

DOCKETED

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Sunset PV Option by January 2019

Additional submitted attachment is included below.



10 August 2015
Commissioner McAllister
California Energy Commission

RE: Docket #15-BSTD-04
Recommendation for Sunset of PV Option by January 1, 2019

Commissioner McAllister:

BIRAenergy requests alteration and/or additional language in the ACM to define the PV Option (also called Solar Option) to clearly sunset during the 2016 code cycle. We request that the date for sunset of the PV Option be no later than January 1, 2019.

The addition of a known sunset for the PV Option (no later than January 1, 2019) would provide builders with 2 years to learn (and/or be trained by the IOUs) how to implement high-performance attics and high-performance walls (collectively: HP-envelopes); it would also provide 12 months for builders to employ, evaluate and refine their HP-envelope building practices prior to implementation of the next code update, presumably adopted in 2019 for implementation January 2020.

Brief background on the PV Option:

- The PV Option was invented during development of the 2013 code to compensate for a change in Federal Appliance Efficiency requirements that took place mid-way through the 2008 code cycle.
- In the 2016 Standards development process, the PV Option morphed into what has been described as an “Off-Ramp” to delay or avoid implementing HP-walls and HP-attics in new homes.
- More recently, the PV Option has developed from an Off-Ramp to a training implementation tool, whose purpose is to:
 - Provide builders time to learn how to build HP Walls & HP Attics
 - Provide a mechanism for builders to delay implementation until they are trained
 - Presumably provide impetus to builders to utilize IOU training and training materials to implement HP-Attics and HP-Walls. (Note: IOUs are gearing up to provide training to large builders in support of this option and the 2020 ZNE goals)

Why is a sunset no later than January 1, 2019 needed?

- Everyone needs a deadline. Without a firm sunset clause builders will delay implementation of perceived more expensive building practices as long as possible.
- Sunset of the PV Option prior to the end of the 2016 code implementation cycle will force the industry to start now on training and implementation of HP-envelopes because there is a date-certain that everyone will need to meet.
- Absent a defined sunset, the natural course would be to delay implementation hoping for relief during the next code-development process. A firm sunset within the 2016

code cycle puts the industry on notice that HP envelopes will not wait for the 2019 process.

Rationale for Proposed sunset of the PV Option no later than Jan 1, 2019:

- It is important that CA builders learn how to build HP-Envelopes in preparation for the 2020 ZNE-based Standards
- Real learning requires implementation of new practices. The IOU training provides the foundation, but the industry needs to follow-through and change building practices to incorporate both PVs and HP-Envelopes, and for a smooth transition into 2020 ZNE both training and implementation need to happen as part of the 2016 code cycle.
- Without a sunset, the implementation will wait for 2019, and likely be pushed back due to the industry being unprepared to implement HP-envelopes.
- There are serious issues to address in moving to HP-envelopes, particularly in multiple-lot, production building. These issues and resulting redesigns need to start now so that builders have the majority of the time between now and 2020 to revise their libraries of plans.
- Without a clear sunset clause, the PV Option is an “off-ramp” or bypass of the goals and purpose of the 2016 update which is to bring HP-Walls and HP-Attics into the code.
- With a clear sunset prior to the end 2016-code cycle, the industry will start today on both determining and implementing the transitions needed to meet California’s goal of ZNE in new homes **by** 2020.

Does this sunset for the PV Option produce inconsistent PV policy?

No.

- *‘California's energy policy has recognized an electricity "loading order"' as the preferred sequence for meeting electricity demands¹. The loading order “mandates that energy efficiency and demand response be pursued first, followed by renewables and lastly clean-fossil generation².*
- The PV Option does not negate the Loading Order, provided that it is an interim solution to a temporary problem with an efficiency measure.
- The purpose of the PV Option is to provide energy generation to mitigate loss of efficiency that would be achieved through the inclusion of HP-Attics and HP-Walls that are incorporated into the prescriptive packages as part of the 2016 update. The PV Option does not set up a mechanism for trading generation for efficiency, rather it simply mitigates the lost savings using a substantially larger PV system. The PV Option is not mentioned or discussed in the Standards. It is a temporary mitigation of lost efficiency-savings. As will be described in the ACM, during the training phase of the PV

¹ From CEC website regarding electricity statistics: <http://energyalmanac.ca.gov/electricity/>

² From CPUC website regarding CA energy policy:
<http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/>

- Option, the CBECC compliance program will simply estimate the lost-savings due to not including HP-Attics and/or HP-Ducts and negate the lost energy-savings by replacing the estimated lost-savings with the same amount of energy, but from a 2kW or larger PV system. While the minimum 2kW+ PV system requirements of the PV Option are more than sufficient to cover the efficiency losses from not building with an HP-Envelope, there is no correlation between the PV minimum size requirement and the generation traded for the efficiency losses. The amount of energy from on-site generation using the PV Option correspond to that attributable to the HP-Envelope, not the PV array size.
- Thus, the PV Option, including sunseting January 1, 2019 does not represent changes in PV policy – it is part of efficiency policy and consistent with the loading order. The PV Option is a short-term solution to mitigate excess energy spent while training is provided to the industry. As such, it should sunset as soon as sufficient builders have been trained in construction of the HP-Envelopes, which should be done by December 31, 2018.

Does this sunset for the PV Option produce inconsistent PV policy relating to inconsistent “credit” for PV in the Standards?

No.

- The proposed in-cycle sunset of the PV Option is an energy-efficiency policy issue, not PV Policy (see last bullet, above).
- Regarding mid-cycle changes, there are conditions in previous code cycles that set this precedent, the most recent of which was in the 2013 Standards, when the PV Option was developed to offset the changes in the national appliance efficiency standards.

In summary, for reasons stated herein, BIRAenergy submits that the PV Option should sunset by January 1, 2019. Any disparity between treatment of walls and attics, compared with other efficiency measures in the energy-efficiency Standards, is mitigated by the combined importance of building the envelope “right” the first time, and not having to incur the high costs and occupant inconveniences and intrusions concomitant with later upgrade of the envelope. Our children, grandchildren, and generations beyond them will live in these homes. Let’s get start to get the envelopes right the first time. This is best achieved via a sunset of the PV Option no later than January 2019 and full application of the 2016 Standards, as approved, no later than January 1, 2019.

Respectfully Submitted,



Rob Hammon, Ph.D.
President