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Re: Comments of Pacific Gas and Electric Company on the CEC STAFF'S DRAFT NEW SOLAR HOMES PARTNERSHIP GUIDEBOOK (DRAFT GUIDEBOOK - PUBLICATION # CEC-300-2006-017) AND OTHER NEW SOLAR HOMES PARTNERSHIP (NSHP) ISSUES

Pacific Gas and Electric Company (PG&E) respectfully submits the following comments on the CEC's draft NSHP guidebook of October 30, 2006.

Thank you for considering our comments. Please feel free to call Bruce Bowen at 415-973-6164 or myself at (415) 973-6463 if you have any questions about this matter.

Sincerely,

Les Guliasi

LGG/mld

Enclosure

COMMENTS OF PACIFIC GAS AND ELECTRIC COMPANY ON THE STAFF'S DRAFT NEW SOLAR HOMES PARTNERSHIP GUIDEBOOK (DRAFT GUIDEBOOK - PUBLICATION # CEC-300-2006-017) AND OTHER NEW SOLAR HOMES PARTNERSHIP (NSHP) ISSUES

I. EXECUTIVE SUMMARY

Pacific Gas and Electric Company (PG&E) respectfully submits these Comments on the New Solar Homes Partnership Committee Draft Guidebook (Draft Guidebook) of October 30, 2006. PG&E appreciates this opportunity to provide comments on the Draft Guidebook.

PG&E strongly supports the New Solar Homes Partnership (NSHP) program. The NSHP brings together Energy Efficiency (EE) and solar generation, building on the strengths of each. The NSHP should help meet the goal of creating a self-sustaining market for energy efficient, high performing solar homes.

PG&E applauds the overall design of and specific elements included in the NSHP proposal, and congratulates Commission staff and others who have made the many improvements and additions to the Draft Guidebook since the earlier Staff Draft Guidebook. PG&E is ready and eager to take responsibility for administering this important program within the PG&E service territory.

II. DISCUSSION

A. PG&E Is in the Best Position to Administer the NSHP Program in its Service Territory

PG&E continues to believe it is in the best position to administer the NSHP in its service territory starting on January 1, 2007. PG&E has demonstrated strong commitments to energy efficiency, solar power, advanced metering, demand response, and greenhouse gas programs. PG&E has made significant and on-going commitments to educating the development and design community through its Pacific Energy Center; and PG&E has a record of accomplishments as the program administrator of existing energy efficiency and

self-generation incentive programs. PG&E has the systems and structures in place to administer the NSHP program in a cost efficient manner to meet program goals, and in such a way as to meet the needs of developers, builders and homebuyers. Our history of working with developers, builders and homebuyers to implement new construction energy efficiency programs uniquely positions PG&E to implement the CEC's intention to combine energy efficiency and customer solar generation in the NSHP. PG&E's commitment to the California Solar Initiative and NSHP has strengthened as State policy has crystallized. Now that implementation of the NSHP is upon us, we expect the opportunities to demonstrate our commitment to become more frequent and apparent to the Commission and customers, and we are excited by the challenge.

1. PG&E has Demonstrated Strong Support for Energy Efficiency, Solar Power, and Energy Education

PG&E has been a strong supporter of regulatory and legislative environmental policy.[1] PG&E has been recognized as a leader in Energy Efficiency by the Environmental Protection Agency, the Natural Resources Defense Council and the American Society for an Energy Efficiency Economy. PG&E's Residential New Construction Program has won the prestigious Energy Star Award for "Regional, State and Community Leadership in Energy Efficiency" for the past four years. During that period over 18,000 new homes participated in our Residential New Construction program. PG&E currently has a Residential New Construction team that has relationships with over 150 builders and developers within our service area. We have offered a Residential New Construction program to builders for the past 15 years. That program has evolved to

[1] For example, PG&E supported the CPUC's California Solar Initiative (CSI) and SB1 (Chapter 132, Statutes of 2006), the legislation supporting the CSI and raising the net metering cap. In 2006, PG&E also supported the climate change and emissions reduction bill (AB 32 - Chapter 488), the green house gas emissions bill (SB 1368 - Chapter 598), the bill for a carbon sequestration study (AB 1925 – Chapter 471), the accelerated renewable portfolio goals (SB 107, Chapter 464, Statutes of 2006), and remote solar power for San Francisco (AB 2573, Chapter 786).

encourage builders to construct homes that exceed minimum Title 24 building energy code standards as well as meet builder and consumer market demands for energy efficient new homes.

PG&E support for solar extends to programs PG&E has created using shareholder funds. In 2004, PG&E created the Solar Schools Program, which provides funding for solar systems at schools as well as educational materials and curriculum related to solar power for teachers and students. PG&E expanded the Solar Schools Program in 2006. PG&E was honored to be named the 2006 "Education Innovator of the Year" by the San Francisco Business Times for designing and implementing the Solar Schools Program.

In order to reach out to additional parts of our community, PG&E created the Solar Habitat Program, a partnership between PG&E and local Habitat for Humanity chapters to help fund solar electric systems on Habitat-built homes in northern and central California. PG&E's support for, and efforts around solar energy, were recognized in 2005 and in 2006, when PG&E won the annual Solar Electric Power Association (SEPA) Public Awareness and Industry Leadership award.

2. PG&E has a Proven Record of Performance in Solar Program Administration and is Putting Systems in Place to Administer the NSHP starting January 1, 2007

PG&E has earned substantial industry support for administering the Self-Generation Incentive Program (SGIP) and energy efficiency programs. PG&E's record of performance, including timeliness of application and payment processing, is excellent, yet we are working to improve upon this track record. PG&E has infrastructure in place today to process thousands of rebate applications, interconnect thousands of new business and residential customers who install Distributed Generation (DG), and to

issue thousands of rebate checks a month. These systems are currently being expanded and adapted to administer the CSI in 2007 and to significantly improve the customer experience.[2] PG&E is preparing to leverage these same resources to administer the NSHP on January 1, 2007.

3. PG&E Will Take an Integrated Approach to the NSHP

By virtue of its role in utility new business, energy efficiency, and solar interconnections, PG&E has a far-reaching presence as the NSHP "energy services project manager." PG&E's position is to integrate the energy services called for in the NSHP into a seamless and transparent process.

PG&E supports full coordination within the programs it administers and supports. PG&E has already moved forward with an Integrated Demand Side Management (IDSM) approach to delivering energy efficiency, demand response, load management and distributed generation programs to its customers. PG&E supports the language in SB 1, which requires the CEC and CPUC to develop during 2007 the requirements for reasonable energy efficiency improvements to be implemented as a requirement for CSI eligibility. PG&E believes an integrated approach best meets both individual and overall customers' energy needs, and is in line with the principles adopted in the California Energy Action Plan.

PG&E is also committed to transforming the new business process. In testimony filed in its 2007 General Rate Case (Phase 1), PG&E described its Work and Resource Management (WRM) initiative. The WRM initiative is focused on improving energy delivery work processes, in particular the standardization of design and estimating of new/replaced facilities, scheduling of work, the dispatching (assignment) of work to

[2] In D.06-08-028, the CPUC determined that the SGIP administrators, including PG&E, should continue and expand their administrative role for the California Solar Initiative (CSI) (D.06-08-028, pg. 58-59).

crews and/or employees, the management of large projects, and the organizational alignment of work processes. It will introduce new work scheduling tools and processes that will enable improved work initiation, resource management, project management, and quality management. The WRM effort will enable PG&E to use new processes to complete jobs more efficiently.

PG&E believes that the NSHP will benefit from PG&E's WRM transformation effort. PG&E also believes the new business process will be improved if PG&E is appointed as the NSHP administrator because early notification of NSHP developments can be integrated into WRM new business improvements. As part of the overall coordination effort, PG&E is streamlining self-generation and net energy metering into new business applications and processes. PG&E also recognizes that new solar home interconnections can affect utility designs. Therefore, integrating the solar interconnection into our new business process will result in a timely, accurate and economic utility design.

PG&E is the natural choice to be selected as the CSI program administrator in its service territory. PG&E will work with CEC staff to transition functions related to program eligibility requirements, efficiency requirements, incentive structure, reservation process, payment process, and field verification. With its proven ability to leverage its knowledge and experience across a variety of program areas, PG&E should be the NSHP administrator of choice.

B. PG&E Should Be Allowed To Count Renewable Distributed Solar Generation Installed Under the NSHP Toward The Utility RPS Requirement and Other Programs Such as Pending Greenhouse Gas Regulation.

PG&E proposes that the utilities be allowed to count the entire output of solar renewable DG installed under the NSHP toward the Renewable Portfolio Standard (RPS) requirement and

other customer-funded programs in which "green" attributes count toward a utility goal. To the extent that utility ratepayers are subsidizing solar DG under the NSHP program, they are providing the subsidy because the installed generation is renewable. Therefore, it is fair and logical that the utility customers receive the renewable benefit of that output in the form of contribution to the utility's RPS procurement target. PG&E believes that it would be unfair to its customers to adopt any other approach. If the utility is not conveyed the renewable attribute along with the DG output, the DG customer may seek to sell the renewable attribute to the utility so that the utility can count this output towards its RPS requirement, resulting in other customers paying twice for the same renewable output. PG&E's customers should not have to pay twice for the same benefit.

1. Subsidies Based On Greenness or Renewableness Should Be The Basis For Including DG Output in the Utility RPS Calculation.

Customers who install renewable DG to offset their own load receive a variety of subsidies. These subsidies are funded by other customers in the form of higher rates. For renewable generation, when the justification for the utility incentive is primarily based on the "renewable" or "green" attribute of that generation, that generation should be counted towards the utility's RPS target. Customers installing solar under the NSHP receive a number of "green" subsidies including:

- Direct incentives like the NSHP $/watt rebate.
- Retail net metering benefit. Customers who install solar under the NSHP are eligible for retail net metering, which is in part an additional subsidy that allows the participating customer to use the grid as a "battery" for their renewable generation.
- Waived Interconnection costs. Net metering customers are not responsible for all the costs of interconnection facilities used to connect them with the grid. (See

D.02-03-057, exempting net metering customers from the cost of certain interconnection facilities and D.01-07-027, exempting non-net metered solar and wind projects from the first $5,000 in interconnection fees). These incentives are provided to encourage green and renewable generation.

The Legislature, the CPUC, and this Commission have instituted programs and rules that promote renewable DG for many reasons grounded on the "renewableness" attribute of the generation. To the extent direct and indirect support for NSHP solar installations is provided because of the "renewableness" of the generation, utilities should be allowed to count the output to meet RPS targets.

2. All of the Output of the NSHP DG Projects Receiving Utility Green Subsidies Should be Counted Toward the Utility RPS Target.

All of the output of solar projects installed under the NSHP should be included in the utility RPS calculation. If a project owner finds that the value of the unbundled RPS credit is higher than the value of the incentives, then the project can forego the incentives and keep the renewable energy credit. PG&E believes that the NSHP should be structured to provide this option.

3. Allowing Utilities to Count the Output of NSHP Projects Receiving Green Subsidies Toward RPS and Other Program Targets Will Not Hinder the NSHP

In the November 6, 2006, Renewable Committee workshop on the Draft Guidebook, Commissioner Geesman asked whether providing the utilities with the ability to count Renewable Energy Credits (RECs) toward RPS goals would help or hinder the NSHP. Some parties at the CEC and the CPUC have argued that REC ownership by customers is "essential" to success of the CSI.

PG&E is not aware of any analyses of the CSI or its predecessors that quantified the

contribution of REC ownership to the State's CSI policy objectives. That is, there is no model that assumes that REC ownership provides a significant financial incentive for customers to install Photovoltaic (PV). In fact, the analysis initially performed to support the first legislative "Million Solar Homes" proposal made no mention of REC value when performing the cost/benefit analysis for participating customers. Also, to suggest that most solar owners now can receive dependable cash flow or financing capacity that derives from a REC is simply not accurate. In fact, the REC market is currently quite thin. Finally, PG&E believes that frequently the parties who would be potentially selling RECs and realizing financial gain would not be the customers of the utility, or the customer installing the PV system, but the installer, who has made no investment in the system.

4. PG&E's Proposal Would Not Equal the Taking of Private Property Without Compensation, and No Legislation is Needed for the Commission to Adopt PG&E's Proposal.

At the November 6, 2006 CEC meeting it was suggested that PG&E's proposal would amount to a taking of private property without compensation. This is simply not true as PG&E has structured its proposal. PG&E proposes to count the RECs from projects receiving "green" incentives only after the participants receive notice that these are the program rules, and only if those participants elect to receive the incentive under these program rules. If the DG owner believes that the value of the unbundled RPS credits the owner might otherwise forego is higher than the value of the subsidies, then the owner could elect to forego those subsidies, and keep the RPS credits. This is consistent with RPS contracting rules, in which projects that sell their output to California utilities also will convey the renewable attributes associated with those sales to those utilities. The Commission can establish these

rules going forward, and does not need new statutory authority.

C. PG&E Supports The CEC's Request To Have Utility New Construction Programs Provide The Funding Needed For Incentives For Both Energy Efficiency Tier I And Tier II

For 2007, PG&E is planning to offer a two tiered incentive structure for its Residential New Construction (RNC) energy efficiency program which would align with the CEC's NSHP. Tier I would be the existing RNC program which is 15% better than 2005 Title 24 with optional prescriptive measures (appliances, lighting, and adding cool roofs). Tier II would be 35% better than Title 24 including required appliances as outlined by the CEC for solar homes. PG&E's 2007 proposed program design aligns with the CEC NSHP by offering the same specifications above Title 24 code. For Tier 1 single family, PG&E will offer its current rebate of $400 for coastal climate zones and $500 for inland climate zone with additional incentives for prescriptive measures not used to meet Title 24 compliance. For Tier II single-family homes, PG&E supports a higher incentives pending further analysis. In addition, PG&E proposes that the Tier II rebate only be offered if the homes includes solar. PG&E is currently analyzing data to support higher energy savings which will justify a higher incentive level for Tier II. This will entail working with the Statewide Peer Review Group (PRG) and Program Advisory Group (PAG) and filing an advice letter with the CPUC on the above-proposed program design for 2007. In the interim, PG&E will provide the Tier II energy efficiency rebate level commensurate with the measure savings values set forth by the CPUC for the 2006-2008 approved energy efficiency programs. Additionally, Multifamily Housing/Affordable Housing has not been addressed for Tier 1 and Tier II NSHP because PG&E does not have any information on the energy savings for a Tier II solar rebate. PG&E does offer Multifamily incentives as part of the Residential New

Construction energy efficiency program. Tier I is 15% above Title 24 plus additional incentive for prescriptive appliances. Current incentive levels are $150 coastal climate zones and $200 inland climate zones.

Finally, PG&E recommends that the CEC require documentation beyond CF-1R to demonstrate that the builder participated in the IOU energy efficiency program to meet the Tier I and Tier II requirements. Given that the CEC is proposing that the IOUs offer energy efficiency rebates for the two tiers, PG&E believes that there should be a documentation link that serves to coordinate the CPUC EE program with the CEC NSHP program.

D. General Comments on the NSHP Guidebook

In general, PG&E would like to see as much consistency in policy between the CPUC CSI and CEC NSHP Handbooks and processes as possible. PG&E recognizes that both handbooks are under development, and believes this is an excellent opportunity to capture such inconsistencies for the final guidebooks. Some specific areas described below are inconsistent, others need clarification, and for others PG&E requests that the CEC reconsider for inclusion in the program.

1. Mixed-use property: Mixed-use property (which includes both residential and non-residential use in the same building) is not eligible for the CEC NSHP program, and it is not clear it will be eligible for the CPUC program either. PG&E encourages the CEC to reconsider allowing mixed-use, particularly low-income and affordable properties, to participate in the program.
2. Energy Efficiency documentation section V.5.: As noted above, the CEC should require developers to submit documentation that demonstrates participation in the CPUC EE program. Since energy efficiency is a minimum requirement to qualify for a solar incentive, Title 24 EE documentation should be submitted with the

Reservation Application Form NSHP-1. Also, PG&E recommends that claim forms for the NSHP EE and PV installation be combined. For example, form CF-1R and CF-1R PV could be combined and only filled out for the portion that applies to specific projects. This requirement would not be necessary if PG&E is the administrator of the NSHP.

3. Section I.C. - Comparison of ERP and NSHP Guidebooks: Eligible customers for the NSHP should be residential **new construction** only not residential only. The minimum efficiency requirements NSHP cell should read Title 24 +15% or higher and Appliances.

4. Section II.C. Tier I requirements: The Tier I requirements should also include appliances.

5. Form NSHP-1: PG&E suggests that a section be added that asks the developer to indicate the type of homes/units they are constructing; production homes, custom homes, multi-unit low rise, multi-unit high rise

6. Section II.D. Previously installed equipment: The current CEC NSHP excludes any equipment that has been installed more than 24 months before receiving a reservation, which would permit already installed equipment to receive an incentive. In the CPUC CSI, the current recommendation is that the participants receive a confirmed reservation prior to final interconnection authorization (to discourage free-riders in the program, and ensure that the participants are aware of the eligible rebate level prior to installing the equipment). PG&E encourages the CEC to match the CPUC approach in this area.

7. PV Calculator: The CPUC CSI decision requires a consultant to be hired to develop the Expected Performance Based Buydown (EPBB) characteristics, and

develop a tool. While the RFP states that we expect as much consistency as possible between the two processes, it is possible there will be some differences. We encourage the two agencies to cooperate on these similar tools.

8. Clarification on Energy Star requirements: Section II.B. of the draft guidebook states that all appliances provided by the builder must be Energy Star labeled. PG&E believes that this language should be removed as it may not be consistent with the CPUC EE program or the Title 24 calculation. For example, Energy Star appliance standards are changing for many products on January 1, 2007 and current rebates by IOUs for some appliances may require efficiencies above Energy Star standards. No additional incentives will be given for Energy Star appliances that don't meet the EE program standards.

9. Rebate incentive levels for Tier II projects: Since the CEC is requesting the utilities provide energy efficiency incentives for Tier 1 and Tier II (which are based on energy savings that can be achieved at those levels); PG&E encourages the CEC to consider offering a higher solar incentive for Tier II to encourage more participation at that level.

10. Interaction with CSI statewide application and database: PG&E supports the NSHP to be part of the statewide application and database, which is being developed for the CPUC portion of CSI. If this database is not available on January 1, 2007, PG&E is prepared to process NSHP applications within its existing Residential New Construction database.

11. Use of the term Expected Performance Based Incentive (EPBI): The CEC New Solar Homes Partnership is one portion of the overall CSI. The CPUC has stated using the defined terms Expected Performance Based Buydown (EPBB) and

Performance Based Incentive (PBI). To avoid confusion, PG&E recommends using the term EPBB in the CEC NSHP rather than introducing a new term, the Expected Performance Based Incentive (EPBI).

12. Advanced Notice of Anticipated Change in Incentive Level: It is stated on page 12 that: "When 80 percent of a reserved MW block has been reserved, the program will provide advanced notice that the incentive levels will be lowered on a specific announced date." While PG&E supports the approach of reducing the rebate level with a combination of MW of applications received and a date announcement, this section should be elaborated to state a time period associated with the specific announced date.

E. Administration Issues Identified at the October 5, 2006, NSHP Workshop

1. What Kind of Structure or Model Do You Envision and How Can We Make the Program Seamless and Transparent Throughout the State?

Based on PG&E's experience in administering the SGIP, PG&E anticipates the need for periodic meetings among program administrators and CEC staff to discuss administrative issues, and ensure administrative consistency among the administrators. PG&E will join the other administrators in coordinating the meetings and sharing the leadership needed to make the meetings effective. PG&E recommends these program administrator meetings should be held monthly in the first two quarters of 2007 (as the program is launched), and at least quarterly after the program is launched.

In addition to the program administrator meetings, PG&E recommends establishing a public process similar to the existing CEC Emerging Renewables Program, in which meetings are held by CEC staff and Commissioners to solicit public input on changes to the CEC NSHP. These meetings should be held semi-annually, although they may need to be held quarterly in 2007 as the program is launched.

Some parties ask whether a single statewide administrator would provide a better model than multiple utility administrators. These parties express frustration with having to coordinate with multiple administrators across the state on the same program. PG&E believes that a single statewide administrator is not the solution. A statewide administrator only adds another party to coordinate with. It does not modify the need to coordinate with the utilities, which will be handling the energy efficiency programs and interconnecting the solar generation on new homes. PG&E believes that rather than adding a new administrator to coordinate with, the parties should focus on how multiple, good energy programs can be made consistent and support each other, and on how to streamline and minimize the transaction costs for participants in these programs. We believe further improvements are possible here.

PG&E has extensive experience in administering statewide programs in energy efficiency, demand response, load management and SGIP. By using the same NSHP guidebook as other program administrators, and participating in regular program administrator meetings with CEC staff, we can ensure that the program is seamless and transparent.

2. What Mechanism, Such as Contract, MOU, etc. is Needed?

PG&E believes that it can administer the NSHP with a contract similar to other contracts it has negotiated with the CEC in the past, utilizing standard CEC terms and conditions when appropriate, and adding details on the scope of work, compensation, payment schedule, and other relevant details. PG&E will look for prior utility-CEC contracts that are most similar, and will use these or others that the CEC may suggest, as a starting point. In any case, we are confident the needed agreement can be in place as needed for a January 1, 2007, handoff.

3. **What Costs and Timeframe Do You Expect?**

Given no major changes to the NSHP as described in the draft guidebook, PG&E can begin administering the program on January 1, 2007. Administrative costs would be consistent with the CSI and SGIP programs, which is less than 5% of the program budget. Because of the scope of PG&E's other activities in solar and energy efficiency programs, incremental costs of administration for NSHP will be less than if another administrator were chosen.

4. **How Can Oversight, Marketing/Outreach and Program Evaluation be Coordinated?**

Overall program details will be set by the CEC, and unless different incentive levels are adopted depending on local demand, as the CPUC has decided, the program details will be the same across the various Investor Owned Utility service areas.

However, there are other details that should vary by region. PG&E strongly supports ensuring that some of the NSHP outreach and education efforts be done on a service territory basis, as opposed to a statewide basis. A service territory approach will best ensure that accurate and detailed information is available regarding applicable rates and tariffs, geographic information, and EE program information specific to each service area.

PG&E is committed to improving the education and outreach aspects of EE, and the NSHP. PG&E already offers a rich and growing program of education to customers, vendors, contractors, and other parties interested in solar. Potential opportunities include an expanded number of solar outreach workshops for home and small business owners (offered in conjunction with our existing solar classes at our Pacific Energy

Center and Stockton Training Center)[3], solar tours of homes and businesses, educational forums, contractor training and training for local building inspectors. Adding NSHP to PG&E's existing education and outreach program will provide access for customers to the full suite of services available to help them manage their energy needs.

PG&E supports using HERS raters to inspect energy efficiency measures as well as solar installations for projects that participate in the NSHP.

III. CONCLUSION

PG&E is prepared to administer the NSHP program starting January 1, 2007. PG&E believes the program developed by the CEC is well structured to meet the goals of the program. PG&E can leverage processes it has in place to administer the program with an integrated, cost efficient approach. PG&E believes that NSHP participants should be allowed the option to retain the renewable energy credit for solar projects installed under the NSHP by opting not to receive subsidies based on the renewableness of the solar DG. If NSHP participants opt to receive green subsidies like rebates, net metering, and waved interconnection costs, utilities should be allowed to count all of the solar DG installed under the NSHP toward the RPS requirement.

Comments submitted on November 7, 2006.

[3] See http://www.pge.com/solar classes.