

DOCKETED

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Document Title:	Energy Efficient Codes Coalition Comments: Unanswered Questions about the Adverse Consumer and Low-Income Owner-Occupant
Description:	Unanswered Questions about the Adverse Consumer and Low-Income Owner- Occupant Implications of Allowing Builders to Weaken Building Envelopes by Installing a Solar Photovoltaic System
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Unanswered Questions about the Adverse Consumer and Low-Income Owner-Occupant Implications of Allowing Builders to Weaken Building Envelopes by Installing a Solar Photovoltaic System

Additional submitted attachment is included below.

October 8, 2015



Commissioner Andrew McAllister
California Energy Commission
Attention: Docket No. 15-BSTD-04
Dockets Office 1516 Ninth Street, MS-4
Sacramento CA 95814

RE: Unanswered Questions about the Adverse Consumer and Low-Income Owner-Occupant Implications of Allowing Builders to Weaken Building Envelopes by Installing a Solar Photovoltaic System

Commissioner McAllister:

On behalf of the broad-based Energy Efficient Codes Coalition, I am writing to urge the CEC to give stakeholders – and in particular consumer and low-income advocacy groups – an extended opportunity to comment on its proposal to establish photovoltaic compliance credit (PVCC) option in its ACM Manual.

Because the specifics of the PVCC were only unveiled in August, EECC has been the only organization with support from consumer and low-income advocacy groups that has addressed the CEC on this substantive, but un-vetted, issue. At the September 28, I raised a number of yet-unanswered questions about the PVCC's potential adverse impact on low-income home owners and occupants.

Central among those questions is the wisdom of trading off envelope improvements – many of which will perform for the 100 year life of the home or building, do not require maintenance, and are unlikely to be removed – **against photovoltaics that don't last as long, require maintenance and are removable and subject to degradation.** Clearly, the two are not equivalent for purposes of trade-offs.

The PVCC will mark a departure from the CEC's axiom to put energy efficiency first, then add renewables. The high performance walls and attics that will be traded away for PV are the next essential step for California to edge closed to net zero homes, and they will put tens of thousands of dollars in the wallets of the four or five generations of owners or occupants that will inhabit each home over the century or more that it stands.

Questions Regarding the Potential for “reverse income redistribution.”

If successful, Will lower income families end up bearing a greater share of cost of the grid because they either aren't able to purchase new homes with photovoltaics or their existing home does not have solar? If lower income families are “who's left” after net metering kicks in, won't they necessarily see their energy costs grow?

Questions Regarding Longevity of Trade-Off Elements and Impact of Weaker Envelopes

Today's codes – particularly those led by Title 24 – have focused on the synergies achieved by whole house efficiency improvements.

Many envelope improvements are fixed and either permanent or, because of codes or market transformation, likely to be replaced by equally efficient products (such as windows). *Can the same be said about photovoltaics?*

It's generally assumed that photovoltaics last 25 years. *But do we know if they perform for 25 years? In other words, what is the reliability and system integrity of photovoltaics?*

Most long-lasting envelope features are passive . . . they don't require any maintenance by the owner or occupant. The same is not true of PV: *Isn't it the worst of both worlds if the owner or renter living in a less efficient residence opts not to maintain or repair damaged photovoltaics?*

Extended heat waves and cold snaps are when strong envelopes perform best and weak envelopes put families into arrears in paying their energy bills. *Won't a weaker envelope particularly be a problem in cold, cloudy weather, when the envelope doesn't perform as well and the sun isn't out to generate electricity? Has the overall impact of spikes in electricity demand on cloudy days been taken into account by the CEC?*

Questions Regarding the Trade Off Itself

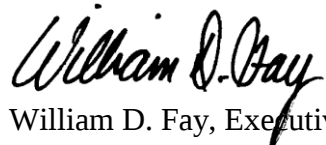
EECC is not against solar. Rather, we support a strong envelope AND (not OR) the addition of solar or other renewable features. *Instead of trading photovoltaics off against long lasting envelope improvements – especially high performance walls and attics – has the CEC considered trading PVs off against other replaceable features, such as appliances and/or equipment such as water heaters or HVAC systems?*

Questions Regarding the Owner/Occupant

If the PV system is leased, what happens if the lessee chooses to drop the lease, loses their job, and/or simply isn't interested in maintaining or repairing it.

There are too many unanswered questions that underlie PV trade-offs with permanent envelope features. Given the PVCC's potential adverse impact on residential building performance and on low-income home owners or occupants, we strongly urge the CEC to initiate a thorough, robust, and transparent administrative process to seek public comments and answer these questions before proceeding with its inclusion in the Alternative Compliance Method Manual.

Sincerely,



William D. Fay, Executive Director

Cc: Chairman Robert Weisenmiller
Commissioner Karen Douglas
Commissioner David Hochschild
Commissioner Janea Scott