

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Develop a
Successor to Existing Net Energy Metering
Tariffs Pursuant to Public Utilities Code Section
2827.1, and to Address Other Issues Related to
Net Energy Metering.

Rulemaking 14-07-002
(Filed July 10, 2014)

**REPLY COMMENTS BY THE CALIFORNIA HOUSING PARTNERSHIP, CALIFORNIA
ENVIRONMENTAL JUSTICE ALLIANCE, BRIGHTLINE DEFENSE PROJECT, NATURAL RESOURCES
DEFENSE COUNCIL, AND NATIONAL HOUSING LAW PROJECT (NONPROFIT SOLAR
STAKEHOLDERS COALITION) ON IMPLEMENTATION OF ASSEMBLY BILL 693**

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Summary of NonProfit Stakeholders' Reply Recommendations

Section II: Purposes

The AB 693 Program should (1) "Take a comprehensive approach to solar and include avenues for energy efficiency measures to be implemented" [Agreement with GRID Alternatives, page 5-6.] to achieve the program's primary goal of maximizing the economic benefits to participating low-income households; and (2) build upon the lessons of earlier solar programs, as suggested by many parties, but not simply extend the MASH program. [Agreement with CalSEIA, page 6.]

Section III – Targeting

The AB 693 Program should target eligible low-income populations based on a regional allocation of funding determined by the percentage of eligible properties that are located both within and outside of Disadvantaged Communities, as defined by CalEnviroScreen. [Agreement with Greenlining, page 9.] The AB 693 Program administrator should have the flexibility to move funds from an undersubscribed category to an oversubscribed category. [Agreement with Greenlining and CSE, pages 10.]

Section IV – Incentive Structure

- A. The Commission must establish a reliable foundation for benchmarking solar costs. [Agreement with ORA, pages 14-15.]
- B. The MASH baseline is unreliable to meet AB 693's statutory obligations. The Commission should recognize the cost distinctions between solar energy systems owned by multifamily property owners and systems owned by third-party solar providers/investors, make these transparent to property owners and consider what added margins are appropriate. [Discussion of GRIDs citation of Navigant study data, pages 15-17.]
- C. In benchmarking solar PV costs and setting incentive for the multifamily rental sector, the Program should not rely on inaccurate MASH program data and should instead include characteristics of both residential and commercial systems. [Response to PG&E, CalSEIA and GRID analysis, page 16-19.] Further, rebate amount should be set based on an independent market research study. [Agreement with ORA recommendation, page 15-21.]
- D. To prevent the possibility of over subsidization, the Program should adopt the LIWP approach that sets incentive levels based upon project cost and other funding leveraged while allowing for flexibility to make adjustments as market conditions change. [Agreement with GRID, page 21.]
- E. Funding from the 4% Low Income Housing Tax Credit Program does not create a windfall when used with or without funding from the Investment Tax Credit and actually makes a direct contribution to the solar energy project of 18% or more if properly calculated. [Disagreement with Everyday Energy, pages 23-26.]

- F. The Commission should interpret the requirement that electricity generated by qualifying renewable energy systems be primarily used to offset usage by low-income tenants as meaning that more than 50% of PV generation should go to tenants and that determination of tenant allocations and benefits should provide the greatest flexibility to property owners in designing a solar energy system that is financially feasible. [Agreement with GRID, page 25.] Utility allowances that capture a portion of the tenants' benefits received from the solar energy installations should not be permissible under the Program. [Agreement with all but two parties, page 26.]
- G. Incentive levels for common area systems should enable property owners to cover total project costs and avoid penalizing properties wishing to own solar energy systems to provide long term benefits to affordable housing residents. [Response to CalSEIA, page 27.]
- H. Upfront incentive structures based on the system's output are needed to address "first-cost" financial cost barriers and the incentive structure should include separate levels for tenants and common areas. [Agreement with TURN, page 28.]
- I. Use of escalators in TPO structures should be transparent and limited to mitigate financial risk to affordable multifamily rental properties. [Disagreement with Everyday Energy, pages 31-32.]
- J. Energy storage devices are eligible and should be incorporated and provided incentives under the Program. [Agreement with multiple parties, page 33.]

Section V – Energy Efficiency

- A. A. AB 693 includes a statutory requirement to participate in a wide range of existing energy efficiency programs and supports a strong energy efficiency requirement. [Agreement with PG&E, SCE, GRID, and Greenlining, pages 34-35.]
- B. MASH energy efficiency guidelines should not be used in the AB 693 program. [Agreement with GRID and PG&E, pages 37-38.]
- C. Greater linkage and integration with existing energy efficiency programs is necessary. [Agreement with PG&E, pages 40-41.] Further, the Program should require a 15% energy efficiency improvement (with flexibility to implement over three years), an ASHRAE Level II Audit, 'one-stop' technical assistance, and associated enrollment in a whole-building multifamily efficiency program, potentially supplemented with existing or unspent program funding.

Section VI – Energy Storage

- A. Energy storage eligibility is established as eligible within the definition of solar energy system under statute and rules. [Agreement with CalSEIA and ORA, page 42.]

- B. Incentives are needed to support integrated energy storage and PV systems. [Agreement with ORA, California Energy Storage Alliance, Interstate Renewable Energy Council, Greenlining, CSE, Vote Solar and CalSEIA, page 43-46.]
- C. SGIP is not a viable option for AB 693 applicants and may be inconsistent with tenant benefit objectives. [Agreement with CESA, page 48.] Affordable rental housing properties should not have to apply to a separate program. [Disagreement with CSE, page 49.]
- D. Energy storage provides tenant benefits under virtual net metering by allowing tenants to reduce time-of-use rate impacts and should be made available as part of the Program. [Disagreement with TURN and Everyday Energy, page 47.]
- E. Energy storage should be made accessible to multifamily affordable rental housing properties now. [Disagreement with CSE, page 52.]
- F. Energy storage adds economic benefits without disrupting MW target aspirations. [Disagreement with CALSEIA, page 53.]

Section VII – Hiring

Rules are needed to prioritize job placement and thoughtfully define local hiring obligations. [Agreement with Greenlining, page 54.] Further, the Program should make hiring workers from low-income and disadvantaged communities a priority.

Section VIII - AB 693 Funding

Statutory compliance with the funding provisions of AB 693 requires \$100 million per year or 10 percent of the total GHG funds. [Disagreement with IOUs and agreement with Every Day Energy, page 59.]

Section IX – Administration

A statewide administrator is needed to address the unique needs of affordable multifamily rental properties. [Agreement with GRID, page 62.]

- A. The CPUC should oversee the selection of a third party administrator and create an advisory council to oversee Program implementation. [Agreement with TURN, page 63.]
- B. New requirements are needed to ensure program access and geographic diversity. [Agreement with GRID, page 64.]

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REPLY COMMENTS BY THE CALIFORNIA HOUSING PARTNERSHIP, CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE, BRIGHTLINE DEFENSE PROJECT, NATURAL RESOURCES DEFENSE COUNCIL, AND NATIONAL HOUSING LAW PROJECT (NONPROFIT SOLAR STAKEHOLDERS COALITION) ON IMPLEMENTATION OF ASSEMBLY BILL 693

Pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), the California Housing Partnership Corporation (CHPC), California Environmental Justice Alliance (CEJA), Brightline Defense Project (Brightline), the Natural Resources Defense Council (NRDC), and the National Housing Law Project (NHLP) collectively referred herein as the Nonprofit Solar Stakeholders Coalition (Coalition), submit reply comments pursuant to Rules 1.9 and 1.10 of the Commission's Rules of Practice and Procedure on the Comments and Proposals submitted on the implementation of AB 693.

I. INTRODUCTION

The Coalition is comprised of a large and diverse group of nonprofit organizations incorporated in the State of California that advocate on behalf of the interests of low-income renter households, low-income and Environmental Justice communities, nonprofit multifamily affordable housing organizations, and those working to reduce energy consumption and greenhouse gas emissions and to create cleaner and healthier communities in California.

As the trusted advocates for the constituencies that are the intended beneficiaries of the funding promised under AB 693, we have made a considerable effort to bring to light policy

questions and implementation issues that are material for providing the benefits of the Multifamily Affordable Housing Solar Roofs Program (Program) to these intended beneficiaries.

Our collective interest is to ensure that the low-income residents in affordable multifamily rental properties, and the owners of affordable housing properties that will be making investment decisions, have *fair and equal access* to Program resources and have *choices* with respect to how best to implement and optimize the economic benefits from the installation of solar energy systems, and *opportunities* to make affordable multifamily rental housing more energy efficient and more resilient and adaptable to foreseeable changes to California grid and utility policies. None of the organizations in the Coalition benefit financially, directly or indirectly, from the installations of solar energy systems under the Program, nor do we represent or advocate on behalf of business interests that might profit from the program.

Our response focuses on several significant aspects of the program design that are necessary to ensure *access, choice, and opportunity*. First, a significant Coalition priority is to ensure that tenants in qualified properties have access to integrated energy solutions available through the Program to reduce energy cost burdens, improve the health and environmental quality of neighborhoods, and provide jobs and economic benefits to disadvantaged communities. The Program enacted by AB 693 was a response to technology and service gaps and accordingly, the Coalition's response to comments and proposals emphasizes the need for affirmative measures to provide geographic diversity and ensure fair and open access. These measures must include targeted allocations that give attention to the special needs in disadvantaged communities and administrative requirements to promote a program that is fairly distributed and openly available to all parties. We also need a program design that is focused on job placement, as required by the statute, and that is connected to the existing training infrastructure.

Second, the Coalition advocates for an incentive structure that creates a level playing field across the range of funding and financing options that allow the property owner to make an

informed choice on the basis of comparative costs and benefits. There are, as discussed in the rulemaking, many pathways for delivering solar energy investments. The Coalition believes that solar energy systems that are owned by the property owner can potentially retain more of the economic benefits from solar energy systems, thereby making the housing more affordable and more resilient to economic and environmental changes. At the same time, the Coalition recognizes that third-party ownership approaches offer upfront financial advantages that simplify gap financing and implementation, and have downstream financial consequences for the property owner.

The choice of what pathway is in the best long-term interests of the affordable multifamily property and its tenants must be left to the property owner in consultation with households residing at the property. In this regard, our response argues that the program design set by the Commission must be intentionally impartial and must not, through the requirements or incentive structure adopted for the Program, steer property decision makers to one outcome or another.

Third, the Coalition's response provides a sound rationale for including a strong energy efficiency element in the Program, as outlined in our opening proposal.¹ AB 693 cures many of the impediments that narrowed the reach of the MASH program's energy efficiency efforts. We are not bound by a program design that has been shown to be ineffective in advancing the state's energy efficiency goals and priorities. There is a practical approach to increasing energy efficiency improvements and reducing energy usage that can be implemented without adversely affecting the installation of solar energy systems. We should not adopt the MASH approach to energy efficiency and expect a result that is different from the MASH result. We should implement a real solution and uphold the language and intent of AB 693.

¹ Nonprofit Solar Coalition, pp. 69-75.

Fourth, the Coalition reiterates the view of many parties that energy storage fits within the Program's eligibility requirements. Moreover, the Coalition sees energy storage as a critically important element to the Commission's strategy to advance smart grid solutions, and preserve and enhance economic benefits to low-income households and communities. The Self Generation Incentive Program (SGIP) has demonstrated that these technologies can and are being deployed now. Indeed, some of the solar companies have active energy storage plans and product offerings. Again, the investment decision should be left to the property owners, but access to these solutions should not be delayed. As many low-income communities know all too well, access delayed is access denied.

Lastly, the Coalition addresses comments on the appropriate administrative structure for the Program and program funding issues raised by two of the Investor Owned Utilities (IOUs). In our response we call attention to elements of the Program that depart from past programs, and to the capabilities and administrative reforms necessary to make the Program successful. Critically, the Coalition also provides an analysis to rebut an erroneous interpretation of the language and intent of AB 693; that the funding under the Program is limited to 10 percent of the 15 percent of the greenhouse gas (GHG) allowance proceeds set aside for clean energy and energy efficiency project.

We thank the Commission for the opportunity to submit our response to the proposals and comments for implementing AB 693. We additionally thank each party that submitted a filing for their time and efforts in developing components for the program design.

II. AB 693 Purposes

The comments provided by the parties in the proceeding underscore the broad range of legislative mandates and purposes to be addressed by the Multifamily Affordable Housing Solar Roofs Program (Program).² These broad purposes are captured well in the opening remarks of both the Center for Sustainability Energy (CSE) and GRID Alternatives (GRID). The Nonprofit Solar Stakeholder Coalition (Coalition)³ agrees with the CSE that the Program is a “necessary next step in clean energy options and support for low-income multifamily customers as well as an essential part of ensuring the equity of the solar PV market in the future.”⁴

GRID’s description of AB 693’s purposes is especially compelling because it looks at the Program from the nonprofit housing operators’ perspective, one of the Program’s intended beneficiaries. In their remarks GRID states:

This Program has the potential to be a tremendous resource for the state’s affordable housing providers, akin to a “one-stop shop” in which nonprofit housing operators can receive technical assistance, project guidance, and assistance from a trusted consumer advocate to help them navigate the details and nuances of the solar project and the financing construct.⁵

The Coalition agrees with GRID that it is important that “the Program take a comprehensive approach to solar and include avenues for energy efficiency measures to be implemented”⁶ to achieve the program’s primary goal of maximizing the economic benefits to participating low-income households.

The Coalition also agrees with many of the parties that the Program should incorporate the lessons learned from the Multifamily Affordable Solar (MASH) program and as GRID notes,

² All opening comments and proposal on the AB 693 implementation issues filed August 3, 2016 are referred to as party name only. Citations to any other filings in this proceeding or public sources are appropriately identified.

³ For opening proposals submitted on August 3, 2016, the Nonprofit Solar Coalition includes the Brightline Defense Project (Brightline), California Environmental Justice Alliance (CEJA), California Housing Partnership (The Nonprofit Solar Stakeholder Coalition), National Housing Law Project (NHLP), and Natural Resources Defense Council (NRDC).

⁴ Comments of the Center for Sustainable Energy (CSE), p. 1.

⁵ GRID Alternatives (GRID), p. 4.

⁶ GRID, p. 4.

“incorporate tested solutions successful in real-world applications and ensure that the program rules are structured to also incorporate the fast changing environments of project financing, distributed energy resource integration, and emerging technologies.”⁷

On this point, the Coalition suggests to the Commission that the call to build on the successes of earlier efforts, with which we agree, is fundamentally different than the perspective of a few parties that the Program was enacted to extend the existing MASH program, as asserted by Every Day Energy without any basis in the law.

Within the Legislative Councils Digest and the text of AB 693 there is no statement that the Program was intended as an extension of MASH. If it had been the intent of the AB 693 sponsors to continue the MASH program or retain the same program structure, the legislature could have and would have extended funding for a MASH 3.0 program, as it did when extending funding for the MASH 2.0.⁸ Further, the CPUC’s own Energy Division analysis of AB 693 states:

The Multifamily Affordable Housing Renewables Program would have several important differences from the current Multifamily Affordable Solar Housing (MASH) and Single Family Affordable Solar Homes (SASH) incentive programs.⁹

The Energy Division analysis also suggests that the implementation of the program enacted by AB 693 might occur alongside of the MASH program.

The Coalition agrees with CalSEIA that in enacting AB 693, “there was also a clear decision not to simply extend the Multifamily Affordable Solar Housing (MASH) program.”¹⁰ The new legislative requirements enacted by AB 693 are themselves a response to missing elements in previous programs and additional priorities and conditions prescribed by the legislature.

The statutory differences between the Program and requirements applicable to other solar programs are evident in the plain text of the law. These are summarized for reference in Table 1. While some features of the MASH administrative structure are congruent with implementing AB 693’s legislative mandate, other aspects of the MASH program’s design are

⁷ GRID, p. 5.

⁸ See AB 217 (Bradford, 2013), available at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB217.

⁹ Curran, Elizabeth and Kochanowsky, Amy, California Public Utilities Commission, Energy Division, “Division Analysis: Multifamily Affordable Housing Renewables Program.”

¹⁰ California Solar Energy Industries Association (CalSEIA), p. 2.

not. All of the requirements enacted by AB 693 should receive careful consideration in terms of what program design best meets the requirements needed to carry out the legislative purposes of AB 693.

**Table 1 - AB 693 Legislative Requirements
Affecting Program Design**

Section	Requirement	Issue
2870(a)(3); 2870(b)(1); Section 1(e)	Installation of solar energy systems must be geographically diverse and provide solar access to disadvantaged communities.	MASH first-come first-serve reservation systems may conflict with geographic distribution and access requirements for DACs.
2870(a)(4)	Eligible solar energy systems include other integrated renewable energy components.	MASH is limited to PV and does not include energy storage or smart inverters.
2870(c)	Program allocations must fit within Cap and Trade funding structure.	New funding source requires different budgeting and administration protocols.
2870(d)	Program may be have third party administrator.	MASH is not implemented by a statewide third party administrator.
2870 (f)(2)	Allocate PV generation primarily to tenants.	MASH program does not prescribe PV allocation requirements. Allocation requirements can affect financial feasibility.
2870 (f)(4); 2870 (f)(5)	Align incentives with solar installation costs and other funding sources of funding.	MASH is not required to align incentives with costs or contributions from other sources.
2870(f)(6)	Establish local hiring requirements.	MASH does not have a local hiring requirement.
2870(f)(7)	Incentive takers must participate in energy efficiency programs.	MASH guidelines do not require participation in energy efficiency programs.
2870(g)(1)	Economic benefits from PV allocation must be received by tenants.	MASH program allows entities to capture economic benefits from tenant.
2870(g)(2)	Tariff structures must ensure tenant benefit.	MASH does not have a requirement that tariffs must ensure a tenant economic benefit.
2870(j)(2)&(3)	Program funding is dependent on demonstrating demand.	Out-year program funding requests require an assessment of market demands. If demand cannot be demonstrated contingency plans are needed.

III. AB 693 Targeting in Disadvantaged Communities

The Commission should follow the recommendations of several parties and allocate available incentive funding between CalEnviroScreen-eligible properties and properties located outside of CalEnviroScreen (CES) disadvantaged communities (DACs).¹¹ Greenlining, CSE, and Customer Power Solar agreed with the Coalition’s proposal to allocate incentive funding between CES-eligible and non-CES properties.¹² In addition, TURN suggested dividing the money 50/50, but only after three years and only if “one of the specified location types is receiving significantly more of the funding than the other location type.”¹³

Greenlining recommended that allocation be determined by the percentage of eligible properties that are located in and outside of CES DACs.¹⁴ CSE takes a slightly different approach by proposing that a minimum of 25 percent of the funds be allocated to CalEnviroScreen-eligible buildings, correlating with CSE’s preferred use of CES as the top 25 percent disadvantaged census tracts.¹⁵ Although there is some correlation, the Coalition believes that its recommendation will provide a more equitable investment between the properties, which will impact local hiring and other economic development opportunities in DACs. For example, the record shows that approximately 30 percent of the eligible buildings within IOUs service territories when using CalEnviroScreen as the top 25 percent statewide.¹⁶ An even greater number of census tracts light up as disadvantaged communities when CalEnviroScreen is used

¹¹ ORA’s concern about how to account for projects that are both CES and AMI-eligible is easily resolved because the proposal is for allocation between buildings inside and outside of CES DACs. Therefore, buildings that are dually eligible would count as a CES-eligible building since it is located within a CES DAC. See Office of Ratepayer Advocates (ORA), p. 5.

¹² Nonprofit Solar Coalition, pp. 23-24; Greenlining Institute (Greenlining), p. 3; CSE, pp. 6-7; Custom Solar Power, p. 10.

¹³ The Utility Reform Network (TURN), p. 8; see also CalSEIA, p. 12 (If one type of customer or geographic area is underserved by the program for any reason, changes can be made during the program assessment after the first three years.”); see also Custom Solar, p. 10 (recommending, like TURN, a 50/50 division).

¹⁴ Nonprofit Solar Coalition, p. 23; Greenlining, p. 3.

¹⁵ CSE, pp. 6-7.

¹⁶ Nonprofit Solar Coalition, pp. 18-19.

by service territory for SDG&E and PG&E.¹⁷ Thus, the 30 percent would likely increase and move further away from CSE's recommended minimum of 25 percent. In light of the very low solar adoption rates in CES DACs, the Coalition recommends a higher minimum for investment in DACs than proposed by CSE by allocating funding by the percent of eligible buildings.¹⁸

The Coalition strongly supports the proposals by Greenlining and CSE that the program administrator have the flexibility to move funds from an undersubscribed category to an oversubscribed category.¹⁹ This would address party concerns that allocation between DACs-qualified and income-qualified buildings would complicate and burden program administration and create uncertainty in the developer community.²⁰

Allocating a predetermined, yet flexible, amount of incentive dollars not only comports with the intent of AB 693 to install qualifying systems "in a manner that represents the geographic diversity of the state," it also creates a more equitable distribution of investment spending in and outside of DACs, which would likely impact the job training, job placement, and other economic development opportunities connected to AB 693.²¹

¹⁷ See, e.g., PG&E Reply Comments on Party Proposals and Staff Papers, Appendix B, Data Request by Energy Division Regarding Disadvantaged Communities (Sept. 15, 2015) (reporting 444 census tracts using the top 25 percent CES census tracts statewide and 555 using CES as the top 20 percent of PG&E's service territory); SDG&E Comments on ALJ Ruling Regarding AB 693, Attachment A (Nov. 2, 2015) (reporting 26 census tracts using the top 25 percent CES census tracts statewide and 136 using CES as the top 20 percent of SDG&E's service territory).

¹⁸ See R.14-07-002, Administrative Law Judge's Ruling (1) Accepting Into the Record Energy Division Staff Papers on the AB 327 Successor Tariff or Contract; (2) Seeking Party Proposals for the Successor Tariff or Contract; (3) Setting a Partial Schedule for Further Activities in this Proceeding, Attachment 2: Energy Division Staff Paper Presenting Proposals for Alternatives to the NEM Successor Tariff or Contract for Residential Customers in Disadvantaged Communities in Compliance with AB 327, p. 2-7 (June 4, 2015) (reporting that only 6 percent of the cumulative residential renewable DG system installations were in the top 25 percent CES disadvantaged communities).

¹⁹ See Nonprofit Solar Coalition, pp. 23-24 (allowing the transfer of funds using an advice letter); Greenlining, p. 3 (allowing flexibility to manage the deployment of funds); CSE, pp. 6-7 (recommending the use of an advice letter).

²⁰ See, e.g., Energy Freedom Coalition of America, pp. 6-8; SDG&E, p. 18; ORA at p. 5.

²¹ See AB 693 Section 1(e); Cal. Pub. Util. Code § 2870(f)(6); Nonprofit Solar Coalition, p. 23; see also CSE, p. 7 (making the correlation between allocation of funding and local hiring requirements).

Further, simply allocating funding on a first come, first serve basis as the MASH program does would be inconsistent with AB 693's geographic diversity goal.²² MASH contained no geographic diversity requirement comparable to AB 693. AB 217, which extended MASH, simply stated that the "Legislature finds and declares that it is the goal of the state to install solar energy systems that have a generating capacity equivalent to 50 megawatts for low-income residential housing."²³ If the Legislature had intended to continue the MASH program's first come, first serve approach it would not have included the geographic provision in AB 693.²⁴

Moreover, as highlighted in the Coalition proposal:

Because the inventory of affordable multifamily housing qualified under the Multifamily Solar Roofs Program is almost entirely comprised of properties meeting the requirement that 80% of the residents have incomes at or below 60% of the AMI, the use of CalEnviroScreen will not materially affect the number of qualified multifamily properties under the program. *The practical effect of the DAC eligibility criteria is to direct targeted efforts in areas that have special needs.*²⁵

It can be inferred that the inclusion of CES eligibility demonstrates a specific intent of the Legislature to direct special attention, for example funding and economic development opportunities, to DACs since the inclusion of CES eligibility did not change the number of eligible buildings.²⁶ Parties who oppose allocation by incentive funding and only focus on the eligibility criteria in Section 2870(a)(3)²⁷ do not harmonize the geographic diversity and local

²² See, e.g., Everyday Energy, p. 8 (advocating for a first come, first serve approach); SDG&E, p. 18 (recommending a first come, first serve approach).

²³ AB 217 Section 1(Bradford, 2013).

²⁴ Cf. *Campbell v. Zolin* (1995) 33 Cal.App.4th 489, 497 ("Ordinarily, where the Legislature uses a different word or phrase in one part of a statute than it does in other sections or in a similar statute concerning a related subject, it must be presumed that the Legislature intended a different meaning.")

²⁵ Nonprofit Solar Coalition, p. 18 (emphasis added).

²⁶ See *Van Nuis v. Los Angeles Soap Co.* (Ct. App. 1973) 36 Cal.App.3d 222, 228–29 (citations omitted) ("It will be presumed that every word, phrase and provision used in a statute was intended to have some meaning and to perform some useful office, and a construction making some words surplusage is to be avoided.").

²⁷ See, e.g., MASH Coalition, p. 13 (arguing a division of incentives would be contrary to the plain language of AB 693 which provides for an and/or eligibility options as between CalEnviroScreen and AMI requirements); CalSEIA, p. 13 ("It was not the intent of the bill to divide the program. Rather, the intention was to increase eligibility with an either/or option."); PG&E p. 17 (arguing that the "slightly less onerous specifications for those units that are located within [CalEnviroScreen] disadvantaged communities shall likely be enough to ensure ... adoption of solar in proportions equal to or greater than

hire provisions of the statute with the eligibility provision and the practical effect of that provision as described above.²⁸

Lastly, the Coalition disagrees with Everyday Energy's argument against the allocation of incentives which relies on the assertion that CES DACs are already the sole beneficiaries of other programs, such as the Low Income Weatherization Program (LIWP)²⁹ for several reasons. First, the lack of access to clean energy programs is a standing priority concern, so the Legislature, which has properly targeted the LIWP funds to close this gap. Yet even with LIWP, the gap remains, which is why the Legislature has had to take new action in the form of AB 693's targeting of DACs for additional energy efficiency and solar PV resources. Second, programs targeting DACs do so not just because there are many low-income individuals and families in these areas, but also because the programs provide "important co-benefits such as reducing air pollution, improving public health, helping achieve air quality standards, reducing energy costs, stimulating the economy, and offering new job training opportunities" to communities that are disproportionately burdened by both socio-economic and environmental pollution burdens.³⁰ Third, there are also several other programs that have been targeted to individuals based solely on income, such as MASH, SASH, CARE, ESAP – the argument is equally applicable to rebut a reliance on low-income status alone in DACs. Finally, LIWP is available to both residents of single family homes and multifamily dwellings so not all the beneficiaries will be tenants of multifamily buildings.³¹

those low-income buildings located outside of disadvantaged communities"); see also GRID, p. 8 ("[T]he definition [for AMI requirements] inherently incentivizes installations in DACs because the income requirements are less restrictive than for properties outside of DACs.").

²⁸ See *Smith v. Workers' Comp. Appeals Bd.* (2002) 96 Cal. App. 4th 117, 123-24 (internal quotations and citations omitted) (citing the rule of statutory construction that "the various parts of a statutory enactment must be harmonized by considering the particular clause or section in the context of the statutory framework as a whole.").

²⁹ Everyday Energy, pp. 8-9.

³⁰ See LIWP Fact Sheet,

<http://www.csd.ca.gov/Portals/0/Documents/Fact%20Sheets/LIWP%20Fact%20Sheet%2003.25.2016.pdf>

³¹ See LIWP Fact Sheet, <http://www.csd.ca.gov/Portals/0/Documents/Fact%20Sheets/LIWP%20Fact%20Sheet%2003.25.2016.pdf>.

The Joint Parties urge the Commission to adopt its recommendation to implement the intent of AB 693 and promote more equity among DACs and low-income housing outside of DACs.

IV. Incentive Structure

AB 693 requires that:

The commission shall ensure that incentive levels for photovoltaic installations receiving incentives through the program are *aligned with the installation costs for solar energy systems* in affordable housing markets and *take account of federal investment tax credits and contributions from other sources* to the extent feasible.³²

The commission shall require that no individual installation receive incentives at a rate greater than 100 percent of the total system installation costs.³³

Under AB 693, the incentive structure must meet these standards to comply with the legislative requirement. To this end, the Administrative Law Judge (ALJ) requested parties to respond to the question about what type of incentive structure the Commission should adopt for the Program:

Please describe in detail how your proposal complies with the requirement of Section 2870(f)(4). (*Section 2870(f)(4) provides: The commission shall ensure that incentive levels for photovoltaic installations receiving incentives through the program are aligned with the installation costs for solar energy systems in affordable housing markets and take account of federal investment tax credits and contributions from other sources to the extent feasible.*)³⁴

Only a few of the parties made specific incentive proposals requesting a \$ per watt incentive. Of these, the parties responsive to the ALJ's instruction that the proposals describe how they are compliant with AB 693's cost alignment requirement include the California Solar Energy Industry Association (CalSEIA), Pacific Gas and Electric (PG&E), and the Coalition.

Notably, other proposals that made specific incentive level requests did not provide supporting documentation or a description of how solar costs or the incentives levels proposed

³² AB 693 amendments to PUC. Part 2 of Division 1 of the PUC, Section 2870(f)(4) (emphasis added).

³³ AB 693 amendments to PUC. Part 2 of Division 1 of the PUC, Section 2870(f)(5).

³⁴ R.14-07-002. Administrative Law Judge Ruling Seeking Proposals and Comments on Implementation of Assembly Bill 693 (July 8, 2016).

were calculated, and how the proposed incentive levels were aligned with solar costs. As such, it was not possible to review and comment on the methodology except in a very cursory manner. Accordingly, the Coalition asks that the Commission consider this lack of supporting analysis in weighing the recommendations.

Additionally, other parties offered useful guidance about the methodology needed to determine costs or incentive structures in lieu of proposing a specific incentive structure. These parties included the Office of Ratepayer Advocates (ORA), The Utility Reform Network (TURN), Southern California Edison, GRID, and CSE. The comments provided by these organizations add important perspective and insights that are relevant to the design of the incentive structure for AB 693. The Coalition's comments in the sections below respond directly to parties' recommendations related to the method for setting incentives and the incentives levels proposals.

A. Determining Solar Costs is a Core Element of Setting Incentive Levels Under AB 693

In establishing an incentive structure and incentive levels for AB 693, ORA stated that Section 2870(f)(4) places two distinct requirements on the Commission.³⁵ First, the Commission must ensure incentive levels are aligned with the installation costs for solar energy systems in affordable housing markets.³⁶ Second, the Commission must ensure that incentives "take account of federal investment tax credits and contributions from other sources to the extent feasible."³⁷

To comply with these requirements, ORA declared that "the requirements of Section 2870(f)(4) will be aligned with the installation costs for solar energy systems in affordable housing markets through the use of the independent and vetted market research study to set rebate amounts"³⁸ The Coalition agrees with the perspective that to implement the Program, the Commission must establish a reliable foundation for benchmarking solar costs.

³⁵ ORA, p. 8.

³⁶ See Cal. Pub. Res. Code § 2870(f)(4).

³⁷ See Cal. Pub. Res. Code § 2870(f)(4).

³⁸ ORA, p. 8.

B. The MASH Baseline is Not Reliable to Meet AB 693’s Statutory Obligations

Both GRID and the Coalition referenced the recent MASH program evaluation conducted by Navigant Consulting (Navigant) for the MASH program. This report found:

Despite declining installed system cost trends in the U.S. PV market, MASH system installation costs did not decrease over time. For comparison, SASH system installed costs decreased every year from 2011–2013.³⁹

The evaluation also reported that project costs in MASH had not reflected declines based for economies of scale seen in other markets. The report stated:

The higher MASH costs are interesting considering that the average MASH project size was 67.3 kW-DC (PTC) compared with SASH’s average project size of 3.1 kW-AC (CEC). Typically, equipment and installation costs decline as the project size increases.⁴⁰ The average equipment and installation costs reported by Navigant are shown in Table 2.

Table 2 - MASH Average Equipment and Installation Prices (\$/kW-DC [STC])

Install Year	PG&E	SCE	SDG&E	Weighted Average
2011	5,743	6,493	5,366	5,903
2012	5,598	5,292	5,581	5,415
2013	4,848	6,575	5,233	5,643
Weighted Average	5,505	5,857	5,413	5,653

An additional review of the MASH program costs was included in PG&E’s comments. PG&E found that based on the MASH raw data, as of July 13, 2016, projects over 100 kW that provided some service to residential units under Track 1D had an average price of \$3.56/watt DC, and ranged from a low of \$1.18/watt to a high of \$5.23/watt.⁴¹ PG&E stated that,

³⁹ Navigant Consulting, California Solar Initiative—Biennial Evaluation Studies for the Single-Family Affordable Solar Homes (SASH) and Multifamily Affordable Solar Housing (MASH) Low-Income Programs Impact and Cost-Benefit Analysis Program Years 2011–2013, prepared for the California Public Utilities Commission, p. 43 (December 1, 2015), available at file:///C:/Users/Tovah/Downloads/Navigant%20CSI%20SASH%20MASH%20Impact%20and%20Cost%20Benefit%20Analysis_2011-2013.pdf.

⁴⁰ Ibid.

⁴¹ Pacific Gas and Electric Company (PG&E), pp. 8-9.

“customers have been able to purchase projects of this size for prices closer to the low end of this scale.”⁴²

Parties also highlighted the differing costs of ownership versus third-party ownership structures. For example, Everyday Energy pointed out that system purchased by property owners and Third Party Ownership (TPO) structures might have an effect on costs and incentives structures.⁴³ Additionally, as had been identified by solar providers, when using TPO structures, it is important for the Commission to have a full view of the ownership costs of solar energy systems in determining costs. The Coalition agrees that it is important for the Commission to have a full view of the ownership costs of solar energy systems to align incentives levels with costs. In this regard, the Coalition also calls the Commission’s attention to the analysis of ownership costs of PV systems contained in the MASH program evaluation conducted by Navigant that was cited by GRID.⁴⁴

Navigant’s evaluation of ownership costs was undertaken to find the net present value (NPV) of ownership costs over the system lifetime and considered financing costs, including TPO structures (i.e., power purchase agreements), state and federal taxes, including Investment Tax Credits and Modified Accelerated Cost Recovery System (MACRS) depreciation, and insurance, operations and maintenance (O&M), and inverter replacement costs. The report found that MASH investors could expect the present value of all ownership cost over the system lifetime to be 18 to 31 percent lower than the upfront invoice price of the installed system. This reported finding suggests that significant profitability is gained under TPO structures under the MASH program. Additionally, Navigant noted that “government and non-profit organizations *did not* receive any tax benefits, but they only account for a small percentage of the MASH installed PV capacity.”⁴⁵

⁴² PG&E, p. 9.

⁴³ Everyday Energy, pp. 13-16.

⁴⁴ Navigant Consulting, California Solar Initiative—Biennial Evaluation Studies for the Single-Family Affordable Solar Homes (SASH) and Multifamily Affordable Solar Housing (MASH) Low-Income Programs Impact and Cost-Benefit Analysis Program Years 2011–2013, prepared for the California Public Utilities Commission. p. 44

⁴⁵ Navigant, p. 44.

In aligning incentives with costs under the Program, the Coalition therefore recommends that the Commission recognize the cost distinctions between solar energy systems owned by multifamily property owners and systems owned by third-party solar providers/investors since the NPV of ownership costs are different. Because of the high incentive levels for tenant systems, the Coalition also asks the Commission to consider what added margins are appropriate under the Program since these margins affect costs and pricing to the property owner. The Coalition considers this to be an important consumer protection issue.

C. Assessment of How Different Approaches Address Cost Determinations

The Coalition calls to the Commission's attention the methodology used by PG&E in estimating solar costs and estimating incentives levels for the Program. The process is instructive on the steps needed to comply with the statutory requirement that incentives and the incentive structure be aligned with the cost of solar installations. While the Coalition has questions about some of PG&E's assumptions and results, the PG&E analysis is a good starting point for discussion.

PG&E Proposal – PG&E began its analysis by recognizing that “in order to get incentive levels right, an understanding of where costs and prices for solar PV currently are and are expected to be in the near future would be very helpful.”⁴⁶ PG&E then looked to the MASH program to determine if a benchmark could be established. PG&E found:

[T]he incentive amounts for MASH were static and therefore did not take into account the marked decline in solar costs that have been observed over the years.... Furthermore, the MASH incentive structure didn't take into account difference in costs between large and small projects giving a flat incentive for projects from a low of 15 kW to a high of approx. 1,000 kW of nameplate capacity.⁴⁷

PG&E further observed that MASH incentives range from a low of \$1.18/Watt to a high of \$5.23/Watt” and that “other[PG&E] customers have been able to purchase projects of this size for prices closer to the low end of this scale.”⁴⁸

⁴⁶ PG&E, p. 8.

⁴⁷ PG&E, p. 7.

⁴⁸ PG&E, p. 9.

To determine what represents a reasonable benchmark, PG&E then looked to information available from the National Renewable Energy Laboratory (NREL), which publishes information on solar PV costs. Specifically, PG&E used information from NREL's September 2015 report that benchmarked residential, commercial, and utility scale solar PV costs for the first quarter of 2015.⁴⁹

In relating the analysis and findings from this report to solar installations envisioned under AB 693, PG&E found that the average size of PV systems under MASH that serve residents was 150kW.⁵⁰ Based on the expected system size, PG&E concluded that the commercial cost structure reviewed in the NREL report best fits the average system size for projects in the Program and the economies of scale possible under the Program. Accordingly, PG&E benchmarked Program costs at \$2.15/watt DC.

The Coalition used the same NREL study solar costs as PG&E as a starting point but then developed a blended cost estimate for residential and commercial PV systems, since the low-income multifamily housing targeted by AB 693 includes both residential and designated-commercial buildings. The Coalition then compared each of the cost elements analyzed by NREL and related them to multifamily installations. For example, the added economies of scale could be readily incorporated for some of the overhead and customer acquisition items. Additionally, economies of scale generally reduce labor cost consistent with the NREL's analysis, but the Coalition determined that labor cost should also be adjusted for California wage rates and the Program's local hiring objectives. The Coalition used this approach because multifamily solar PV installations include characteristics of both residential and commercial systems.⁵¹ The

⁴⁹ Donald Chung, Carolyn Davidson, Ran Fu, Kristen Ardani, and Robert Margolis, U.S. Photovoltaic Prices and Cost Breakdowns: Q1 2015 Benchmarks for Residential, Commercial, and Utility-Scale Systems, September 2015. National Renewable Energy Laboratory. Technical Report NRE/TP-6A20-64746. GTM Research, SEIA US Solar Market Insight Report. See:

<http://www.greentechmedia.com/research/subscription/u.s.-solar-market-insight>.

⁵⁰ Median MASH installation size is 150 kW based on PG&E analysis of MASH raw data accessed July 13, 2016. Data is available at: https://www.californiasolarstatistics.ca.gov/reports/mash_budget/.

⁵¹ Nonprofit Solar Coalition, Section VIII and Appendix D.

Coalition's result was a benchmarked solar cost of \$3.20/watt, which further accounted for cost adder issues flagged by Everyday Energy in their comments.⁵²

PG&E took a different approach and averaged the NREL cost estimate for commercial PV installations with the average reported MASH costs, calculated from the MASH raw data set. The result was a solar cost estimate of \$2.86, a *19% reduction* from average MASH cost levels.

The Coalition appreciates the transparency of this thoughtful approach and on the surface the \$2.86/watt estimate may in fact be a useful benchmark given that it is within 3% to 5% of some of the cost data we have seen. However, the Coalition has questions about PG&E's rationale to average the NREL estimate with the average MASH costs since this rationale was not explained in PG&E comments or substantiated in any other way.

CalSEIA Proposal – Another innovative approach for developing an incentive structure was proposed by CalSEIA.⁵³ Like the PG&E proposal, the CalSEIA approach is transparent and focused on developing an objective basis for determining solar costs. In particular, the Coalition calls the Commission's attention to CalSEIA's valuation of Low Income Housing Tax Credit (LIHTC) contributions supporting solar installations. CalSEIA's estimates⁵⁴ that the 4% LIHTC could cover up to 22.8% of the costs of a solar energy system accurately reflects the contributions from this resource and tracks with the Coalition's proposal.

CalSEIA attempts to develop an incentive structure by adding the value of Investment Tax Credit (ITC) contributions and *presumed* tenant contributions made through rent increases back into the current MASH incentive levels, and then reducing this sum by an estimate of solar cost reductions over the last year. The result is an estimated solar cost of \$3.62/watt. Not surprisingly, this estimate tracks with the average MASH installation reported by PG&E (\$3.56/watt). As noted in GRID's comments, AB 693's incentive levels should not be based on historically-reported MASH program data since it "appears inaccurate,"⁵⁵ a view also shared by PG&E and confirmed in part by the NREL study referenced above.

⁵² Everyday Energy, pp. 10-11.

⁵³ California Solar Energy Industries Association (CESA).

⁵⁴ CalSEIA, p. 7.

⁵⁵ GRID, p. 9.

The Coalition appreciates the rigor of CalSEIA's efforts and would like to embrace CalSEIA's recommendation. However, there are a number of methodological issues that raise some questions about this often complicated approach. First, CalSEIA assumed that the current MASH incentives are an appropriate baseline for making a solar cost calculation. As already noted, the MASH cost data is likely inaccurate and any use of MASH data should be weighed against other independent assessments of solar costs, and the analysis should appropriately evaluate economies of scale gained through the Program.

Second, CalSEIA assumes a 1.45 kW-DC of solar capacity at 19% efficiency to offset 240 kWh per month, or 2,880 kWh/year. This equates to 1,986 kWh/kW/year. Using these assumptions, CalSEIA added \$1.10/watt to the current MASH incentive level. Coalition experience suggests that PV production on installed systems under MASH has been closer to 1,425 to 1,500 kWh/kW, with 1,450 kWh/kW/year being a norm. Using the high end of these metrics, the tenant contribution adder would be reduced only \$0.83/Watt, \$0.27 lower than CalSEIA's calculation.

Lastly, CalSEIA factors in a cost reduction of 5% to account for solar cost reductions. The Coalition's contention is that a higher cost reduction is appropriate since the incentives for MASH were adopted in January 2015, more than 18 months ago and potentially more than 30 months prior to the AB 693 Program launch. PG&E, for example, recommends a minimum cost reduction of 20%, and possible reductions up to 35% from MASH levels to account for economies of scale.

If the solar cost estimate derived from CalSEIA's analysis is adjusted by the amounts discussed above, the cost range derived from this methodology would be in the range of \$2.23/watt to \$2.74/watt. Because of the complexity of the various calculations, the Coalition requests that the Commission adopt ORA's approach and recommends that

the Commission should not administratively set rebate amounts, accept rebate amounts based on partial analysis, or base rebate amounts on analysis presented by any party with a potential financial interest in the program. The rebate amount should instead be based on an independent market research study that is vetted by interested parties.⁵⁶

⁵⁶ ORA, p. 7.

D. Financial Sources Offsetting Solar Costs Must Be Considered to Prevent Over Subsidization

AB 693 clearly requires the Commission to consider the Federal Investment Tax Credit (ITC) and other financing resources that are being used to fund the solar energy system in determining the incentive structure. Parties nearly universally agreed that ITC and LIHTC funding sources should be specifically accounted for in the incentive structure. Additionally, several parties pointed out that this type of transparency is necessary to ensure the public that the Program's resources are properly used.

In terms of a model to accomplish this objective, both GRID and the Coalition proposed that the LIWP program presents a framework that could be considered by the Commission for implementing this requirement. Specifically, GRID stated:

The LIWP program is an example of a real-world application where there are differential incentives based on the other funding the project leverages.... The LIWP program contains a "matrix" by which the incentive is set based upon the project cost and the other types of funding the project leverages (ex. ITC, Low-income Housing Tax Credit (LIHTC), MASH) and is further delineated based on the percentage of common load verses tenant offset load. The LIWP program also has parameters for incentive level review once certain MW targets are attained in the program, allowing flexibility to make adjustments when market conditions change.⁵⁷

In the parties' comments on LIHTC funding, Everyday Energy seems to discredit affordable housing property owners seeking to purchase solar energy systems in conjunction with funding under the LIHTC program. Everyday Energy asserted:

Under the current MASH Program, there are many examples of housing owners purchasing solar through low income housing tax credits in combination with a MASH rebate. The result can be a windfall to the property owner, well in excess of the cost to place the solar PV in service.⁵⁸

To support this assertion, Everyday Energy offers the following example:

An example of such a windfall can be found in the current MASH Program where host customers are also system owners and used low income housing tax credits to finance their solar installation. Because of privacy concerns, we cannot disclose the specific project name or MASH reservation number, but it is instructive on how sources of

⁵⁷ GRID, p. 8.

⁵⁸ Everyday Energy, p. 13.

capital can far outweigh the uses of capital and provide for a windfall to the owner. In this case, the solar was built in 2014 and was between 250 kW and 300 kW DC and had a cost basis of \$3.75 per watt DC. The MASH rebate was \$1.80 before de-rating. The property received a MASH rebate of approximately \$450,000. The property received an ITC contribution of approximately \$250,000 and a LIHTC payment of approximately \$215,000. After adjusting utility allowance and providing a direct benefit to tenants, they received additional mortgage proceeds of approximately \$570,000. The total sources of capital for this deal was approximately \$1.5 Million. The cost of the solar was approximately \$1.05 Million. By installing solar and leveraging rebates, tax credits, and mortgage proceeds, the owner was able to produce approximately \$450,000 in additional sources of capital for their housing asset.

In response, the Coalition refers the Commission to Section 3.3 of the Multifamily Affordable Solar Housing (MASH) Handbook, which states:

For projects that receive “other incentives” funded from other sources than utility ratepayers (e.g., federal and state grants, air district grants or tax credits) no adjustment is made to the MASH incentive, *except where a MASH incentive would otherwise cause total incentives to exceed total costs...* The Host Customer and System Owner understand that other program rebates, grants, forgiven loans, financial incentives, post-installation agreements, Renewable Energy Credits (RECs or Green Credits), and performance payments are “other incentives” and must be disclosed as soon as those agreements or payments are made.⁵⁹

The requirements in the MASH Handbook clearly state that MASH applicants and their solar partners are required to make disclosures about other incentives and are also required to adjust MASH incentives if the amount of the MASH incentive would result in incentives in excess of the project costs. Since any prohibited practice harms the Program, the appropriate Commission response to Everyday Energy’s described case is to open an investigation to determine whether the solar installation referred to, or other installations, has received excessive incentives or were over subsidized as alleged. However, the assertion that a violation of MASH guidelines has occurred does not particularly inform the Commission as to how AB 693 should be implemented with respect to funding under the LIHTC program. Rather, it highlights the need for clear implementing rules regarding incentives.

⁵⁹ Multifamily Affordable Solar Housing (MASH) Handbook. 2015 First Edition, available at <https://energycenter.org/sites/default/files/docs/ext/dg-re/csi-electric/MASH%20Handbook%20Final%202015.03.27.pdf> (emphasis added).

E. Contributions From 4% LIHTC Do Not Create Windfall and Correct Amount of Contribution Should Be Used in Incentive Structure

Everyday Energy's statement that affordable housing properties receiving 4% LIHTC to fund solar can cover 40% of the cost basis adjusted for MASH is inaccurate.⁶⁰ As noted by CalSEIA in its comments, the tax credit percentage for 4% tax credit transaction is actually 3.15%, and CalSEIA cited an independent source in making this statement.⁶¹ The LIHTC tax credit percentage has never been 4% and estimated LIHTC cost coverage at 22.8%.⁶²

Additionally, the amount of LIHTC funding actually received is further reduced by 50% of the ITC in cases where ITC is used with LIHTC funding. Hence, where ITC is leveraged, the cost coverage from LIHTC is further reduced. The Coalition has highlighted these percentages because they are material to estimating likely LIHTC contributions and setting incentive levels.

The analysis of the effects of projects combining LIHTC and ITC funding is further complicated for nonprofit organizations. For nonprofit organizations, there is a good chance that at least part of the property will be classified as tax-exempt use, which means that the property owner cannot take the ITC for that portion of the property. Typically, the proration of tax-exempt use follows the percentages of proceeds that are available via liquidation or disposition of the partnership's assets, where the general partner's share will equal the tax-exempt use. The limited partner's share of proceeds from liquidation will in turn limit the potential for the general partner/sponsor to have a large cash requirement due to the investor at the end of the 15-year LIHTC compliance period. Accordingly, nonprofit organizations generally try to have the tax-exempt use portion be as large as possible. Functionally, this means that most 9% LIHTC funded properties will have the ITC reduced by 50%, and many 4% LIHTV funded properties will see the ITC reduced by up to 90% (which realistically makes the amount of credits so small that they are typically not taken).

⁶⁰ Everyday Energy, p.13.

⁶¹ CalSEIA, p. 7; see also *id.* at footnote 6 on page 7.

⁶² See Novogradac Web Site for LIHTC Tax Credit percentages, <https://www.novoco.com/resource-centers/affordable-housing-tax-credits/data-tools/tax-credit-percentages-2016>.

Based on the actual solar cost coverage that is available to properties receiving 4% LIHTC funding, the Coalition disagrees with the assertion that “it can be argued in a LIHTC structure that an incentive is not necessary.”⁶³ To determine what costs can be reasonably covered by 4% LIHTC program funds, parties must model the solar project costs in a LIHTC financing model and account for proportional transaction costs and project development costs incurred by the property not otherwise covered or eligible for LIHTC funding. This type of analysis is provided in the proposal submitted by the Nonprofit Solar Coalition on August 3, 2016.⁶⁴

In the Coalition’s analysis, the incentive levels modeled projected with 4% LIHTC funding were set to cover 60% of the costs for solar energy systems for residents and 40% of the costs of the solar system for common areas. Combined, proposed incentive structure would cover 52.6% and resulted in a blended incentive level of approximately \$1.70/watt.

After factoring in LIHTC and ITC contributions plus AB 693 incentives, there is still a funding gap of approximately 10%. The Coalition’s scenario assumes that the remaining costs would be financed by the property owner and covered from energy savings. The financing costs increase the total costs of implementing the solar project by an additional 8% in project costs over a 20-year period. The additional financing and transaction costs along with the amount of principle financed are paid for by the property -- not the tenants.

In summary, the analysis presented in the Coalition’s proposal concluded that even after receiving a blended incentive level of \$1.70/Watt DC there would be a funding gap and added financing costs for the solar projects amounting to \$169,819. Hence, far from realizing a profit windfall, *the property is actually making a direct contribution to the solar energy project of 18% or more.*

Additionally, the property would also need to cover operations and maintenance (O&M) costs for both the residential and common area portions of the solar energy system. O&M and equipment costs could add up to 20% in additional expenses over a 20-year period on top of the baseline project installation costs and the added financing costs. All of these costs need to

⁶³ Everyday Energy, p. 17.

⁶⁴ Nonprofit Solar Coalition, Section VIII – Incentive Structure pp.55-58; and Appendix E.

be considered in determining financial feasibility. Determining whether energy savings can cover the debt services on the principal, interest, and system O&M costs is an important step in proving project financial feasibility.

In today’s Response Comments, the Coalition also modeled a scenario in which only \$0.60/watt was provided to an applicant that also received 4% LIHTC plus ITC financing. The Coalition provides this analysis to determine if solar projects are financially feasible at this incentive level. The analysis summarized in Table 3 concludes that at this incentive level the estimated energy savings from the solar energy project could not support debt service requirements and would actually result in negative cash flow.

**Table 3 – Solar Financial Feasibility Assessment
LIHTC 4% Projects with w\$0.60/watt Incentive⁶⁵**

PV System Cost/Size	\$500,000 157.2kW	Uses CalSEIA Cost assumption of \$3.18/watt DC.
PV allocation	70%/30%	Tenant and Common Area Allocation
AB 693	\$94,320	Incentives at \$0.60/watt
ITC	\$121,704	Basis \$405,680 * 30%; Maximum ⁶⁶
LIHTC	\$100,125	Basis 439,148 * CalSEIA LIHTC cost coverage percentage of 22.8%
Financing Gap	(\$183,851)	Project costs – Funding sources
Annual Debt Service	(\$15,051)	Assumes 5.4% interest/20 year term
Annual O&M Budget	(\$4,328)	O&M for 100% of system
Total Annual Solar Costs	(\$19,380)	Amount of cost requiring coverage from energy cost reduction
Energy Savings	\$12,319	Saving from common area kWh offsets valued at \$0.18/kWh
NET (GAP) or surplus	(\$7,061)	If coverage ratio is applied to energy saving gap increases to \$9,114.

The Coalition appreciates that there are many views about program design and incentives but respectfully disagrees with the assertions that properties funded with 4% LIHTCs should not have access to Program incentives, or that the incentives made available should be arbitrarily limited, the Coalition respectfully disagrees.

⁶⁵ Project assumes 265.1kW PV systems installed at \$3.20/watt. System allocation to tenants: 63%. Tenant Benefit: 100%. Financing interest rate at 5.4%. No NPV discounting on LIHTC or ITC credits.

⁶⁶ Actual ITC amount will be less based on % of tax-exempt ownership.

F. Tenant Allocations and Benefits

The Commission is required to ensure that the electricity generated by qualifying renewable energy systems be *primarily used* to offset electricity usage by low-income tenants.⁶⁷ The parties proposed a wide range of recommendations to address this requirement, ranging from a proposal by ORA that the tenants receive a minimum of 80% of the allocation from the solar energy systems to the proposal by GRID that the allocation to tenant units be a majority or greater than 50% of the system’s total generation. The proposals are partially summarized in Table 4.

Table 4 – Tenant Allocation and Benefit Summary

Party	Allocation	Percent Tenant Benefit from Tenant Allocation
CalSEIA	70%	100% to Tenants; No utility allowance adjustment
Everyday Energy	75%	75% to Tenants; Allow utility allowance adjustment
Greenlining Institute	70% preference, allow 51% if needed	100% to Tenants; No utility allowance adjustment
GRID	Greater than 50%	100% to Tenants; No utility allowance adjustment
MASH Coalition	60%	75% to Tenants; Allow utility allowance adjustment
Nonprofit Solar Coalition	Greater than 50%	100% to Tenants; No utility allowance adjustment
ORA	80%	100% to Tenants
PG&E	67%	100% to Tenants; No utility allowance adjustment
SDG&E	70%	100% to Tenants
SCE	At least 50%; preference 80%	100% to Tenants
TURN	80%	100% to Tenant with cost payback proposal

The Coalition agrees with GRID and recommends that the Commission interpret “primarily” to mean more than 50% of the PV generation. This definition would provide the greatest flexibility to property owners in designing a solar energy system that is financially feasible. Electric loads at a property will vary based on property size. Smaller affordable multifamily rental properties may have proportionally more common area load than larger

⁶⁷ AB 693 amendments to PUC. Part 2 of Division 1 of the PUC, Section 2870(f)(2).

properties with more tenant units. The Coalition is concerned that setting a strict prescribed allocation standard could unnecessarily complicate program implementation. Additionally, in setting an allocation standard or presumption, the Coalition recommends that the Commission consider whether there will be a sufficient level of energy savings from common area for property owners to cover debt payments and project O&M costs. In this regard, the 80/20 allocation split proposed by ORA, while a desirable goal, would make it difficult for a property owner to cover debt service costs and O&M expenses, which might ultimately affect the level of incentives needed to make projects financially feasible. Alternatively, with the understanding that flexibility may be necessary to ensure financial feasibility for properties with different common area load/tenant load ratios, the Coalition believe that Greenlining's proposal of 70/30, or PG&E's proposal of 67/33 will work for the majority of qualified properties.

The Coalition also agrees with the recommendation made by all but two parties that tenants should receive the full amount of direct economic benefits from the generation allocated to tenants, and that utility allowances that capture a portion of the tenants' benefits received from the solar energy installations should not be permissible under the Program.⁶⁸

G. Incentive Structure Bias Should Be Removed

In the incentive structure proposed by CalSEIA for a property that is unable to leverage either the ITC or LIHTC, the cost of the tenant installation is fully funded while *only* 28% of the cost of the solar energy system serving common areas is covered. CalSEIA recommended reducing the incentive for common areas for this funding category by 25% for current MASH levels, but provided no rationale for these deep reductions.⁶⁹ It is therefore difficult to comment directly on or and fully analyze CalSEIA's proposal.

However, the clear inference is that CalSEIA assumed that the costs of the PV installation not covered from program incentives could be fully covered from energy cost

⁶⁸ Proposal and Comments of the Multifamily Affordable Solar Homes Coalition, August 3, 2016, p. 4; Everyday Energy, p. 25. The Coalition notes that in a case where the tenant allocation is 70%, the 75% tenant benefit proposed by the Mash Coalition and Everyday Energy would result in an overall tenant benefit from the systems generation of just over 50%.

⁶⁹ CalSEIA, p. 6.

savings. This conclusion is unsupported and should be rejected by the Commission. A core principle for determining whether a project proposal is financially feasibility is the ability to offset total project costs with the sources available to cover those costs – in this case energy saving receipts. Affordable multifamily rental housing does not have reserves or discretionary receipts to cover investments costs of this type. Accordingly, in order to participate in the program the property must obtain financing to cover the amount of costs covered for energy savings. Affordable multifamily rental housing must also have a source for covering ongoing O&M, which includes paying into a reserve account to cover scheduled equipment replacements and maintenance.

Table 5 itemizes these costs for a hypothetical project to determine the minimum level of energy savings and the estimated average kWh rate needed for cost recovery using CALSEIAs incentive structure for common areas.

**Table 5 – Assessment of Cost Coverage from Energy Savings
Based on CalSEIA Incentive Structure for Common Area**

PV System Cost/Size	\$500,000 157.2kW	Uses CalSEIA Cost assumption of \$3.18/watt DC.
PV allocation to Common Area	30%	Assumes 70%/30% split in allocation
Common Area PV Cost/Size	\$150,000 47.2 kW 68,440 kWh/yr	Assumes average of 1,450 kWh/kW/yr.
Common Area Incentives	\$42,000	Assumes 28% per CalSEIA incentive structure.
Property Funding Gap	\$108,000	Amount not covered by incentive.
Financing Transaction Cost	\$5,400	5% financing costs rolled into financing.
Added Financing Costs	\$111,249,60	(7.5% PACE loan/ 20 years).
Annual Debt Service	\$10,962	Amount of annual debt payments on financing.
Annual O&M (full system)	\$10,220	Average industry costs for maintenance, monitoring, and equipment maintenance and replacement based on total system size.
Annual Cost Coverage Requirement	\$21,182	Annual added costs to the property that must be covered
Average Per/kWh Savings Requirements	\$0.3095 per kWh	Average kWh value needed to balance total projects costs with energy savings.

The net recovery of \$0.30 per kWh, or even \$0.25 per kWh, is not a realistic expectation for the installed solar energy systems serving common areas under today’s tariff schedules.

Thus, this analysis demonstrates that the property would be unable to cover the total project costs using CalSEIA's recommended incentive structure.

The Coalition contends that incentive levels for common area systems should also be aligned with costs and reflects a reasonable estimate of what contributions can be made directly by the property. These contributions will be significant but will likely not reach the 70% and above levels recommended by CalSEIA. The Coalition therefore recommends that the baseline level of property contributions for projects without LIHTC or ITC funding be set at 40%.

Arbitrarily low incentive levels for common areas serving PV systems may be a detriment to property owner participation in the Program. Where properties do participate, low incentives in common areas may result in less opportunity for the ownership model, and increased adoption of Third-Party Ownership (TPO) structures. The relatively low level of property-owned systems in the MASH program demonstrates this outcome. The economies created by the MASH incentive structure, which discount incentives to common areas, effectively steered property owners away from system purchases to TPO financed systems; thereby transferring the benefits of that program from property owners and tenants to solar investors and developers.

Accordingly, the Coalition requests the Commission set the incentive structure for common areas to enable property owners to cover total project costs and avoid penalizing properties wishing to own solar energy systems to provide long term benefits to affordable housing residents.

H. Incentive Structure: Tenant and Common Areas

The incentive structure influences both financial feasibility of installed solar energy systems and the outcomes of the Program. The Coalition agrees with TURN and several other parties that upfront incentive structures based on the system's output are needed to address "first-cost" financial cost barriers to increase access to renewable energy distributed generation in low-income communities.⁷⁰

⁷⁰ TURN, p. 8.

Furthermore, we agree with TURN that the upfront incentive level should be sufficient to *fully cover* the cost or the portion of the system that will serve low-income tenants, while the incentive levels for the portion of the system that will go to common area load should be lower than the resident incentive levels with property owners paying at least part of the costs.⁷¹ Hence, the incentive structure should include separate levels for tenants and common areas.

The parties in the proceeding are also in near-universal agreement that the incentive structure must reflect projected financial contributions from LIHTC and the ITC. In this regard, the Coalition agrees with CalSEIA that there are four primary categories of projects:⁷²

- Projects that are not able to leverage ITC or LIHTC.
- Projects that are able to leverage the ITC but not LIHTC.
- Projects that are able to leverage LIHTC but not the ITC.
- Projects that are able to leverage both the ITC and LIHTC.

With respect to LIWP, on reflection, the Coalition has concluded that a separate category of incentives is not necessary. Should an existing LIWP project wish to seek incentives under the Program, which is likely to be a rare occurrence, the incentives provided by the Program can be manually reduced dollar-for-dollar by the LIHTC contribution.

The Energy Freedom Coalition of America (Energy Freedom Coalition) recommended establishing incentive structures for the AB 693 program that distinguish “between solar owned by the host customer and third party owned solar.”⁷³ The Nonprofit Stakeholders Coalition also included a property purchase incentive structure in its opening proposal.⁷⁴ On reflection, the Coalition has concluded this option can be better accommodated within the incentive categories recommended by CalSEIA.

Based on party comments, the Coalition recommends that the Commission adopt the incentive structure shown in Table 6, which we believe is a potential consensus position of the incentive proposals submitted by the parties.

⁷¹ Turn, p. 11; CalSEIA, p. 2

⁷² CalSEIA, p. 4.

⁷³ Freedom Energy Coalition of America (Energy Freedom Coalition), p. 9.

⁷⁴ Nonprofit Solar Stakeholders Coalition, Section VIII – Incentive Structure pp.55-58, and Appendix E.

**Table 6 – AB 693 Revised Incentive Structure
In Response to Comments and Proposals**

	Multifamily Properties without ITC and LIHTC	Multifamily Properties with ITC and without LIHTC	Multifamily Properties without ITC and with LIHTC	Multifamily Properties with ITC and with LIHTC
Incentives for PV Installed for Tenant Units	\$ 3.20	\$ 2.24	\$2.24	\$1.60
Incentives for PV Installed for Common Area	\$ 1.92	\$ 1.60	\$1.28	\$0.96
Modeled Blended Rate	2.73	2.00	1.89	1.36
Resident Unit Cost Coverage from Incentive	100%	70%	70%	50%
Common Area Cost Coverage from Incentive	60%	50%	40%	30%

The recommended incentives shown in the table respond to party comments that the program should cover the full cost of tenant installation less ITC and/or LIHTC contributions and that property owners should make a minimum contribution for the common area systems.

The incentive requirement for solar energy systems servicing tenant units is set at 100% of the baseline solar cost for properties not leveraging LIHTC or the ITC. From this baseline, reductions of 30% are made for contributions for both ITC (30%) and LIHTC (30%). For projects leveraging both ITC and LIHTC funding costs were reduced by 50% reflecting the basic adjustments that occur when combining these resources.

The Coalition determined that a baseline contribution of 40% for common area contributions could be sustained from common area property energy savings in a model providing 33% of the allocation for common area usage. This contribution is progressively reduced as additional resources are brought on line, but the level of the reduction is aligned with debt or payment.

The incentive structure can be adapted as other solar cost baselines are updated based on additional research and, importantly, the incentive structure does not favor or steer property owners into a particular financing or ownership structure, as was the case with MASH. Several parties also proposed ongoing reduction to the baseline incentive levels set for the Program. The amount of the reductions proposed ranged from 5% to 10% per year. The Coalition recommends that the Commission set an incentive step down in the program consistent with solar cost reduction within the industry.

I. Use of Escalators Should be Limited

TPO structures provide a valuable one-stop mechanism for property owners to install solar energy systems with no upfront cost. The tradeoff in using these structures is that property owners pay a higher per kWh costs than would result under a system purchase, and must also pay added compounded costs because of escalators. The property owner is required to pay a cost per kWh on each kWh provided at a property, including tenant production. For example, Everyday Energy stated:

Our typical deals start with an SSA rate that provides a significant financial incentive for the host customer to enter into the deal. We then typically attach an annual inflation escalator on the price of about 1.5%.⁷⁵

AB 693 contemplates that all of the benefits allocated to tenants will remain with the tenants. Under this structure, there is no mechanism to recover costs from tenants, and property owners are responsible for all cost obligations under PPA and SSA rent payments associated with the kWh generation allocated to tenants.

AB 693 incentive structure compensates for this added cost exposure by providing higher levels of incentives. In the incentive structures proposed by the parties, incentives would cover 100% of the costs of solar energy systems serving tenants adjusted for other incentives such as the ITC. Under the MASH program, there is no requirement that the PPA or SSA pricing be set to account for all contributing funding sources. More importantly, third-party owners do not disclose what remaining costs are figured into the pricing structures for

⁷⁵ Everyday Energy, p.15.

PPA or SSA rent payments, or the added compounded costs associated with rate escalators in PPA or SSA agreements over the agreement period.

For these reasons, the Coalition questions the propriety of using escalators where the solar energy systems are heavily subsidized by public resources. Minimally, the Coalition requests the Commission condition approval of TPO contracts that include escalators to include financial disclosure requirements on the third party owner to mitigate financial risk to affordable multifamily property owners. This disclosure should minimally provide itemized information on the project costs not offset by Program incentives, the basis for the rent payments under the third party agreement, and the costs of escalators over the agreement period.

The Coalition is especially concerned about the financial risks PPA and SSA pricing structures might pose for affordable multifamily rental housing properties. In particular, the Coalition finds that the annual rate increases to kWh costs can have a significant effect on property cash flow. Table 7 illustrated these effects over a typical 20-year agreement period.

Table 7 – Financial Effects of Solar Escalator

Escalator Rate	.05%	1.5%	2%	3%
Cost Increase over 20-year Agreement Period	9.94%	32.70%	45.68%	75.35%
Baseline Year 1 Cost on Solar PV System Providing 350,000kWh/yr@\$0.08/kWh)	\$560,000	\$560,000	\$560,000	\$560,000
Added Costs from Escalator Over 20 Years Paid	\$27,415	\$87,463	\$120,326	\$192,370

The Coalition requests the Commission examine the use of escalators under MASH and determine what disclosures and limitations are needed to mitigate added financial risks to affordable multifamily rental housing posed by escalators. Additionally, because of the financial risk and need for greater transparency in TPO transactions, the Coalition requests the Commission determine what controls are necessary to ensure that the pricing of solar

generation charged under PPAs and SSAs is aligned with Program incentives and other funding resources to ensure that properties are not overcharged.

The Coalition also recommends that the Commission consider whether a pre-paid agreement should be required if the projects costs are substantially covered by Program incentives. Solar companies such as Sun Run offer pre-paid leases for small residential installation. The same products might make sense here.

J. Energy Storage Incentives

Several of the parties commented that energy storage devices are eligible and should be incorporated into the Program. Accordingly, the Coalition recommends that the Commission adopt an incentive structure for energy storage devices as part of the Program. To simplify the process, we further recommend that the structure for energy storage be modeled on the Self Generation Incentive Program (SGIP). The recommended incentive structure is shown in Table 7. (Additional explanation of the Coalition’s storage incentive recommendations and its replies to comments of other parties on the issue are found below on pages 41-53).

Table 7 – Energy Storage Incentive Structure

Size	Incentive	Requirements
Energy Storage Devices > 10kW	\$0.50/watt hour	<ul style="list-style-type: none"> - Energy storage power is capped at 100% of PV rated capacity for tenant benefiting portion of system and 100% of estimated common area peak load for common area benefiting portion of system. - Energy storage duration capped at 3 hours. - Combined solar and energy storage system must primarily benefit tenants.
Energy Storage Devices < 10kW	\$0.60/watt hour	

V. Energy Efficiency

Several parties, including CSE, SCE, and SDG&E, take the position that the energy efficiency requirements under AB 693 should be the same as those currently under the MASH program.⁷⁶ For example, SCE states:

SCE believes the Commission should adopt the energy efficiency requirements in the current MASH program handbook and the current requirements of Public Utilities Code section 2852.⁷⁷

The Coalition believes this and other similar views about AB 693's energy efficiency requirements are incorrect and, at best, reflect an incomplete reading of the governing statutes and remedies sought under AB 693 as well as a lack of experience with the MASH program outcomes.

Instead, we agree with PG&E, GRID Alternatives, and Greenlining Institute, as well as previous CPUC MASH Impact Evaluations, that more can and should be required to ensure comprehensive energy efficiency measures are identified and implemented.⁷⁸ To do so, we urge the Commission to adopt our coalition's opening proposal that would require a 15% energy efficiency improvement (with flexibility to implement over three years), an ASHRAE Level II Audit, 'one-stop' technical assistance, and associated enrollment in a whole-building multifamily efficiency program, potentially supplemented with existing or unspent program funding.⁷⁹

A. Harmonized Reading of AB 693 Statutory Obligations Supports Mandatory Energy Efficiency Requirement and Participation in Whole-building Energy Efficiency Programs

By expanding upon MASH's original energy efficiency legislative language, the Legislature signaled its intent to broaden the AB 693 energy efficiency statutory requirement to include other whole-building federal, state, or utility-funded energy efficiency programs.

⁷⁶ CSE, p. 24; SDG&E pp. 35-37; SCE, pp. 24-25; Cal Solar Energy Industries Association, pp. 25-26; Everyday Energy, pp. 32-33; TURN, pp. 22-23.

⁷⁷ SCE, p. 24.

⁷⁸ PG&E, pp. 13-14; Greenlining Institute, pp. 11-12; GRID Alternatives, pp. 22-24.

⁷⁹ Nonprofit Solar Coalition, pp. 69-75.

Specifically, AB 693 requires that:

The commission shall establish energy efficiency requirements that are equal to the energy efficiency requirements established for the program described in Section 2852, *including participation in a federal, state, or utility-funded energy efficiency program or documentation of a recent energy efficiency retrofit.*⁸⁰

Section 2852 states in relevant part,

(d) In supervising a program implementing the California Solar Initiative pursuant to this section, the commission shall ensure that the program does all of the following:

(2) *Requires participants who receive monetary incentives to enroll in the Energy Savings Assistance Program established pursuant to Section 382, if eligible.*⁸¹

The requirement in Section 2852 is intended to implement the provision enacted by SB1 for the California Solar Initiative mandating reasonable energy efficiency improvements as a condition of receiving incentives for solar installations. The relevant requirement states:

By January 1, 2008, the commission, in consultation with the State Energy Resources Conservation and Development Commission, *shall require reasonable and cost-effective energy efficiency improvements in existing buildings as a condition* of providing incentives for eligible solar energy systems, with appropriate exemptions or limitations to accommodate the limited financial resources of low-income residential housing.⁸²

The clear intent derived from a harmonized reading of the statutory foundation governing energy efficiency requirements for state solar PV programs is that participants receiving incentives must participate in an energy efficiency program that results in cost-effective energy efficiency improvements.

As the most recent legislation, AB 693 has precedent and can be viewed as addressing gaps or defects of earlier requirements. In this regard, the clause *“including participation in a federal, state, or utility-funded energy efficiency program or documentation of a recent energy efficiency retrofit”* is significant and should be read as an additive element of the energy efficiency requirements specified under Section 2852.

⁸⁰ AB 693 amendments to PUC. Part 2 of Division 1 of the PUC, Section 2870(f)(7) (emphasis added).

⁸¹ Cal. Pub. Util. Code § 2852 (emphasis added).

⁸² Cal. Pub. Util. Code § 2851(a)(2)(C)(3) (emphasis added).

Hence, in addition to the Energy Savings Assistance Program, which is the only program prescribed under Section 2852, through AB 693, the statutory requirement for participation in energy efficiency programs is extended to participation in other federal, state, or utility-funded energy efficiency programs. Thus, the AB 693's statutory mandate cures a defect or limitation in the earlier statute governing MASH.

This broadening beyond the ESA program also reflects CPUC precedent that it is unreasonable to require a property owner to participate in ESA since it is directed towards tenants. Specifically, the Proposed Decision in Rulemaking 12-11-005 on the extension the MASH program states "this decision requires Energy Savings Assistance (ESA) Program enrollment for eligible tenants."⁸³ The requirement included in the Proposed Decision is inconsistent with the statutory requirement under Section 2852. However, as parties pointed out in their comments, property owners receiving the incentives under the MASH program could not mandate that tenants residing at their properties enroll in the ESAP because enrollment was voluntary. In effect, the requirement for participation in the sole energy efficiency program prescribed by Section 2852 could not be implemented for the MASH program. This barrier does not exist under AB 693. The clause in AB 693 "including participation in a federal, state, or utility-funded energy efficiency program or documentation of a recent energy efficiency retrofit" addresses the incongruity created by the MASH implementing guidelines.

Again, the intent of AB 693, like Section 2852, is that the property undergoes an energy efficiency retrofit. However, under AB 693 the menu of programs is intentionally and substantially broadened beyond just the ESAP program, and provides the owner of participating affordable multifamily rental properties with a broad set of options and opportunities to enroll in energy efficiency programs. In this regard, the requirement for participation in an energy efficiency program can be applied to the same party receiving the incentive for the solar energy systems, which was not the case in MASH.

⁸³ Rulemaking 12-11-005, Proposed Decision Extending the Multifamily Affordable Housing Solar Housing and Single Family Affordable Solar Homes Programs Within the California Solar Initiative, December 15, 2014, p.2.

Accordingly, because property owners participating in the Program have direct access to resources available through federal, state, and utility programs, the Coalition requests the Commission mandate a set energy efficiency requirement, e.g. 15%, funded via an existing “federal, state, or utility-funded energy efficiency program” and potentially supplemented by the funding resources we identified in our opening proposal.⁸⁴ Alternatively, owners could provide documentation of a recent energy efficiency retrofit, as prescribed by AB 693.

B. MASH Energy Efficiency Requirement Is Not Acceptable

Many of the parties conflate AB 693’s statutory requirement for participation in an energy efficiency program with the requirements in current MASH guidelines. They are not the same. The current requirements under MASH are limited to undertaking an ASHRAE Level I “walk through” energy inspection or optional participation in an energy efficiency program. This is a very low bar and as noted in the proceeding and MASH program evaluations, these requirements have *not* been effective in advancing energy efficiency improvements under the MASH program, or for that matter in advancing statewide energy efficiency priorities.⁸⁵

PG&E’s comments reported that “[p]rogram administration data illustrates that a vast majority of host customers completed a level I audit rather than enrolling in one of the eligible energy efficiency programs to meet the MASH requirement.”⁸⁶ We agree with PG&E that this approach “provides no assurances that the building owner will continue seeking energy efficiency and enact any of the recommendations from the audit performed.”⁸⁷

MASH program evaluations point to deeper gaps in advancing energy efficiency priorities through de minimis energy strategies and requirements. An early program evaluation by Navigant Consulting found that:

Energy efficiency requirements in MASH are minimal and, in Navigant’s opinion, are not effective. The only requirement is to conduct an online audit and submit a disclosure

⁸⁴ Nonprofit Solar Coalition, pp. 69-75.

⁸⁵ Navigant Consulting, California Solar Initiative SASH and MASH Program Administrator Performance Assessment Report Presented to: The California Public Utilities Commission, April 5, 2011 (2011 Navigant Consulting), p.12.

⁸⁶ PG&E, p. 13.

⁸⁷ PG&E, p. 22.

form that states whether the applicant will install any energy efficiency measures. The audit appears to be viewed as just another form that needs to be submitted with the application.⁸⁸

We cite this because the energy efficiency efforts under the MASH program have not materially changed. The most recent program evaluation includes a discussion of efforts taken to comply with energy efficiency requirements established by AB 217. In the report Navigant states,

The Navigant team asked MASH PAs whether they were referring eligible customers to the ESA program. According to one MASH PA, “The interplay between [the] ESA [program], MASH and the Energy Upgrade CA Whole Building Retrofit program has been fairly non-existent and [we] are trying to bring it closer in MASH 2.0.” All MASH PAs explained that this referral has not become part of the program yet because it is not required. Currently, PAs are simply trying to provide general ESA program education. . . .

One CPUC staff member explained they would not expect a large negative effect if MASH applicants were required to simply get involved with a multifamily energy efficiency program and consider the upgrade options for their properties. On the other side, one MASH PA expressed, “What we are hearing through the proceedings is the fewer requirements the better, which is unfortunate because we are missing the opportunity to put some of these good energy efficiency upgrades in some of these buildings.”⁸⁹

The tenant survey conducted by Navigant found that 13 of the 73 MASH tenants reported participating in energy efficiency programs and activities. However, of the 13, only 4 of the tenants installed energy efficiency measures, about 5% of the total surveyed.⁹⁰

A number of comments in the Navigant report are useful to understanding the limitations with approaches used to implement energy efficiency requirements, including the following excerpts from Navigant’s recent report:

⁸⁸ Navigant Consulting, California Solar Initiative SASH and MASH Program Administrator Performance Assessment Report Presented to: The California Public Utilities Commission, April 5, 2011 (2011 Navigant Consulting) p.12.

⁸⁹ Navigant Consulting, California Solar Initiative—Biennial Evaluation Studies for the Single-Family Affordable Solar Homes (SASH) and Multifamily Affordable Solar Housing (MASH) Low-Income Programs Market and Program Administrator Assessment Program Years 2011–2013, October 19, 2015, California Public Utilities Commission, p. 72 (2015 Navigant Consulting).

⁹⁰ *Ibid.*

Some MASH property owners felt that the quality of energy efficiency information obtained from the MASH program was lower or more limited than other resources and generally not as helpful as other sources. Another customer shared that the online utility audit was not as comprehensive as the energy efficiency upgrades already underway at their property as part of a previous investment-grade energy efficiency audit.⁹¹

One MASH installer complained that they have tried to partner with the utility on energy efficiency activities through MASH but the utility has done a “horrible” job of partnering and educating the affordable housing property owners about energy efficiency opportunities. This implies that there may be opportunities for installers and PAs to collaborate more effectively on offering energy efficiency tools and resources to MASH customers.⁹²

One MASH PA indicated that they would not always expect solar installers to inform affordable housing property owners about energy efficiency because “solar installers benefit from building the largest solar installation possible, so they do not have a lot of incentive to do energy efficiency and then have a smaller solar installation.”⁹³

The energy efficiency actions reported by MASH property owners were unrelated to the MASH program. Most affordable housing property owners had completed prior energy audits for various housing projects, including LEED and general building rehabilitation.⁹⁴

In the case where a MASH property owner performed an energy efficiency audit in addition to a solar installation as part of a whole-building rehabilitation, the solar installer analyzed energy usage based on past utility statements to size the system, apparently not counting current energy efficiency improvements.⁹⁵

One MASH property owner explained that they could not complete furnace upgrades in addition to other energy efficiency measures because of funding limitations, and another stated that sometimes the organization does not have the funding to do upgrades following an audit: “In affordable housing, it is always a matter of the resource available at the current time.” Several others mentioned grants and rebates for financing energy efficiency upgrades, but budget constraints seem to be limiting property owners’ ability to complete energy efficiency upgrades on their properties.⁹⁶

⁹¹ 2015 Navigant Consulting, p. 65.

⁹² 2015 Navigant Consulting, p. 66.

⁹³ 2015 Navigant Consulting, p. 66.

⁹⁴ 2015 Navigant Consulting, p. 69.

⁹⁵ 2015 Navigant Consulting, p. 69.

⁹⁶ 2015 Navigant Consulting, p. 69.

This lack of energy efficiency results is at odds with the Commission’s long-held principle and the state’s legislatively mandated loading order, that property owners installing solar under ratepayer programs should pursue cost-effective energy efficiency measures before installing ratepayer-incentivized solar panels.

We agree with GRID that the approach under MASH is “inadequate as a complete response.”⁹⁷ In this regard, we also agree with the Greenlining Institute that “the energy efficiency component of the Program must be meaningful and deliver real benefits to both tenants and building owners, separate from the benefits to be gained from going solar.”⁹⁸ The Nonprofit Solar Stakeholders Coalition therefore recommends that the Commission adopt significant and substantive reforms to require reasonable and cost-effective energy efficiency improvements in existing buildings as a condition of providing incentives for eligible solar energy systems, as contemplated by the legislature. Approaches for accomplishing this are reviewed in the next section.

C. Statewide Energy Efficiency Program Models Provide Useful Framework for Meeting AB 693 Energy Efficiency Requirements

A few of the parties discussed proposals or made suggestions for moving energy efficiency requirements beyond the de minimis energy requirements and voluntary approaches in MASH. PG&E states that the energy efficiency requirements in MASH “can be taken further in the Multifamily Affordable Housing Solar Roofs (MAHSR) program without adversely burdening applicants or contractors.”⁹⁹ For example, PG&E proposes that:

all MAHSR host-customers must undertake an ASHRAE level II audit. Upon completion of this audit, host customers will be required to submit the report as part of their incentive application to PG&E. This information will then be passed on to PG&E’s Multifamily Upgrade Program (MUP) who will evaluate the report and then contact and educate the host customer on available programs and energy efficiency options, including those offered by third parties.”

⁹⁷ GRID, p. 23.

⁹⁸ Greenlining Institute (Greenlining,) p. 11.

⁹⁹ PG&E, p. 13.

PG&E opines that their proposed approach is an improvement on the MASH requirement because its proposal requires more than “simply performing a walk-through energy audit with no guarantee that any energy efficiency measures are presented or considered.”¹⁰⁰ The Coalition agrees with PG&E that a greater linkage and integration with existing energy efficiency programs is a necessary step to move energy efficiency forward.

In this regard, GRID suggested that one option would be for AB 693 to build off the structure developed for the multifamily LIWP program. The framework of the LIWP Large Multifamily program addresses a number of barriers that have adversely affected participation in energy efficiency programs under MASH. The LIWP Large Multifamily program provides an upfront ASHRAE Level II audit with technical consultation to the property owner in designing and approving an energy efficiency scope of work. The program also provides one-stop support to aid multifamily properties in leveraging utility energy efficiency programs, which is congruent with PG&E’s objectives.

Our Coalition borrowed extensively from this program design in our proposal.¹⁰¹ In our view, this framework can be readily adapted to the Program without adversely impacting the installation of solar energy systems. The approach also provides the Commission with a pathway for achieving cost-effective energy efficiency improvements funded by existing utility programs. In this regard, we agree with Greenlining that “that all other available funding should be leveraged before the project can use the MAHSR program funds for efficiency work. This will help ensure that the MAHSR program dollars, which will be unreliable, can serve as many tenants and properties as possible.”¹⁰²

The Coalition requests that the Commission create a meaningful energy efficiency component for the program and consider adopting a 15% energy efficiency improvement (with flexibility to implement over three years), an ASHRAE Level II Audit, “one-stop” technical

¹⁰⁰ PG&E, p. 13.

¹⁰¹ Nonprofit Solar Coalition, Section IX, pp.69-88.

¹⁰² Greenlining, p. 12.

support, and associated enrollment in a whole-building multifamily efficiency program, potentially supplemented with existing or unspent program funding as needed.¹⁰³

VI. Energy Storage

A. Energy Storage Eligibility is Established Under Statute and Rules

Party responses demonstrated that there was agreement from a diverse group of organizations that energy storage devices are eligible within the definition of solar energy system. The comments of CalSEIA and ORA provide a clean and concise summary of the legal and policy rationale that energy storage is included in the definition of “solar energy system.”

CalSEIA states:

The Commission determined in D.14-05-033 that storage devices paired with NEM-eligible solar PV systems, and that meet the definition of an “addition or enhancement” to a NEM-eligible system listed in the California Energy Commission (CEC) Renewables Portfolio Standard Eligibility Guidebook (Guidebook), should be treated as part of a solar PV system rather than separate from it. In addition, storage devices are eligible for the federal Investment Tax Credit when paired with solar PV, as long as they meet certain requirements.¹⁰⁴

Under AB 693, an eligible solar system means “a solar energy photovoltaic device that meets or exceeds the eligibility criteria established pursuant to Section 25782 of the Public Resources Code.”¹⁰⁵ Section 25782 established state guidelines for California’s Solar Electric Incentive Programs. ORA added:

AB 693 clearly allows for the Commission to develop eligibility criteria that go beyond those established by the CEC in response to Resource Code Section 25872. ORA interprets the “... meet or exceed the eligibility criteria...” phrase to mean the definition of a “solar energy system” can be expanded.¹⁰⁶

This view is consistent with the position taken by the Coalition in its proposal, which includes a detailed legal analysis that we requested from the Clean Energy Group in response to the ALJ’s

¹⁰³ Nonprofit Solar Coalition, pp. 69-75.

¹⁰⁴ CalSEIA, p. 15.

¹⁰⁵ AB 693 amendments to PUC. Part 2 of Division 1 of the PUC, Section 2870(a)(4).

¹⁰⁶ ORA, p. 9.

questions. Based on this analysis, the Coalition asserts that AB 693 unequivocally includes energy storage within the definition of “solar energy system.”

B. Incentives Necessary to Support Integrated Energy Storage and PV Systems

The Coalition agrees with other parties that solar paired with energy storage is an important solution for affordable multifamily markets that should be supported and advanced through the energy programs and initiatives developed for this market segment. For example, CalSEIA’s comments stated:

It would be valuable for incentive money for storage to be available to AB 693 projects. AB 693 is a ten-year program, and storage needs to become ubiquitous in that time horizon. Low-income apartment buildings should not be locked into solar-only solutions.¹⁰⁷

ORA also provided some very important arguments on why energy storage should be advanced through the Program. ORA states:

Storage devices are natural extensions of solar PV arrays. Storage helps resolve the inherent intermittency challenges raised by solar energy as it:

- 1) balances the power grid by shaving peak demand and reduces the flow of nonessential solar energy on the grid, and
- 2) lowers energy costs for customers via reductions in demand charges and reduces consumption from the power grid during the evening hours.

Further, since all NEM 2.0 customers will be on a time-of-use (TOU) rate, customers can lower their energy cost by using the solar energy captured in their storage devices during the higher peak time hours.¹⁰⁸

For these reasons, ORA, California Energy Storage Alliance (CESA), the Interstate Renewable Energy Council (IREC), the Greenlining Institute (Greenlining), and the Nonprofit Solar Coalition have supported providing direct incentives for integrated solar PV plus energy storage systems. GRID also supports the coverage of storage for affordable multifamily rental housing but has no specific recommendation as to the incentive levels for battery storage.¹⁰⁹

¹⁰⁷ CalSEIA, p.15.

¹⁰⁸ ORA, p. 10.

¹⁰⁹ GRID, p. 10.

CSE, Vote Solar, and CalSEIA also support energy storage eligibility under AB 693, but had different positions on the timing and mechanisms for delivering incentives for energy storage. CSE stated that “[a]n incentive structure for these projects should include a Program funding carve-out to be used to provide up to 100% offset of the cost of the storage device,” but suggested that the incentives might be best delivered through solicitation aimed at solar plus storage project developers who agree to design and integrate solar and storage systems on Program-eligible buildings and report system configuration specifications and tenant utility bills to the Commission and Program Administrator.¹¹⁰ Vote Solar stated that “it may be appropriate to determine that funds for incentivizing MAHSRP storage capacity come from another pot of funding, for example the Self-Generation Incentive Program.” CalSEIA recommends that the “PAs should monitor the budget and progress toward the target and have flexibility to develop incentives for energy storage systems if the Program budget allows.”¹¹¹ Each of the issues raised by these commenters is discussed separately below.

The Coalition maintains that the decision to provide incentives for solar energy systems, inclusive of integrated solar PV and energy storage, should be determined on the basis of whether the investment advances the legislative goals prescribed for the Program. In this regard, we should not lose track of the fact that in addition to the goal to add 300 MW of generating capacity, the other explicit and equally relevant goals of AB 693 include making solar energy systems more accessible to low-income and disadvantaged communities, lowering the energy bills of tenants at low-income multifamily housing, providing assistance to low-income utility customers to make sure they can afford to pay their energy bills, providing local economic development benefits, and advancing the state’s renewable energy policies and policies to reduce emissions of greenhouse gases.¹¹²

The lack of solar PV access was a driving force of AB 693 and as noted by CESA, “[t]o date, *not enough energy storage systems* paired with solar PV systems have served disadvantaged community customers for a combination of reasons, including – the ‘split

¹¹⁰ CSE, p. 12.

¹¹¹ CalSEIA, p. 16.

¹¹² AB 693. Section 1(a)-(f).

incentives’ financing issue between building owners and tenants, upfront capital costs, and ‘newness’ of the option for an entity to install energy storage in addition to the on-site solar PV offering.”¹¹³

Furthermore, the economic value of energy storage, referenced above, is widely accepted by a majority of the parties on this proceeding. In particular, The Coalition highlights IREC’s perspectives on the benefits of energy storage to low-income communities:

An important link exists between distributed solar energy generation and energy storage systems because the latter can provide a critical role in resolving the intermittent nature of the former and can effectively address many of the current challenges of accommodating higher penetrations of solar energy on the utilities’ distribution systems. Moreover, because energy storage systems enable consumers to rely more on distributed solar energy generation, they provide greater ability to control energy costs, optimize electricity service quality, and reduce energy use. *Because these benefits of storage would help maximize solar energy’s value for low-income communities and the distribution grid, incorporating energy storage into solar energy systems would further AB 693’s purpose.*¹¹⁴

The Coalitions agrees with IREC that “if the Commission chooses to move forward with incorporating storage into the program, some level of incentives would likely be warranted given current costs of storage, which remain relatively high, and the intent of this Program to target low-income customers.”¹¹⁵

To ensure that tenant benefits from the inclusion of storage devices, the Coalition recommends that the Commission further define the benefits of solar energy systems to include the savings of both solar and storage devices. For storage devices, these benefits would primarily include time-shifting of solar energy under tenant time-of-use rates and reduction of demand charges for common area loads. Both of these savings, along with those savings generated by solar PV, should be considered a combined savings pool for purposes of the allocation requirement that solar energy systems primarily benefit tenants.

¹¹³ CESA, p. 2.

¹¹⁴ IREC, p. 4 (emphasis added).

¹¹⁵ IREC, p. 5.

Delivering storage benefits directly to tenants could be accomplished in a variety of ways, including:

1. Lower tenant electricity bills through storage-enabled time-shifting of solar energy for tenants on time-of-use rate structures.
2. Increase in tenant benefitting allocation of solar PV when storage devices primarily reduce common area demand charges.
3. Tenant shared savings of common area demand charge reduction.

These are but three of the potential revenue streams from energy storage that could primarily benefit tenants. The Coalition wants to ensure that all of these mechanisms – and future revenue streams – can be tailored to benefit tenants. Each of these mechanisms is achievable under current regulatory structures, making proper allocation of solar energy system benefits primarily an administrative process.

C. SGIP Not a Viable Option for AB 693 Applicants and May Be Inconsistent With Tenant Benefit Objectives

Both Vote Solar and CSE mentioned the SGIP program as a possible funding source for energy storage, but neither of the parties provided information supporting the argument that SGIP provided a reasonable opportunity for affordable housing access, or that the program was compatible with AB 693’s tenant benefit requirements. CESA, on the other hand, suggested that access under SGIP is not realistic strategy and that participation might be incompatible with the respective goals of the two different programs. CESA stated:

Even with recent reforms to the Self-Generation Incentive Program (“SGIP”), which allocates 75% of its budget to energy storage technologies, CESA believes that SGIP funds are competitive, only extends through 2019, and therefore will likely not go to low-income and disadvantaged communities. Moreover, SGIP is intended to be a ‘market transformation’ program rather than one dedicated to providing localized economic and environmental benefits to low-income and disadvantaged communities. *Given these factors, SGIP is not a meaningful and long-term incentive support mechanism for energy storage for multifamily affordable housing properties.*¹¹⁶

¹¹⁶ CESA, p. 9 (emphasis added).

To date, over 75% of the funding under SGIP has been allocated to commercial or government uses. Just over 20% of the funding has gone to residential use, which has included some multifamily properties with integrated solar PV plus energy storage plus electric vehicle charging. This program has a relatively small budget and is highly competitive. According to CalSEIA, “Program participants have a low likelihood of securing an SGIP rebate due to the small SGIP budget.”¹¹⁷

Accordingly, the Coalition has concluded that SGIP funds will not be sufficient for energy storage deployment for multifamily affordable housing properties. Requiring low-income housing properties to compete with commercial customers would not further the goals of AB 693. Linking the programs poses a number of complexities. Properties installing solar PV under AB 693 would have no assurance that they would receive an SGIP incentives or that out-year funding would be available. Moreover, even if such properties were fortunate enough to obtain an SGIP subsidy, the SGIP program does *not* have a tenant benefit requirement. Funds provided to a property through the SGIP program would not need to support any benefits to tenants, further complicating the program integration and actually defeating the goals of AB 693. In summary, we recommend that the Commission reject this idea.

Accordingly, the Coalition disagrees with CSE proposal that affordable housing participants be made to apply to a separate program, with a different set of properties, to obtain benefits that are specifically authorized under AB 693.

D. Energy Storage Provides Tenant Benefits Under Virtual Net Metering

Two parties raised questions about whether energy storage devices could provide economic benefits to tenants. TURN stated that energy storage does not “fit within the requirement of §2870(f)(2) that the electricity generated by the system primarily be used to offset low-income tenants’ electricity usage”¹¹⁸ and Everyday Energy offered its perspective

¹¹⁷ CalSEIA, p. 16.

¹¹⁸ TURN, p. 13.

that “there is no technical way to deliver direct tenant benefits through virtual net metering.”¹¹⁹ The Coalition disagrees with these conclusion.

With respect to how storage devices impact a utility customer’s electricity consumption, storage devices function in the same manner as solar PV, with the added benefit of controlling when electricity is dispatched onto the grid in order to maximize system efficiency. As far as the electricity grid and utilities are concerned, electricity generated by solar panels and electricity discharged by storage devices is interchangeable.

As with solar, there is no reason that economic benefits of storage could not directly benefit tenants through bill reduction under virtual net energy metering (VNEM). Storage devices are clearly eligible under California’s net energy metering programs, provided the storage device is charged by on-site solar. An integrated energy storage and solar PV system under AB 693 would meet this requirement.

Combining with energy storage with solar allows tenants to reduce time-of-use (TOU) rate impacts. Under various state energy policy changes, TOU rates will soon be applied to all California residential utility customers. Solar customers are already being transitioned to TOU rates, and default TOU rates will be introduced for all residential customers in 2019, including CARE customers. Low-income households residing in affordable multifamily rental properties with integrated solar PV and energy storage systems storage will benefit from the collection of solar energy during periods of low electricity pricing and the exporting or discharge of solar energy to the grid during periods of high electricity pricing. Analysis Geli and Clean Energy Group¹²⁰ presented in the Joint Proposal shows that solar time-shifting through adding storage can result in lower tenant electricity bills and maximize the value of solar system investments. Notably, this time-shifting and TOU-related bill reduction results only if storage is added to the solar installation.

¹¹⁹ Everyday Energy, p. 19.

¹²⁰ California Housing Partnership, Center for Sustainable Energy, Clean Energy Group, and Geli, “Closing the California Clean Energy Divide: Reducing Electric Bills in Affordable Multifamily Rental Housing with Solar+Storage.” Available at <http://www.cleanegroup.org/ceg-resources/resource/closing-the-california-clean-energy-divide/>.

For tenants on time-of-use rate tariffs, allocating benefits should be a straightforward process. Electricity should be credited at the electricity rate designated for the period during which electricity is exported to the grid, whether by direct solar production or the dispatch of stored solar energy. In this way, storage devices can maximize the return on solar system investment by discharging during peak-pricing periods, thus preserving the value of solar under evolving rate structures. For common area loads, there is already a mechanism within VNEM for customers to benefit from demand charges savings. VNEM customers on a rate tariff with demand charges have the option to receive a demand credit for electricity exported to the grid.

Our review of utility rate structures has not found any ban on storage under VNEM. To the contrary, PG&E's VNEM tariff expressly allows it. Under PG&E's Virtual NEM Tariff (VNEM), a "Renewable Electrical Generation Facility" is defined as

a generating facility that generates electricity by using . . . photovoltaic . . . and any addition or enhancements to the generating facility using that technology pursuant to [Cal Pub. Res. Code § 25741(a)(1)].¹²¹

These renewable sources are defined in the latest version of the California Energy Commission's (CEC) Renewables Portfolio Standard (RPS) Eligibility Guidebook¹²² and the Renewable Energy Program Overall Program Guidebook.¹²³ According to the RPS Guidebook, energy storage is such an "enhancement" when it is either:

- (a) Integrated into the facility, such that the energy storage device is capable of storing only energy produced by the facility, either as an intermediary form of energy during the generation cycle or after electricity has been generated.
- (b) Directly connected to the facility, such that electricity is delivered from the renewable generator to the energy storage device behind the meter used for RPS purposes and any electricity from a source other than the renewable generator is included as an energy input to the facility. The energy storage device must be operated as part of the facility represented in the application and not in conjunction with any other facility, renewable or otherwise.¹²⁴

¹²¹ See: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_NEMV.pdf.

¹²² See: <http://www.energy.ca.gov/2015publications/CEC-300-2015-001/CEC-300-2015-001-ED8-CMF.pdf>.

¹²³ <http://www.energy.ca.gov/2013publications/CEC-300-2013-008/CEC-300-2013-008-ED6-CMF.pdf>.

¹²⁴ California Energy Commission, Renewable Portfolio Standard Eligibility, Eighth Edition Commission Guidebook., June 2015, CEC-300-215-001-ED8-CMF.p.43;

See also discussion of "enhancement" under 25741(a)(1) in D.16-04-020

Thus, energy storage paired with solar that meets these requirements is an “enhancement” and subject to virtual net metering under the PG&E NEMV schedule. Additionally, the SCE¹²⁵ and SDG&E¹²⁶ tariffs reference paired storage with respect to the 20-year transition period for customers on the tariff before the earlier of July 1, 2017 or the program limit.

Hence, the Coalition has concluded that energy storage is fully allowed under virtual NEM provided it meets the regulatory requirements as an “enhancement.” Our review has not turned up any ban on energy storage, and there is nothing to suggest that benefits from energy storage distributed through VNEM cannot directly benefit tenants in multifamily buildings.

Additional opportunities for bill reduction through combined solar and storage will become increasingly important as new policies come into place in California. Distributed energy resource market opportunities, NEM policies, and utility rate tariffs will all evolve over the lifetime of the implemented multiyear program. To protect tenants from changes that could negatively impact the value proposition of solar and to include them in California’s energy transition, AB 693 should be geared to leave every pathway open to providing value to low-income customers.

E. Energy Storage Can Reach Multifamily Now

The Coalition maintains that the property owners should be permitted to hire their own contractors to install solar energy systems, inclusive of integrated solar PV plus energy storage. These systems are being implemented in other markets and on market rate housing under SGIP,

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M161/K480/161480050.PDF> re NEM bill credit estimation methodology for paired storage facilities at pp. 4-5.

¹²⁵ SCE NEM-V: (d) “To the extent that eligible energy storage systems are considered an addition or enhancement to an Eligible Generator served under this Schedule, the energy storage systems shall be treated in the same way, and subject to the same transition period, as the Eligible Generators to which they are connected.”

¹²⁶ SDG&E NEM-V:(d) Treatment of Energy Storage Systems

“To the extent the eligible energy storage systems are granted interconnection exemptions under this Schedule, they will be treated in the same way, and subject to the same 20-year transition period, as the underlying renewable electrical generating facilities to which they are connected.”

and these integrated energy solutions should be more accessible to affordable housing market now.

While CSE proposes an incentive structure that included a “Program funding carve-out to be used to provide up to 100% offset of the cost of the storage device, along with the upfront Program EPBI incentive, to entice solar developers to install solar + storage projects,”¹²⁷ participant access to energy storage under the CSE proposal would be restrictive. The program would be implemented through a contractor selected by the Program Administrator. The program would include additional data collection and reporting by Program participants to “study the benefits the paired technologies can deliver to tenants.”¹²⁸ The program would also be set up as a “pilot” within the Program “to inform the market on the impacts of the combination of solarPV/storage/VNM when TOU rates are applied”¹²⁹ and the pilot study would be focused on informing the reevaluation of net energy metering (NEM) and mandatory TOU rate participation by solar PV customers.¹³⁰

The rationale for this structure is not explained in CSE’s proposal. Moreover, studies of the benefits that paired technologies can deliver to tenants should not be required as a precondition of permitting integrated solar energy systems under the program. The benefits from energy storage are already quantifiable. The experience under SGIP can substantiate that added energy benefits do accrue to property owners from energy storage discharges to the grid.

What remains are essentially administrative issues concerning the allocation of PV generation to energy storage devices and the allocation of energy storage discharges to the grid and crediting of that discharge back to tenants under VNEM. This administrative issue does not rise to a question of whether an energy storage incentive should be established. The Coalition is extremely concerned that the proposal intentionally delays access to energy solutions that other residential markets currently have. Access delayed is access denied.

In GRID’s opening comments, it stated, “while the primary beneficiaries of the Program are low-income tenants and job trainees, the primary Program participants are the affordable

¹²⁷ CSE, p. 12.

¹²⁸ CSE, p. 13.

¹²⁹ CSE, p.13.

¹³⁰ CSE, p.13.

housing operators who will be the entities making the decision to put solar on their property.”¹³¹ In that regard, the Coalition requests that the properties owners, not the Program Administrator, make the decision with regards to energy storage investments and the contractors installing the solar energy systems. The Program Administrator should ensure the qualification of contractors and set appropriate requirements concerning renewable energy investments.

F. Energy Storage Adds Economic Benefits Without Disrupting MW Aspirations

CalSEIA raised questions regarding the impact investments in storage would have on reaching the program 300 MW target should the Program be fully funded. CalSEIA stated:

If funds are available in the Program budget beyond what is needed to meet the Program goals, incentives should be developed for energy storage. This may depend on the incentive design and whether the Program target is revised to reflect available funding from the Cap-and-Trade program. If most MAHSR applicants leverage other funding sources and Cap-and-Trade revenue is sufficient to fully fund the Program, there will be space in the Program budget to meet the 300 MW target and also fund storage. If Cap- and-Trade revenue is not sufficient to fully fund the program but the target is lowered correspondingly, there may also be space for storage funding.¹³²

To determine whether the proposed incentive levels for solar energy systems is aligned with the goal of installing “solar energy systems that have a generating capacity equivalent to at least 300 megawatts,”¹³³ the Coalition undertook an analysis of the proposed incentive structure. In this analysis we considered whether potential investments in energy storage and energy efficiency could also be made along with the investments in solar PV and still meet the 300 MW target for the program.¹³⁴ The analysis shows that investments in both energy efficiency and energy storage could be included with the installation of solar PV as part of the

¹³¹ GRID, pp.3-4.

¹³² CalSEIA, p.16.

¹³³ AB 693. Section 1(f).

¹³⁴ The target of installing at least 300 MW of new solar capacity is based on a funding scenario in which the program is allocated the full level of funding authorized under Section 2870(c) over the 10-year period.

integrated energy strategy, and reach, or even surpass, the 300 megawatt target. The analysis and the assumptions for this analysis are described in the Coalition’s proposal.¹³⁵

Findings: The results of the analysis are shown in Table 8 over the ten-year life of the program. Key findings include:

- i. First year generating capacity is estimated of 22.9 MW. This estimate is a worst-case scenario since it assumes that 100% of the installations are funded at the highest incentive level proposed for the program and that 100% of the installations include energy storage systems.
- ii. Cumulative deployment of solar PV –including efficiency and storage– over an anticipated ten-year lifetime of the incentive program would be **317 MW**. If the inclusion of energy storage devices is adjusted to 50% of the properties, which is a more realistic expectation, the estimated added generation capacity would be 354 MW. If more blended funding scenarios are used to reflect the different incentive structures proposed the estimated PV capacity could exceed 400MW.
- iii. Inclusion of storage devices could increase annual affordable housing electric bill savings by an *additional \$21 million per year* over the lifetime of the program, amounting to \$317 million in storage-enabled saving over the anticipated life of the systems.

**Table 8 – AB 693 Capacity Generation Analysis
Estimated Outcomes of Integrated Solar Energy Systems**

Year	PV incentive (\$)	Storage incentive (\$)	PV capacity (MW)	Cumulative PV capacity (MW)	Annual storage savings (million\$)	Cumulative storage savings (million\$)
1	764,000	180,000	22.9	22.9	1.5	1.5
2	710,520	171,000	24.5	47.4	1.6	3.1
3	660,784	162,450	26.2	73.6	1.7	4.8
4	614,529	154,328	28.1	101.7	1.9	6.7
5	571,512	146,611	30.1	131.8	2.0	8.7
6	531,506	139,281	32.2	164.0	2.1	10.8
7	494,301	132,317	34.5	198.5	2.3	13.1
8	459,699	125,701	36.9	235.4	2.5	15.6
9	427,521	119,416	39.5	274.9	2.6	18.2
10	397,594	113,445	42.3	317.1	2.8	21.0

¹³⁵ Joint Proposal Nonprofit Solar Stakeholders Coalition, August 3, 2016. Section VIII, p.62.

VI. Local Hiring

Several parties agreed with the Coalition’s proposal that “local hiring requirements” should focus more on job placement than the MASH program did.¹³⁶ The Coalition supports party recommendations to increase the number of hours that one trained worker could work as a way to achieve a more meaningful work experience that could assist in long-term job placement¹³⁷ However, the Coalition, like Greenlining, recommends that job placement be the primary focus of the local hiring requirements mandated by AB 693, which can leverage the success of existing job training programs that have already produced large numbers of skilled workers.¹³⁸

A focus on hiring versus training complies with the plain language and intent of AB 693. Indeed, the plain language of AB 693 states “local *hire*” and not “job training” or “employment opportunities.” If the Legislature intended AB 693 to focus on job training, it would have used the term “job training” or “employment opportunities” like it did in AB 217, the bill extending the SASH and MASH programs.¹³⁹ Thus, proposals to continue the same job training under MASH with no modifications¹⁴⁰ do not satisfy the statutory requirements of AB 693.¹⁴¹

¹³⁶ See, e.g., Nonprofit Solar Coalition, pp. 64-64; CSE, pp. 14-16 (“CSE views job placement as a critical component to ensure a robust local hiring requirement.”); Greenlining, p. 6 (asserting that the program “likely does not need a training component” because “there are many effective solar and energy efficiency programs run by nonprofit organizations, unions, community colleges, and Workforce Investment Boards”); Custom Solar, pp. 14-15 (Aug. 3, 2016) (recommending hiring residents from local communities, graduates of local community colleges or state universities, and local businesses, and provide on-site training); GRID, pp. 13-15 (recommending more hours for each placed trainee and providing trainees with “employment resources to help them obtain full-time employment after their AB 693 installation experience”); CalSEIA, p. 18 (recommending fewer trainees working more hours).

¹³⁷ See, e.g., CalSEAI, p. 18; Energy Freedom Coalition, p. 14; Everyday Energy, p. 21; SCE, p. 13; GRID, p. 13 (recommending “revising the requirements [for MASH] ... to provide more training hours, but for fewer trainees”).

¹³⁸ Nonprofit Solar Coalition, pp. 64-64; Greenlining, p. 6.

¹³⁹ Cal. Pub. Util. Code § 2852(d)(3) (requiring “job training and employment opportunities in the solar energy and energy efficiency sectors of the economy”).

¹⁴⁰ See, e.g., SDG&E, p. 23 (proposing that local hiring requirements under AB 693 could “mirror what is required in the current MASH program,” leveraging existing networks of stakeholders and community-based organizations); MASH Coalition, p. 16.

¹⁴¹ *Compare Campbell v. Zolin* (1995) 33 Cal. App. 4th 489, 497 (“Ordinarily, where the Legislature uses a different word or phrase in one part of a statute than it does in other sections or in a similar statute

Like the Coalition, several parties recommended prioritizing certain workers or defining “local” to include only certain workers. For example, CalSEIA suggested “giving priority to training and hiring individuals meeting the criteria of Section 2870(a)(3) ... [to] provide additional opportunities for economic development in disadvantaged communities and people with low income.”¹⁴² Similarly, Greenlining recommended defining local worker as a resident of the top 25 percent CES DACs or someone who resides in a household with income at or below sixty percent of the AMI.¹⁴³ CSE recommended referring workers that live in close proximity to the projects to the extent possible and developing and maintaining a data base that includes skilled work that meet AB 693 eligibility criteria.¹⁴⁴ The Coalition strongly support these positions to the extent they align with the intent of AB 693 by targeting communities that may be the most in need of economic opportunities. That is, the Commission should prioritize local hiring from DACs and low-income households while maintaining a broad definition of “local resident” as an individual residing in the same county as the project or an individual hiring from a job-training organization located in the same county as the project.

The Coalition further recommends, as it did in the Joint Proposal, that workers from low-income and disadvantaged communities be prioritized for projects sited in their communities. The Coalition also continues to urge the prioritization of “disadvantaged workers” to target workers who face barriers to employment. Because these workers need only be prioritized, installing solar systems should not be delayed or hindered because the program administrator and contractor would have the flexibility to select workers who do not meet any of these criteria when prioritized workers are unavailable.¹⁴⁵

concerning a related subject, it must be presumed that the Legislature intended a different meaning.”) *with People v. Frausto* (2009) 180 Cal. App. 4th 890, 899-900, *as modified* (Jan. 13, 2010) (“[I]dential terms in analogous statutes are to be construed in like manner.”).

¹⁴² CAISEIA, p. 18.

¹⁴³ Greenlining, p. 5.

¹⁴⁴ CSE, p. 15; see also PG&E, p. 11 (“Hiring from the local community should be the primary goal of the MAHSR program.”); City of Lancaster, p. 9 (“The Commission should encourage local hiring to better benefit disadvantaged communities and encourage the growth of local jobs in clean energy.”).

¹⁴⁵ Nonprofit Solar Coalition, pp. 66-67.

VII. AB 693 Cap and Trade Funding Allocations

SDG&E and PG&E (SDGE/PGE) incorrectly interpret the meaning of “available funds” under AB 693. AB 693 requires that “one hundred million dollars (\$100,000,000) or 10 percent of available funds, whichever is less, from the revenues described in subdivision (c) of Section 748.5” be allocated to the Multifamily Affordable Housing Solar Roofs Program.¹⁴⁶ Section 748.5(c), in relevant part, states that the Commission “may allocate up to 15 percent of the revenues ... for clean energy projects and energy efficiency projects”¹⁴⁷ SDGE/PGE interpret Section 2870(c)’s use of “available funds” followed by reference 748.5(c) to argue that funding for AB 693 is only 10 percent of the 15 percent of greenhouse gas (GHG) proceeds set aside for clean energy projects, not 10 percent of the *total* annual GHG allowance auction proceeds.¹⁴⁸ The Commission must reject this cursory legal analysis that belies well-recognized canons of statutory construction.

SDGE/PGE erroneously solely rely on the plain language of AB 693, which is ambiguous at best. Contrary to the utilities’ interpretation, Section 2870(c) could also be interpreted as requiring 10 percent of total available funds from all GHG allowance proceeds, referencing Section 748.5(c) because the program would be specifically for clean energy projects.¹⁴⁹ Since the language could be interpreted as ambiguous, SDGE/PGE’s legal analysis ends far too soon. Indeed,

[a] fundamental rule of statutory construction is that a court should ascertain the intent of the Legislature so as to effectuate the purpose of the law. In construing a statute, our first task is to look to the language of the statute itself. When the language is clear and there is no uncertainty as to the legislative intent, we look no further and simply enforce the statute according to its terms.

In examining the language of the statute, *we must consider the context of the statute and the statutory scheme of which it is a part.* We are required to give effect to statutes according to the usual, ordinary import of the language employed in framing them. If possible, significance should be given to every word, phrase, sentence and part of an act in pursuance of the legislative purpose. When used in a statute [words] must be

¹⁴⁶ Cal. Pub. Util. Code. § 2870(c).

¹⁴⁷ Cal. Pub. Util. Code. § 748.5(c).

¹⁴⁸ SDG&E, p. 30; PGE, pp. 37-38.

¹⁴⁹ See Cal. Pub. Util. Code. § 2870(c).

construed in context, *keeping in mind the nature and obvious purpose of the statute where they appear*. Moreover, the various parts of a statutory enactment must be harmonized by *considering the particular clause or section in the context of the statutory framework as a whole*.¹⁵⁰

Therefore, Section 2870(c) must be read in context of AB 693, keeping in mind the purpose of the statute.

When read in context of AB 693 as a whole, it is clear that the Legislature intended to allocate the Multifamily Affordable Housing Solar Roofs Program \$100M or 10 percent of the *total* GHG funds. First, as identified by Everyday Energy when SDG&E first raised this argument in its November opening comments on AB 693 issues, taking only 10 percent of 15 percent of funding for clean energy projects would be “completely out of scale.”¹⁵¹ Everyday Energy presented statistics demonstrating that applying SDG&E’s interpretation would result in approximately \$11.6M of the total \$776M proceeds for 2013.¹⁵² It should be assumed that the Legislature was aware of the previous amounts of auction proceeds when it drafted and passed AB 693.¹⁵³ Thus, following the rules of statutory construction and reading “available funds” in context with “(\$100,000,000) or 10 percent, whichever is less,” it is illogical to interpret AB 693 as only requiring 10 percent of the 15 percent set aside for clean energy projects, a small fraction of \$100M.¹⁵⁴

¹⁵⁰ *Smith v. Workers' Comp. Appeals Bd.* (2002) 96 Cal.App.4th 117, 123-24 (internal quotations and citations omitted) (emphasis added).

¹⁵¹ Everyday Energy Reply Comments on the October 21, 2015 ALJ Ruling Regarding AB 693, p. 7 (Nov. 9, 2015).

¹⁵² Everyday Energy Reply Comments on the October 21, 2015 ALJ Ruling Regarding AB 693, pp. 6-7 (Nov. 9, 2015).

¹⁵³ Cf. *In re Marriage of Bouquet* (1976) 16 Cal. 3d 583, 588 (explaining that courts “assume that the Legislature was aware of judicial decisions” when it passes legislation).

¹⁵⁴ See *Smith v. Workers' Comp. Appeals Bd.* (2002) 96 Cal.App.4th 117, 123-24; see also *Van Nuis v. Los Angeles Soap Co.* (Ct. App. 1973) 36 Cal.App.3d 222, 228–29 (citations omitted) (“It will be presumed that every word, phrase and provision used in a statute was intended to have some meaning and to perform some useful office, and a construction making some words surplusage is to be avoided.”).

Second, the Legislative purpose of AB 693 is “to install qualifying solar energy systems that have a generating capacity equivalent to at least 300 megawatts”¹⁵⁵ Everyday Energy highlighted that under SDG&E’s interpretation, meeting this goal “would result in a [solar] price of \$0.39 per watt.”¹⁵⁶ This is compared to \$2.59 per watt, an aggressive assumption for the cost of solar to meet the 300 MW goal.¹⁵⁷ Not only does the utilities’ reading of AB 693 run counter to the rule of statutory interpretation to read the statute as a whole to ascertain the intent of the Legislature, it also violates the rule that “any construction which would lead to absurd results should be rejected, provided, of course, nothing stands in the way of a different and more rational construction, since absurd results are not supposed to have been contemplated by the legislature.”¹⁵⁸

Moreover, AB 693 allows for up to 10 percent of the budget to go to program administration.¹⁵⁹ The allocation of funds for administration would further diminish the availability of funds for incentives and therefore additionally impeded the 300 MW goal. This further highlights the absurdity of SDGE/PGE’s interpretation.

Fourth, the Legislature also included a provision in AB 693 that would require uncommitted funds be returned to ratepayers at the end of the three-year evaluation if there was inadequate interest in the program.¹⁶⁰ Based on the success of MASH 2.0, which only established \$54M additional incentive dollars and was quickly fully subscribed, it would seem illogical to assume that a program with some similarities as MASH would have unsubscribed funds at the end of the first three years if only about \$11.M in incentives was available annually.

¹⁵⁵ AB 693 Section 1(f).

¹⁵⁶ Everyday Energy Reply Comments on the October 21, 2015 ALJ Ruling Regarding AB 693, p. 7 (Nov. 9, 2015).

¹⁵⁷ Everyday Energy Reply Comments on the October 21, 2015 ALJ Ruling Regarding AB 693, p. 7 (Nov. 9, 2015).

¹⁵⁸ See *Reuter v. Bd. of Sup'rs of San Mateo Cty.* (1934) 220 Cal. 314, 32 (internal citations and quotations omitted); see also *Castaneda v. Holcomb*, (1981) 114 Cal.App.3d 939, 942–43 (citations omitted) (“If the language of the provision is free of ambiguity, it must be given its plain meaning; rules of statutory construction are applied only where there is ambiguity or conflict in the provisions of the charter or statute, or a literal interpretation would lead to absurd consequences.”).

¹⁵⁹ Cal. Pub. Util. Code § 2870(e).

¹⁶⁰ Cal. Pub. Util. Code § 2870(j)(2).

In other words, if SDG&E and PGE’s argument is correct, the Legislature contemplated that the AB 693 program may have uncommitted funds based on an estimated amount that would be significantly less than MASH 2.0, where funds were far fewer funds were exhausted d in a short amount of time.

If interpreting the statute within its four corners leaves any doubt, the legislative history of AB 693 is conclusive. “If [a court finds] the statutory language ambiguous or subject to more than one interpretation, [it] may look to extrinsic aids, including legislative history or purpose to inform our views.”¹⁶¹ Here, there are several crucial statements in the legislative history that clarify the meaning of Section 2870(c). First, bill analysis mentions the possible ambiguity:

Additionally, this bill restricts the grant program from receiving 10% of available funds from revenues described in §748.5(c), which is 15% of allocation revenues. It is unclear whether this program is limited to 10% of all allocation revenues or 10% of the 15% of the revenues allocated for clean energy and energy efficiency projects. Staff recommends that this allocation be clarified. Staff further notes that this program will result in reduced credits to electricity consumers as a result of the sale of Cap-and-trade allocations, including the state.¹⁶²

Although the language of the bill was never changed based on this analysis,¹⁶³ later legislative history makes it clear that AB 693 is intended to utilize 10 percent of the total available GHG allowance revenues. Bill analysis a few weeks after the potential ambiguity was raised, states that AB 693 “[r]equires the CPUC to authorize \$100 million annually or *10% of funds, whichever is less, from the IOUs’ cap-and-trade allowance revenues* to fund a financial assistance program for qualifying solar energy systems on low-income multifamily housing properties.”¹⁶⁴ Further, the same bill analysis also states:

¹⁶¹ *John v. Superior Court* (2016) 63 Cal.4th 91, 96 (citations omitted).

¹⁶² August 24, 20015 - Senate Committee on Appropriations, p. 3
https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201520160AB693.

¹⁶³ Compare AB 693 versions 8/18/15 through 10/8/15 (chaptered),
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB693.

¹⁶⁴ Sept. 8, 2015 – Senate Floor Analysis, Senate Rule Committee, p. 3,
https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201520160AB693; *see also*

By appropriating \$100 million annually from the roughly \$1 billion in annual allowance revenues, AB 693 will reduce the funding available, by about 10 percent, for the climate credit and other clean energy and energy efficiency projects. Currently, San Diego Gas and Electric has submitted an application to the CPUC to fund its proposed 22 year, \$100 million electric vehicle charging pilot program with allowance proceeds. Additionally, individual climate credits could be reduced from nine to 20 percent, or roughly \$2-6 less per \$30 semi-annual credit.¹⁶⁵

The legislative history of AB 693 therefore clarifies that the Legislature intended AB 693 to receive \$100M or 10 percent of all available funds, not just 10 percent of the set aside for clean energy projects. SDGE/PGE failed to read AB 693 as a whole and omitted an examination of clarifying legislative history. The Commission must therefore reject their interpretation.

VIII. Program Administration

Several party comments and proposals provided strong cases for third party program administration. In deciding what structure is most appropriate for AB 693, the Coalition requests that the Commission weigh the full range of responsibilities and technical support services that will be necessary to implement the program. We think these responsibilities are well covered in the comments and proposals so we will not review these comments except to support GRID's experience on what affordable housing providers need. GRID states:

many property owners in this sector require support and a trusted consumer advocate in order to successfully navigate the complicated tax financing structures of these properties, understand the technical aspects and costs of solar and energy efficiency measures, and ensure the contractual structure they are agreeing to ensures long-term benefit for their property and its tenants. A single statewide administrator could provide assistance, expertise, and be a consumer advocate for these building owners/operators – many of whom will be navigating solar for the first time if the Program is to make significant inroads in impact and scope.¹⁶⁶

Additionally, should the Commission be looking for a real world statewide energy program model that administers both solar PV and energy efficiency, we would refer the

Everyday Energy Reply Comments on the October 21, 2015 ALJ Ruling Regarding AB 693, pp. 7-8 (Nov. 9, 2015) (citing Office of Senate Floor Analysis, AB 693 Bill Analysis, September 8, 2015).

¹⁶⁵ Sept. 8, 2015 – Senate Floor Analysis, Senate Rule Committee, p. 5, https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201520160AB693 (emphasis added).

¹⁶⁶ GRID, p. 20.

Commission to the Department of Community Resources Development (CSD) and the Association for Energy Affordability (AEA). These entities oversee and administer a well-funded statewide program, funded from Cap and Trade revenue proceeds, LIWP, that is targeted at low-income and DACs, and that has established cost controls and requirements that are consistent with many of the requirements applicable to AB 693. These organizations are not parties to the proceeding and can offer independent insight and support to the Commission.

A. Third Party Selection Process

While several parties made recommendations about the administrative structure for the Program, few had worked through specific recommendation regarding the process for selecting a third party administrator. In this regard, the Coalition considers TURN's comments to provide useful advice. Specifically, we agree with the recommendation that CPUC staff should oversee the selection and that the proposals should be evaluated based on the Program Administrator's ability to effectively administer all aspect of the program, inclusive of community engagement in DACs, technical support for project development, and energy efficiency.

We also agree with TURN that:

The Program Administration contracts should be multi-year but limited in term to allow the selected administrator to get the Program started and provide consistency for participants. The CPUC should require program evaluations to determine the effectiveness of the program administrator and the evaluations should be used to determine whether or not to renew the administration contract, or if a second competitive solicitation is required after the first program administrator term is completed.¹⁶⁷

The Nonprofit Solar Stakeholder Coalition further agrees with TURN that:

The Commission should create a program advisory council or similar forum for interested stakeholders to participate in. The program advisory council should include representatives from a range of interested groups including but not limited to, Commission staff, consumer/ratepayer advocates, low-income advocacy and/or environmental justice groups and the utilities. The council should oversee the implementation of the Program and should be a resource for

¹⁶⁷ TURN, p. 20.

the program administrator.¹⁶⁸

B. New Requirements Needed to Ensure Program Access and Geographic Diversity

The parties each made recommendations with the administrative requirements that could be carried over from MASH as well as new programmatic requirements that are necessary to address the different goals, mandates highlighted in Table 1 of this response, and fund controls and budgeting issues. As the responses to these points are generally well covered in the comments and proposals, the Coalition wishes only to address three issues:

Program Reservation: In addressing concerns about program access and competition under the Program, GRID stated that:

“it is important in the Program design to avoid the result of the MASH 1.0 and MASH 2.0 programs in which all of the incentive reservations “sold out” quickly, often with projects that were effectively “placeholders” and did not come to fruition.¹⁶⁹

This result limits competition and access. To address this issue, The Coalition agrees with two of the prescriptions proposed by GRID¹⁷⁰ with some modification to mitigate adverse impact to solar providers/developers. We recommend that the Commission adopt the recommendations below:

- (1) The Program should design the reservation system so that reservations are permitted and approved only for “viable” projects, rather than “placeholder” applications that may or may not have a fully-developed project behind them.
- (2) The Program should set a percentage limitation on the number of projects that any one housing entity can reserve in any given quarterly funding cycle.

MASH Transfers: The MASH Program currently allows for a transfer of a MASH rebate to another property with common ownership within 180 days as long as it can be demonstrated that the originally reserved project was infeasible and a non-negligible amount of money had been spent developing the project. For many of the same reasons noted by GRID above this practice should be prohibited under AB 693. The ability of some solar providers to monopolize MASH reservations on behalf of their housing clients, and move reservations around the properties of that housing organization, has resulted in locking out other housing providers and

¹⁶⁸ TURN, p. 20.

¹⁶⁹ GRID, p. 18.

¹⁷⁰ GRID, p. 19.

their tenants from getting access to MASH program incentives. By adopting the recommendations proposed by GRID all properties would have fairer access to incentives made available through funding increments provided to the Program.

Limitations on Extensions: PG&E recommends that a limit to the amount of extensions is needed for the Program to “prevents the potential for poaching and holding valuable incentives for installations that may not be feasible at the time of filing the application.”¹⁷¹ The Coalition agrees that limiting the amount of extensions that can be requested will ensure that applications are only initially submitted after a system has been found to be viable to be installed and will prevent the holding of incentive dollars in perpetuity instead of advancing the admirable goals of the program to bring renewable energy to low-income tenants. Again, this proposal is complementary to the issues identified in the MASH program that are detrimental to providing fair and open access to the Program enacted by AB 693.

IX. CONCLUSION

The Coalition thanks the Commission for the opportunity to provide these response comments and encourages the Commission to adopt the Coalitions recommendations.

Respectfully submitted, August 16, 2016

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¹⁷¹ PG&E, p. 22.

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