown on builder's building or landscaping plans but not yet installed or planted) are closer than a distance of twice the height that the obstruction extends above the nearest point on the PV array. Any obstruction that projects above the point on the PV array that is closest to the obstruction shall meet this criterion for the PV array to be considered minimally shaded.*

**Homebuyer Solar Option:**

**(Page 4) Section 2702(a)(1):** The seller of production homes offering solar as an option will be required to provide certain information to the homebuyer, including the “*total installed cost*” of the solar energy system. We would respectfully request use of the following alternative language:

*(1) The total offering price of the solar energy system option.*

**(Page 4) Section 2702(a)(2)(A):** In the first sentence, it should be clarified that “the figures in Table 1 represent a range of expected annual kW and dollar savings from a 1kW solar energy system” **as calculated by the California Energy Commission.**

**(Page 4) Section 2702(a)(2)(B):** This section does not appear to be regulatory language. Further, the data in Table 1 appear to be curiously high estimates of both kWh savings (which should be “production”, not “savings”), and the Annual Dollar Savings are also potentially high, being calculated based on the upper rate-tiers. As such, industry respectfully requests the analysis showing how these numbers were calculated for each of the five utilities.

In addition, this table requires a disclaimer stating that the numbers are estimates based on {*insert description of method used to estimate*}, and that these are best-case values because they were calculated using optimal solar array efficiency, orientation, and tilt. It is important for the consumer to understand that their generation will be lower with different solar equipment and roof orientation and tilt. Further, this section should be clear that kWh savings and utility bill savings are a function of the net of solar production and overall energy use in the home.

**(Page 4) Section 2702(b)(1):** For clarity, it would be useful for the CEC to provide one or more examples of “Identifying information for the development”.

**(Page 4) Section 2702(b)(2):** With regards to specifying the “total number of planned homes”, industry needs to know “over what period of time”? For example, a master planned community may have a 10-15 year build-out plan, and have a great many individual “phases”. We suspect the CEC simply wants the related information on a given phase or consecutive phases.

**(Page 5) Section 2702(b)(6):** To be consistent with 2702(b)(1), this reporting requirement should be changed to: Average capacity (in AC kW) and average total option cost of solar energy systems installed in the reported year.

**(Page 5) Section 2702(c)(1):** The CEC is request that “*the reported information shall be endorsed by a principal or corporate officer of the seller’s company.*” While industry understands the need to verify this information, such endorsements should be (somewhat) similar to those required for the CF-1R and CF-6R energy efficiency compliance forms. For example, why not include the “sales agent” or “site superintendent”?

**(Page 5) Section 2702(c)(2):** This section states that “*The “solar as an option” disclosure shall be made available to prospective home buyers at point of sale and on the seller’s website.*” Industry finds this language to be unclear as to what is required and when or where it is required to be available to prospective buyers. Industry recommends clarification that this statement refers to sales literature/written information and suggests the following language to replace the first sentence of this section: *Descriptive information regarding the “solar as an option” offer shall be made available to prospective home buyers both in the sales office and on the seller’s website.*

**Solar Offset Program:**

**(Page 6) Section 2703(a):** Same comment applies here as was given for Section 2700: In the last sentence, the statement is made “...*assuming 20% of the prospective home buyers would have installed solar energy systems.*” The reference to “*prospective home buyers*” is somewhat confusing, especially the word “prospective”. We would suggest deleting “prospective home buyers” and inserting the phrase “homes in the project” so that the revised sentence would read “...*assuming 20% of the homes in the project would have installed solar energy systems.*”

**(Page 6) Section 2703(b)(2):** Industry strongly supports the CEC’s establishment of July 1, 2010 as the start-up date where after solar energy systems can be connected to the grid and be considered eligible for the Solar Offset Program.

**(Page 6) Section 2703(b)(3):** The CEC is proposing that “*offset solar energy systems are not eligible to receive an incentive from any California statewide incentive program or similar POU/IOU program under the California Sola Initiative.*” Industry does not agree with this proposal, nor do we understand why the CEC would suggest this. As long as the builder of the solar energy system complies with all of the related rules for obtaining the incentive(s), why should they be barred from receiving such funds solely because they are participating in the solar offset program? The financial feasibility of a solar energy project may well depend on the availability of the incentive funding. If that helps the project move forward, isn’t that a win-win for all?

**(Page 6) Section 2703(b)(4):** Industry strongly supports using the “utility territory” as the region in which the offset program must be applied.

**(Page 6) Section 2703(b)(6):** This section seems to be both overly complex and goes beyond Industry recall of the discussions and meetings leading to this document. This section specifies the capacity of the system, not annual generation, and is definitely not related to TDV. Industry submits that the required capacity should be 20% of the number of homes (from 2702(b)(2)) times 2kWac. Simply put; if a developer is planning on a 100-unit project, the calculation would be: **(100 homes x 0.20) x 2.0kWac = 40kWac.**

**(Page 7) Section 2703(b)(9):** With regards to the initial reporting requirement, there needs to be some manner of short term allowance that takes into account that these regulations will be approved more than 60 days after the start-up date of July 1, 2010. In addition, Industry finds item C, TDV calculation both irrelevant and onerous. The offset size should be reported in kWac being offset.

**(Page 7) Section 2703(b)(10):** Industry strongly supports having the ability to “bank” the solar energy from an offset system for use in multiple housing projects at a later date.

**(Page 7) Section 2703(c):** Industry does not see the need for this section at all and recommends deletion of this entire section. As stated in our recommendations for Section 2703(b), the offset should be in terms of capacity (kWac) not energy. The actual energy produced by homes in a community will be highly dependent on the orientation of roofs of the homes on which the solar systems are installed, the tilt of the roofs, and the type of system installed. It makes no sense to Industry that the offsetting system be required to produce energy equal to that which would come from solar systems with optimal orientation and tilt, and PV panels that are among the most efficient available today.

If, for some reason it is deemed necessary to develop a representative system, it should reflect the fact that roofs in communities have different orientations and tilts, and that the systems installed in different communities are not always going to be the most efficient panels available. In fact, these issues are contained in the definition section:

*2701(p): “Reference Solar Energy System means a fictitious solar energy system representing the average solar energy system potentially installed under Homebuyer Solar Option ...”*

The reference solar system in section 2703(c) does not reflect an “average solar energy system potentially installed under Homebuyer Solar Option. Rather, it reflects an optimal system installed on all of the 20% of homes. Further, it seems totally inappropriate to reference a specific manufacturers’ products (solar cells and inverter) in this document. This has the appearance of recommendation of this product by the Commission.

As recommended for Section 2703(b)(6), the offsetting system should be rated by capacity not energy production, and the minimum capacity should be 20% of the number of homes (from 2702(b)(2) times 2kWac, and thus Section 2703(c) is unnecessary and should be deleted, and the reference to it in Section 2703(b)(6) should also be deleted.

**(Page 9) Section 2703(d):** Given that this section is in regards to Banking Offset Credits, requiring Items #7, #8, #9, #10, #11 and #12 may be inappropriate since this information will probably not be known at the time the offset solar energy system is installed. These items should be clearly identified as optional inputs at registration of the system being banked, to be filled in as the banked credits are used. In addition, items #13, #14, and #15 are extraneous and should be deleted (see comments above regarding Sections 2703(b)(6), and 2703(c).

**(Page 10) Section 2703(e):** Industry does not see how this reporting requirement relates to the intent of SB1 and the Solar Offset concept and mechanics. This reporting requirement is an extra burden on the entity banking the solar credits and should be eliminated.



## CALIFORNIA ENERGY COMMISSION

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November 3, 2010

Robert Raymer  
California Building Industry Association  
1215 K Street, Ste. 1200  
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Re: California Building Industry Association (CBIA) comments to “Solar Offset Program Pre-Rulemaking Draft Regulations” (Docket No. 09-SOPR-1)

Dear Mr. Raymer:

The California Energy Commission is in receipt of your letter dated September 29, 2010, regarding comments to the “Solar Offset Program Pre-Rulemaking Draft Regulations.” Thank you for your input. We have reviewed your comments and addressed them below.

CBIA Comment:

**Homebuyer Solar Option and Solar Offset Program**

**(Page 1) Section 2700 (3<sup>rd</sup> paragraph, last sentence):** The last sentence concludes with the statement: “...*assuming 20% of the prospective homebuyers would have installed solar energy systems.*” The reference to “*prospective home buyers*” is somewhat confusing, especially the word “prospective.” We would suggest deleting the phrase “prospective home buyers” and inserting the phrase “homes in the project” so that the revised sentence would read “...assuming 20% of the homes in the project would have installed solar energy systems.”

Energy Commission Response:

The express terms have been amended, and thus, the term “prospective home buyers” no longer appears in Section 2700.

However, as explained below in reference to Section 2703(a), the term “prospective home buyers” was chosen because that phrase is used in SB 1. PRC 25405.5(c) states “... assuming 20 percent of the prospective buyers would have installed solar energy systems.” Staff wanted to be consistent with the language in the legislation; as such the term “prospective home buyers” remains in the regulations.

CBIA Comment:

**(Page 2) Section 2701(j):** The first sentence in the definition for “minimal shading” states: “*Minimal shading means that no existing, **planned, or potential** shading obstructions are closer than a distance of twice the height that the obstruction extends above the nearest point on the PV array.*” It should be clarified that the phrase “planned or potential” refers only to those items under the direct control of the developer/builder prior to the homes purchase. Without this clarification, the phrase, “planned or potential” could be interpreted to cover landscaping and or construction that take place post-purchase and to which the builder has no control.

Energy Commission Response:

Staff agrees with industry on this issue and has adopted industry’s suggestion for clarification of this definition.

CBIA Comment:

**Homebuyer Solar Option**

**(Page 4) Section 2702(a)(1):** The seller of production homes offering solar as an option will be required to provide certain information to the homebuyer, including the “*total installed cost*” of the solar energy system. We would respectfully request use of the following alternative language:

*(1) The total offering price of the solar energy system option.*

Energy Commission Response:

PRC 25405(b)(1) specifically states that the seller of a production home must disclose “the total installed cost of the solar energy system option” when making the offer for the solar energy system. Because of state statute, staff has included this language into the regulations.

CBIA Comment:

**(Page 4) Section 2702(a)(2)(A):** In the first sentence, it should be clarified that “the figures in Table 1 represent a range of expected annual kW and dollar savings from a 1kW solar energy system” **as calculated by the California Energy Commission.**

Energy Commission Response

Staff agrees with industry and has adopted industry’s suggestion on this section.

CBIA Comment:

**(Page 4) Section 2702(a)(2)(B):** This section does not appear to be regulatory language. Further, the data in Table 1 appear to be curiously high estimates of both kWh savings (which should be “production”, not “savings”), and the Annual Dollar Savings are also potentially high, being calculated based on the upper rate-tiers. As such, industry respectfully requests the analysis showing how these numbers were calculated for each of the five utilities.

In addition, this table requires a disclaimer stating that the numbers are estimates based on *{insert description of method used to estimate}*, and that these are best-case values because they were calculated using optimal solar array efficiency, orientation, and tilt. It is important for the consumer to understand that their generation will be lower with different solar equipment and roof orientation and tilt. Further, this section should be clear that kWh savings and utility bill savings are a function of the net of solar production and overall energy use in the home.

Energy Commission Response:

Staff has altered the cost savings estimate table. Rather than list kWh generation and cost-savings by utility territory, the new table lists the information by climate zone. Staff has added disclaimer language in the table which states that actual solar performance can vary depending on system characteristics and solar insolation, and that cost-savings can vary depending on utility rates and electricity consumption.

Staff has released the analysis showing how the figures in the table were calculated as part of the documents relied upon during the rulemaking process. This information can be located at: [www.energy.ca.gov/2010-SOPR-1/documents/index.html](http://www.energy.ca.gov/2010-SOPR-1/documents/index.html).

CBIA Comment:

**(Page 4) Section 2702(b)(1):** For clarity, it would be useful for the CEC to provide one or more examples of “Identifying information for the development.”

Energy Commission Response:

The express terms have been amended such that a seller of production homes is now required to provide the following information:

“Legal description of the proposed subdivision identified on the Tentative Subdivision Map and, where applicable, the legal description of the portion or phase of the total area encompassed by the Tentative Subdivision Map that is covered by any Phased Final Map(s)”

CBIA Comment:

**(Page 4) Section 2702(b)(2):** With regards to specifying the “total number of planned homes”, industry needs to know “over what period of time”? For example, a master planned community may have a 10-15 year build-out plan, and have a great many individual “phrases”. We suspect the CEC simply wants the related information on a given phase or consecutive phases.

Energy Commission Response:

The express terms have been amended such that a seller of production homes is now required to provide the following information:

“Total number of planned homes identified on the Tentative Subdivision Map and, where applicable, the total number of planned homes identified on the portion or phase of the total area encompassed by the Tentative Subdivision Map that is covered by any Phased Final Map(s)”

CBIA Comment:

**(Page 5) Section 2702(b)(6):** To be consistent with 2702(b)(1), this reporting requirement should be changed to: Average capacity (in AC kW) and average total *option* cost of solar energy systems installed in the reported year.

Energy Commission Response:

Staff agrees with industry and has adopted industry’s suggestion on this section.

CBIA Comment:

**(Page 5) Section 2702(c)(1):** The CEC is request [sic] that “*the reported information shall be endorsed by a principal or corporate officer of the seller’s company.*” While industry understands the need to verify this information, such endorsements should be (somewhat) similar to those required for the CF-1R and CF-6R energy efficiency compliance forms. For example, why not include the “sales agent” or “site superintendent”?

Energy Commission Response:

This annual reporting requirement is meant as verification that a seller of production homes is complying with the Homebuyer Solar Option program as specified in these regulations. As such, staff believes it is appropriate for a principal or corporate representative of the company to endorse the report.

CBIA Comment:

**(Page 5) Section 2702(c)(2):** This section states that “*The “solar as an option” disclosure shall be made available to the prospective home buyers at point of sale and on the seller’s website.*” Industry finds this language to be unclear as to what is required and when or where it is required to be available to prospective buyers. Industry recommends clarification that this statement refers to sales literature/written information and suggests the following language to replace the first sentence of this section:

*Descriptive information regarding the “solar as an option” offer shall be made available to prospective home buyers both in the sales office and on the seller’s website.*

Energy Commission Response:

Staff agrees with industry and has adopted industry’s suggestion on this section.

CBIA Comment:

**Solar Offset Program**

**(Page 6) Section 2703(a):** Same comment applies here as was given for Section 2700: In the last sentence, the statement is made “...*assuming 20% of the prospective home buyers would have installed solar energy systems.*” The reference to “*prospective home buyers*” is somewhat confusing, especially the word “prospective.” We would suggest deleting “prospective home buyers” and inserting the phrase “homes in the project” so that the revised sentence would read “...*assuming 20% of the homes in the project would have installed solar energy systems.*”

Energy Commission Response:

As explained above in reference to Section 2700, the term “prospective home buyers” was chosen because that phrase is used in SB 1. PRC 25405.5(c) states “... assuming 20 percent of the prospective buyers would have installed solar energy systems.” Staff wanted to be consistent with the language in the legislation; as such the term “prospective home buyers” remains in the regulations

Further, Section 2703 has been amended to clarify a seller’s obligations under the Solar Offset Program as follows:

“(a) To determine the number of homes to use for offset purposes:

- (1) The seller shall assume that “20 percent of prospective homebuyers” of planned homes identified on the Tentative Subdivision Map “would have installed solar energy systems”;
- (2) If the Tentative Subdivision Map identifies less than 50 planned homes and the seller intends to file multiple Phased Final Maps, the number of homes

identified on the Tentative Subdivision Map will be aggregated with the number of homes identified on any Phased Final Map(s);

- (3) If the aggregate number of planned homes identified in the Tentative Subdivision Map and Phased Final Map(s) exceeds 50, then the number of planned homes identified on any subsequently filed Phased Final Map(s) will not be aggregated with the number of planned homes identified in the Tentative Subdivision Map or any previously filed Phased Final Map(s)."

CBIA Comment:

**(Page 6) Section 2703(b)(3):** The CEC is proposing that “*offset solar energy systems are not eligible to receive an incentive from any California statewide incentive program or similar POU/IOU program under the California Sola [sic] Initiative.*” Industry does not agree with this proposal, nor do we understand why the CEC would suggest this. As long as the builder of the solar energy system complies with all of the related rules for obtaining the incentive(s), why should they be barred from receiving such funds solely because they are participating in the solar offset program? The financial feasibility of a solar energy project may well depend on the availability of the incentive funding. If that helps the project move forward, isn’t that a win-win for all?

Energy Commission Response:

Staff has removed this restriction preventing offset solar energy systems from receiving incentives.

CBIA Comment:

**(Page 6) Section 2703(b)(6):** This section seems to be both overly complex and goes beyond Industry recall of the discussions and meetings leading to this document. This section specifies the capacity of the system, not annual generation, and is definitely not related to TDV. Industry submits that the required capacity should be 20% of the number of homes (from 2702(b)(2)) times 2kWac. Simply put; if a developer is planning on a 100-unit project, the calculation would be: **(100 homes x 0.20) x 2.0kWac = 40kWac.**

Energy Commission Response:

PRC 25405.5(c) specifically states that the offset solar energy system is required to generate an equal amount of electricity as would have been generated by the installation of solar energy systems on 20% of homes in the development that is being offset. Capacity of a solar energy systems cannot be used for the offset system requirement due to the phrasing “amount of electricity”. To be consistent with the valuation of energy in the New Solar Homes Partnership (NSHP) and the Building Energy Efficiency Standards, staff recommends that the offset system requirement continue to be based on expected TDV energy. The use of expected TDV energy was

discussed at the May 20, 2010 Staff Workshop (slide 12, <http://tinyurl.com/2bauxbh>) and in the May 18, 2010 Staff Paper (page 7, <http://tinyurl.com/2834okk>).

CBIA Comment:

**(Page 7) Section 2703(b)(9):** With regards to the initial reporting requirement, there needs to be some manner of short term allowance that takes into account that these regulations will be approved more than 60 days after the start-up date of July 1, 2010. In addition, Industry finds item C, TDV calculations both irrelevant and onerous. The offset size should be reported in kWac being offset.

Energy Commission Response:

Staff agrees with industry and has made changes to this requirement that will allow for compliance within 60 days of the adoption of the regulations. Item C is discussed below.

CBIA Comment:

**(Page 7) Section 2703(c):** Industry does not see the need for this section at all and recommends deletion of this entire section. As stated in our recommendations for Section 2703(b), the offset should be in terms of capacity (kWac) not energy. The actual energy produced by homes in a community will be highly dependent on the orientation of roofs of the homes on which the solar systems are installed, the tilt of the roofs, and the type of system installed. It makes no sense to Industry that the offsetting system be required to produce energy equal to that which would come from solar systems with optimal orientation and tilt, and PV panels that are among the most efficient available today.

If, for some reason it is deemed necessary to develop a representative system, it should reflect the fact that roofs in communities have different orientations and tilts, and that the systems installed in different communities are not always going to be the most efficient panels available. In fact, these issues are contained in the definition section:

*2701(p);" "Reference Solar Energy System means a fictitious solar energy system representing the average solar energy system potentially installed under Homebuyer Solar Option ... "*

The reference solar system in section 2703(c) does not reflect an "average solar energy system potentially installed under Homebuyer Solar Option. Rather, it reflects an optimal system installed on all of the 20% of homes. Further, it seems totally inappropriate to reference a specific manufacturers' products (solar cells and inverter) in this document. This has the appearance of recommendation of this product by the Commission.

As recommended for Section 2703(b)(6), the offsetting system should be rated by capacity not energy production, and the minimum capacity should be 20% of the number of homes (from 2702(b)(2) times 2kWac, and thus Section 2703(c) is unnecessary and should be deleted, and the reference to it in Section 2703(b)(6) should also be deleted.

Energy Commission Response:

As noted previously, PRC 25405.5(c) requires the offset equivalency calculation to be in terms of energy. In order to make the required equivalency calculation, assumptions must be made about the solar energy systems that would have been installed on the 20% of the homes in the development that is being offset. These assumptions are detailed in the section that CBIA suggests deleting. As discussed at the May 20, 2010 Staff Workshop (slides 12 and 13, <http://tinyurl.com/2bauxbh>) and in the May 18, 2010 Staff Paper (page 7, <http://tinyurl.com/2834okk>) these assumptions would mirror the NSHP California Flexible Installation criteria and use the PV modules and inverters that have been most commonly used in NSHP. Staff recommends continued use of these criteria, PV modules, and inverters for the offset equivalency calculation. Staff agrees that this might not represent the “average” solar energy system and will remove “average” from the definition of Reference Solar Energy System.

CBIA Comment:

**(Page 9) Section 2703(d):** Given that this section is in regards to Banking Offset Credits, requiring items #7, #8, #9, #10, #11, and #12 may be inappropriate since this information will probably not be known at the time the offset solar energy system is installed. These items should be clearly identified as optional inputs at registration of the system being banked, to be filled in as the banked credits are used. In addition items #13, #14, and #15 are extraneous and should be deleted (see comments above regarding Sections 2703(b)(6), and 2703(c).

Energy Commission Response:

Staff has re-organized the banking section of the regulations. The banking section is now divided into separate headings covering deposits, withdrawals, and calculations. Items 7 through 12, which industry mentioned, have been moved into a section covering withdrawals, specifying that the information is only required to be submitted when a withdrawal request is made.

With regards to items 13 through 15, staff has kept these reporting requirements, and the reasoning is explained above.

CBIA Comment:

**(Page 10) Section 2703(e):** Industry does not see how this reporting requirement relates to the intent of SB1 and the Solar Offset concept and mechanics. This reporting requirement is an extra burden on the entity banking the solar credits and should be eliminated.

Energy Commission Response:

This section is intended to have the seller/developer show that the banked system is still in operation. If a offset solar energy system still has a positive balance in the solar offset bank, this requirement will show the Energy Commission that the system is indeed still in operation and is producing electricity relatively close to what it is expected to produce.

The proposed regulations have been submitted to the Office of Administrative Law and were published in the California Regulatory Notice Register on October 22, 2010, starting the 45-Day comment period. You can view the Notice of Proposed Action, Express Terms (45-Day Language) and the Initial Statement of Reasons, along with additional documentation regarding this rulemaking on the Energy Commission's website at: [www.energy.ca.gov/2010-SOPR-1/index.html](http://www.energy.ca.gov/2010-SOPR-1/index.html).

Again, thank you for your comments.

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Jonathan Knapp  
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California Energy Commission

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Building Industry Association of Fresno/Madera Counties Fresno

Building Industry Association of San Diego County San Diego

Building Industry Association of Southern California Diamond Bar

Home Builders Association of Central Coast San Luis Obispo

Home Builders Association of Kern County Bakersfield

Home Builders Association of Northern California San Ramon

Home Builders Association of Tulare & Kings Counties Visalia

North State Building Industry Association Roseville

CEC Docket No. 10-SOPR-1 )  
 RE: Proposed Regulations for Solar Offset Program )

Testimony of Mike Hodgson )  
 California Building Industry Association )

**SB 1 – Industry Comments on Final 15-Day Language (December 7, 2010)**

The California Building Industry Association (CBIA) is a statewide trade association representing 4,000 member-companies involved in residential and light-commercial construction. CBIA member-companies account for over 85% of the new homes built in California each year.

Our comments today are also supported by the California Business Properties Association.

**General Comments:**

Overall, CBIA and CBPA support the proposed regulations developed by staff. While we have some technical questions that will follow shortly, we think the staff has adequately addressed the most significant issues raised by industry over the past eight months and we feel these proposed regulations should be adopted by the full commission. And as a side note, we would like to thank the staff for their hard work and patience during the development of these important regulations.

**Specific Comments:**

**Section 2702(c)(1):** The CEC is requesting that “*the reported information be endorsed by a principal or corporate officer of the seller’s company.*” Industry indicated that such a limitation on who can endorse this technical document might be overly restrictive and that we would prefer an expansion of the sphere of acceptable signatures to those required for the CF-1R and CF-6R energy efficiency compliance forms.

In the Energy Commission Response, staff indicated that it is appropriate for a principal or corporate **representative** of the company to endorse the report. Industry agrees with this position and would respectfully suggest that the CEC provide some manner of written interpretation indicating that a “corporate representative” who is authorized to *formally commit on behalf of the corporation* is considered acceptable.

**Section 2703(a)(1):**

Industry needs a definition or interpretation for “prospective home buyers” that links the requirement to actual number of “homes sold”. The SB 1 statute does not define the term “prospective homebuyers” and it was certainly clear during the legislative debate that took place that the intent was to apply this to 20% of the homes in the project.

Depending on the economy, there may well be a high number of parties who show interest in purchasing a specific home; however, there are a finite number of homes in a given project.

**Section 2703(b):**

After the standards are adopted, industry would like to work with the CEC to see if a simplified alternative can be developed for the proposed “offset solar energy” calculation methodology currently proposed in the regulations. For example; could the CEC allow as an acceptable alternative something along the lines of:  $(X)(20\%)(2kW)$  where X is the number of homes in the project?

**CALIFORNIA ENERGY COMMISSION**

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December 21, 2010

Robert Raymer  
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Sacramento, CA 95814

Re: California Building Industry Association comments to Solar Offset Program, Express Terms (15-Day Language), Docket No. 10-SOPR-1

The California Energy Commission is in receipt of written and oral testimony of Mike Hodgson that occurred during the Energy Commission's, Solar Offset Program rulemaking Committee Hearing that took place on December 7, 2010. Mike Hodgson spoke on behalf of the California Building Industry Association (CBIA) and California Business Properties Association. Thank you for your input. Staff have reviewed the comments and addressed them below.

CBIA Comment:

**Section 2702(c)(1) (3<sup>rd</sup> paragraph, last sentence):** The CEC is requesting that *“the reported information be endorsed by a **principal** or **corporate officer** of the seller’s company.”* Industry indicated that such limitation on who can endorse this technical document might be overly restrictive and that we would prefer an expansion of the sphere of acceptable signatures to those required for the CF-1R and CD-6R energy efficiency compliance forms.

In the Energy Commission Response, staff indicated that it is appropriate for a principal or corporate **representative** of the company to endorse the report. Industry agrees with this position and would respectively suggest that the CEC provide some manner of written interpretation indicating that a “corporate representative” who is authorized to formally commit on behalf of the corporation is considered acceptable.

Energy Commission Response:

CBIA posed a similar question to the Energy Commission in a letter regarding comments to the “Solar Offset Program Pre-Rulemaking Draft Regulations” dated September 29, 2010 (Docket No. 09-SOPR-1).

The Energy Commission responded to the question in a letter dated November 3, 2010 as follows (Docket No. 09-SOPR-1):

This annual reporting requirement is meant as verification that a seller of production homes is complying with the Homebuyer Solar Option program as specified in these regulations. As such, staff believes it is appropriate for a principal or *corporate representative* of the company to endorse the report.

(Italics added). Staff's reference to "corporate representative" in its November 3, 2010 response was a misstatement. Section 2702(c)(1) of the proposed regulations provide that this annual reporting requirement must be "endorsed by a principal or *corporate officer* of the seller's company under penalty of perjury." (Italics added). Thus, it is necessary for a principal or corporate officer of the seller's company to endorse the report. Staff apologizes for any confusion or misunderstanding that resulted from this misstatement.

CBIA Comment:

**Section 2703(a)(1):**

Industry needs a definition or interpretation for "prospective home buyers" that links the requirement to actual number of "homes sold." The SB 1 statute does not define the term "prospective homebuyers" and it was certainly clear during the legislative debate that took place that the intent was to apply this to 20% of the homes in the project. Depending on the economy, there may well be a high number of parties who show interest in purchasing a specific home; however, there are a finite number of homes in a given project.

Energy Commission Response:

The term "prospective home buyers" was chosen because the phrase is used in Senate Bill 1. Public Resources Code Section 25405.5(c) states "...assuming 20 percent of the prospective buyers would have installed solar energy systems." Thus, in order to be consistent with the legislation, the term "prospective home buyers" was used in the proposed regulations.

That said, staff agrees with CBIA that to determine the number of homes to use for offset purposes the seller shall assume that solar energy systems would have been installed on 20 percent of the planned homes identified on the *Tentative Subdivision Map* and 20 percent of any additional homes identified on any subsequently filed *Phased Final Maps*, as these terms are defined in the proposed regulations.

CBIA Comment:

**Section 2703(b):**

After the standards are adopted, industry would like to work with the CEC to see if a simplified alternative can be developed for the proposed "offset solar energy" calculation methodology currently proposed in the regulations. For example; could the CEC allow

as an acceptable alternative something along the lines of: (X)(20%)(2kW) where X is the number of homes in the project?

Energy Commission Response:

CBIA posed a similar question to the Energy Commission in a letter regarding comments to the “Solar Offset Program Pre-Rulemaking Draft Regulations” dated September 29, 2010 (Docket No. 09-SOPR-1).

The Energy Commission responded to the question in a letter dated November 3, 2010 as follows (Docket No. 09-SOPR-1):

PRC 25405.5(c) specifically states that the offset solar energy system is required to generate an equal amount of electricity as would have been generated by the installation of solar energy systems on 20% of homes in the development that is being offset. Capacity of a solar energy system cannot be used for the offset system requirement due to the phrasing “amount of electricity. To be consistent with the valuation of energy in the New Solar Homes Partnership (NSHP) and the Building Energy Efficiency Standards, staff recommends that the offset system requirement continue to be based on expected TDV energy. The use of expected TDV energy was discussed at the May 20, 2010 Staff Workshop (slide 12, <http://tinyurl.com/2bauxbh>) and in the May 18, 2010 Staff Paper (page 7, <http://tinyurl.com/2834okk>).

In order to clarify how to calculate equivalent TDV, staff has developed the attached tutorial, “How to Calculate Required TDV Energy Equivalency of the Offset Solar Energy System.” The tutorial has also been posted on the Energy Commission website at: [www.energy.ca.gov/2010-SOPR-1/documents/index.html](http://www.energy.ca.gov/2010-SOPR-1/documents/index.html).

Again, thank you for your comments.

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Sherrill Neidich  
Senate Bill 1 Program Lead  
California Energy Commission

Attachment



**From:** Sherrill Neidich  
**To:** Sherrill Neidich  
**Date:** 12/9/2010 2:34 PM  
**Subject:** Fwd: Offset Program

>>> Dina Predisik <[DPredisik@anaheim.net](mailto:DPredisik@anaheim.net)> 12/7/2010 3:39 PM >>>

Quick public hearing this afternoon – sheesh!

Anyway, I have a few questions:

1. Who is responsible for assuring Production Home Builders comply with this law?
2. How is the CEC reaching out to builders? Is there a link we can provide our Building Department for developers of single family homes?
3. How will CEC confirm the reports that are submitted?
4. Will the CEC require confirmation from the City of Anaheim as far as permitting, etc.?
5. How is date of interconnection defined?
  - a. Approval by Building Department, or
  - b. Completion of Net Metering Agreement, or
  - c. Simple interconnection prior to approval and startup?
  - d. Or any other definition.

That's it for now. Thanks!

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**CALIFORNIA ENERGY COMMISSION**

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December 21, 2010

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Anaheim, CA 92805

Re: Comments to Solar Offset Program, Express Terms (15-Day Language), Docket No. 10-SOPR-1

The California Energy Commission is in receipt of your written comments to the Solar Offset Program Rulemaking Committee Hearing, dated December 7, 2010. Thank you for your input. We have reviewed your comments and addressed them below.

Comment:

Who is responsible for assuring Production Home Builders comply with this law?

Energy Commission Response:

Developers and sellers of production homes will be responsible for ensuring that their subdivisions are in compliance with the proposed regulations. More specifically, developers and sellers will be required to submit specific information to the Energy Commission on an annual basis if they elect to offer solar as an option or if they install an offset solar energy system. The Energy Commission will be responsible for verifying this information.

Comment:

How is the CEC reaching out to builders? Is there a link we can provide our Building Department for developers of single family homes?

Energy Commission Response:

During the development of the proposed regulations the Energy Commission contacted various stakeholders, including representatives and members of the building industry. Furthermore, representatives of the building industry attended a workshop on the proposed regulations in May of 2010 and submitted comments to the proposed regulations. Most recently, representatives of the building industry recommended that

the Energy Commission adopt the proposed regulations at the public hearing held on December 7, 2010.

Staff expects to hold a second workshop on how to comply with the proposed regulations that will be targeted at members of the building industry and local government building and planning departments.

All interested parties can access the rulemaking web page to review the proposed regulations. The Solar Offset Program Rulemaking web page is located at: [www.energy.ca.gov/2010-SOPR-1/index.html](http://www.energy.ca.gov/2010-SOPR-1/index.html)

Questions about the proposed regulations should be directed to me.

My contact information is:

Email: [sneidich@energy.state.ca.us](mailto:sneidich@energy.state.ca.us).

Telephone: (916) 651-1463

Comment:

How will CEC confirm the reports that are submitted?

Energy Commission Response:

The Energy Commission will perform detailed reviews on a random sample of the reporting documents received in order to confirm their accuracy. Further, the information submitted on an annual basis for the solar as an option reporting requirement shall be signed by a principal or corporate officer of the seller's company under penalty of perjury. In addition, all reported information may be made available to the public.

Comment:

Will the CEC require confirmation from the City of Anaheim as far as permitting, etc?

Energy Commission Response:

The proposed regulations do not require local building or planning departments to directly report to the Energy Commission. However, the Energy Commission expects to seek assistance from local building and planning departments to track the issuance of building permits to large developments.

Comment:

How is date of interconnection defined?

- a. Approval by Building Department, or
- b. Completion of Net Metering Agreement, or
- c. Simple interconnection prior to approval and startup?
- d. Or any other definition

Energy Commission Response:

The interconnection date is the date the utility grants authorization to interconnect the solar energy system.

Again, thank you for your comments.

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Sherrill Neidich  
Senate Bill 1 Program Lead  
California Energy Commission