

## DOCKETED

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*Comment Received From: Francesca Wahl*

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**SolarCity Comment Re NSHP Workshop**

*Additional submitted attachment is included below.*



July 22, 2016

Commissioner David Hochschild  
California Energy Commission  
Dockets Office  
Re: Docket No. 16-NSHP-01  
1516 Ninth Street  
Sacramento, CA 95814-5512

RE: Workshop on New Solar Homes Partnership

Dear Commissioner Hochschild,

SolarCity respectfully submits the following comments on potential updates to the New Solar Homes Partnership (NSHP) program in response to the July 8, 2016 workshop.

### **Background**

SolarCity is a full service solar power provider for homeowners and businesses – a single source for engineering, design, installation, monitoring, and support. As of March 31, 2016, the company had more than 5,000 California employees, based at more than 40 facilities around the state and had installed solar energy systems for over 260,000 customers nationwide.

In addition to rooftop solar, SolarCity develops and deploys other non-solar distributed energy resources (DER) for both residential and commercial applications. Specifically, SolarCity offers smart thermostats, smart electric water heaters, and battery energy storage systems to help customers manage their energy use.

### **Overall Comments**

SolarCity commends the California Energy Commission's (CEC) effective administration of the NSHP program. Under California Public Utilities Commission (CPUC) Decision (D.) 16-06-006, the CEC was designated to continue as the NSHP program administrator, and \$111.78 million of remaining funding was authorized NSHP program. The CEC was also required to host a workshop to consider potential changes to the NSHP, which may include: incentive redesign, options for addressing the principal-agent market failure, encouraging affordable housing participation, exploring appropriate measurement, evaluation, and outreach strategies, and related topics.

In its comments on the initial proposed decision (PD) earlier this year, SolarCity supported the request for the CEC to host a workshop in mid-2016 focused on incentive design.<sup>1</sup> During the July 8, 2016 workshop, SolarCity participated on the panel covering incentive levels and program costs. As a NSHP participant, SolarCity recognizes the importance of this growing market segment for its customers. The fact that NSHP incentives are still available today demonstrates that solar for new home construction is an early-stage market that has progressed at a much slower rate than the solar installation market for existing homes, which has already exhausted funding under the California Solar Initiative (CSI) program. The NSHP program was specifically designed such that incentive levels decline in tandem with industry cost reductions, and rebates are eliminated only when the new solar homes market has matured enough to be maintained without incentives.

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<sup>1</sup> SolarCity Comments to CPUC (R-12-11-005), May 23, 2016.



Therefore, SolarCity would like to focus its comments on several of the points we emphasized during the workshop, including the current NSHP incentive structure and enabling solar as a standard feature for new construction.

### *Current NSHP Incentive Structure*

During the workshop, panelists were asked to consider whether future program participation will be cost effective for builders. SolarCity believes that program participation will continue to be cost effective for builders given the original program design. Consumer adoption varies across different markets in ways that policymakers often cannot predict and for reasons that may be unknown. It is largely for this reason that the creators of the CSI and NSHP programs did not attempt to exactly identify the correct incentive levels for a particular market. Rather, they structured the incentives in such a way that the levels would adjust downward to the correct level as the markets grew. For example, if the “Step 6” incentive levels are too high, those incentives would quickly be consumed and the program would drop down to Step 5. This ensures that the program will meet its statutory requirements.

The original goals of the CSI include: installing 3,000 MW of customer sited solar electricity generating capacity by the end of 2016, placing solar on half of new homes by 2020 and making the solar industry self-sufficient in 10 years.<sup>2</sup> According to a Consol field study that attempted to quantify the percentage of new homes across California (CA) that have solar photovoltaics (PV), it is currently only about 9%.<sup>3</sup> This is still a long way from CSI goal of planning solar on half of new homes by 2020. It is critical to keep these goals in mind as the CEC further evaluates the effectiveness of the NSHP program.

Given the current deployment goals of the NSHP program and the upcoming implementation of the 2016 building code, panelists at the workshop also discussed potential changes to incentive levels and tier adjustments for the 2016 NSHP Guidebook<sup>4</sup> update. At this time, SolarCity does not have a specific proposal for restructuring the NSHP incentives. We are, however, interested in engaging in further discussion with the CEC and other stakeholders in potential updates to the current incentive levels and tiers.

Furthermore, SolarCity is open to considering a modification of the NSHP incentive calculator to include the option of a flat rate based on system size (given that the Tilt /Azimuth (AZ) fall within a required range). Such a change could potentially reduce the application processing time in addition to allowing Home Energy Rating System (HERS) raters to test larger sample groups, cutting back on inspection costs and reducing delays. SolarCity would consider supporting such a change depending on the specifics of the proposal.

### *Solar as a Standard Feature*

The NSHP incentives are a significant enabler for making solar standard in CA. The current NSHP guidebook allows an incentive for energy code compliant homes along with Tier I & II levels. More than half of the builders that SolarCity works with take advantage of this code compliant level, saving them the extra cost needed to go Tier I & II. Hence, once the 2016 Title 24 building standards go into effect in 2017, solar will be a viable and cost effective feature for the new home builder. This version of the CA

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<sup>2</sup> Senate Bill 1 (Murray, Chapter 132, Statutes of 2006)

<sup>3</sup> New Solar Homes Market Partnership Report, May 27, 2016, p. 16. Available at <http://www.energy.ca.gov/2016publications/CEC-300-2016-005/CEC-300-2016-005.pdf>

<sup>4</sup> 10<sup>th</sup> Edition of NSHP guidebook expected to be released in 2016.



building code will allow solar to be used as an alternative to required and higher cost insulation systems in most climate zones.

It is becoming more evident that solar and its present day financing tools (leases/power purchase agreements (PPA's)) will make solar more cost-effective than hybrid insulation systems required by the new code. Some builders can still incorporate solar as a standard feature without the incentive. Yet for the majority of builders that are not large homebuilders, this is not very likely without incentive support at this point.

In order for builders to prepare for the 2019 building energy code update and the move toward zero net energy (ZNE) for all new residential homes by 2020, the NSHP program is more critical now than ever. It will help drive builders toward making solar a standard home feature as costs come down over the next two to three years.

### *Affordable Housing Incentives*

The NSHP program also provides incentives for new affordable housing projects.<sup>5</sup> Unfortunately, third party owners, which are not tax-exempt, in leasing/PPA arrangements cannot qualify for the higher affordable housing incentives. This is due to a revision in the 9<sup>th</sup> edition of the NSHP guidebook that revises the documentation for an affordable housing project to show tax exempt status to qualify for the higher affordable housing incentive for projects with qualifying solar energy systems owned by tax-exempt entities.<sup>6</sup> In order for the new solar affordable housing market to continue to grow and meet deployment targets, it is critical that the next NSHP guidebook remove this restriction on third party ownership. SolarCity looks forward to working with the CEC and other stakeholders on developing effective solutions for addressing affordable housing incentive issues.

### **Conclusion**

As mentioned previously, the inclusion of solar as a standard feature in new home construction is still in its infancy and the market take-up of solar in new homes was severely hampered by California's housing recession that only began to recover in 2011. The new solar homes construction market needs to continue to receive declining incentives based on megawatt penetration targets in order to grow at the rate envisioned by Senate Bill 1 and to meet CA's overarching greenhouse gas emissions (GHG) goals.

As regulators try to strike the balance between meeting NSHP program goals for market growth and program cost effectiveness for builders, technical support and expertise on incentive design from industry experts and stakeholders including solar installers will be critical. SolarCity thanks the Commission for the opportunity to comment on the current NSHP program. We look forward to continuing to be an active participant in the stakeholder process for any potential program updates, such as incentive level re-designs.

Respectfully submitted,

Damon Franz  
Director, Policy and Electricity Markets  
SolarCity

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<sup>6</sup> NSHP Guidebook 9<sup>th</sup> Edition, p. ix. Available at <http://www.energy.ca.gov/2015publications/CEC-300-2015-003/CEC-300-2015-003-ED9-CMF.pdf>