

**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)

**CLEAN COALITION POST-WORKSHOP REPLY COMMENTS**

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## CLEAN COALITION POST-WORKSHOP REPLY COMMENTS

### I. INTRODUCTION

On August 11, 2014, the California Public Utilities Commission (“CPUC”) Energy Division staff conducted a public workshop on a methodology known as the “Public Tool” that will test options for a successor to the existing net energy metering (“NEM”) tariffs. Administrative Law Judge Simon subsequently issued a ruling seeking responses to a series of questions related to the Public Tool on September 5, 2014. A number of parties, including the Clean Coalition, submitted comments on the Public Tool on October 1, 2014. The Clean Coalition now offers the following reply comments, which respond to a number of suggestions put forth by other parties in their opening comments.

The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement, interconnection, and realizing the full potential of integrated distributed energy resources (“DER”), such as distributed generation (“DG”), advanced inverters, demand response, and energy storage. The Clean Coalition also works with utilities to develop community microgrid projects that demonstrate that local renewables can provide at least 25% of the total electric energy consumed within the distribution grid, while maintaining or improving grid reliability. The Clean Coalition participates in numerous proceedings before California, other state, and Federal agencies throughout the United States.

### II. RESPONSES TO QUESTIONS

#### *a. Question 3*

The Clean Coalition strongly recommends including a Societal Test in the calculation of total costs and benefits. Despite claims to the contrary,<sup>1</sup> the health benefits associated

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<sup>1</sup> See Opening Comments of Pacific Gas and Electric Company (U 39 E) on Administrative Law Judge’s Ruling Seeking Post-Workshop Comments on the NEM Public Tool at 8–9, R.14-07-002 (Oct. 1, 2014).

with decreasing air pollution from burning fossil fuels is well documented and quantified.<sup>2</sup> A Societal Test is an appropriate metric in ratemaking proceedings because the test will help align CPUC and investor-owned utility (“IOU”) decision-making with California’s broader legislative and policy goals.<sup>3</sup>

*b. Question 4*

Southern California Edison (“SCE”) recommends that the Public Tool not include societal costs and only account for costs and associated values of those costs that are directly reflected in the IOU’s authorized revenue requirements.<sup>4</sup> While the Clean Coalition believes these different types of costs should be differentiated, it is entirely appropriate to account for additional costs and benefits outside of the IOU’s authorized revenue requirements. The CPUC Standard Practice Manual includes a Societal Cost Test.<sup>5</sup> Moreover, the NEM program was created in order to advance the societal goal of renewable energy development, and this goal is included in AB 327, which mandated development of NEM successor tariffs.<sup>6</sup>

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<sup>2</sup> See e.g., S. Coast Air Quality Mgmt. Dist., Health Studies, <http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies> (last visited Oct. 19, 2014); Interagency Working Group on Social Cost of Carbon, Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 (May 2013), available at <http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf>; Am. Lung Ass’n, State of the Air 2014, <http://www.stateoftheair.org/> (last visited Oct. 18, 2014).

<sup>3</sup> See, e.g., CAL. ENERGY COMM’N, INTEGRATED ENERGY POLICY REPORT, CEC-100-2013-001-CMF (2013), available at <http://www.energy.ca.gov/2013publications/CEC-100-2013-001/CEC-100-2013-001-CMF.pdf>; SB 2 (1X) (Simitian, 2011) (revising California’s RPS program goal to 33% in 2020); Cal. Governor’s Office, Clean Energy Jobs Plan, [http://gov.ca.gov/docs/Clean\\_Energy\\_Plan.pdf](http://gov.ca.gov/docs/Clean_Energy_Plan.pdf) (last visited Oct. 15, 2014).

<sup>4</sup> Southern California Edison Company’s (U 388-E) Opening Post-Workshop Comments at 5, R.14-07-002 (Oct. 1, 2014).

<sup>5</sup> CPUC, California Standard Practice Manual (Oct. 2001), available at [http://www.cpuc.ca.gov/NR/rdonlyres/004ABF9D-027C-4BE1-9AE1-CE56ADF8DADC/0/CPUC\\_STANDARD\\_PRACTICE\\_MANUAL.pdf](http://www.cpuc.ca.gov/NR/rdonlyres/004ABF9D-027C-4BE1-9AE1-CE56ADF8DADC/0/CPUC_STANDARD_PRACTICE_MANUAL.pdf).

<sup>6</sup> CAL. PUB. UTIL. CODE § 2827(a) (amended by AB 327) (“The Legislature finds and declares that a program to provide net energy metering . . . is one way to encourage substantial private investment in renewable energy resources, stimulate in-state economic growth, reduce demand

The Clean Coalition supports various parties' proposals to add additional avoided costs components, including market price mitigation, fuel price hedge benefits, energy security, grid resiliency, greenhouse gas emissions, water impacts and job creation benefits.<sup>7</sup> Specifically regarding job creation benefits, the Clean Coalition's work on the Hunters Point Community Microgrid Project has shown the extent of this untapped potential in one substation area of San Francisco. Over 20 years, 50 MW of new solar PV in Bayview-Hunters Point will deliver significant job creation benefits, including \$70 million in local wages from construction and installation—representing 1,270 near-term construction job-years—and \$29.7 million in local wages from operations and maintenance—representing an additional 520 job-years (26 full-time equivalent or FTE jobs, \$1,485,000 in annual wages).<sup>8</sup> The analysis also shows the benefits of generating power locally: each additional 10 MW of local distributed generation will avoid \$7,580,000 in Transmission Access Charges, \$2,367,000 in line losses, and an average of \$6,100,000 in new transmission capacity costs.<sup>9</sup>

*c. Question 5*

The Clean Coalition expresses its support for Vote Solar Initiative's suggestion to model additional elements, including higher avoided renewables procurement costs and carbon costs, increased loads due to EV deployment, significant penetration of customer-side

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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.”).

<sup>7</sup> See Post-Workshop Comments of the Vote Solar Initiative at 5, R.14-07-002 (Oct. 1, 2014); Post-Workshop Comments of the Alliance for Solar Choice, the California Solar Energy Industries Association and the Solar Energy Industries Association at 10–12, R.14-07-002 (Oct. 1, 2014); Comments of the Interstate Renewable Energy Council, Inc. on the Administrative Law Judge's Ruling Seeking Post-Workshop Comments at 9–10, R.14-07-002 (Oct. 1, 2014).

<sup>8</sup> Clean Coalition, An Energy, Economic, and Environmental Benefits Analysis for High Penetrations of Renewable Energy in San Francisco's Bayview-Hunters Point Area 3 (2013), available at [http://www.clean-coalition.org/site/wp-content/uploads/2012/10/HPP-Benefits-Analysis-Summary-21\\_gt-26-Mar-2014.pdf](http://www.clean-coalition.org/site/wp-content/uploads/2012/10/HPP-Benefits-Analysis-Summary-21_gt-26-Mar-2014.pdf).

<sup>9</sup> *Id.* at 11.

PV-paired storage, and fixes to avoided cost errors noted in the E3 2013 study.<sup>10</sup> In order to accurately gauge the costs and benefits of any DER or other modification to system demand and operations, it is essential to both incorporate forecasts of the evolving environment in which these will occur, and consider the interaction between changing factors. As the Clean Coalition noted in its opening comments, DG occurring in association with EV charging that responds to local variations in generation and demand has very different impacts than either one evaluated in isolation.

*d. Question 7*

SCE proposes that participant costs for installed renewable DG include installed system costs for participant-owned systems, in addition to costs associated with leases and power purchase agreements (“PPAs”) for third-party-owned systems.<sup>11</sup> The Clean Coalition agrees that ongoing costs of operation, maintenance and taxes associated with the installed system should also be included as participant cost components. Including these costs will more fully reflect the economic value associated with participant-owned systems and support better evaluation of alternatives.

*e. Question 8*

SCE’s recommendation that the methodology used to determine integration costs for onsite renewable DG should be the same methodology used to determine integration costs for utility procurement of renewables requires further clarification.<sup>12</sup> When SCE refers to “on-site renewable DG,” it is unclear whether SCE is suggesting that “integration costs” should be assumed and established for energy that is produced and consumed entirely on customer premises and never enters the utility distribution system,

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<sup>10</sup> Post-Workshop Comments of the Vote Solar Initiative at 6–10, R.14-07-002 (Oct. 1, 2014).

<sup>11</sup> Southern California Edison Company’s (U 388-E) Opening Post-Workshop Comments at 7–8, R.14-07-002 (Oct. 1, 2014).

<sup>12</sup> *Id.* at 10.

or only energy that is actually exported. Reductions and variations in customer load, even if associated with self-generation, are fundamentally different than RPS compliance integration costs, and should be addressed through non-discriminatory load tariffs that reflect customer load shape behavior.

Furthermore, integration costs for RPS qualifying generation vary not just between utilities but also by location within each utility's service territory. For example, assuming the same technology, generation requiring new transmission resources may create significantly greater costs than generation utilizing existing transmission capacity, or distributed generation that serves local loads, does not utilize transmission for delivery, and that may contribute to Local Capacity Requirements. As a Public Tool designed to reflect the costs and benefits of a set of resources with characteristics that are distinct from the majority of RPS procurement, RPS integration cost methodology should only be utilized in conjunction with adjustment factors to reflect the different cost characteristics. At the very least, locational value should be incorporated in any applicable methodology. Public Utilities Code section 769 now requires utilities to determine optimal locations for distributed energy resources, including evaluating where net ratepayer benefits potential exists, and it would be inappropriate to apply an assumed integration cost in such a manner as to indicate no net ratepayer benefit where such benefits actually exist—both in the Public Tool and in Distribution Resources Planning.

*f. Question 15*

San Diego Gas and Electric (“SDG&E”) proposes that the impact of smart inverter technologies paired with DG should not be examined in the Public Tool if smart inverters become mandatory.<sup>13</sup> The Clean Coalition disagrees with this assertion because smart inverter functionalities likely to be adopted will allow both autonomous settings and response to utility signals that greatly improve the impact of DG operation on the grid, reducing facility interconnection and grid operation costs for ratepayers, while creating

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<sup>13</sup> Post-Workshop Comments of San Diego Gas & Electric Company (U902E) on NEM Public Tool at 13, R.14-07-002 (Oct. 1, 2014).

both new facility operational costs and value to be allocated between the system owner and utility. These costs and values will be dependent upon how the utility chooses to utilize the advanced inverter functionalities, and these utility options may impact customer economics by 5% or more.

*g. Question 27*

The Clean Coalition recommends a fixed levelized rate for the Feed-in-Tariff (“FiT”), which has been successfully deployed in California, Germany, Spain, and elsewhere. On the contrary, SDG&E proposes a cents/kWh payment that increases at a fixed rate each year.<sup>14</sup> However, a lower initial rate would discourage adoption of renewables during the early phases of the Fit, and rate increases would both add uncertainty for the system owner and increase ratepayer impact over time. A fixed levelized rate does not suffer from these drawbacks.

The Clean Coalition also recommends that additional services and value, including locational value, be captured in the FiT. Distributed generation has significant locational value to ratepayers, including avoided transmission costs, avoided line losses, and avoided transmission and distribution upgrade costs. Such value especially applies to any portion of generation that does not exceed 100% of the coincident load at the substation, as all such generation avoids use of the transmission system and associated access charges when delivering energy to load. This local generating capacity may also avoid, reduce, or defer the need for additional new transmission capacity. For example, the Long Island Power Authority recently proposed offering a \$0.07/kWh premium to 40 MW of appropriately sited solar DG facilities to encourage locational capacity sufficient to avoid \$84,000,000 in new transmission costs that would otherwise be incurred, resulting in a net savings of \$60,000,000.<sup>15</sup>

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<sup>14</sup> *Id.* at 22.

<sup>15</sup> Long Island Power Auth., Proposal Concerning Modifications to LIPA’s Tariff for Electric Service 4, *available at* <http://www.lipower.org/pdfs/company/tariff/proposals-FIT070113.pdf>.

Locational value must be reflected in the FiT in order to incentivize placement of DER in areas of high locational benefits. While we agree that factors providing additional value (e.g., west-facing PV or installations paired with smart inverters) should be compensated at a higher cents/kWh payment, we disagree with both SDG&E and SCE that there is no need to consider geography in the payment structure.<sup>16</sup> SDG&E claims that areas with more sun and wind will be compensated more because they produce more, and, while true, this structure would not incentivize the siting of DER in areas of high locational value. Alternatively, Pacific Gas and Electric (“PG&E”) proposes to calculate avoided costs taking into account geography and time of day, but design the FiT as a simple per-kWh compensation that, on average, captures the net avoided cost plus the necessary adder.<sup>17</sup> The Clean Coalition agrees with PG&E’s approach and strongly recommends that the FiT take into account locational value in order to fully capture the benefits of local distributed generation.

The FiT should also be integrated into the distribution grid planning process that will occur as part of the CPUC’s proceeding concerning Distribution Resources Plans (“DRPs”).<sup>18</sup> However, before the CPUC has approved a methodology for evaluating locational value for individuals or categories of distributed generation in connection with the implementation of AB 327, the FiT could employ simple rules for determining locational value to be associated with certain eligible DG projects, taking into consideration avoided Transmission Access Charges (“TAC”), avoided future TAC rate increases on all transmission dependent energy, local capacity value, avoided transmission system impact costs, and avoided line losses.<sup>19</sup>

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<sup>16</sup> Post-Workshop Comments of San Diego Gas & Electric Company (U902E) on NEM Public Tool at 22, R.14-07-002 (Oct. 1, 2014); Southern California Edison Company’s (U 388-E) Opening Post-Workshop Comments at 24, R.14-07-002 (Oct. 1, 2014).

<sup>17</sup> Opening Comments of Pacific Gas and Electric Company (U 39 E) on Administrative Law Judge’s Ruling Seeking Post-Workshop Public Comments on the NEM Public Tool at 39, R.14-07-002 (Oct. 1, 2014).

<sup>18</sup> CPUC, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769, R.14-08-013 (filed Aug. 14, 2014).

<sup>19</sup> For more information on the Clean Coalition’s proposed interim methodology, see Kenneth Sahm White, Clean Coalition Rebuttal Testimony Regarding Pacific Gas and Electric Company’s

Additionally, for any energy delivered within a TOD period, there should be a TOD adjustment, as is already reflected in the TOD tables. Dispatchability is a separate factor. TOD can be incorporated into a fixed flat rate FiT for simplicity, but should be allowed as an optional actual TOD payment to encourage the use of storage or dispatchable resources.

Finally, the Clean Coalition disagrees with PG&E's proposal that customers be responsible for all interconnection costs, including any engineering studies and any grid upgrades required to accommodate renewable generators.<sup>20</sup> Efforts to individually assign cost responsibility to each interconnection customer have proved extremely cumbersome for both customers and grid operators' conduction studies. Over 250,000 interconnections have been performed in California to date, the overwhelming majority under the very successful simplified NEM interconnection rules that generally avoid the need for individual cost determination and today result in an average of only four days from application to receiving a permission to operate from the utility. This is one of the major successes of the NEM program and it is very important to maintain this speed and simplicity if a sustainable market is to be achieved, as required by AB 327.

The Clean Coalition does not assert that customer interconnection should be eliminated—fees to cover the costs associated with a request for service are appropriate and should be reflected in the Public Tool. At the same time, net ratepayer costs and benefit studies have varied widely in their conclusions, while agreeing that local circumstances create large cost variations. Distribution Resource Planning is intended to incent development where the greatest ratepayer value exists; however, basic access to interconnection service should be non-discriminatory and vary based only on the level of service required. A customer is not responsible for the condition of the grid providing service to them—only for the level of service requested.

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and San Diego Gas and Electric Company's Applications to Establish Green Tariff Shared Renewables Program, A.12-01-008 & A.12-04-020 (Jan. 10, 2014).

<sup>20</sup> Opening Comments of Pacific Gas and Electric Company (U 39 E) on Administrative Law Judge's Ruling Seeking Post-Workshop Public Comments on the NEM Public Tool at 38, R.14-07-002 (Oct. 1, 2014).

### III. CONCLUSION

The Clean Coalition appreciates this opportunity to provide the Commission with reply comments on Administrative Law Judge Simon's questions related to the Public Tool.

Respectfully submitted,

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