SUPPORTING INFORMATION FOR ENERGY COMMISSION REQUEST FOR CONTINUATION OF NEW SOLAR HOMES PARTNERSHIP PROGRAM AND DESIGNATION AS PROGRAM ADMINISTRATOR (NOVEMBER 2015)

This document includes pertinent information to support the California Energy Commission's request to the California Public Utilities Commission (CPUC) to continue the New Solar Homes Partnership (NSHP) Program and designate the Energy Commission to serve as the program administrator. This document also provides information on the following topics to assist the CPUC in its consideration of the request: CPUC authority to act on the subject request; need for expedited consideration; background on the NSHP Program; anticipated date when current program funding will be exhausted; justification for continuation of the program; amount of and justification for the additional funding requested; justification for Energy Commission administration of the continuation program; recommended level of CPUC oversight; and suggested mechanism to account for and transfer program funding, if the program is continued and the Energy Commission is selected to serve as the program administrator.

LEGAL AUTHORITY

The CPUC is authorized to consider the Energy Commission's request pursuant to Public Utilities Code Section 2851 (e)(3), which provides as follows:

> (3) (A) Programs for the installation of solar energy systems on new construction (New Solar Homes Partnership Program), administered by the Energy Commission, and funded by charges in the amount of four hundred million dollars ($400,000,000), collected from customers of San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company. If the commission is notified by the Energy Commission that funding available pursuant to Section 25751 of the Public Resources Code for the New Solar Homes Partnership Program and any other funding for the purposes of this paragraph have been exhausted, the commission may require an electrical corporation to continue administration of the program pursuant to the guidelines established for the program by the Energy Commission, until the funding limit authorized by this paragraph has been reached. The commission may determine whether a third party, including the Energy Commission, should administer the utility's continuation of the New Solar Homes Partnership Program. The commission, in consultation with the Energy Commission, shall supervise the administration of the continuation of the New Solar Homes Partnership Program by an electrical corporation or third-party administrator. After the exhaustion of

> funds, the Energy Commission shall notify the Joint Legislative Budget Committee 30 days prior to the continuation of the program. This subparagraph shall become inoperative on June 1, 2018.
> (B) If the commission requires a continuation of the program pursuant to subparagraph (A), any funding made available pursuant to the continuation program shall be encumbered through the issuance of rebate reservations by no later than June 1, 2018, and disbursed by no later than December 31, 2021. [Public Utilities Code sec. 2851, subd. (e), par. (3). Emphasis Added.]

Pursuant to this authority the CPUC may require Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E)[1] to continue the NSHP Program pursuant to guidelines established by the Energy Commission until the $400 million funding limit authorized in section 2851 (e)(3) is reached. This authority also authorizes the CPUC to designate a third party, including the Energy Commission, to administer the continuation of the NSHP Program.

The Energy Commission's request may be addressed as part of CPUC Rulemaking (R.) 12-11-005, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues. On June 9, 2014, the CPUC issued an Assigned Commissioner Ruling and Scoping Memo under R.12-11-005, which identified issues that would be included in the scope of the proceeding going forward. One such issue was continuation of the NSHP Program, as follows:

> "In D.13-11-025,[2] which was issued in a different proceeding (Application (A.) 12-11-001), the Commission clarified that issues related to the source and level of funding for solar on new construction pursuant to § 2851, the New Solar Homes Partnership, should be added to the scope of this proceeding. Those portions of SB 96 (Budget Act of 2013) relevant to the New Solar Homes Partnership will also be addressed in this proceeding."[3]

In Decision (D.)13-11-025, the CPUC denied the Energy Commission's proposal in its 2012 - 2014 Electric Program Investment Charge (EPIC) Investment Plan to allocate

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[1] These utilities are collectively referred to herein as investor owned utilities or "IOUs."

[2] Application of the California Energy Commission for Approval of Electric Program Investment Charge Proposed 2012 through 2014 Triennial Investment Plan, D.13-11-025, Decision Addressing Applications of the California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company for Approval of Their Triennial Investment Plans for the Electric Program Investment Charge Program for the Years 2012 Through 2014, November 19, 2013.

[3] Assigned Commissioner's Ruling and Scoping Memo, R.12-11-005, no. 4, p. 7. Issued on June 9, 2014.

$25 million per year in 2013 and 2014 for the NSHP Program and transferred consideration of the funding source and budget for the NSHP to R.12-11-005, stating:

> "In order to preserve the full potential value of EPIC investments in RD&D for the 2012-2014 EPIC program period, we will not modify the EPIC Investment Plans and their funding levels to accommodate the § 2851 solar on new construction program. Instead, we direct that the matter of the funding source and level for solar on new construction pursuant to § 2851 be added to the scope of R.12-11-005, the Commission's Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues. A decision on whether to fund the § 2851(e)(3) program for solar energy systems on new construction will be made in R.12-11-005."[4]

In D. 15-04-020, a subsequent decision addressing the Energy Commission's proposed 2015 - 2017 EPIC Investment Plan, the CPUC determined that it could consider the use of EPIC funds for the NSHP, stating the following:

> "In the current proceeding, the CEC states that the 2013 EPIC Decision did not *preclude* funding NSHP with EPIC but rather recognized two separate applicable caps should it be funded with EPIC. On this basis CEC requests in its application to reserve the option to at some future point submit a Petition for Modification (PFM) or application to use a portion of its 2015-2017 EPIC funds for NSHP. SDG&E and ORA recommend that the Commission deny this request, stating that the CEC's request and intent is unclear and that the Commission clearly transferred the question of NSHP funding to another proceeding.
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> There are two potential interpretations of this issue: a policy interpretation and an administrative interpretation. Contrary to some of the parties' comments, these interpretations are not irreconcilable.
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> The policy interpretation is that the Commission indeed found in the Phase 2 EPIC Decision that there is a policy rationale for funding NSHP with EPIC because the two programs' goals and directives are consistent; the 2013 EPIC Decision did not overturn this finding. We reiterate that in these terms the NSHP can be funded by EPIC, and we support all appropriate efforts to ensure that the NSHP continues to be funded.

[4] D.13-11-025, Application 14-04-034, et al., pp. 39-40. Footnotes omitted from quoted text.

> The administrative interpretation is that, notwithstanding the policy rationale for funding NSHP under EPIC, the Commission made an administrative decision to transfer the issue of NSHP funding to another proceeding.
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> R.12-11-005 remains the proceeding where a programmatic funding decision for NSHP is expected to be made; accordingly, this Decision makes no judgments thereto. We understand that the CEC's intent in discussing NSHP in this proceeding is to "keep its options open" to request to fund NSHP under EPIC at some possible future time (for example, if the Commission in R.12-11-005 decides not to allocate funding to NSHP), consistent with the policy interpretation in previous EPIC decisions. Should the Commission determine at a later date that it is reasonable to fund NSHP using EPIC funds, the CEC will need to shift funds that were allocated to other projects. We will evaluate such a petition or application to shift EPIC funds to NSHP when and if it is submitted."[5]

REQUEST FOR EXPEDITED CONSIDERATION

The Energy Commission asks that its request be considered immediately and a CPUC decision issued as soon as possible. Prompt consideration of this matter is necessary to ensure sufficient time to encumber funds for NSHP systems if the CPUC decides to continue the program, as well as to avoid causing an interruption in the NSHP Program that could disrupt the solar housing market, negatively impact the solar industry, and delay achievement of California's zero net energy goals for new residential construction.

To provide market certainty and maintain the current momentum in the NSHP program, additional funding must be authorized before current funds are exhausted. Uncertainty about the future availability of NSHP incentives is already affecting builders and developers who are unwilling to plan for integrating solar into their new residential developments without knowing if funds will be available, and are therefore less likely to include solar in those developments.

In addition, if the NSHP Program is continued pursuant to Public Utilities Code Section 2851 (e)(3), the program will be subject to new statutory deadlines for encumbering and disbursing funds as a result of Senate Bill 83 (SB 83, Committee of Fiscal and Budget Review, Chapter 24, Statutes of 2015). SB 83 amended Section 2851 (e)(3) to add the following requirements:

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[5] D.15-04-020, Application 14-04-034, et al., pp. 15-17. Footnotes omitted from quoted text.

> "(B) If the commission requires a continuation of the program pursuant to subparagraph (A), any funding made available pursuant to the continuation program shall be encumbered through the issuance of rebate reservations by no later than June 1, 2018, and disbursed no later than December 31, 2021." [Public Utilities Code, sec. 2851, subd. (e), par. (3)(A).]

Because of these new statutory deadlines, it is critically important that the CPUC issue a decision on the subject request as soon as possible to maximize the time available to encumber funds under a continuation program.

To further expedite consideration of the subject request, the Energy Commission asks that the request be considered separate and apart from any other issues being considered under R.12-11-005. Addressing the subject request separately will avoid delays associated with the consideration of any other pending issues in R.12-11-005.

NEW SOLAR HOMES PARTNERSHIP PROGRAM BACKGROUND

Senate Bill 1 (SB 1, Murray, Chapter 132, Statutes of 2006) established the California Solar Initiative (CSI) with the goals of (1) installing solar energy systems with a generating capacity equivalent to 3,000 megawatts, (2) establishing a self-sufficient solar industry within ten years, and (3) placing solar energy systems on 50 percent of new California homes by 2020. The CSI is being implemented by the Energy Commission, the California Public Utilities Commission (CPUC), and the state's local publicly owned electric utilities in different programs that share the same broad goals.

The NSHP Program is the Energy Commission's component of the CSI and is limited to solar on new residential construction. Launched in January 2007, the program provides financial incentives for homeowners, builders, and developers to include solar energy systems on new, energy efficient homes that will contribute to the CSI goals. The NSHP offers financial incentives and other support to building owners, and developers to attain the program-specific goal of adding 360 megawatts (MW) of solar generating capacity.

The financial incentives are an expected performance-based incentive that encourages quality installation of solar energy systems. The NSHP Program offers two incentive structures; one for market rate housing and affordable housing common areas, and another for affordable housing residential projects. The market rate housing incentive structure is further broken down into various incentive levels based on energy efficiency: Tier 1 and Tier 2. The Tier 1 incentive is for buildings that exceed the energy efficiency requirements of the current Title 24 Building Standards by at least 15 percent. The Tier 2 incentive is for buildings that exceed the energy efficiency requirements of the current Title 24 Building Standards by at least 30 percent. In addition, a lower "code compliant"

incentive is available for homes that meet (rather than exceed) the 2013 Title 24 Building Standards.

Similar to the CSI program, the NSHP incentive structure is designed to decline over time when set capacity goals are met. When the cumulative MW (AC) capacity of applications submitted under an incentive level equals the MW reserved volume target for that incentive level, the incentive drops to the next incentive level. For example, the current level, or "step" is 7. This provides between $.75 and $1.50 per watt incentive, based on level of energy efficiency the home meets. When 50 MW of capacity is reached, applicants can apply for funds at step 8, which provides incentives between $.50 and $1.25 per watt. Similarly, the incentive rate for qualified affordable housing projects also declines over time. The current incentive level ranges between $1.50 and $1.85 per watt.

To be eligible for the NSHP program, an applicant must be an electric customer of PG&E, SCE, SDG&E, or Bear Valley Electric Service and commit to installing a solar energy system on a new residential building. The solar energy system must be: comprised of new equipment that appears on the Energy Commission's SB 1 eligible equipment lists; placed in service at the same site where the end-use customer's demand is located; and covered by a ten-year warranty for equipment and installation. In addition, the performance of the system must be third-party verified prior to payment.

To prevent overpayment of funds and discourage oversized systems, the NSHP has funding limitations. Program incentives are limited to the first 7.5 kW of a system for residential units. In addition to the system size cap, affordable housing residential unit incentives are limited to no more than 75 percent of the total system cost and market-rate housing incentives are limited to no more than 50 percent of the total system cost. Applicants may not receive incentives from both the NSHP and another CSI program.

These and other program requirements are found in the program guidelines adopted by the Energy Commission and set forth in the NSHP Guidebook. The first NSHP Guidebook was adopted in December 2006. It was subsequently revised and updated to reflect changes in law and market conditions. The current version of the NSHP Guidebook is the Ninth Edition, which was adopted by the Energy Commission on July 8, 2015.[6] The Energy Commission anticipates revising the NSHP Guidebook again in 2016.

The Energy Commission began administering the NSHP Program in January 2007. In 2008, the Energy Commission decided to outsource the program's day-to-day administration to the IOUs to:

[6] The New Solar Homes Partnership Guidebook, Ninth Edition, is available at: http://www.gosolarcalifornia.ca.gov/about/nshp.php

- Improve the efficiencies of the NSHP program by bringing the applicants in direct contact with their utility companies and utilizing the inherent synergies already in place between the utilities and their service area customers.
- Bring together the processing of solar incentives and the energy efficiency incentives under one administrator for improved administrative efficiency and superior customer service.
- Form a team between the utility companies participating in the NSHP and the Energy Commission to help create a self-sustaining market for solar homes where builders incorporate high levels of energy efficiency and high-performing solar systems.

Additional discussion of the reasons behind the decision to outsource program administration to the IOUs is provided in the later section, entitled: “Justification for Continued Energy Commission Administration of the NSHP Program.”

The transition to IOU administration began in November 2007 when SDG&E signed its contract with the Energy Commission to begin administration, followed by PG&E and SCE signing their contracts in March 2008. During the IOUs’ administration of the program, the Energy Commission continued to provide oversight and review all applications and payment claims processed by the IOUs to ensure accuracy and consistency with program guidelines. This continued until September of 2014, when the Energy Commission resumed administration of the program with the goals of streamlining administration of the program across all service territories, providing a single point of contact for stakeholders, reducing workload redundancies, and reducing program administrative expenses by approximately $400,000 per year.

To date, the NSHP program has paid incentives to 20,398 solar energy systems with a combined generating capacity of 63.1 MW, and funds are reserved for an additional 23,303 solar energy systems with a combined capacity of 74.9 MW. There are an additional 2,468 systems under review. Assuming a 100 percent completion rate, projects with active and completed reservations account for 138 MW of solar generating capacity and $225 million of incentives. Table 1 shows NSHP Program activity by year.

Table 1: NSHP Program Activity by Year

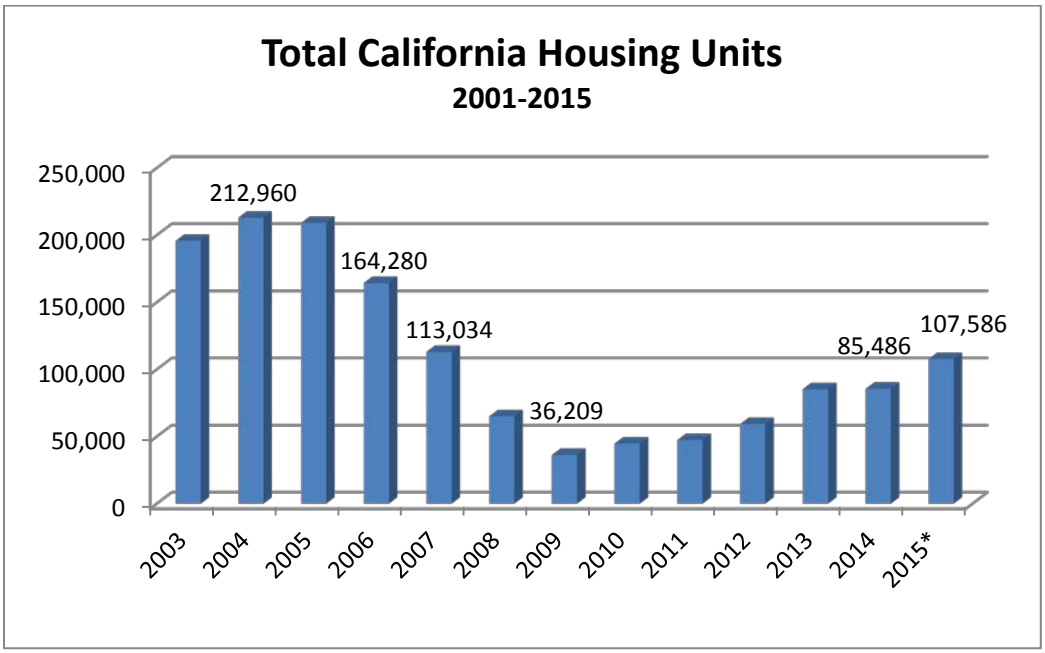
	Reserved*			Installed		
Year	**MW Reserved**	**# of Reservations**	**Encumbered**	**MW Installed**	**# of Systems**	**Payments**
2007	0.975	47	$4,127,014	0.003	1	$7,332
2008	8.96	249	$27,925,596	1.3	540	$3,751,095
2009	6.39	360	$19,425,751	3.9	1,626	$11,031,178
2010	8.68	519	$26,596,919	5.2	1,487	$14,900,506
2011	11.38	444	$31,950,397	3.4	820	$9,075,709
2012	17.90	454	$48,670,610	6.8	1,864	$18,149,399
2013	23.89	496	$45,938,009	11.9	3,841	$28,535,985
2014	30.31	525	$41,031,662	11.8	3,915	$23,083,378
2015*	43.50	467	$40,151,986	18.8	6,304	$27,550,016
Total	**152**	**3,561**	**$285,817,944**	**63.1**	**20,398**	**$136,084,598**

* "Reserved" includes systems whose reservations may have expired or been withdrawn from the program in addition to systems that were ultimately installed. For total capacity of installed systems and current reservations, see: http://www.gosolarcalifornia.ca.gov/about/nshp.php.

** Through November 4, 2015

One of the major challenges the NSHP Program has faced is that it was launched during one of the worst housing markets in California's history (Figure 1) as a result of the severe economic recession that began in 2007.

Figure 1: Permits for Single and Multifamily California Housing Units 2003-2015

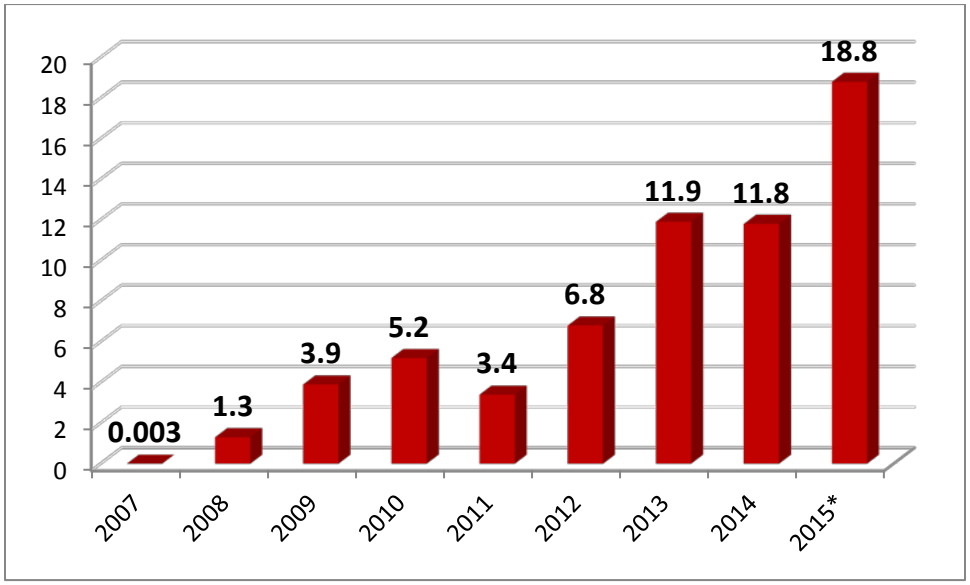


* Projected; Source: California Homebuilding Foundation.
http://www.mychf.org/tasks/sites/chf/assets/File/California%20Housing%20Units%201954-2014.pdf.

The program's slow start was compounded by the fact that it took a few years for builders to become familiar with the program and understand the program requirements. These dual challenges have resulted in slow progress toward achieving the NSHP Program's 360 MW goal.

However, given the combination of a recovering housing market, increases in new home starts, recent program changes that expand program eligibility to homes that comply with (not exceed) the current building efficiency code, and an established end date for the program, the Energy Commission expects program interest to accelerate rapidly over the next year. As shown in Table 1 and Figure 2, the program has grown significantly since the early years. Installed solar systems for 2015 to date, total 18.8 MW, exceeding all previous years.

Figure 2: Megawatts Installed Solar Capacity for NSHP, 2007-2015



Source: Energy Commission. * January 1, 2015 to November 4, 2015.

The NSHP is currently underfunded. Although it was established by SB 1 as a $400 million program under the CSI, the law did not create a vehicle for adequately funding the NSHP.[7] Instead, the law relied on moneys in the Renewable Resource Trust Fund (RRTF) that were allocated to the Energy Commission's Emerging Renewables Program, and supported by the public goods charge (PGC) collections under Public Utilities Code Section 399.8 to fund the NSHP.[8] These PGC collections ended on December 31, 2011. The sum of RRTF moneys allocated to the Emerging Renewables Program and NSHP through 2011 totals approximately $282 million. This is far short of the funding level identified in SB 1 for the NSHP.

[7] SB 1, as codified in former Public Utilities Code Section 2851 (e), provided in pertinent part "… The financial components of the California Solar Initiative shall consist of … (3) Programs for the installation of solar energy systems on new construction, administered by the State Energy Resources Conservation and Development Commission … and funded by nonbypassable charges in the amount of four hundred million dollars ($400,000,000), collected from customers of San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company pursuant to Article 15 (commencing with Section 399)."

[8] Public Resources Code Section 25744.5

ANTICIPATED EXHAUSTION OF NEW SOLAR HOMES PARTNERSHIP PROGRAM FUNDING

Based on current funding in the RRTF allocated to the NSHP Program and past data on the rate of encumbrances, the Energy Commission estimates that existing funding for the NSHP Program could be exhausted by September of 2016.[9]

Current unencumbered funding:	$59.3 million
Applications under review:	$8.3 million
Funding available for new applications:	$51.1 million
Past average encumbrances per month:	$4-$5 million
Estimated time remaining with current funding:	~10-13 months

The "current unencumbered funding" above does not include additional funds that may become available from repayment of loans or disencumbrance of funds from the RRTF. Funds from the RRTF have been borrowed or encumbered on multiple occasions by the Legislature for the general fund and for other agencies' uses for specific purposes. All but two of those loans have been repaid. Outstanding loans from RRTF include:

- $2.409 million from the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA). Repayment was originally expected June 30, 2016, but CAEATFA submitted a Budget Change Proposal to extend repayment as follows: $.809 million each in FYs 2016/17 and 2017/18 with the remaining balance and interest due in FY 2018/19.
- $3.622 million from the Department of Fish and Wildlife (DFW). SB 34 (Padilla, Chapter 9, Statutes of 2010) loaned $10 million from the RRTF to DFW to purchase mitigation lands or conservation easements that developers or owners of solar thermal or photovoltaic power plants in the planning area of the Desert Renewable Energy Conservation Plan could then purchase to meet requirements under the California Endangered Species Act or the Energy Commission's licensing process. The loan was also used to cover related restoration, monitoring, and transaction costs incurred in advance of the receipt of fees and to cover the department's administrative costs for the program. DFW has repaid $6.378 million through fees paid by developers for mitigation lands, but is unable at this time to provide any date by which the remaining $3.622 million will be paid.

[9] Data as of November 2015.

In addition to the loans discussed above, $599,051 was used under CAEATFA for the Property Assessed Clean Energy Reserve (PACE) Program and Clean Energy Upgrade Financing (CEUF) Program, pursuant to AB X1 14 (Skinner, Chapter 9, Statutes of 2011, 1st Ex. session) to provide credit enhancements to lenders for whole house energy efficiency and solar loans to help lower financing costs. This program had a sunset date of January 1, 2015. These funds are being held for 10 years (until 2025) for companies that were participating in the CAEATFA PACE and CEUF programs before the programs sunsetted on January 1, 2015. If a company defaults, CAEATFA will request funds from the reserve and send to the defaulted bank. Any funds remaining after 10 years will be returned to the RRTF. The amount of funds returned to the RRTF could potentially be less than $599,051 or even zero.

The estimate for exhaustion of NSHP funds assumes that program activity will follow past trends. There are, however, several factors that will likely increase the number of applications for NSHP incentives in the near future.

- The California Building Industry Association (CBIA) has indicated that the demand for new home construction is increasing and is expected to continue to increase over the next several years.[10] The Center for Business and Policy Research at the University of the Pacific also released an economic forecast in May 2015 which indicates that housing starts are expected to grow steadily between 2015 and 2019 from 103,200 to 166,100.[11] This increase in new home construction is likely to result in increased demand for NSHP Program funding.
- The NSHP Program incentive level structure was recently expanded to include a lower "code compliant" incentive for homes that meet (rather than exceed) the current Title 24 building standards, which may result in additional applications from builders unwilling to undergo the extra costs and effort to exceed the standards in order to receive the Tier I or Tier II incentives.
- The 30% Federal Investment Tax Credit (ITC) for residential solar installations is scheduled to expire on December 31, 2016, which could lead to an increase in applications for the NSHP Program over the next several months to allow enough time for projects to be completed by December 31, 2016, in order to qualify for the ITC. The potential loss of the ITC will also make NSHP Program incentives more critical to facilitating solar installations on new homes for projects unable to be completed by the December 31, 2016, deadline.

[10] See Figure 1 and http://www.cbia.org/housing-statistics.html.

[11] Center for Business and Policy Research, University of the Pacific, found at: http://www.pacific.edu/About-Pacific/Newsroom/2015/May-Aug-2015/California-and-Metro-Forecast-May-2015.html.

- As noted earlier, the NSHP Program now has a statutory deadline of June 1, 2018, for encumbering funds under a continuation program. This statutory deadline may increase the likelihood of applicants accelerating their applications in order to reserve funding well in advance of the encumbrance deadline.

JUSTIFICATION FOR CONTINUATION OF THE NSHP PROGRAM

The NSHP Program was developed to further the goals in SB 1, as codified in Public Resources Code section 25780, which provides as follows:

> "25780. The Legislature finds and declares both of the following:
>
> (a) It is the goal of the state to install solar energy systems with a generation capacity equivalent of 3,000 megawatts, to establish a self-sufficient solar industry in which solar energy systems are a viable mainstream option for both homes and businesses in 10 years, and to place solar energy systems on 50 percent of new homes in 13 years.
>
> (b) A solar initiative should be a cost-effective investment by ratepayers in peak electricity generation capacity where ratepayers recoup the cost of their investment through lower rates as a result of avoiding purchases of electricity at peak rates, with additional system reliability and pollution reduction benefits." [Public Resources Code, sec. 25780.]

Importantly, the NSHP Program supports many of California's key energy and environmental policy goals, as discussed below.

- **Energy Action Plan:** The NSHP Program supports California's "loading order" of new energy resources to meet increasing electricity needs that was established in **t**he 2003 Energy Action Plan developed by the CPUC, Energy Commission, and the former California Power Authority and updated in 2005 and 2008. Consistent with the loading order, the NSHP Program requires participating buildings to meet or exceed current building efficiency standards in order to receive incentives for installation of the solar system. The program encourages high levels of energy efficiency through a tiered incentive structure that offers higher financial incentives for projects that exceed the energy efficiency requirements of the current Title 24 Energy Efficiency Building Standards.

  The Energy Action Plan included the following statement about the importance of distributed generation:

  > "Distributed generation is an important local resource that can enhance reliability and provide high quality power, without

compromising environmental quality. The state is promoting and encouraging clean and renewable customer and utility owned distributed generation as a key component of its energy system. Clean distributed generation should enhance the state's environmental goals. This determined and aggressive commitment to efficient, clean and renewable energy resources will provide vision and leadership to others seeking to enhance environmental quality and moderate energy sector impacts on climate change. Such resources, by their characteristics, are virtually guaranteed to serve California load. With proper inducements distributed generation will become economic."[12]

- **Renewables Portfolio Standard**: NSHP installations, while not contributing directly to the 33% by 2020 RPS target, nonetheless support meeting the target by reducing utility retail sales and therefore the amount of utility-scale generation that must be procured to meet the target. Similarly, NSHP systems reduce the need for new or upgraded electricity transmission and distribution infrastructure since the energy is generated and used on site. NSHP systems installed under a continuation program will also support the Governor's recent expanded target of 50% renewable by 2030 in which customer-side distributed generation is expected to play a greater role.

- **Assembly Bill 32**: The NSHP Program supports California's commitment to reducing greenhouse gas (GHG) emissions articulated in AB 32, the California Global Warming Solutions Act of 2006 (Núñez, Chapter 488, Statutes of 2006), which established aggressive GHG emission reduction goals to address climate change. In December 2008, ARB adopted its *Climate Change Scoping Plan* that identified 18 diverse measures to reduce GHG emissions throughout California's economy, including the NSHP Program as part of the Million Solar Roofs Program:

  "…the Million Solar Roofs Program includes CPUC's California Solar Initiative and CEC's New Solar Homes Partnership, and requires publicly-owned utilities (POUs) to adopt, implement and finance a solar incentive program. This measure would offset electricity from the grid, thereby reducing greenhouse gas emissions."

[12] State of California, Energy Action Plans; found at: http://www.energy.ca.gov/energy_action_plan/

> "Obtaining the incentives requires the building owners or developers to meet certain efficiency requirements: specifically, that new construction projects meet energy efficiency levels that exceed the State's Title 24 Building Energy Efficiency Standards… Thus, the [NSHP] program is also a mechanism for achieving the efficiency targets for the energy sector. By requiring greater energy efficiency for projects that seek solar incentives, the State would be able to reduce both electricity and natural gas needs and their associated greenhouse gas emissions."[13]

In its *First Update to the Climate Change Scoping Plan* in 2014, the ARB again highlighted the importance of renewable energy, including solar technologies, in meeting the State's long-term GHG emission reduction goals:

> "California leads the nation in the amount of solar PV capacity. In 2012, California became the first state to install more than 1,000 MW of new solar capacity in a single year, from a combination of utility-scale projects and customer installations. …Solar PV programs codified by Senate Bill 1 in 2006 …are driving much of the self-generation installation in California."[14]

Another way in which the NSHP Program supports GHG emission reductions is by providing an additional incentive to encourage the installation of west-oriented systems. The additional incentive promotes the deployment of west-facing solar energy systems for which peak generation coincides with the afternoon electricity demand peak. Reducing demand during the peak period helps to minimize the need for peaking power plants, which are typically heavier emitters of GHG emissions than combined-cycle power plants.

- **Zero Net Energy Residential Buildings by 2020**: The NSHP Program supports California's goal of all new residential buildings being zero net energy (ZNE) by 2020 by providing a "glide path" for builders to become educated on and familiar with installing solar on new construction well in advance of anticipated zero net energy requirements in California's Title 24 Building Standards. Zero net energy goals were laid out in the *2007 Integrated Energy Policy Report* and the *2008 California Energy Efficiency Strategic Plan*, and the *2013 Integrated Energy Policy Report* further defined ZNE buildings and described the necessary steps

[13] California Air Resources Board, "Climate Change Scoping Plan: a framework for change, Pursuant to AB 32, The California Global Warming Solutions Act of 2006;" December 2008, page 53.

[14] California Air Resources Board, "First Update to the Climate Change Scoping Plan: Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006;" May 2014, pages 40-41.

and renewables options for achieving the 2020 goal. In 2015, the CPUC launched the New Residential Zero Net Energy Action Plan 2015-2020, which, "provides a foundation for the development of a robust and self-sustaining ZNE market for new homes over the next six years, supports future codes and standards for ZNE, and inspires voluntary actions to meet the State's goal."[15]

To attain the ZNE goal, periodic updates to the Title 24 Building Standards are expected to improve the code's energy efficiency requirements by 20-30 percent for each update. The NSHP supports the installation of onsite renewable generating systems, and offers higher incentives for homes built to exceed code, which encourages builders to construct homes in anticipation of the next code update. The NSHP provides a critical bridge toward achieving California's ZNE goal for new homes by helping builders become familiar in advance with the challenges and intricacies of installing solar energy systems in new construction. Furthermore, the NSHP's incentives for above-code levels of energy efficiency provide builders with experience that will be invaluable as the state approaches ZNE. This experience will provide a smooth and successful transition for builders and homeowners once new standards to implement ZNE are in place.

The ARB's updated Scoping Plan referenced earlier contains a section on Green Buildings which underscores the significance of ZNE buildings, which are essentially zero net carbon buildings, in helping to achieve California's GHG emission reduction targets:

> "Buildings represent the second largest source of statewide GHG emissions, when accounting for electricity, natural gas, and water consumption… By supporting current initiatives and expanding the long-term focus toward zero carbon buildings, green buildings represent a fundamental shift toward a cross-sector and integrated climate policy framework."
>
> "Zero net carbon buildings will be key as we continue to pursue an integrated approach to reduce new and existing building-related impacts that combine climate and air quality programs… Zero net carbon buildings could utilize high-performance design solutions, generate renewable energy and heating on-site or locally, and employ other techniques to eliminate or offset GHG emissions from all GHG impacts (i.e., energy, water, waste, and transportation) associated with a building. Zero net

[15] California Public Utilities Commission, New Residential Zero Net Energy Action Plan, June 2015, http://www.cpuc.ca.gov/NR/rdonlyres/92F3497D-DC5C-4CCA-B4CB-05C58870E8B1/0/ZNERESACTIONPLAN_FINAL_060815.pdf.

carbon buildings are the next generation of buildings and could contribute significantly to achieving our long-term GHG emission goals."[16]

- **California's Clean Energy Future:** The NSHP Program supports the vision laid out in the California's Clean Energy Future implementation plan to remove barriers to behind-the-meter distributed generation. In 2008, the CPUC, Energy Commission, California Environmental Protection Agency, Air Resources Board, and California Independent System Operator developed an implementation plan which described the key elements needed to achieve 2020 electricity policy goals. One vision in the plan was:

  > "Distributed generation technologies will be deployed at significantly higher levels, both behind-the-meter and wholesale power… (made up of the California Solar Initiative and the New Solar Homes Partnership) and the Small Generator Incentive Programs will make significant progress towards removing barriers to behind-the-meter DG, including installed cost, installer infrastructure, availability of financing products, and consumer acceptance."[17]

- **Governor Brown's Clean Energy Jobs Plan**: NSHP installations contribute to Governor Brown's goal of 12,000 MW of localized, renewable electric generation by 2020, which supports the current administration's priority to aggressively pursue clean energy jobs in California through development of renewable energy.

- **Supporting Solar on Low-Income Housing:** The NSHP Program's incentive structure helps low-income residents in disadvantaged communities by providing higher incentives per watt of installed solar capacity for eligible affordable housing projects with tax-exempt system owners. The residential units served in these projects are subject to income restrictions, and are intended to benefit disadvantaged communities and vulnerable populations, including seniors. AB 2723 (Pavley, Chapter 864, Statutes of 2006) and AB 217 (Bradford, Chapter 609, Statutes of 2013) established and extended CPUC programs for the installation of solar energy systems on low-income residential housing, indicating that support for solar on low-income housing is a priority for the Legislature. The affordable housing element of the NSHP Program is consistent with and supports the valuable work the CPUC is doing to promote solar on affordable housing projects. For example, the NSHP program provided rebates to the Spring Lake

[16] California Air Resources Board, First Update to the Climate Change Scoping Plan; May 2014, Pages 82-84.

[17] State of California, California's Clean Energy Future; CEC-100-2010-002, http://www.cacleanenergyfuture.org/documents/CACleanEnergyFutureOverview.pdf, 2010, page 4.

Apartment Complex in Woodland, California, which in March 2015 became the first multifamily affordable rental development in the nation to receive the U.S. Department of Energy's Zero Energy Ready Homes certification.[18]

AMOUNT OF ADDITIONAL FUNDING REQUESTED

The NSHP Program has statutory authority under SB 1 to spend up to $400 million in incentives, but is facing a funding gap due to expiration of California's public goods charge (PGC) at the end of 2011. The Energy Commission therefore requests that the continuation NSHP Program be approved in the amount of $111.78 million to bridge the gap between the $400 million statutory budget and the amount of funding allocated to the NSHP Program to date.

The PGC was originally established in 1996 under AB 1890 (Brulte, Chapter 854, Statutes of 1996) and the PGC funds were allocated to the Energy Commission's Renewable Energy Program under SB 90 (Sher, Chapter 905, Statutes of 1997). The PGC was subsequently extended from 2002 to 2012 with enactment of AB 995 (Wright, Chapter 1051, Statutes of 2000) and SB 1194 (Sher, Chapter 1050, Statutes of 2000) in 2000. Subsequent legislation, including SB 1038 (Chapter 515, Statutes of 2002), SB 107 (Chapter 464, Statutes of 2006), and SB 1036 (Chapter 685, Statutes of 2007), revised the allocation of PGC funds to the elements of the Renewable Energy Program. PGC funds collected from the IOUs during this period to support renewable resources were deposited into the Energy Commission's RRTF and allocated by statute to different elements of the Renewable Energy Program, with allocations changing over time as market conditions and statutory requirements changed (Table 2).

The NSHP Program replaced the Emerging Renewables Program for solar, which ended on December 31, 2006. Starting January 1, 2007, funds from the Emerging Renewables Program were used to support both the NSHP program and the Emerging Renewables Program for wind and fuel cells. The Emerging Renewables Program for wind and fuel cells ended on June 27, 2012, as a result of SB 1018 (Committee on Budget and Fiscal Review, Chapter 39, Statutes of 2012), which repealed the Energy Commission's authorization to use the RRTF to fund the Emerging Renewables Program.

[18] http://www.chpc.net/dnld/SpringLakeZNE2015_05_06.pdf

Table 2: Emerging Renewables Program Allocations and Collections

Program Element	Allocated Funds								Collected Funds
	SB 90 (1998-2001)		SB 1038 (2002-2006)		SB 107 &SB 1250 (2007)		SB 1036 (2008-2011)		TOTAL
	%	$Million	%	$Million	%	$Million	%	$Million	$Million
New Renewables	30	$162	51.5	$347.625	51.5	$75.110	0	0	$592.894
Emerging Renewables	**10**	**$54**	**26.5**	**$178.875**	**37.5**	**$54.691**	**79**	**227.520**	**$698.546***
Existing Renewables	45	$243	20	$135.000	10	$14.584	20	57.600	$453.967
Customer Credit	14	$75.6	0	$0	0	$0		$0	$75.639
Consumer Education	1	$5.4	2	$13.500	1	$1.459	1	$2.880	$23.581

*Includes $177.171M reallocated to the Emerging Renewables Program from other program elements during the life of the program.

When collection of the public goods charge ended on December 31, 2011, the total funding in the RRTF collected for and allocated to the Emerging Renewables Program was $698.55 million. Total disbursements from the RRTF to the Emerging Renewables Program for solar, wind, and fuel cell systems from January 1, 1998, to September 30, 2013,[19] were $416.56 million. The remaining $281.98 million of Emerging Renewables Program funding was therefore available for the NSHP Program.

In addition to the $281.98 million expressly allocated to the NSHP Program, $6.23 million originally appropriated (not loaned) from the RRTF to CAEATFA for purposes of the PACE and CEUF programs was recently returned to the RRTF. In 2010, SB 77 (Pavley, Chapter 15, Statutes of 2010) appropriated up to $50 million from the RRTF to CAEATFA for the purposes of the PACE program until January 1, 2015. SB 77 specified that all repayments of moneys disbursed would be deposited into the RRTF. ABX1-14 authorized CAEATFA to use the $50 million from the RRTF for purposes of both the PACE and CEUF programs. In 2012, SB 1128 (Padilla, Chapter 677, Statutes of 2012) appropriated $25 million of the unencumbered balance of that $50 million to the Energy Conservation Assistance Account, and specified that any unencumbered funds as of January 1, 2013, would be returned to the RRTF for the purposes of the CAEATFA PACE program.

[19] Although the Emerging Renewables Program for wind and fuel cells ended on June 27, 2012, as a result of SB 1018, projects with approved reservations were allowed to receive payments, the last of which was made in September 2013.

Because of conflicting language in SB 77 and SB 1128, it was unclear whether $6.23 million remaining from the $50 million appropriation that ended January 1, 2015, was available to be used for the NSHP Program. In late September 2015, the Energy Commission's Budgets Office contacted the Department of Finance for clarification and confirmed that all appropriations to CAEATFA ended on January 1, 2015, and the $6.23 million returned to the RRTF is available for other purposes, i.e., the NSHP Program.

All appropriations and loans from the RRTF were taken from the fund as a whole and not specifically from the Emerging Renewables Program element or any of the other individual elements within the Renewable Energy Program funded by the RRTF. At the time the original $50 million appropriation was made to CAEATFA, the active program elements within the Renewable Energy Program included the Existing Renewable Facilities Program, the Emerging Renewables Program (funding for which was used for the NSHP Program as well as for rebates for small wind and renewable fuel cells), and the Consumer Education element. Although the CAEATFA appropriation was not made specifically from the Emerging Renewables Program element of the RRTF, the Energy Commission believes it is appropriate to consider the $6.23 million returned to RRTF as available for the NSHP Program. Therefore, the Energy Commission considers the total amount of funding available for the NSHP Program to be $288.22 million, leaving a shortfall of $111.78 million from the $400 million authorized under SB 1 for the program.

There are also additional funds for NSHP that may become available at a later date. As discussed earlier under "Anticipated Exhaustion of New Solar Homes Partnership Program Funding," funds have been borrowed from the RRTF account on multiple occasions by the Legislature for the general fund and for other agencies' uses for specific purposes. All but two of the loans have been repaid. There is also an allocation to CAEATFA that may or may not return to the RRTF depending on whether CAEATFA needs the funding between now and 2025.

The two outstanding loans are as follows:

- $2.409 million from CAEATFA. Repayment expected from FYs 2016/17 through 2018/19.
- $3.622 million from DFW. DFW cannot provide a repayment date at this time.

The outstanding allocation is:

- $599,051 allocated to CAEATFA for the PACE and CEUF programs pursuant to ABX1 14. Funds will be held by CAEATFA until 10 years after the program sunset date of January 1, 2015, with any funds remaining after January 1, 2025 returned to the RRTF.

The Energy Commission does not expect the delayed repayment of the $2.409 million CAEATFA loan and the $3.622 million DFW loan to have any significant effect on the NSHP Program (if it is extended) until the later years. The Energy Commission will continue to work with CAEATFA and the Department of Fish and Wildlife to attempt to secure repayment of the outstanding loans in advance of when those funds will be needed for NSHP incentives.

Because the $559,051 allocation to CAEATFA could only return to the RRTF well after the sunset date for the NSHP Program (if at all), those funds are not included in the amount of funding considered available for the NSHP Program.

The NSHP Program has not received funding from any other source beside the RRTF, nor is funding from any other source expected by the Energy Commission.

Public Utilities Code Section 2851 (e)(3)(A) authorizes the CPUC to require the IOUs to continue the NSHP Program until the $400 million statutory budget is reached, if the CPUC is notified by the Energy Commission that RRTF funding "and any other funding for the purposes of this paragraph [paragraph (e)(3)(A) of section 2851] have been exhausted."[20]

Although Section 2851 (e)(3)(A) identifies "other funding," no other funding has been made available to the NSHP Program to date.

JUSTIFICATION FOR AMOUNT OF ADDITIONAL FUNDING REQUESTED

While several sectors of the solar industry have reached the goal of creating a self-sustaining market recently, as discussed in the latest *CSI Annual Program Assessment* report,[21] the new residential market has grown more slowly and continues to rely heavily on incentives.

Although the cost of solar systems on new homes has fallen sharply over the past several years, there is still a need for incentives to encourage builders to include solar in their new home developments to maintain the momentum in building solar homes. According to a study by Lawrence Berkeley National Laboratory, recent reductions in the installed price of PV systems were largely the result of the falling price of PV modules.[22] However, the report states that this is changing, with reductions in soft costs

[20] Public Utilities Code, sec. 2851, subd. (e), par. (3)(A).

[21] California Public Utilities Commission, California Solar Initiative Annual Program Assessment, June 2015. Found at: http://www.cpuc.ca.gov/PUC/energy/Solar/2015_Annual_Program_Assessment_landingPage.htm

[22] Barbose, Galen L., Samantha Weaver, Naim R. Darghouth; Tracking the Sun VII: An Historical Summary of the Installed Price of Photovoltaics in the United States from 1998-2013, 2014. Found at: http://emp.lbl.gov/publications/tracking-sun-vii-historical-summary-installed-price-photovoltaics-united-states-1998-20.

becoming increasingly important. Soft costs include marketing and customer acquisition, system design, installation labor, costs associated with permitting and inspection and other areas. The additional funding provided by a continuation NSHP Program will help offset these soft costs and also lower the upfront costs of installing solar to customers by encouraging builders to incorporate the design of the system seamlessly into the design of the building, and by installing the system while all the other construction and permitting activities for the home are underway to take advantage of existing resources.

Furthermore, homebuilders are highly cost sensitive. While many homebuilders in California set out to construct homes featuring solar energy systems, the additional costs associated with integrating solar can be cost prohibitive. California's Legislative Analyst Office estimates that residential construction costs in California for a single-family home are $50,000 to $75,000 higher relative to other states.[23] As a result, residential homebuilders in the state are extremely sensitive to production input costs. These higher costs are especially important for affordable housing developers in California due to a variety of other factors affecting that part of the industry, such as prevailing wage requirements, highly complex financing structures and additional governmental regulation.

Competition in the new construction market is strong, with builders working in a highly cyclical business. Factors such as mortgage interest rates, unemployment levels and the relative strength of the economy all play vital roles in the health of the industry. As a result, builders are not willing to take on the added work and complexity to install solar if the installed systems are not highly cost effective.

As the California's housing market continues to recover the Energy Commission expects to see an increase in applications for NSHP incentives. The NSHP Program began during a severe economic downturn, which negatively impacted program participation in the early years (See Figure 1 on page 8). In 2006, there were 164,280 single- and multi-family units constructed in California, but in 2007, that number dropped to 113,034 and continued to decrease until 2010. Recovery has been slow, with housing totals reaching 85,846 in 2014. Estimated new construction in 2015, however, is 107,586 units, nearly triple the low point in 2009 of 36,209 units. As the housing market has improved, applications for the NSHP Program have increased: in 2013 and 2014, the program approved approximately $27 million in annual reservation requests. So far in 2015, the program has approved $40.2 million (as of early November).

[23] California Legislative Analyst's Office; California's High Housing Costs: Causes and Consequences; March 17, 2015

As discussed earlier, the impending expiration of the 30 percent ITC for residential solar systems will also increase the need for NSHP Program funding for applicants seeking to secure incentive funds and complete their projects by the December 31, 2016, installation deadline. The Solar Energy Industries Association notes on its website that "Due in large part to the availability of a multi-year ITC, residential solar grew by 76 percent in Q1 2015 over 2014, making it the fastest-growing source of renewable energy in America."[24] Without the ITC, other incentives, such as those provided by the NSHP Program, become increasingly important.

The Energy Commission also expects an increase in applications for the "code compliant" incentive level that now allows builders to receive a reduced incentive for complying with rather than exceeding the building efficiency standards, which is required for the Tier I (15%) and Tier II (30%) incentive levels. With the availability of this reduced incentive level, the NSHP Program may see increased demand from builders unwilling or unable to go beyond the current building efficiency standard requirements.

As previously stated, the reason for this shortfall is a combination of the severe economic recession that hit about the same time the NSHP Program was launched and the time it took builders to become familiar with the program. As discussed previously in the "New Solar Homes Partnership Program Background" section, the capacity goals are divided among 10 gradually decreasing incentive steps, similar to the CPUC's CSI program. The program is currently at step 7 for the market-rate housing element and step 6 for the affordable housing element.

While it is not possible to determine the exact amount of additional solar capacity the additional $111.78 million funding will provide, this level will increase total installed capacity in excess of the ultimate 360 MW goal. Based on staff estimates, the additional funds are expected to provide incentives for between 200 to 290 MW of solar capacity, depending on the level of energy efficiency and the mix of market-rate versus affordable housing projects.[25] This additional solar capacity will help continue the necessary momentum needed to carry the new solar homes market to 2020 when ZNE homes will be mandatory.

The Energy Commission therefore believes it is reasonable to request that the CPUC approve a continuation program in the amount of $111.78 million – the difference

[24] Found at: http://www.seia.org/research-resources/case-solar-investment-tax-credit-itc.

[25] Staff assumes for 200 MW the mix is 60% are code compliant, 30% are Tier 1 and 10% are Tier 2. For 290 MW staff assumes approximately 33% are code compliant, 33% are Tier 1 and 33% are Tier 2. Both scenarios assume 93% of projects are market rate and 7% are affordable housing.

between the $400 million statutory budget and the amount of RRTF funding allocated and available to the NSHP Program to date.

JUSTIFICATION FOR CONTINUED ENERGY COMMISSION ADMINISTRATION OF THE NSHP PROGRAM

As discussed earlier, when the NSHP Program began in 2007, the Energy Commission was the program administrator. In 2008, the Energy Commission decided to outsource the program's day-to-day administration to the IOUs for the following reasons:

- To improve the efficiencies of the NSHP program by bringing the applicants in direct contact with their utility companies and utilizing the inherent synergies already in place between the utilities and their service area customers.
- To bring together the processing of solar incentives and the energy efficiency incentives under one administrator for improved administrative efficiency and superior customer service.
- To form a team between the utility companies participating in the NSHP and the Energy Commission to help create a self-sustaining market for solar homes where builders incorporate high levels of energy efficiency and high-performing solar systems.
- To outsource repetitive and time-consuming functions associated with NSHP administration and allow Energy Commission staff to focus on policy and data analysis, program evaluation, and in-field project performance and compliance auditing.

From mid-2008 until August 31, 2014, the NSHP Program was administered by the three IOUs (SDG&E was administered by the California Center for Sustainable Energy) for customers in their respective service areas. During that time, Energy Commission staff found that many of the expected benefits of outsourcing NSHP administration did not materialize. For example, Energy Commission staff were required to provide detailed oversight of the utilities' day-to-day work to identify and correct frequent errors, which resulted in duplicative work and also prevented Energy Commission staff from focusing on data analysis, program evaluation, and other non-administrative tasks. Energy Commission staff were also required to respond to information requests and questions from applicants who experienced conflicting information between program administrators in different IOU service territories. In addition, there were frequent instances in which IOU administrators did not adequately respond to applicants' concerns, or responded incorrectly, resulting in applicants regularly contacting Energy Commission staff directly, rather than going through their utility administrators.

As a result, there were no significant cost savings from outsourcing administration of the NSHP program to the IOUs, and the combined annual cost of the three IOU program administration contracts from 2008-2014 was approximately $1 million. In early 2014, however, the IOUs informed Energy Commission staff that they would likely seek an increase in the contract amount when the contracts were renewed in 2015. This indication of a potential increase in administrative costs coincided with discussions among Energy Commission management that concluded in-house administration of the program would be more efficient and cost-effective with a single administrator to provide a single point of contact, consistent administration, and reduced duplication, administrative costs, and processing errors. The Energy Commission subsequently notified the IOUs that it would be resuming day-to-day administration of the program, and began doing so on September 1, 2014.

By providing a single, consistent point of contact, the Energy Commission is ensuring clarity and consistency about program eligibility requirements and administration. When the IOUs were administering the NSHP Program, there were frequent instances when different interpretations of the NSHP Guidebook resulted in differences in how the program was administered between utility service territories. This led to confusion and frustration among many program participants, particularly those with NSHP installations in more than one service territory.

The Energy Commission has also eliminated costly and time-consuming duplication that occurred during IOU administration of the program. Energy Commission staff were required to perform full or nearly full reviews of all work done by the utility administrators due to the relatively high error rate discovered during routine tracking of (IOU) processing of reservation applications and payment requests. In addition, program participants with questions often contacted the Energy Commission directly when they were unable to reach program administrators or when they wanted to double check the accuracy of information received from the IOUs. Since resuming administration of the program, the Energy Commission has been successful at reducing the error rate.

Since the Energy Commission took over administration of the NSHP, the program has seen significant cost savings, a streamlined application review process, and exceptional customer service. The estimated annual cost for Energy Commission staff to administer the NSHP is approximately $600,000, compared to the $1 million contract with the utilities. The Energy Commission’s costs are based on actual annual staff and student costs, including overhead, to process the applications, payment claims and related administrative functions. This results in an annual savings of approximately $400,000 for program administration.

The Energy Commission has provided extensive training for new NSHP staff to streamline the application review process, improve program efficiency, and reduce

duplication of work. These efforts allowed Energy Commission staff to clear a large backlog of hundreds of reservation and payment reviews inherited from the utility administrators when the Energy Commission resumed program administration in September 2014. The Energy Commission currently completes approximately 50 reservation reviews and 500 payment reviews each month, and processing time is approximately one month.[26] This is in contrast to the processing time seen during IOU administration of the program, which could be up to four to five months.

While changes made to the Guidebook in August 2014 helped streamline the program, including simplifying the lease requirements, changes to how payments are made and changes to the verification of multifamily projects, most of the savings came from internal process improvements.

Stakeholder relations and customer service have also improved under Energy Commission administration. The Energy Commission has knowledgeable call center staff that is available to answer phone calls and emails Monday through Friday from 8 am to 5 pm. On average, call center staff respond to more than 250 phone calls and 300 emails per month. Call center requests range from assisting new customers with the NSHP application process, providing updates on the status of applications, providing links to NSHP resources, and providing support for the electronic interface (NSHP webtool) with program applicants. Stakeholders such as the California Building Industry Association, SunPower, and Solar City have repeatedly expressed support for the Energy Commission to continue administration of the NSHP Program at Energy Commission Business Meetings and in written comments and letters to Commissioners.

Because the Energy Commission has established a smooth and streamlined internal review process and achieved overall cost savings while still maintaining a strong rapport with stakeholders, the Energy Commission believes it is in the state's best interest to continue the Energy Commission's current role as the sole administrator of the NSHP program. The program is complex and highly technical, with a steep learning curve. Should the Energy Commission be required to transfer the program to a third-party administrator, it would take a minimum of six months of intensive training to transfer this knowledge. Shifting administrators, particularly so soon after the transition from the IOU administration to the Energy Commission, would in all likelihood lead to an increased backlog in applications, higher administrative costs, and a negative stakeholder perception of the program – all of which would decrease program participation and defeat the purpose of requiring the IOUs to continue collecting funding for the program.

[26] Individual reservation applications typically represent a group of homes (multiple solar systems) in a large development, while payment claims represent individual solar systems.

RECOMMENDED LEVEL OF CPUC OVERSIGHT

Public Utilities Code section 2851(e)(3)(A) states, “The commission, in consultation with the Energy Commission, shall supervise the administration of the continuation of the New Solar Homes Partnership Program by an electrical corporation or third-party administrator.”

The Energy Commission has established well-defined eligibility guidelines and requirements for NSHP Program participation that have been developed and refined over time in the *New Solar Homes Partnership Guidebook.* The Guidebook is revised periodically, typically once a year, to address issues such as changes in technology, the market, or statute. The Energy Commission works closely with industry stakeholders, and the affordable housing and environmental communities to seek and incorporate feedback in each Guidebook revision. The Energy Commission is confident that it can continue to maintain these important relationships and ensure high-quality program administration.

In addition, because Public Utilities Code Section 2851(e)(3) states that continuation of the NSHP Program will be administered “pursuant to the guidelines established for the program by the Energy Commission,” the Energy Commission does not believe it is necessary to adopt new program requirements as part of the CSI proceeding beyond those found in the Guidebook. Also, the Energy Commission was directed by the Legislature in SB 1 to establish eligibility criteria for solar energy systems and conditions for ratepayer funded incentives that are applicable to the CSI, indicating that the Legislature believed the Energy Commission was the appropriate entity to oversee conditions for funding for programs under the broader statewide solar incentive program (CSI), which includes the NSHP Program.

If selected as the administrator of the continuation program, the Energy Commission will work closely with the CPUC to identify and implement adjustments that may be necessary to the continuation program as a result of changes in statute or the market. The Energy Commission also proposes to submit quarterly and annual reports to the CPUC on program status and activities.

Data proposed to be provided in quarterly reports would include:

- Application reservations, including the amount of encumbered funds, the amount of reserved installed capacity, and the number of reserved systems
- Payment claims, including the amount of funds paid, total installed capacity, and the number of installed systems
- Length of time to process applications (reserving funds and payment claims)
- Overall progress toward meeting program goals

- Program activity by project type (e.g., large developments, custom homes, multifamily)
- Program activity for affordable housing projects

Annual reports could provide a more comprehensive look at the items in the quarterly report and also include observed market and program trends, current and future programmatic concerns and issues, and other relevant information.

In addition to periodic and annual reporting, the Energy Commission proposes to continue providing monthly updates to the GoSolar California website.

SUGGESTED MECHANISM FOR TRANSFER OF APPROVED FUNDING FOR CONTINUATION PROGRAM TO THE ENERGY COMMISSION

If the CPUC approves a continuation of the NSHP Program and designates the Energy Commission to serve as the program administrator, the Energy Commission recommends that funds be transferred from the IOUs to the Energy Commission once the funds have been encumbered through the issuance of rebate reservations.[27] This will ensure funds are transferred to the Energy Commission only after they have been legally committed to an applicant.

The Energy Commission could notify the IOUs of the rebate reservations issued in a given month and submit an invoice to each IOU for its contribution to corresponding program funds. This is consistent with invoicing requirements established for the transfer of EPIC funds from the IOUs to the Energy Commission. Funds transferred to the Energy Commission would be deposited into a state account and used by the Energy Commission for the continuation NSHP Program once appropriated by the Legislature.

Additionally, the Energy Commission could track the amount of interest accumulated on transferred funds in the state account and offset its monthly invoices by this accumulated interest. This would ensure that any accumulated interest is returned to the IOUs for the benefit of their ratepayers.

The Energy Commission could also track the status of reserved funds ahead of the December 31, 2021, statutory deadline for disbursing funds and offset its monthly invoices by the amount of any cancelled reservations or reservations for projects unlikely to be completed by the December 31, 2021, deadline. This would also ensure

[27] If the program is continued and the Energy Commission is selected to serve as the administrator, the Energy Commission will require legislative approval to use additional funding for the continued program.

that unneeded funds in the state account are returned to the IOUs for the benefit of their ratepayers.

SUMMARY

In conclusion:

- The Energy Commission estimates that NSHP funds could be exhausted by September 2016, but it is possible funds could be exhausted much earlier due to increased demand from expected increases in new home construction, availability of the "code-compliant" incentive, expiration of the ITC, and the statutory sunset date for the program.
- The Energy Commission requests that the CPUC require PG&E, SCE, and SDG&E to continue the NSHP Program under the guidelines established by the Energy Commission until the $400 million funding limit authorized in PUC section 2851 (e)(3) is reached (an additional collection of $111.78 million), and that the CPUC designate the Energy Commission to administer the continuation of the NSHP Program.
- The Energy Commission asks that its request be considered immediately and a CPUC decision issued as soon as possible to ensure sufficient time to encumber funds for NSHP systems before the statutory program sunset date and to avoid causing an interruption in the NSHP Program that could disrupt the solar housing market and achievement of the state's ZNE goals.
- The Energy Commission strongly believes incentives are still needed to encourage builders to include solar in new developments to maintain the momentum in building solar homes. Builders are not the direct recipients of reduced energy costs resulting from rooftop solar, and are more concerned with the upfront costs of such installations. Without incentives to make installation cost-effective from their perspective, they are unwilling to take on the added work and complexity to install solar.
- The Energy Commission believes it in the state's best interest to be designated as NSHP Program administrator if the CPUC chooses to continue the program. Over the past year, the Energy Commission has effectively administered the NSHP Program and has reduced processing errors, cleared a large backlog of reservation and payment reviews, improved customer service and stakeholder relations, and reduced administrative costs by approximately $400,000.
- The Energy Commission has established well-defined eligibility guidelines and requirements for NSHP Program participation that have been developed and refined over time in the *New Solar Homes Partnership Guidebook, and* does not believe it is

necessary to adopt new program requirements as part of the CSI proceeding beyond those found in the Guidebook.

- The Energy Commission proposes to submit quarterly and annual reports to the CPUC on program status and activities, and to continue providing monthly updates to the GoSolar California website.
- The Energy Commission recommends that if the NSHP Program is continued, funds should be transferred from the IOUs to the Energy Commission once encumbered through the issuance of rebate reservations; IOUs should be invoiced consistent with invoicing requirement established for the transfer of EPIC funds from the IOUs to the Energy Commission; and that any interest accumulated on funds transferred from the IOUs be returned to the IOUs in a timely fashion for the benefit of their ratepayers.