



July 15, 2013

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Docket No. 13-IEP-1: Reply Comments of Petitioners on the Petition for Societal Cost-Benefit Evaluation of California's Net Energy Metering Program

On June 5, 2013, American Lung Association in California, Asian Pacific Environmental Network, Brightline Defense Project, California Center for Sustainable Energy, California Environmental Justice Alliance, California Solar Energy Industries Association, Coalition for Clean Air, Distributed Energy Consumer Advocates, Environment California Research & Policy Center, Environmental Defense Fund, Interstate Renewable Energy Council, Inc., Local Energy Aggregation Network, Dr. Luis Pacheco, Presente.org, Sierra Club, Solar Energy Industries Association, and the Vote Solar Initiative ("Petitioners") submitted a Petition for Societal Cost-Benefit Evaluation of California's Net Energy Metering Program ("Petition") to the California Energy Commission ("CEC" or "Commission"). Specifically, Petitioners requested that the Commission take the following actions:

1. Undertake a narrowly tailored study of the societal costs and benefits of the net energy metering ("NEM") program — quantifying the value of energy generated by NEM customers that is exported to the grid and the value of all energy generated by NEM customers that is used on-site — to supplement the California Public Utilities Commission's ("CPUC") forthcoming ratepayer impact cost-effectiveness evaluation of the NEM program, and prepare and submit a report on the Commission's study to the Legislature by December 1, 2013; *and*
2. Establish an expedited process to incorporate consideration of the societal costs and benefits of the NEM program into the 2013 Integrated Energy Policy Report ("IEPR").

The Commission docketed the Petition in the above-referenced proceeding and invited parties to submit written comments on the Petition by June 28, 2013, and reply comments by July 15, 2013. More than 5,000 written comments have been submitted. These comments overwhelmingly support the Petition and request that the Commission perform a societal cost-benefit evaluation of the NEM program. Petitioners respectfully submit the following reply to the comments submitted on the Petition.

I. PETITIONERS' REPLY TO COMMENTS SUBMITTED ON THE PETITION

The cost of solar PV technology is falling, consumer interest in solar PV is rising, federal incentives for solar PV investment will continue through at least 2015, and electricity rates are projected to rise.¹ As a result, solar PV is “in the money” for 16% of the U.S. retail electricity market, and projections suggest that this number may increase to 33% by 2017.²

These macroeconomic conditions are helping produce a paradigm shift in California in which innovative policies, financing and technological solutions are linking consumers and energy sources more intimately than ever before. California is the nation's leader in the market for the installation of solar PV generation to serve the onsite electricity needs of homes, businesses, schools, and other institutions. 1,560 megawatts of solar PV installations are currently operating on 150,000 homes and buildings in California. Expectations are that Californians' embrace of solar PV generating equipment to serve onsite energy needs will only continue to increase.³

More than 5,000 individuals, organizations, and government entities submitted comments in support of the Petition, requesting that the Commission evaluate the societal benefits of NEM. These organizations include leaders in the business community including the Los Angeles Business Council and Silicon Valley Leadership Group; the City of San Diego; and environmental justice, public health, and clean energy advocacy organizations including Center on Race, Poverty and the Environment, Clean Coalition, Communities for a Better Environment, and Environmental Health Coalition.

In reviewing the comments submitted on the Petition, Petitioners are reminded of the adage that one's stand or position on a matter often depends on where one sits. For Petitioners and the thousands of individuals and organizations that submitted comments in support of the Petition, the growth in onsite solar PV generation under NEM is a positive trend for the State of California. Supporters see NEM as a core public policy that has enabled solar PV growth in California, contributed to its status as the national leader in installed solar

¹ Edison Electric Institute, *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business*, pp. 4-5 (January 2013).

² *Id.*

³ See Comments of Pacific Gas and Electric Company (“PG&E”) at p. 5.

PV capacity and solar industry jobs, and reduced greenhouse gas emissions and localized air impacts from emissions from conventional, fossil fuel generating facilities. With the Petition, Petitioners seek to illuminate the societal benefits of this widespread and rapid expansion of solar PV deployment under California's NEM program.

The state's investor-owned utilities, in contrast, may be negatively impacted by the decisions of California's residents, businesses, schools, and other institutions to use solar PV generation to serve onsite electricity needs. It is therefore not surprising that California's investor-owned utilities are among the only parties that oppose an evaluation of the societal costs and benefits of NEM to California.⁴ Their comments on the Petition focus disproportionately on the extent to which customer self-generation under state-mandated NEM programs may require utilities to satisfy shareholder appetite for expanded revenue from a decreasing base of electricity sales.⁵ Investor-owned utilities therefore seem to view NEM as a threat to utility profit, and seek to modify the NEM program while opposing evaluation of the NEM program's societal impacts.⁶ This points to the conclusion that the investor-owned utilities object to the further study of the NEM program requested by Petitioners because they are afraid of the results.

Petitioners believe that the investor-owned utilities' opposition is not an appropriate reason to deprive all other stakeholders and the Legislature of an analysis of the societal cost and benefits associated with Californians' embrace of onsite solar PV generation under NEM. Concerns regarding rate design and utility revenue are appropriately addressed at the CPUC, the agency with jurisdiction over investor-owned utility rates and revenue recovery, which already is in the process of addressing the ratepayer impacts of NEM.⁷

⁴ Petitioners, however, note SCE's support in principal for comprehensive assessment of cost-effectiveness of utility programs. SCE at p. 2.

⁵ See generally Comments of PG&E; Southern California Edison ("SCE"); and San Diego Gas and Electric Company ("SDG&E").

⁶ See PG&E at p. 2; SCE at p. 4; SDG&E at p. 2. See also the Edison Electric Institute report cited in footnote 2 for a more thorough discussion of this issue.

⁷ Petitioners note SDG&E's agreement that "IOU rate design issues, distinct from the issue of the societal benefits of distributed renewable generation in general, are jurisdictional to the California Public Utilities Commission and subject to ongoing CPUC proceedings." SDG&E at p. 2.

Petitioners believe a societal cost-benefit evaluation of NEM will not duplicate the ongoing efforts at the CPUC and that a meaningful evaluation of the societal benefits of NEM can be conducted within the timeframe proposed in the Petition. Societal benefits of NEM are also an important topic for inclusion in the 2013 IEPR. Suggestions regarding appropriate inputs and methodologies for evaluating NEM benefits are well within the competence of this Commission to address as it moves forward with an evaluation of the societal benefits of NEM.

A. A CEC Evaluation of the Societal Benefits of NEM Will Not Duplicate Ongoing CPUC Efforts to Evaluate Ratepayer Impacts of NEM.

Utility comments suggest that a societal benefit evaluation of NEM will duplicate or contradict efforts that are already underway at the CPUC.⁸ However, on closer examination, the utility comments actually reinforce that the societal cost-benefit study proposed in the Petition and supported by over 5,000 public comments is a very different analysis than the one that is underway at the CPUC.

Two relatively recent events necessitated a CPUC review of potential rate impacts of NEM programs. First, CPUC Decision (D.) 12-05-036 (issued May 2012), which clarified the method for calculating utility NEM program enrollment caps, also required the CPUC's Energy Division to oversee the preparation of an updated NEM cost-effectiveness study, which the CPUC required to be completed no later than October 1, 2013.⁹ Second, and subsequent to the CPUC's issuance of D.12-05-036, the Legislature enacted AB 2514 (2012), which requires the CPUC to complete a study of "who benefits from, and who bears the economic burden, if any, of, the net energy metering program authorized pursuant to Section 2827" and requires the CPUC report to the Legislature by October 31, 2013.¹⁰ Pursuant to these directives, the CPUC's Energy Division has undertaken an analysis of ratepayer impacts associated with the NEM program.

A Commission-initiated study of the societal benefits of NEM, including both environmental and economic benefits, will not duplicate the CPUC's efforts and will instead

⁸ See, e.g., PG&E at pp. 3-5; SCE p. 2.

⁹ Petition at p. 11.

¹⁰ Petition at pp. 11-12.

supplement the CPUC’s ratepayer impact study and provide the Legislature, other decision-makers, and stakeholders with a more complete and accurate picture of NEM’s beneficial impact on California’s economy and environment. These societal benefits complement the ratepayer benefits of NEM policy that the CPUC is measuring.

Despite utility protestations about possible duplication or contradiction, PG&E concedes that the CPUC study “excludes the broader societal benefits the Petitioners now seek to have the CEC study.”¹¹ Moreover, PG&E acknowledges that both AB 2514 and CPUC D. 12-05-036 address the rate impact of NEM to non-participating customers.¹² The societal cost-benefit study requested by Petitioners will help quantify the other impacts of NEM to non-participating customers that will not be included in the CPUC study.

As noted in the Petition, societal benefits of NEM were important considerations to the Legislature in establishing the NEM program. Public Utilities Code Section 2827(a) sets forth the Legislature’s findings “that a program to provide net energy metering [. . .] for eligible customer-generators is one way to encourage substantial private investment in renewable energy resources, stimulate in-state economic growth, reduce demand for electricity during peak consumption periods, help stabilize California’s energy supply infrastructure, enhance the continued diversification of California’s energy resource mix, reduce interconnection and administrative costs for electricity suppliers, and encourage conservation and efficiency.” An evaluation of the societal benefits of NEM, as proposed in the Petition, will thus illuminate the list of societal benefits identified in the Legislature’s findings.

Petitioners believe consideration of the societal benefits will aid a fair and more complete valuation of energy exports from NEM systems enjoyed by utility customers. The Commission can achieve this objective without intruding on the jurisdiction of the CPUC or modifying or affecting the results or conclusions of the CPUC’s ongoing study. A properly scoped study of the societal costs and benefits of NEM will, instead, provide a more comprehensive picture of whether NEM policy is a net cost or benefit for the State of California. Absent action by this Commission, the Legislature may be placed in the position of evaluating the NEM program based on information that does not account for the many

¹¹ PG&E at p. 5.

¹² PG&E at p. 5.

significant societal benefits of onsite generation that led to the adoption of the NEM program in the first place.

Petitioners do not believe the Commission should wait for completion of the CPUC study, as suggested by SCE, before moving forward with an evaluation of the societal benefits of NEM.¹³ As noted above, the CPUC study will not address the societal benefits of NEM systems. The Commission need not release any results of its evaluation prior to issuance of the CPUC study, but there is no reason the Commission cannot begin work on its evaluation prior to issuance of the CPUC study.

Some parties favor expanding the investigation of societal benefits to NEM systems located outside of IOU service areas, which was proposed by SDG&E.¹⁴ CPUC jurisdiction is limited to consideration of the rate impact of NEM systems within the investor-owned utilities' service territories, and a supplement to the CPUC's study should consider the statewide societal costs and benefits of those same NEM systems. Examination of the societal costs and benefits produced by NEM systems within the service territories of municipal utilities would not complement the scope of the CPUC study. Thus, the Petitioners request that the Commission supplement the CPUC study by focusing the requested analysis only on NEM systems installed in the investor-owned utilities' service territories, reserving analysis of NEM systems located elsewhere for a later date.

B. An Evaluation of Societal Benefits of NEM Systems Can Be Completed Within The Timeframe Proposed in the Petition.

The Petition requests that the Commission undertake a narrowly tailored study of the societal costs and benefits of NEM systems and prepare and submit a report on the Commission's study to the Legislature by December 1, 2013.¹⁵ The utilities believe this timeframe may be overly ambitious.¹⁶ The Petition stresses that time is of the essence. Room

¹³ SCE at p. 2.

¹⁴ See, e.g., SDG&E at p. 4.

¹⁵ Petition at p. 2.

¹⁶ PG&E at p. 3 ("If the CEC wanted to study these matters, significant time would be needed to resolve controversies, develop study parameters, perform analysis, seek stakeholder feedback on the analysis, and develop a final report."); SCE at p. 2 ("A thorough study of the societal costs and benefits cannot possibly be adequately

under the existing statutory enrollment caps is rapidly filling, the CPUC has raised the specter of a program suspension on January 1, 2015 if certain prerequisites to a continuation are not met,¹⁷ and the Legislature and stakeholders will be looking to the CPUC analysis to guide decision-making about the future of NEM in California.¹⁸

Petitioners believe NEM is a core public policy that is essential to achieving Governor Brown's goal of installing 12,000 MW of local renewable energy capacity by 2020 and is necessary to accomplish the goals of the New Solar Homes Partnership (“NSHP”), which is intended to help create a self-sustaining market for the construction of new, energy efficient solar homes. NEM is also critical to the success of other programs and goals under the Commission’s purview, including the Zero Net Energy (“ZNE”) goals for new construction buildings adopted as part of the Commission’s long-term planning through the Integrated Energy Policy Report. Achieving NSHP and ZNE goals will continue to depend on the existence of NEM, which enables customers to offset nighttime power use with more valuable daytime, peak power exported to the grid to achieve “zero” net energy consumption.

A December 1, 2013 timeframe for completion of the Commission’s study is appropriate to illuminate the societal benefits of NEM to aid a fair and complete valuation of energy exports from NEM systems. Petitioners believe a meaningful evaluation of the societal benefits of NEM *can* – and to have greater impact on important discourse on this topic – *should* be conducted within the timeframe proposed in the Petition.

C. Societal Benefits of NEM Is An Appropriate Topic for the 2013 IEPR.

In addition to proposing an evaluation of the societal benefits of NEM systems by December 1, 2013, the Petition separately proposes that the Commission include a discussion of the societal cost and benefits of NEM in the 2013 IEPR.¹⁹ PG&E and SDG&E conflate these two requests in complaining that completion of the requested study will crowd out other

conducted by December 1, 2013, as proposed by the Petitioners.”); SDG&E at p. 4 (“It is unlikely the Energy Commission could develop a list of societal benefits by December that parties would agree on, let alone valuation of those benefits.”)

¹⁷ Petition at p. 11.

¹⁸ Petition at p. 12.

¹⁹ Petition at p. 2.

important topics within the IEPR.²⁰ To be clear, Petitioners have not proposed that this Commission include a full quantitative analysis of the societal costs and benefits of NEM in the 2013 IEPR. Petitioners propose an evaluation of the societal benefits of NEM systems by December 1, 2013. Separate from that, Petitioners request that a discussion of the societal cost and benefits of NEM be included in the IEPR.

As discussed above and in the Petition, the NEM program is a cornerstone of clean energy policy that directly supports and advances several programs or initiatives within the Commission's purview. More than 5,000 individuals and organizations submitted comments in support of the Petition,²¹ many noting that NEM is an important part of California's energy policy framework and is expected to play a significant role in helping achieve Governor Brown's goal of installing 12,000 MW of local renewable energy capacity by 2020.²²

Given the importance of NEM to supporting the Commission's administration of vital energy programs and initiatives, it would be unfortunate to exclude a discussion of the importance of NEM from the 2013 IEPR. Accordingly, Petitioners encourage the Commission to include a general characterization of the societal cost and benefits of NEM in the 2013 IEPR. A more complete quantitative analysis of the societal benefits of NEM systems can be completed by December 1, 2013.

D. Suggestions Regarding Methodology And Data Inputs Can Be Taken Into Account In Performing the Societal Cost-Benefit Analysis of NEM.

The utilities appear to suggest that, because there may be disagreement about methodologies and inputs to a societal cost-benefit analysis, perhaps the Commission should not move forward at all.²³ Petitioners disagree. The Petition proposes a preliminary list of

²⁰ PG&E at p. 3; SDG&E at p. 1.

²¹ *See, e.g.*, California Business Properties Association (June 27, 2013); Communities for a Better Environment (June 28, 2013); Center on Race, Poverty & the Environment (June 28, 2013); the City of San Diego (June 28, 2013); Los Angeles Business Council (June 28, 2013); Silicon Valley Leadership Group (June 24, 2013); Clean Coalition (June 28, 2013); Environmental Health Coalition (June 28, 2013).

²² *Id.*

²³ PG&E at p. 2 ("No method of quantifying the value of these claimed benefits or establishing a causal link to the energy industry is offered in the Petition."); SCE at pp. 3-4 ("Most of the societal non-energy benefits included in the Petitioner's list are

societal benefits to be examined and quantified on a per kilowatt-hour basis, which matches how the CPUC study is likely to express net benefits or net costs of the NEM program. The Petition accepts that other stakeholders and the Commission may wish to propose additional categories.²⁴ Petitioners also accept that suggestions regarding methodology and data inputs can be taken into account and addressed by the Commission in performing a societal cost-benefit analysis of NEM.²⁵

Petitioners believe proposals regarding cost allocation and rate redesign should not be included in a study of societal benefits undertaken by this Commission,²⁶ as such an expanded scope would be inappropriately duplicative of efforts already underway at the CPUC.

II. CONCLUSION

Granting of the Petition is appropriate pursuant to the general authority granted to the Commission by Public Resources Code Sections 25400, 25000.1, and 2500 and is reasonable, in the public interest, and supports the Commission’s administration of vital energy programs and initiatives. The record created during the public comment period established by the Commission demonstrates broad and overwhelming public support for the Petition and the requested societal cost-benefit study.

The institutional scope of the Commission—to study and develop policy recommendations regarding the state’s energy future—makes it well suited to provide a supplemental analysis to capture the benefits of the more generalized legislative goals of NEM, which are beyond the CPUC’s focus on jurisdictional ratepayers. Limiting the Commission’s consideration of costs and benefits to societal costs and benefits will ensure there is no duplication of the efforts underway at the CPUC and will avoid encroaching on CPUC-specific concerns with ratepayer impacts. And, as explained in the Petition, the

highly uncertain and mostly unquantifiable, and attempts to quantify these effects for valuation often lead to unreliable results.”)

²⁴ Petition at p. 22.

²⁵ Petitioners have no objection to the recommendation by CPUC’s Division of Ratepayer Advocates (“DRA”) that if the Petition is granted, Commission staff should consult with CPUC staff regarding methodologies for estimating the societal costs and benefits of all demand-side resources. See Comments of DRA at p. 2.

²⁶ PG&E at p. 2; SDG&E at p. 2.

Commission has broad authority to consider environmental and labor market benefits that go beyond the scope of costs and benefits that are narrowly addressed in the CPUC's ratepayer impact analysis.²⁷

The Petitioners appreciate the opportunity to file this reply and respectfully request that the Commission grant the Petition.

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²⁷ Petition at pp. 17-18.

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