

August 16th, 2013

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 06-NSHP-01
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California Energy Commission

DOCKETED
06-NSHP-1

TN 71844
AUG 16 2013

Re: Comments on Staff Workshop Regarding Considered Revisions to the New Solar Homes Partnership (NSHP) Guidebook [Docket Number 06-NSHP-01]

Dear Commissioner McAllister and NSHP Staff,

Thank you for conducting the important workshop on August 6, 2013, which accommodated stakeholder and public input regarding key NSHP program topics. We appreciate the very measurable recommendations to address NSHP participation barriers, current guidelines and pending market changes such as 2013 Title 24. SunPower respectfully submits the following comments in reference to this latest workshop, in order as they were presented.

General Program Changes

Removal of 180-Day Window for Solar Permit to be issued after Certificate of Occupancy:

NSHP should only fund solar installations that are completed during the construction of the home, not systems that fall within a 180-day window after the home is completed and occupied. The 180-day window provides an opportunity for builders to provide customers with post-close offerings that are outside of the design, construction and selling process of the new home. We agree that the 180-day window should be removed, however we would also advocate for an exception process, as there will likely be acceptable situations where certain exceptions would apply. We can provide a list of examples upon request.

VNM – All VNM applications, regardless of project type, will receive 36 month reservation.

SunPower agrees with this recommendation.

Lease Fact Sheet/Addendum and 10% True-Up of NSHP Incentive

SunPower agrees with both parts of this recommendation. Much like the CA Solar Option mandate, this too should require builders to disclose a financial comparison that shows purchase economics (i.e., included in mortgage) alongside their leasing options. The NSHP program may also consider requiring all buyers be given the choice to purchase the system, even if leasing is the primary delivery mechanism. The disclosure should ensure the buyer realizes all state and federal financial benefits will be owned by the third party leasing company.

Incentive Decline Process Improvement

SunPower agrees there should be improvement to the current NSHP incentive decline process, specifically as it relates to projects submitted and pending approval in the application queue. The current procedure is not clearly documented or consistently communicated to stakeholders, and is difficult to forecast from an applicant standpoint. In past Incentive decline scenarios we have been notified several months after application submittal which Incentive Level the project will ultimately be reserved under, making it very difficult to contract effectively with the builders that simply can't wait months at a time for us to provide firm pricing. As a result, we are often

contracted to sell systems with unknown rebates, often times we are priced with higher rebates that we are not able to recover from the builder participant. SunPower recommends implementing a documented protocol, posted on the Go Solar California website, which clearly defines how the NSHP program intends to draw the line of Application Status vs. Applicable Incentive Level.

Reservation Phase

Reservations Submittals to Receive 10 Business Day Correction Period

SunPower strongly agrees with this recommendation. Currently, the guidebook states that the PA is not required to provide the applicant with a correction period when reviewing a reservation or claim submittal. With this, we are noticing some submittals are granted a correction period and some are not. There does not seem to be a pattern or a formula as to why a PA may decide to allow for a correction (or not allow for correction) in any case, which does not lend fairness across all applications/applicants. Occasionally there can be human errors or miscommunications, which should be given the chance to be corrected or further explained before rejection.

Please consider amending the guidebook to include a 10 business-day correction period for all complete* reservation submittals. *Please ensure to fully define what is considered a complete application, down to the format completeness, so there is no risk of misinterpretation across PA's.

In addition, the following recommendations are intended to further streamline the PA administrative processes:

Promote consistency between varying PA processing procedures, submission review turnaround times, correspondence turnaround times, and submittal format requirements.

We encounter many inconsistencies between the IOU PA's and how they are processing our submittals. There can also be inconsistencies in what is accepted and what is rejected. This inconsistency limits our ability to understand the true requirements of participation.

Removal of 50% Limitation for Solar as an Option projects

SunPower agrees with this recommendation.

Explore flexibility of Reservation Funding at a project level rather than the sum of sites incentives

We are in strong support of allowing NSHP funding to be utilized in a flexible manner within the same project, rather than strictly allocated per site. NSHP reservations are granted for a 36 month period, intended to allow builders adequate time to build large communities with solar included. The housing market is continuing to rebound, and many builders are seeing a pickup in sales and construction pace which improves the builder's ability to offer and sell more solar and possibly larger system sizes. Concurrently, solar costs and technology are continuing to improve which allows SunPower and the builder to install more efficient systems and larger sizes than what may have been originally reserved at the beginning of the project. Builders need the ability to direct their sales programs in multiple directions, as market and economic conditions are often changing during the "life" of a community, which is why greater flexibility and access to consistent NSHP incentives is vitally important.

At a minimum, SunPower proposes that an NSHP Reservation Application be approved and funding reserved at a Total Project (community) Reservation amount, which can be applied to each site individually at the system size which the customer ultimately chooses to purchase. As an example, we recommend the following application and approval format:

- 100 Homes x 2.5kW Estimated System Size per home = 250kW **Total Project Reservation Size**

- 250kW x Current Incentive Level (i.e. \$1.50/watt) = \$375,000 **Total Project Reservation Amount**

Builders with Solar as Standard community reservations should have the ability to utilize the Total Project Reservation Amount they receive per project, by adjusting the rebate amounts per site whenever there is a deviation from the original reserved amount per site (up to the current system size cap of 7.5kW), until Total Project Reservation funding is exhausted.

Creating this ability for builders to utilize all available funding within a project reservation, rather than having unused portions of reservations lie dormant until expiration, would provide the CEC greater visibility into the probability of reservation fulfillment. This could greatly benefit the NSHP Funding review processes, and could provide CEC with further confidence of reservation fulfillment. Additionally, this proposal would greatly simplify our ability to effectively confirm contract pricing with Builders and their homebuyers, as well as reduce the extra administrative burden of manually updating rebate amounts per site for the Applicant and the NSHP PA.

Payment Phase

Calculation of Increased Funding requests to be done at time of claim

SunPower supports the effort to simplify the administrative processes in the program. We understand the complexity and extra time it takes the Applicant and the NSHP PA to process an increased funding request at any given stage prior to payment claim. In an ideal situation, we would support this proposed process change, however due to the current HERS document barriers which is creating extended delays in the ability to submit a payment claim after installation of the system, SunPower does not support this proposal at this time. Since our claims are often significantly delayed by EE measures this proposal would result in lower rebates for systems that are larger than what we reserved, rebated differences SunPower would be forced to lose. Unless other changes are made that would alleviate this concern, such as project level rebate treatment, we suggest leaving the program guidelines in place as is. Otherwise, not until the EE & PV Verification paperwork process is improved and HERS documents can be completed and provided in a reasonable timeframe after completion of the home, would we support this recommendation.

Payment Claims to receive standard 90 day correction period

SunPower agrees with this recommendation.

Payment Claims Partial Payment Option

SunPower supports the initiative to review the potential guideline change of receiving partial NSHP incentive payment when all PV Verification and Utility Interconnection requirements have been met, and there may be extreme circumstances holding up the production of the Energy Efficiency documentation. We recommend creating an option for a complete NSHP Payment Claim to be made, less only the completed CF4R Energy Efficiency Verification documentation. Upon review & approval of Payment Claim, applicant will receive 70% of the total NSHP Incentive. The additional 30% of the NSHP incentive payment will be released upon the submittal of a completed CF4R.

SunPower is interested in further discussing this option with CEC Staff, and all the potential ways this could get implemented. We highly recommend a stakeholder focus group meeting to discuss this proposal, in order to ensure a broader understanding and that key stakeholder input is received. We feel this process would need to be clearly defined and tightly managed, so as not to obstruct the integrity of the program and create an opening for ineligible participants in the program.

2013 Building Code Updates to Tier 1 and Tier 2

Although we have long been strong proponents of combining EE with PV, we believe that a continuation of the 15% Tier 1 EE requirement will lead to a substantial decrease in new program participation, in addition to significant attrition of existing participants. The cost to a builder simply to meet the new Title 24 requirements is substantial; the additional cost to get to 15% is extremely high. To convince a builder to add these costs BEFORE considering the additional cost of solar will become an incredibly challenging proposition.

History provides some evidence of this and it should be noted that SunPower has long been a strong proponent of combining EE with PV, which remains unchanged. Prior to the 2008 standards going into effect, SunPower was able to convince the vast majority of builders to achieve the 35% EE tier and include solar. Once the 2008 standards went into effect, it was nearly impossible to convince builders to reach Tier 2 and nearly all dropped to the 15% level. With the 2013 standards being equally, if not more costly, we see this trend continuing. For the amount of rebates that offset the cost of these efficiency improvements, the costs still remain too great. The primary builder concern is that homebuyers are unwilling to pay for incremental energy efficiency improvements, which leaves the builder paying for the measures. In essence, this formula increases the amount the builder needs to get for the solar system in order to pay for the “hidden” efficiency measures.

Explore New Incentive Structures

If the Commission extends the 15% EE requirement in conjunction with the 2013 standards, the program will undoubtedly see participation attrition. To avoid this, the CEC should consider a three tier program:

1. Code compliant, lower rebate than what is currently offered. The title 24 solar credit should not be applicable to this tier level. Rebate should be approximately \$1.00/watt.
2. 7.5% compliant level would be equivalent to current tier 1, and the solar credit would apply.
3. Tier 2 – Addition of a net zero tier that would provide much higher rebates to builders of homes that meet CEC definition of net zero. This is an important step, as it affirms the definition and approach to net zero, thus allowing builders to understand and design communities/homes to this standard. Incentives should revert back to \$3.00/watt for this tier and homes should achieve a minimum of 35% EE. This tier would be instrumental and highly impactful in terms of accelerating MWs through the program and achieving the net zero goal, however the rebate must be large enough to encourage participation. Success with this tier will have a substantial impact on achieving CA's legislated net zero goals.

One final consideration is that the CA Solar Option requirement is beginning to impact builders' plans with respect to solar inclusion, since we are finally beginning to see homes being constructed on newly entitled land that is subject to this requirement. NSHP can benefit from this requirement much more substantially if broader access to NSHP rebates is made available.

Prescriptive EE Checklist proposal

We believe that a prescriptive compliance option could ease program participation and increase program administration efficiency, so long as the prescriptive measure list does not increase costs too radically, as we have outlined above in our energy efficiency tier recommendations. In addition to plan review efficiencies, this approach may also reduce participant cost in terms of energy evaluation by Title 24 consultants. While making the program easier to participate in, this approach does have the downside of removing the building from the analytical measure evaluation that helps them understand and implement cost effective efficiency. Regardless,

providing options is good, particularly if it results in program streamlining and increased participation. SMUD has run their SolarSmart program like this for years with favorable feedback from participating builders.

Energy Efficiency and Solar verification process :

SunPower strongly supports the program requirement for New Solar Homes to achieve the minimum energy efficiency levels. We appreciate the ability to participate in a program which is so supportive of driving energy efficiency and renewable energy as a parallel force of sustainability.

Since NSHP program inception, the HERS verification requirements for eligibility have remained the same. Energy Efficiency and PV Performance Verifications must be completed by a qualified HERS Rater and the applicant must produce documentation of the completed HERS verifications which must also be registered into an NSHP qualified HERS Registry Database.

Unfortunately, the HERS standards and processes have changed many times over the same course of time. There have been Building and Energy Code updates, energy software changes, HERS Registry format changes, to name a few. The NSHP Guidebook should also evolve with the changing Title 24 and HERS processes.

There is a significant need for support from the CEC with regards to how the HERS rater produces the final required documentation in the HERS Registry Database. The current HERS Registry format has evolved into a very complex process, with several different parties responsible to participate at specific steps in the process in order to get to that final stage of complete HERS registration and documentation production. There are as many as seven different parties required to complete this element of the program throughout the processing of a single home. As an example:

Project A – Timeline in order to produce 1 CF4RPV in CalCERTS:

1. Energy Consultant – Create project and Upload above code CF1R Plans
2. Builder – Acknowledge approval of plans in CalCERTS
3. HERS Rater – Create Lot record and home details in project
4. Utility CAHP Admin – Upon CAHP approval, convert the existing CF1R Plan into Multi Plan format and upload “CAHP” CF1R
5. NSHP Admin – Upload “NSHP” CF1R, Upload CF1RPV
6. Equipment Installers – Input CF6R for HVAC, etc
7. HERS Rater – Enter CF4R test results
8. Solar Installer – Input CF6RPV for Solar install
9. HERS Rater – Enter CF4RPV test results

None of the above steps can happen out of the listed order, which causes numerous points in which the process can come to a dead stop. There is very limited flexibility available to overcome these issues, and as shown, the production of the CF4RPV can only be completed at the very last step in the process – prohibited by all the preceding energy efficiency verification steps. Since the only requirement for the production of a CF4RPV is for the NSHP incentive claim, there can sometimes be very limited motivation by some of the other parties to complete their task in a timely manner. SunPower expends significant amounts of time and energy proactively “pushing” all of the preceding steps and parties through the process. It is a difficult process to navigate, for many of the involved parties.

Getting to the finish line with the HERS documentation paperwork is the biggest challenge SunPower encounters; we believe these challenges cost \$200-\$500 per claim, a cost that is ultimately put on the program participant. The issues are strictly administrative and consume significant administrative resources – where everyone involved is severely bandwidth constrained. Builders are building their homes to the energy efficiency levels as designed

and HERS raters are completing their field testing as required, but getting that verification data into the current HERS Registry is challenging and prohibitive.

SunPower would like to make the following specific requests with regards to this issue:

1. Implement the ability for the PV verification tasks to be completed in HERS Registry without any contingency on the EE verification tasks. Note: We are not recommending the removal of EE verification requirements in order to submit payment claim. We would like the administrative ability to complete the PV tasks in a timely manner - concurrently with the EE tasks.
2. SunPower requests the CEC to review and improve the current HERS Provider templates in an effort to increase efficiency and effectiveness. Reduce the number of contingencies and complexities.
3. Anytime a change is made to a HERS Provider template or process, HERS Provider should be required to conduct a workshop involving all affected parties which participate in the registry.

Finally, there is a need for the CEC's support in the facilitation of problem solving with any HERS related hurdles, and in promoting the simplification of fulfilling the HERS requirement in order to participate in the NSHP program.

Solar Financing Model – What is the most appropriate NSHP incentive approach for 3rd party owned systems?

This is a complex question and one that requires sufficient understanding of the new construction landscape to properly consider. The primary issue we have with the current rebate structure with respect to leases is allowing the NSHP rebate to cover such a substantial proportion of a pre-paid lease. In many cases we believe builders are paying zero dollars to offer customers 20-year prepaid leases, owing to the fact that the rebate is enough to cover the entirety of the prepaid lease amount. From our view this is problematic on many levels:

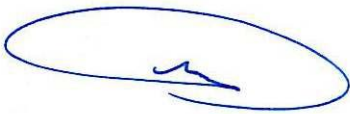
1. The ITC is scheduled to drop substantially at the end of 2016, while at the same time NSHP rebates will decline. This brings into serious question whether leasing programs, without the benefit of these incentive programs, will persist in the market. The NSHP program should be investing program funds into market strategies that will create long term market transformation.
2. Programs such as prepaid leasing options that provide no cost or low cost solar to builders do not produce the same level of builder/developer engagement that will ultimately drive cost reduction and greater affordability. Only when the builder/developer is paying for the building system do they become vested in driving efficiencies and innovation that result in more rapid technology adoptions. Also, unlike a system that is property of the homeowner, third party systems provide less assurance that they system will remain in place and operable for the life of the system.
3. Federal Housing Authority (FHA) mortgages underwrite the majority of new production home mortgages. As these mortgages require only 3-4% down payment, they provide borrowers with subprime lending and are federally insured. FHA guidelines clearly state that only "real property" can be financed as part of the mortgage. Third party owned systems are not real property and therefore cannot be legally financed by FHA. Therefore, allowing the rebate to cover the pre-payment, or a substantial portion of it, creates a short term opportunity for these programs, since the rebate is in effect providing homebuyers with free or very low cost solar. However, as ITC and rebates decline, prepayments are almost certain to increase. Once this occurs, buyers will be required to pay the solar prepayment with cash, since these amounts cannot be financed. Unfortunately, the far majority of buyers have just enough cash for a down payment, making the solar prepayment unaffordable.
4. Under a standard purchase program there are split-incentives, as the builder monetizes the NSHP rebate and the buyer monetizes the ITC. In the case of leases, the third party owner monetizes the rebate, the ITC and additionally the accelerated commercial depreciation, producing a very compelling financing structure. It could easily be argued that rebates don't need to be as high for leases since the lessor is able to monetize all three of the available benefits.

In summary, the Commission should consider how sustainable pre-paid and monthly leases are in new home construction after federal tax credits and rebates are exhausted. In doing so, the Commission should give appropriate consideration to the amount of NSHP funding that can be used toward pre-paid leases. Allowing the rebate to substitute for the pre-payment, or some large portion of it, does not support California's market transformation goals. In many cases there is no cost to the builder, or the homebuyer, which results in free solar at the cost of rate payers. Moreover, since the builder has no financial commitment in this model, they have little motivation to identify ways to drive down the cost of delivering solar in newly built homes. NSHP should be investing incentive dollars in programs that provide the greatest assistance in transforming the market with permanence.

Once again, we appreciate the support and the open forum the Commission always extends to the public to help promote and facilitate NSHP program success.

If you should have any questions or need further clarification of any items in this letter, please do not hesitate to contact me at 916-962.7692

Sincerely,

A handwritten signature in blue ink, consisting of a large, loopy 'M' followed by a stylized 'B'.

Matt Brost
New Homes Division
SunPower Corporation