

September 30, 2011

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 06-NSHP-1
1516 Ninth Street
Sacramento, CA 95814-5512

DOCKET	
06-NSHP-1	
DATE	SEP 30 2011
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Re: Comments on NSHP Draft Guidebook, Fourth Edition

The Dow Chemical Company is pleased to submit the following comments in response to the September 23, 2011 workshop and the Fourth Edition Draft Guidebook for the California Energy Commission's New Solar Homes Partnership.

Dow's Interest in NSHP

In 2007, The Dow Chemical Company won a Solar America Initiative award to develop a building integrated solar shingle for integration into asphalt roofs. At least 85% of residential roofs are covered with asphalt shingles, the most affordable building product for residential new construction. As we approach the end of 2011, Dow is preparing to sell the POWERHOUSE™ Solar Shingle in select markets in the United States. As a result of its' leadership in the solar industry, California is one of those markets.

In addition, our sister business, Dow Building Solutions (DBS) is a one of the Building America Research Teams. The teams work with all segments of the building industry to develop, analyze, and implement strategies that achieve significant home energy savings for new and existing homes. In partnership with Michigan State University, Ferris State University, and Habitat for Humanity, and with technical contributions from Duke Energy, DTE, and Exelon, the DBS team utilizes a systems engineering approach to design, test, and build energy-efficient, high-quality homes. DBS is a leading provider of building materials, including insulation systems, house wrap and Great Stuff gap and crack sealer.

General Comments

Dow is extremely supportive of the objectives of the New Solar Homes Partnership and firmly believes that this program is a critical for leading the United States in the pursuit of building high performance homes that will significantly reduce our energy needs. We commend the California Energy Commission for creating what remains the only program that promotes and supports a thoughtful and targeted solution for incenting production homebuilders to go solar. It is our strong desire to not only support this program to ensure its success but also encourage utilities across the country to develop comparable programs thereby making energy efficient, solar powered homes the standard building protocol here in the U.S.

We believe that in order to take the program to the next level of success, whereby it moves away from the early adopters into more of a mainstream marketplace, it is critical to address the items that prevent scalability. Based on the workshop and through industry conversations, there seems to be unanimous agreement that the program is too complicated and too expensive to administer.

To that end, Dow encourages the Energy Commission to truly reevaluate its objectives and consider making significant changes to the program with the goal of simplifying the program while not sacrificing the objectives. We believe that through some well designed modifications to the program, the Energy Commission will see much larger participation rates.

Recommendation #1: Modify requirements tied to energy efficiency.

Dow recommends that the Energy Commission explore different mechanisms than what are currently used to achieve high energy efficiency levels. The extensive amounts of paperwork, fees, controls, and inspections, all to ensure that energy efficiency levels have been properly met, are overwhelming to a great number of stakeholders (builders and installers), and as a result are negatively impacting participation in the program.

Furthermore, the NSHP's requirements tied to energy efficiency, add significant costs to solar. The production builder channel has the potential to be one of the most cost effective channels within the solar industry. The solar industry is currently united in confronting the high "soft costs" of solar installations. These soft costs include such things as engineering designs, local permitting, and inspections. Based on the efficiencies gained in these areas, production homebuilders should have the lowest soft costs of any solar industry market segment. Unfortunately, the NSHP prevents the production builder community from benefitting from lower soft costs due to all of the new requirements being added. It is critical for us to be focused on creating value for homebuyers while enabling builders to "not lose" money by going solar. In today's real estate market, this is easier said than done. By exploring ways to bring the soft costs out of the system, we firmly believe that the results will be greater adoption levels of solar by homebuilders.

Accordingly, Dow recommends a much simpler approach be used. Dow recommends that participation in the NSHP be tied to participation in the California Advanced Homes Program (CAHP). For the sake of keeping administration costs down, Dow recommends that the Energy Commission administer the NSHP incentives separately. To ensure compliance on the energy efficiency side, the Energy Commission would need to verify that each home successfully meets the CAHP requirements. In the event that a given home failed the CAHP requirements but received a NSHP incentive, the builder would have one of two options: pay back the incentive or be given a warning. If a warning is given and this happens a second time, the builder would immediately become black listed from participating in the NSHP for a period of 2 years.

Recommendation #2: Add a new, entry level "Tier 0"

Dow recognizes that California leads the country in energy efficiency standards, and while we firmly believe that energy efficiency should come first, we do believe that the added costs tied to achieving Tier I and Tier II levels within NSHP are significantly hindering adoption rates. Based on our experience, once builders jump into solar, that often leads them to get more serious about the energy performance of their homes, which ultimately motivates them (instead of forcing them) to do more in the area of energy efficiency. We believe that incenting builders to do more energy efficiency is a better approach than mandating them.

Accordingly, Dow proposes that the Energy Commission introduce a third tier of rebates. For the sake of this example, we'll call this "tier 0." Tier 0 should be the true entry level point for builders wanting to go solar. This level should not require any energy efficiency levels above code, and accordingly, wouldn't need the extensive amounts of paperwork necessary to participate in the program. This would provide a very simple and straight forward first step for builders to step into the world of high performance homes.

Now to ensure that we keep the program's incentives aligned properly, we recommend introducing an incentive level commensurate with the commitment level. Accordingly, we would like to suggest that a rebate in the amount of \$1.25 per watt be set for Tier 0. By having this large of a delta between Tier 0 and

Tier 1 incentive levels, we believe that builders will get intrigued by Tier 0 but then will hopefully get motivated to make the jump to the next tier. In order to prevent a dilutive effect on increases in energy efficiency, we would recommend a cap for a builder in this tier. Once the builder hit the cap then the only way they could remain in the NSHP would be to move into the next tier.

Recommendation #3: Reestablish an NSHP Advisory Committee

Dow recommends that the CEC consider reviving an NSHP Advisory Committee and charge this committee with working closely with the Commissioners that serve on the Renewables Committee to make specific detailed recommendations to modify, improve, and then track the progress of the NSHP. This Advisory Committee would need to have adequate representation from key stakeholders (utilities, builders, suppliers/installers, CBIA, CEC Energy Efficiency and Renewables staff, etc.).

In order to effectively analyze the options to improve the NSHP and make program improvements, Dow would commit resources to be part of the process. We believe that with a collaborative effort including multiple stakeholders a solution to increasing the participation in the NSHP is a realizable goal.