BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

FILED
3-16-15
04:59 PM

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)

COMMENTS OF THE OFFICE OF RATEPAYER ADVOCATES ON ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENT ON POLICY ISSUES ASSOCIATED WITH DEVELOPMENT OF NET ENERGY METERING SUCCESSOR STANDARD CONTRACT OR TARIFF

JAMES M. RALPH

Attorney for
The Office of Ratepayer Advocates

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-4673
Facsimile: (415) 703-2262
E-mail: james.ralph@cpuc.ca.gov

TIM DREW
XIAN MING LI

Analysts for
The Office of Ratepayer Advocates

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-5618
E-mail: tim.drew@cpuc.ca.gov

March 16, 2015

TABLE OF CONTENTS

PAGE

I. INTRODUCTION.....1

II. DISCUSSION.....1

1. THE FORM OF THE SUCCESSOR TO THE NEM TARIFF IS DESCRIBED BY THE STATUTE AS A "STANDARD CONTRACT OR TARIFF." 1

2. SECTION 2827.1(B)(1) DIRECTS THE COMMISSION TO ENSURE THAT CUSTOMER-SITED RENEWABLE DISTRIBUTED GENERATION (DG) "CONTINUES TO GROW SUSTAINABLY." 4

3. SECTION 2827.1(B)(1) DIRECTS THE COMMISSION TO ENSURE THAT THE STANDARD CONTRACT OR TARIFF INCLUDES "SPECIFIC ALTERNATIVES DESIGNED FOR GROWTH AMONG RESIDENTIAL CUSTOMERS IN DISADVANTAGED COMMUNITIES." 7

4. SECTION 2827.1(B)(3) DIRECTS THE COMMISSION TO ENSURE THAT THE STANDARD CONTRACT/TARIFF IS "BASED ON THE COSTS AND BENEFITS OF THE RENEWABLE ELECTRICAL GENERATION FACILITY." 13

5. SECTION 2827.1(B)(4) DIRECTS THE COMMISSION TO ENSURE THAT THE "TOTAL BENEFITS OF THE STANDARD CONTRACT OR TARIFF TO ALL CUSTOMERS AND THE ELECTRICAL SYSTEM ARE APPROXIMATELY EQUAL TO THE TOTAL COSTS." 16

6. WHAT, IF ANY, INCONSISTENCIES MIGHT EXIST BETWEEN THE RESULTS OF APPLYING THE DIRECTIVE IN § 2827.1(B)(4) AND THE RESULTS OF APPLYING THE DIRECTIVE IN § 2827.1(B)(3), ABOVE? 18

7. SECTION 2827.1(B)(5) DIRECTS THE COMMISSION TO ALLOW, IN THE SUCCESSOR NEM PROGRAM, PROJECTS LARGER THAN ONE MEGAWATT (MW) THAT DO NOT HAVE A SIGNIFICANT IMPACT ON THE DISTRIBUTION GRID, ARE SIZED TO ONSITE LOAD, AND ARE SUBJECT TO REASONABLE INTERCONNECTION CHARGES ESTABLISHED PURSUANT TO RULE 21 AND APPLICABLE STATE AND FEDERAL REQUIREMENTS. 19

8. WHAT, IF ANY, ISSUES MAY ARISE WITH THE INTERCONNECTION OF PROJECTS DESCRIBED IN § 2827.1(B)(5) UNDER THE RULES AND CHARGES ESTABLISHED IN RULE 21? PLEASE BE SPECIFIC ABOUT ANY POTENTIAL ISSUES YOU IDENTIFY, INCLUDING DESCRIPTIONS OF CURRENT PRACTICES OR RULES. WHAT SPECIFIC ACTIONS COULD REDUCE OR ELIMINATE THE POSSIBLE ISSUES YOU HAVE IDENTIFIED? 22

9. SECTION 2827.1(B)(7) STATES THAT ANY FIXED CHARGES FOR RESIDENTIAL CUSTOMER GENERATORS THAT DIFFER FROM THE FIXED CHARGES ALLOWED PURSUANT TO SUBDIVISION (F) OF SECTION 739.9 SHALL BE AUTHORIZED ONLY IN A RULEMAKING PROCEEDING INVOLVING EVERY LARGE ELECTRICAL CORPORATION, AND THAT THE COMMISSION SHALL ENSURE CUSTOMER GENERATORS ARE PROVIDED ELECTRIC SERVICE AT RATES THAT ARE JUST AND REASONABLE. 24

TABLE OF CONTENTS
(Con't)

PAGE

10. CURRENT LAW (§ 2827(G)) INCLUDES SEVERAL SECONDARY BENEFITS TO NEM CUSTOMER-GENERATORS. THESE INCLUDE EXEMPTION FROM "ANY NEW OR ADDITIONAL DEMAND CHARGE, STANDBY CHARGE, CUSTOMER CHARGE, MINIMUM MONTHLY CHARGE, INTERCONNECTION CHARGE," OR ANY OTHER CHARGE THAT WOULD INCREASE AN ELIGIBLE CUSTOMER-GENERATOR'S COSTS BEYOND THOSE OF CUSTOMERS WHO ARE NOT CUSTOMER GENERATORS IN THE SAME CUSTOMER CLASS. 26

11. THE CURRENT NEM PROGRAM INCLUDES SEVERAL VARIATIONS WITHIN THE NEM TARIFFS THEMSELVES, INCLUDING VIRTUAL NET ENERGY METERING (VNEM), MULTI-FAMILY AFFORDABLE SOLAR HOUSING (MASH) VNM, AND NEM AGGREGATION. 27

12. WHAT, IF ANY, CONSUMER PROTECTION ISSUES SHOULD THE COMMISSION CONSIDER AS PART OF THE SUCCESSOR STANDARD CONTRACT/TARIFF? RESPONSES SHOULD ADDRESS AT LEAST THE FOLLOWING TOPICS: 27

13. WHAT IMPACT, IF ANY, COULD ANY CONSUMER PROTECTIONS YOU PROPOSE TO CONSIDER IN RESPONSE TO QUESTION 12, ABOVE, HAVE ON THE TOTAL COSTS AND BENEFITS OF THE SUCCESSOR STANDARD CONTRACT/TARIFF? PLEASE BE SPECIFIC ABOUT THE REASONS FOR ANY IMPACT DISCUSSED, AND PROVIDE QUANTITATIVE EXAMPLES. 30

14. HOW SHOULD CONSIDERATIONS OF SAFETY BE INCLUDED IN THE DEVELOPMENT OF THE SUCCESSOR STANDARD CONTRACT/TARIFF? PLEASE BE SPECIFIC, AND CONSIDER AT LEAST: 31

I. INTRODUCTION

On February 23, 2014, the Assigned Administrative Law Judge (ALJ) issued a ruling requesting comments from parties on several policy issues related to the development of a Net-Energy Metering Successor Contract or Tariff. Pursuant to the direction set forth by the February 23, 2014 Ruling, the Office of Ratepayer Advocates (ORA) hereby submits responses. ORA replicates each of the ALJ's questions and provides its response in the section below.

II. DISCUSSION

1. The form of the successor to the NEM tariff is described by the statute as a "standard contract or tariff."

a. What are the relevant formal distinctions, if any, between a tariff and a standard contract? Provide examples from other Commission programs, if appropriate.

The primary distinction between a tariff and a contract is that the CPUC adopts tariffs, which carry the same weight and effect as any other regulation or statute. If a standard contract is approved by the Commission, however, then it will have the same force and effect as a tariff. Both tariffs and contracts include the rates and terms and conditions of service for the customer, but a contract is between the utility and the end-use consumer, and may include a tariff as an implied condition of the contract. It appears that the Legislature may have included this language in the P.U. Code so that the Commission could have all possible options available to it when considering policy solutions for customer-sited renewable generation within this proceeding.

A full export agreement between a customer generator and a utility, such as within a feed-in-tariff, could take the form of a standard contract rather than a tariff, since a contract is more akin to a market or business transaction. Contracts might allow for different treatment for different types of customers, if allowable by law and required to achieve an important secondary policy goal. Contracts typically prescribe obligations of counter parties, such as performance standards.

Examples of standard contracts are the Standard Performance Contract program that was available for some time within the utilities' energy efficiency program portfolios,[1] and the Aggregator Managed Portfolio contract which is between third-party demand response aggregators and the utility.[2] Other examples of standard contracts are the Renewable Auction Mechanism (RAM) standard contract and the Renewable Market Adjusting Tariff (ReMAT) standard contract. In the case of the existing Net Energy Metering program (NEM), although the "program" is currently a tariff, the NEM customer-generator does enter into an agreement with the utility that takes the form of a contract.[3]

Another way to distinguish between a standard contract and a tariff is that standard contracts are typically associated with generation facilities and tariffs are typically associated with utility customers seeking utility service to meet on-site load.

b. What are the potential benefits, if any, from the perspective of the customer-generator in the use of a tariff versus a standard contract? What are the potential drawbacks, if any? Provide specific examples if appropriate.

The structure and rates of the export credit, additional charges, and/or full export compensation in the adopted contract/tariff will impact the customer-generator's benefits, and can be specified in an equivalent manner whether it is within the terms of a contract or a tariff.

To date, the focus of NEM has been on behind-the-meter generation to meet on-site load. Residential and Commercial customers currently interconnect by means of a

[1] The Standard Performance Contract program has evolved and is now called by another name, depending on the utility. PG&E's program is now called the Customized Retrofit Incentives. (http://www.pge.com/en/mybusiness/save/rebates/ief/index.page?WT.mc_id=Vanity_cr)

[2] See PG&E's AMP program for example. http://www.pge.com/en/mybusiness/save/energymanagement/amp/index.page

[3] See PG&E's NEM customer agreement for example. http://www.pge.com/includes/docs/pdfs/b2b/newgenerator/AA_Form_for_Service_Agreement_ID_Meter_Number.pdf

NEM tariff. One benefit of a tariff over a standard contract is that the customers are familiar with the NEM tariff. These same customers may not look favorably on a process that would now require them to sign a 20 year standard contract for the same, or similar, net-metering arrangement.

c. What are the potential benefits, if any, from the perspective of the program administrator in the use of a tariff versus a standard contract? What are the potential drawbacks, if any? Provide specific examples if appropriate.

Standard contracts or tariffs could be a vehicle for the utility to establish preferences for different locations and different system configurations by offering lower or higher export credit and/or full export compensation rates, if it serves important policy goals and if the law permits. CPUC tariffs have also been designed to provide different levels of service for different customers. For example, the Commission approved an Economic Development Rate (EDR) tariff for Pacific Gas and Electric Company (PG&E) to retain load or to stimulate new or expanded load and employment opportunities within PG&E's service territory.[4] The EDR allows for a Standard and Enhanced Option rates. The Standard Option EDR program provides a monthly 12% discount on the otherwise applicable tariff (OAT) to bundled service, direct access (DA), and Community Choice Aggregation (CCA) customers who qualify for the program, whereas, the Enhanced Option EDR program provides a monthly discount of 30% on the OAT to qualifying customers that are located or planning to locate in cities or counties in PG&E's service territory with unemployment rates of more than 125% of the statewide average.

Program administrators (PAs) currently use a tariff for NEM interconnection, as such, it would not require much change to implement a NEM successor in the form of a tariff. Conversely, significant changes and costs would be incurred for the PAs to transform the NEM interconnection process and billing process into a standardized contract process.

[4] Decision 13-10-019.

d. Should the Commission consider adopting more than one standard contract or tariff? For example, should the standard contract/tariff be differentiated by project size, customer class, technology, or eligible technologies coupled with qualified energy storage? Why or why not? Provide specific rationales for each variation discussed.

Providing different contracts or tariffs differentiated by project size, customer class, technology, system configuration, and/or location could introduce additional complexity into the administration of the successor contract(s)/tariff(s), and the Commission could ultimately risk being accused of treating customers unequally. However, the Commission should continue to hold out the option of adopting one or more contracts or tariffs based on these and other parameters until it can be approximately demonstrated that the benefits to all customers of segmenting customer-generators into different contract(s)/tariff(s) does not exceed the costs caused by the additional complexity and potential legal risk.

The primary potential benefit that can be derived from different contracts or tariffs would be to optimize the system benefits that can be provided by customer-generators. For example, the Commission could consider adopting a "premium" tariff for customers who design their systems for a production peak that is as close as possible to the utility peak, such as west-facing panels. Customer-generators located in planning areas where load reductions are needed could also qualify for a "premium" tariff.

2. Section 2827.1(b)(1) directs the Commission to ensure that customer-sited renewable distributed generation (DG) "continues to grow sustainably."

a. What measure or measures should the Commission use to determine sustainable growth of customer-sited renewable DG, and over what time period? Consider and discuss at least the following, including quantitative examples where appropriate:

- **How should "sustainable growth" be defined?**
- **How should the definition be applied to the various elements of customer-sited DG? Include discussion of**

differing customer classes; differing renewable DG technologies; differing renewable DG applications; and any other groupings that may be relevant.

ORA's interpretation is that Section 2827.1(b)(1) is intended to continue growth in the distributed solar market while introducing policies to minimize subsidies over time, such that distributed solar can eventually become a self-sustaining market driven industry, and that self-generation with renewable technology remains a viable and cost-effective option for most utility customers, not just customers who are motivated by environmental virtues. Accomplishing sustainable growth in the distributed solar industry will require policies that balance the goals of minimizing subsidies for distributed solar and minimizing disruption to the solar market. Thus, to ensure that customer-sited renewable distributed generation "continues to grow sustainably," the standard contracts or tariffs adopted in this proceeding should balance continued growth of distributed solar with the goal of minimizing subsidies over time.

Tracking the costs of installed customer-sited solar relative to a benchmark could provide a measure of the growth potential for distributed solar. The U.S. Department of Energy's SunShot Initiative, established with the goal of making solar energy cost-competitive with other forms of electricity by the end of the decade, estimates that when the price of solar electricity reaches about $0.06 per kilowatt-hour over its lifetime it will be cost-competitive with other non-renewable forms of electricity. Tracking progress toward such a "grid-parity" goal, adapted for California's market and regulatory environment if necessary, can be a proxy for understanding the necessity and magnitude of subsidies that should be embedded in the terms of the successor tariff or contract in order to sustain the solar market.

Sustainable growth also implies that the growth of distributed solar should not surpass the evolving technical limits of the utilities' distribution systems. Higher year-over-year growth becomes unsustainable when the distribution utility is unable to maintain power quality and reliability through other demand-side programs and system upgrades in order to accommodate that growth. Solar penetration measured by solar

capacity as a percent of load has been a common measure of the growth of distributed solar. This is approximately how the current NEM progress is being tracked and reported by the IOUs.[5] The CPUC's Electric Rule 21 currently establishes screening standards to determine if a distributed generation project qualifies for a "fast-track" interconnection process.[6] Projects can qualify for a fast-track interconnection if the aggregate distributed generator capacity penetration on the individual feeder line-segment is less than 15% of the line-segment peak load. If a project fails to pass the 15% rule it can be further evaluated based on aggregate generator capacity relative to 100% of the line section's minimum load.[7] The 15% screening standard, based on the rationale that the negative impacts of distributed generation are negligible if the aggregate distributed generation penetration on a line section is always less than the line-section minimum load, was an innovation of the CPUC and later adopted by the FERC and most other states as part of their interconnection procedures. Projects that fail the 15% screen are required to undergo more detailed studies before they can be interconnected. In many cases when the solar penetration is over the 15% threshold, detailed interconnection studies do not identify any distribution system upgrades necessary to safely accommodate the additional generator capacity. There are many circuits in the United States with PV penetration levels well above 15% where system performance, safety, and reliability have not been impacted, thus the limitations on solar penetration are highly dependent on the characteristics of a distribution feeder and so cannot be readily generalized.[8] The impacts of growing solar installations and related distribution system planning options to address the technical limits are currently being considered in the Commission's Distribution Resource Plan proceeding,[9] while the complementary demand-side program options are

[5] Decision 14-03-041. Ordering Paragraph 7.

[6] Decision 12-09-018, p.22.

[7] Decision 12-09-018, p.25.

[8] Updating Interconnection Screens for PV System Integration. Coddington, et al. NREL Technical Paper TP-5500-54063. February 2012. http://www.nrel.gov/docs/fy12osti/54063.pdf

[9] CPUC Rulemaking 14-08-013.

being comprehensively assessed within the Commission's Integrated Demand-Side Management proceeding.[10] Furthermore, significant impacts on the IOU distribution systems due to higher penetrations of renewable distributed generation enabled by the contract/tariff may not be matters that can be constructively addressed within the successor tariff proceeding at this time.

3. Section 2827.1(b)(1) directs the Commission to ensure that the standard contract or tariff includes "specific alternatives designed for growth among residential customers in disadvantaged communities."

a. How should "disadvantaged communities" be defined for purposes of the successor standard contract/tariff? If the proposed definition is already in use, provide a citation to its source and publicly available examples of its use. If the proposed definition is not already in use, provide a rationale for selecting it.

The definition of "disadvantaged communities" for the purposes of the NEM successor tariff should strive to utilize one of the current definitions already used in California. At this time, ORA is not wedded to any one definition already in use and looks forward to the Commission workshop regarding the NEM successor tariff for disadvantaged communities to provide more clarity.

The State of California Department of Conservation defines a disadvantaged community as a community with a median household income less than 80 percent of the statewide average. In addition, California defines a severely disadvantaged community as a community with a median household income less than 60 percent of the statewide average.[11]

The California Solar Initiative (CSI) Single-Family Affordable Solar Home (SASH) program and Multi-Family Affordable Solar Home (MASH) programs also have definitions of "low income." The MASH program is especially important since it may be

[10] CPUC Rulemaking 14-10-003.

[11] California Department of Conservation, 2010 Appendix F Economically Disadvantaged Communities.

more productive to pursue customer-owned generation in multifamily properties to capitalize on the set of motivated multifamily building owner-operators that are 1) participating in the MASH program, and/or 2) participating in an Energy Efficiency financing program. MASH participants may consequently have the highest potential to satisfy the disadvantaged communities requirement.

The estimated "market" for CSI SASH in California is 128,000 households.[12] Both the SASH and MASH program qualifications include a designation of "affordable" housing, which generally means that the deed is restricted, and conditions of sale require the property to remain affordable housing. CSI also requires the household's total income to be 80% of the Area Median Income (AMI) or less based on the most recent available income tax return.[13] As of March 4, 2015, 4,465 households completed installations through the SASH program, and 508 applications are pending.[14] As of March 4, 2015, 352 MASH projects were completed and 41 are pending.[15]

Another alternative for designating "disadvantaged communities" could be the California Alternate Rates for Energy (CARE) definition, which is available to approximately one-third (12,785,129 households) of residential households in the state of California.[16] There is some, but incomplete, overlap between the SASH qualification and CARE qualification. For an in-depth explanation of the overlap between SASH qualification and CARE qualification, see pp. 32-33 of the California Solar Initiative – Low-Income Solar Program Evaluation Market Assessment Report.

---

[12] Pgs. 25-27, California Solar Initiative – Low-Income Solar Program Evaluation.

[13] SASH qualification is a bit complicated and is best understood by reading pgs. 25-27 California Solar Initiative – Low-Income Solar Program Evaluation Page 2.

[14] California Solar Statistics website, californiasolarstatistics.com.

[15] California Solar Statistics website, californiasolarstatistics.com.

[16] February 11, 2015, Compliance Filing of PG&E, SCE, SDG&E and SoCalGas Regarding Annual Estimates Of Care Eligible Customers And Related Information in. A.11-05-017.

b. How should "growth among residential customers in disadvantaged communities" be defined? How should such growth be measured? Please be as specific as possible and provide an explanation of your proposed methodology, using quantitative examples where relevant.

ORA recommends that the next Energy Savings Assistance (ESA) and (CARE) Low Income Needs Assessment study[17] include this question within its scope. ORA would like to encourage high growth within this program element if it can be demonstrated to be beneficial for disadvantaged customers.

c. What, if any, barriers do residential customers in disadvantaged communities face in adopting customer-sited renewable DG? Provide documentation or citation to information relevant to your response.

The Commission can look to several sources that discuss barriers to participation in SASH, as well as barriers to participation in CARE and ESA. The California Solar Initiative – Low-Income Solar Program Evaluation Market Assessment Report cites the main driver to SASH as financial, with a minority expressing concern for the environment. The SASH report also cites concerns about cost being a primary barrier to participating in SASH, and secondary concerns about trust and credibility.[18] One thing to note, however, is that these opinions are from SASH participants. The report did not generally survey non-participants. This same report quantifies the difference between the SASH incentives offered to low-income households and total project cost. For 13% of the SASH projects installed, the homeowner contribution was 10-25% of their annual household income, equivalent to what that household would spend in one year on food, saying "The information about gap amount relative to household income provides further insight into a homeowner's decision to make a financial contribution to a PV system

[17] http://www.cpuc.ca.gov/PUC/energy/Low+Income.

[18] See pp. 45-48 of the California Solar Initiative – Low-Income Solar Program Evaluation Market Assessment Report.

provided through SASH. In most cases, the gap amount competes for funding with basic necessities. Carving out the money to make a one-time payment is unlikely. Thus, some type of financing is likely required."[19] If the Commission wishes to further understand drivers and barriers to low-income/disadvantaged population's participation in financing related to energy costs, it would be important to review the Commission-authorized pilot projects for Energy Efficiency financing.

Finally, the Low Income Needs Assessment[20] provides a list of barriers to participating in the ESA retrofit program that include 1) Trusting a contractor, 2) Getting the landlord's approval, 3) Being home for appointments, and 4) Needing something the program offers.[21]

i. Which, if any, of these barriers are especially prevalent among, or unique to, residential customers in disadvantaged communities?

The financial impact on participants is the primary barrier. This is a common theme that consistently emerges within evaluations of the SASH, MASH and ESA programs.

ii. How, if at all, should the Commission consider such barriers when designing specific alternatives for growth among residential customers in disadvantaged communities?

As cost is prohibitive for potential low-income participants, the Commission could address the cost barrier with enhanced incentives or financing. There is a detailed section on willingness to consider financing for solar in pp. 60-67 of the California Solar Initiative – Low-Income Solar Program Evaluation - Market Assessment Report. The current SASH program administrator, GRID Alternatives, recently proposed a third-party

[19] P. 59-60, California Solar Initiative – Low-Income Solar Program Evaluation Market Assessment Report.

[20] http://www.cpuc.ca.gov/PUC/energy/Low+Income.

[21] P. VI, Low Income Needs Assessment Volume 1.

financing program to the Commission in a pending Advice Letter that holds promise for continuing to address the cost barrier for low-income participants.[22]

d. If you believe that there are no barriers especially prevalent among, or unique to, residential customers in disadvantaged communities, what criteria should the Commission use in developing the specific alternatives for such customers required by § 2827.1(b)(1)? Please provide specific examples if relevant.

e. Should the specific alternatives designed for growth among residential customers in disadvantaged communities be considered as a part of the more general statutory direction that the Commission should ensure that customer-sited renewable DG "continues to grow sustainably?" Why or why not?

In order for disadvantaged communities to contribute to the statutory requirement that customer-sited renewable DG "continues to grow sustainably," the Commission would need to expand the current SASH program offering. The CSI market assessment report stated that the GRID alternatives' installation costs were less than that of the general-market CSI program, although this may be due to GRID Alternatives' reliance on volunteer labor. The report also stated that GRID Alternatives' overall costs (installation and administration costs) were comparable to the general-market overall costs.[23]

i. If your response is that the specific alternatives should be considered as part of the more general statutory direction, what mechanisms will be needed to ensure that the specific alternatives for growth in disadvantaged communities are implemented?

Considering that the barriers for individual homeowners are great, it may be more productive to pursue more on-site generation in multifamily properties, and capitalize on

[22] GRID Alternatives Advice Letter 5.

[23] P. 50, California Solar Initiative – Low-Income Solar Program Evaluation Market Assessment Report.

the set of motivated multifamily owner-operators that are 1) participating in the MASH program, and/or 2) participating in the Energy Efficiency financing pilots.

One consortium of multifamily affordable housing operator-owners, California Housing Partnership Corporation, already has attempted to get Commission permission to finance Distributed Generation through the EE low-income financing pilot.[24] The Commission resolution E4663 issued June 26, 2014 determined that, "It is reasonable to further the Commission's policy of encouraging integrated demand side management by allowing DR-enabled technologies and solutions to be included in energy efficiency projects that will be financed by the credit enhanced pilots in this program."[25]

ii. If your response is that the specific alternatives should not be considered as part of the more general statutory direction, what mechanisms, if any, will be needed to integrate the specific alternatives into the operation of the successor standard contract/tariff?

ORA does not have comments on Question 2.e.ii. at this time but reserves the right to respond to this issue in reply comments.

[24] See Protest of California Housing Partnership Corporation (CHPC) and Build it Green of January 8, 2014, to Advice Letters 4581, 2558-E/2253-G, 3439-G/4327-E, 2989-E. These Advice Letters were filed in compliance with Ordering Paragraphs 7.a and 7.b of D.13-09-044.

[25] Resolution E4663, Finding 8, June 26, 2014.

iii. Whether the specific alternatives for growth among residential customers in disadvantaged communities are considered as part of or separate from the rest of the direction in § 2827.1(b)(1), how should the costs and benefits of the specific alternatives be considered in evaluating the costs and benefits of the NEM successor standard contract/tariff? Provide specific reasons and quantitative examples, if relevant.

ORA does not have comments on Question 2.e.iii. at this time but reserves the right to respond to this issue in reply comments.

4. Section 2827.1(b)(3) directs the Commission to ensure that the standard contract/tariff is "based on the costs and benefits of the renewable electrical generation facility."

a. What does it mean for the standard contract/tariff to be based on the costs and benefits of the renewable electrical generation facility?

ORA interprets the section 2827.1(b)(3) requirement that the Commission ensure that the standard contract/tariff is "based on the costs and benefits of the renewable electrical generation facility" to mean that the utilities' avoided costs (benefits) and the costs of the renewable generator plus the utilities' costs to administer the contract/tariff (costs) associated with distributed solar generally need to be among the primary factors to consider when developing the new tariffs or contracts.

The Assembly Bill 327 legislative history and legislative staff analyses suggest that the original intent of including the language "based on the costs and benefits of the renewable electrical generation facility" was to ensure that the contract/tariff be based on the costs and benefits accruing to non-participants.[26] This language was subsequently modified in the version of the bill that was chaptered in October of 2013. By removing

[26] Assembly Floor Analysis prepared by Susan Kateley, September 11, 2013; Assembly Bill 327 as Amended in Senate September 6, 2013. Available at leginfo.legislature.ca.gov.

specific reference to non-participants with respect to costs and benefits, the legislature de-emphasizes the concern about cost shifting within the NEM tariff.

b. What costs should be considered? Why? Please provide quantitative examples if relevant.

In response to the September 5, 2014 Administrative Law Judge's ruling seeking post-workshop comments on Energy Division's August 11, 2014, public workshop, ORA commented that the list of cost components provided in the ruling (PV system cost; interconnection cost; billing and metering cost; and integration costs)[27] were sufficient. Costs incurred in administering the NEM successor tariff program should be included in the billing and metering costs. Standby capacity, flexible capacity, and distribution system upgrades directly attributable to customer-sited renewable generators should be included in the integrations costs. These components of integration costs will probably be near zero for low penetrations of NEM systems, but may be important as penetration increases on individual feeders.

c. What benefits should be considered? Why? Please provide quantitative example if relevant.

In response to the September 5, 2014 Administrative Law Judge's ruling seeking post-workshop comments on Energy Division's August 11, 2014 public workshop, ORA commented that the list of avoided cost benefits provided in the ruling (energy purchases; generation capacity, T&D capacity, GHG emissions, losses, ancillary services, avoided RPS)[28] were sufficient. The ALJ ruling also included an additional user defined avoided cost value(s) to quantify total resource and societal benefits. If the Commission wishes to maintain a distinction between the benefit-cost analysis required by section 2827.1(b)(3) and the "total" costs and benefits required by section 2827.1(b)(4), then ORA recommends that the user defined value(s) for societal benefits be included in the benefit-cost analysis required by section 2827.1(b)(4). However, in response to question 6 in

[27] September 5, 2014, ALJ Ruling in R. Attachment A, p.2.

[28] September 5, 2014 ALJ Ruling in R. Attachment A, p.2

these comments, ORA argues that there are no practical inconsistencies and distinctions between the costs and benefits described in section 2827.1(b)(3) and the "total" costs and benefits described in section 2827.1(b)(4).

ORA urges the Commission to continue to allow parties to defend their proposed societal benefit methodologies and values in their successor tariff proposals and testimony, at which point the Commission can make a determination regarding the appropriateness of the proposed societal values. Many of the societal benefits are not easily quantifiable, but could be nevertheless theoretically sound, empirically derived, and germane to the State of California's environmental goals. The Commission has found appropriate to include estimates of certain non-energy benefits in the benefit-cost analysis of ratepayer funded energy efficiency programs, such as the application of a "market effects adjustment" of 5% to the entire 2013-2014 energy efficiency portfolio cost-effectiveness calculation. Similarly, to the extent that a societal benefit is known to be created by customer-sited distributed renewable generators, but cannot be quantified, parties should provide their best estimates or proxy values.

ORA recommends the following societal benefits be added to the benefit-cost analysis required by sections 2827.1(b)(3) and 2827.1(b)(4). These benefits and others are summarized in Rocky Mountain Institute's study "A Review of Solar PV Benefit and Cost Studies." 2nd Edition.[29]

1. Environmental benefits of reduced carbon emissions that are not already included within the "GHG emissions" provided in the list of avoided costs in the September 5, 2014 ALJ Ruling.[30] ORA assumes the "GHG emissions" provided in the ALJ Ruling refers to credits in the GHG cap-and-trade market.

[29] http://www.rmi.org/Knowledge-Center%2FLibrary%2F2013-13_eLabDERCostValue.

[30] September 5, 2014, ALJ Ruling in R. Attachment A, p.2.

2. Market price effect. Distributed renewable generators have the potential to reduce demand during the times when energy prices are high, thus reducing costs for all ratepayers.
3. Avoided air pollutants that are limited by national air quality standards and are produced by fossil fuel generators. This value could include avoided compliance costs as well as the health benefits.

d. What metrics should be used to measure costs and benefits? Please provide specific citations to publicly available sources of the metrics selected. Please provide quantitative examples of the application of the metrics selected to the development of the successor standard contract/tariff.

The requirement to adopt a successor tariff before the end of 2015 will likely not allow sufficient time to do measurement of costs and benefits and other original research. In response to this section ORA provides a download link to the secondary research it is in the process of reviewing as it prepares to assess and use the public tool and develop successor tariff proposals.[31] As a caveat, ORA has not thoroughly reviewed all of these studies to determine their applicability to the analysis of customer-sited distributed renewable benefit-cost analysis and development of a successor contract/tariff.

5. Section 2827.1(b)(4) directs the Commission to ensure that the "total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total costs."

a. What metrics, or types of analysis, should the Commission use to ensure that the "total benefits . . . are approximately equal to the total costs?" For example, should the Commission use a cost of service analysis; or use one or more of the Commission's cost-effectiveness tests in the

[31] http://tinyurl.com/jws6pfp.

Standard Practice Manual? Please provide quantitative examples of the application of the metrics selected to the development of the successor standard contract/tariff.

The Commission should update the cost of service analysis model used by E3 in the latest NEM cost effectiveness analysis after the Commission adopts a final decision in the residential rates OIR. Doing so will allow the Commission and parties to understand the effect that the adopted residential rate design has on the cost-shift potential under the existing NEM tariff, which will be a useful baseline for evaluating alternative proposal for the successor tariff. The Commission should use the Total Resource Cost test, the Societal Cost test, the Ratepayer Impact Measure test, the Program Administrator Cost test, and the Participant Cost test from the Standard Practice Manual to evaluate the benefits and costs of alternative successor tariff proposals. Rather than relying of information from a single test, the Commission should review all the tests to understand in the different impacts of the successor standard contract/tariff prior to making a decision. Each of these tests provide different benefit-cost perspectives that will be useful for evaluating alternative proposals for the successor tariff.

b. If not made explicit in your response to a, above, what benefits should be considered in evaluating the "total benefits . . . to all customers and the electrical system. . ."?

See ORA's response to question 4.c.

c. **If not made explicit in your response to a, above, what costs should be considered in evaluating the "total costs [to all customers and the electrical system]?"**

See ORA's response to question 4.b.

d. How should the Commission apply the requirement that the total benefits and costs are to be approximately equal? If your response provides a quantitative measure, please provide quantitative examples. If your response provides a qualitative measure, please explain how it should be used to

determine approximate equality of total benefits and costs.

By using the phrase "approximately equal" the Legislature is implicitly deferring to the Commission's judgment to decide how to balance the total benefits and total costs of the contract/tariff. When considering alternative proposals for contracts or tariffs, the Commission is not statutorily constrained by a benefit-cost analysis standard or threshold, as long as costs and benefits are used in the design of the contract/tariff and that the Commission attempts to make the costs and benefits equal. Following this interpretation, the Commission can place more emphasis on other policy goals, such as reducing GHG emissions and accomplishing capacity goals, than on accomplishing a perfectly cost-effective forecast when considering parties proposals. Consequently, the Commission will not be obligated to resolve every disagreement on the benefits and costs of customer-sited renewable generators within this proceeding, many of which may be irresolvable.

6. What, if any, inconsistencies might exist between the results of applying the directive in § 2827.1(b)(4) and the results of applying the directive in § 2827.1(b)(3), above?

a. Please identify any potential inconsistencies as precisely as possible, using quantitative examples if relevant.

b. For each potential inconsistency identified, please suggest a rationale or method for reconciling the inconsistencies. If in your view some or all potential inconsistencies cannot be reconciled, please provide a rationale or method for prioritizing the application of the statutory directives. Please provide quantitative examples if relevant.

Subsection 2827.1(b)(3) requires the Commission to ensure that the standard contract or tariff is based on the costs and benefits of the renewable electrical generation facility, whereas subsection 2827.1(b)(4) requires the Commission to ensure that the total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total costs. As implied in responses to Questions 4 and 5,

ORA does not believe there are inconsistencies between the directives in § 2827.1(b)(4) and § 2827.1(b)(3). These two sections are referring to the same analysis, except that "total benefits and costs" appears to be referring to externalities in addition to direct benefits and costs, and that the benefits and costs do not need to be precisely equal.

7. Section 2827.1(b)(5) directs the Commission to allow, in the successor NEM program, projects larger than one megawatt (MW) that do not have a significant impact on the distribution grid, are sized to onsite load, and are subject to reasonable interconnection charges established pursuant to Rule 21 and applicable state and federal requirements.

a. How should "significant impact on the distribution grid" be defined?

Under Rule 21, when applicants submit an interconnection application, the utilities perform an interconnection study to determine the impact that the facility could have on the distribution grid and to develop an estimate of any costs associated with distribution grid upgrades required for interconnection.[32] Applicants can interconnect through the Fast Track process if they meet the requirements for eligibility[33] or the Detailed Interconnection Review Process.[34] Section 2827.1(b)(5) would allow NEM to include projects greater than 1 MW "that do not have significant impact on the distribution grid" and subject to reasonable interconnection charges pursuant to Rule 21 and other applicable requirements. It is ORA's understanding that these 1 MW projects would still be required to be sized to meet but not exceed on-site load.

Projects that would have a "significant impact on the distribution grid" should be defined as ones that will require distribution upgrades to mitigate reliability concerns. This is the definition of Significant Distribution Upgrades as stated in the Joint Cost

[32] July 29, 2014, R.11-09-011 Administrative Law Judge's Ruling Setting Schedule for Comments on Staff Reports and Scheduling Prehearing Conference, Attachment A July 18, 2014 Cost Certainty for the Interconnection Process Staff Proposal, p.2. http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M099/K767/99767928.PDF.

[33] Rule 21, Sec F.2.

[34] Rule 21, Sec F.3.

Certainty Proposal that the utilities filed in R.11-09-011, the OIR to address distribution interconnection rules and regulations for certain classes of electric generators and electric storage resources.[35] While the Commission has not formally adopted this definition in the proceeding, ORA supports this definition as the need for distribution upgrades to mitigate reliability concerns demonstrates the significant impact of a project.

b. How should "significant impact on the distribution grid" be measured? Please provide specific examples. In responding to the two questions above, please include consideration of at least the following issues:

iv. Consistency with Rule 21 and other customer generation program policies;

v. Impact on program administration;

vi. Ease of communicating the proposal to customers.

Under Rule 21, the utilities perform the interconnection studies and determine whether or not distribution upgrades are needed. The project applies to either the Fast Track process, meant for smaller projects,[36] or the Detailed Interconnection Review Process, meant for larger, more complicated projects.[37] The process should be the same for potential NEM projects greater than 1 MW since the utilities are responsible for the distribution system and have the expertise and resources to conduct the studies. The

[35] January 18, 2013, R.11-09-011. Joint Cost Certainty Proposal Of Pacific Gas And Electric Company (U 39 E), Southern California Edison Company (U 338 E) and San Diego Gas & Electric Company (U 902 E), p. 2.

[36] July 29, 2014, R.11-09-011 Administrative Law Judge's Ruling Setting Schedule for Comments on Staff Reports and Scheduling Prehearing Conference, Attachment A, July 18, 2014; Cost Certainty for the Interconnection Process Staff Proposal, p. 6. "Rule 21, Sec. F.2. The eligibility threshold for generators is 3 MW in PG&E and SCE territory and 1.5 MW in SDG&E territory. Rule 21 Sec. E.2.b.i: Interconnection Request Submission Process, Fast Track Eligibility."

[37] Rule 21 Sec. F.3.

process would be consistent with Rule 21 and would align with utility administration of the interconnection process and NEM.

To provide transparency to customers, the Commission should develop a guide that will allow NEM customers to understand what aspects of projects could create the need for distribution upgrades. For example, the utilities can identify "low impact" and "high impact" areas in their systems to indicate whether those areas are likely to require upgrades. This could be similar to the information available to customers on the screening review used in Rule 21 to determine if projects are eligible for Fast Track interconnection or must go through a Detailed Study Interconnection Review, though Fast Track projects could also trigger a distribution upgrade.[38] With this information, the customers should be able to determine whether their project would likely create a need for distribution upgrades and therefore would not be eligible for NEM because of its "significant impact on the distribution grid."

c. How should the requirement to be "sized to onsite load" be measured?

Under the current NEM process, systems are sized to meet but not exceed the customer's annual onsite load.[39] This means that the estimated annual kWh production of the proposed system may not be higher than the sum of the previous 12-month energy usage(s) for all eligible meters. [40] Sites with new construction or expected future load growth can provide an estimate of the expected expanded consumption, preferably an engineering estimate, as done for CSI.[41] At this point, ORA does not see the need to develop a separate definition for "sized to meet onsite load" for systems greater than 1 MW.

---

[38] Rule 21, Section F. Fast Track interconnection is a faster process that does not require a Detailed Study. July 29, 2014, R.11-09-011 Administrative Law Judge's Ruling Setting Schedule for Comments on Staff Reports and Scheduling Prehearing Conference, Attachment A July 18, 2014 Cost Certainty for the Interconnection Process Staff Proposal, p. 8.

[39] D.11-06-016, p. 34.

[40] August 2014, CSI Handbook, p.24. http://www.gosolarcalifornia.ca.gov/documents/CSI_HANDBOOK.PDF.

[41] *Id.*, p. 26.

d. How should the size requirement be enforced? By whom? Responses should consider at least: the situations of customers with historical energy usage; customers with new construction (i.e., no historical energy usage); and customers with anticipated future load growth, regardless of historical usage.

The utilities should continue to be responsible for reviewing information on project size and comparing it to a customer's annual onsite load to determine if the project size is appropriate. Again, the process should be consistent with the methods currently in place for systems 1 MW and less. For customers with historical usage, annual onsite load would be determined using the sum of the previous 12-month energy usage(s) for all eligible meters.[42] For sites with new construction or expected future load growth, the annual onsite load would be determined using an estimate of the expected expanded consumption, preferably an engineering estimate, provided by the customer. [43]

8. What, if any, issues may arise with the interconnection of projects described in § 2827.1(b)(5) under the rules and charges established in Rule 21? Please be specific about any potential issues you identify, including descriptions of current practices or rules. What specific actions could reduce or eliminate the possible issues you have identified?

There are two issues that may arise with the interconnection of NEM projects greater than 1 MW under the rules and charges established for Rule 21: interconnection delays and high cost of fees.

[42] August 2014, CSI Handbook, p.24. http://www.gosolarcalifornia.ca.gov/documents/CSI_HANDBOOK.PDF.

[43] *Id.*, p. 26.

(i) Interconnection delays: Currently, NEM projects do not need to pay application fees, study expenses or costs associated with distribution upgrades to be interconnected.[44] This creates a faster process because the utilities can run the project through the standard screens without stopping, whereas applicants outside of NEM need to pay the utility created cost estimates before the process can continue.[45] The applicants can question the utility on the cost estimates and discussions to resolve the issues can cause delays. If projects eligible for NEM are greater than 1 MW and subject to reasonable interconnection charges, they could face delays similar to those projects applying for interconnection outside of NEM.

(ii) High cost of fees: As previously stated, current NEM projects (1 MW or less) do not need to pay application fees, study expenses or costs associated with distribution upgrades to be interconnected.46 For projects outside of NEM, the applicants make payments to the utility at every step in the interconnection process (for the interconnection application, for the study, and for costs associated with distribution grid upgrades and the construction process) before the utility will commence work.[47] According to PG&E's Rule 21, these fees can range from $800 for an Interconnection Request Fee, $2,500 for a Supplemental Review Fee and $10,000 to $250,000 for a Detailed Study Deposit depending on the Gross Nameplate Rating of the facility.[48] These high costs may discourage NEM customers from interconnecting.

---

[44] July 29, 2014, R.11-09-011 Administrative Law Judge's Ruling Setting Schedule for Comments on Staff Reports and Scheduling Prehearing Conference, Attachment A July 18, 2014, Cost Certainty for the Interconnection Process Staff Proposal, p. 4.

[45] *Id.,* p. 5.

[46] *Id.*, p. 4.

[47] *Id.,* p. 3.

[48] PG&E Electric Rule No. 21, Generating Facility Interconnections, Table E-1 Summary of Interconnection Request Fees, Deposits and Exemptions.

The Commission is already addressing these issues in R.11-09-011. Parties and Energy Division have provided proposals to allow greater cost certainty for the interconnection process which will also address issues with interconnection delays.[49] The changes made in R.11-09-011 to address these issues for non-NEM projects could also be applied to NEM projects greater than 1 MW so that Rule 21 is consistently applied.

9. Section 2827.1(b)(7) states that any fixed charges for residential customer generators that differ from the fixed charges allowed pursuant to subdivision (f) of Section 739.9 shall be authorized only in a rulemaking proceeding involving every large electrical corporation, and that the commission shall ensure customer generators are provided electric service at rates that are just and reasonable.

a. Should this proceeding include consideration of developing fixed charges for residential customer-generators that may differ from any fixed charges that may be set for all residential customers as a result of a decision in the pending residential rate design proceeding, Rulemaking 12-06-013? Why or why not?

While ORA does not take a position, at this time on whether any fixed charges for residential customer-generators should differ from those for all other residential customers, it believes that the issue should be considered in R.14-07-002 and not in R.12-06-013. There are five reasons why ORA takes this position:

(i) The issues that would be considered in developing such fixed charges relate specifically to the net load characteristics of customers who have renewable generators, which are quite different from the load profiles of residential customers who do not have generators. Thus the contribution of revenues from variable energy rates towards fixed costs may differ between the two groups. The NEM successor tariff

[49] July 29, 2014, R.11-09-011 Administrative Law Judge's Ruling Setting Schedule for Comments on Staff Reports and Scheduling Prehearing Conference Attachment A July 18, 2014 Cost Certainty for the Interconnection Process Staff Proposal, p. 2.

proceeding could also investigate to what extent residential customers with generation have load diversity benefits similar to those assumed in the SCE Option R discounts, and to what extent their load factors differ from customers without generation. Diversity benefits would tend to offset any fixed charges but low load factors could require higher fixed charges than what is ultimately adopted in R.12-06-013.

(ii) ORA has recommended a minimum bill provision in R.12-06-013 in lieu of a fixed charge. If that is adopted, then the extent to which this provision addresses potential cost-shifting concerns from customer generators is best studied in a proceeding which focuses on the NEM successor tariff and customer-generators because of many of the same characteristics of customer-generators mentioned in No. 1 above.

(iii) Another option in lieu of a fixed charge for residential customers with generators is a demand charge that could take the size of the renewable generator relative to a customer's gross load into consideration. Most parties have expressed opposition to demand charges for customers without generation in R.12-06-013, thus demand charges and their specific application to NEM customers are not being addressed in the residential rates proceeding.

(iv) The record has already been submitted in R.12-06-013, and a new phase would have to be opened to address these NEM issues. Given that R.12-06-013 already contains a plethora of issues, complicating it further with these issues may not be desirable.

(v) There may be more stakeholders representing customer generators in this proceeding than in R.12-16-013.

ORA notes that calculating the actual fixed charges could be assigned to individual utility rate design proceedings and that changes to TOU periods currently being considered in various rate design proceedings could impact the concern about cost

shifting. Thus, ORA cautions that designing fixed charges or demand charges for the NEM successor tariff is likely to require an iterative analysis process.

10. Current law (§ 2827(g)) includes several secondary benefits to NEM customer-generators. These include exemption from "any new or additional demand charge, standby charge, customer charge, minimum monthly charge, interconnection charge," or any other charge that would increase an eligible customer-generator's costs beyond those of customers who are not customer generators in the same customer class.

a. Will any of these exemptions continue to apply as a matter of law after the successor standard contract/tariff is implemented? Why or why not?

ORA does not have comments on Question 10a at this time but reserves the right to respond to this issue in reply comments.

b. Regardless of whether you argue that the exemptions set out above will continue to apply as a matter of law, should they be continued as a matter of Commission policy? Why or why not? Please respond specifically as to each exemption.

c. Should any of these exemptions set out above be ended when the successor standard contract/tariff is implemented? Why or why not? Please respond specifically as to each exemption.

d. Should modifications or adjustments to any of the exemptions set out above be made when the successor standard contract/tariff is implemented? Please provide a specific proposal, with a rationale, for each proposed change. Please provide quantitative examples, if relevant.

The exemptions described in § 2827(g) should neither be automatically continued, nor ended. While ORA does not yet take a position on whether any of the specific exemptions should be continued, modified, or ended, ORA does intend to analyze the effect that continuing, modifying, or ending these exemptions will have on the benefit-cost results using the public tool. Specifically, ORA intends to model scenarios for alternative tariffs that require the customer generator to pay the one-time interconnection

fee, to pay a monthly fee based on the capacity of the renewable generator, and to pay a monthly fee based on the customer's load.

11. The current NEM program includes several variations within the NEM tariffs themselves, including virtual net energy metering (VNEM), multi-family affordable solar housing (MASH) VNM, and NEM aggregation.

a. Should any of these elements of the current NEM program be ended when the successor standard contract/tariff is implemented? Why or why not? Please respond specifically as to each element. Please provide quantitative examples, if relevant.

b. Should modifications or adjustments to the elements set out above be made when the successor standard contract/tariff is implemented? Please provide a specific proposal, with a rationale, for each proposed change. Please provide quantitative examples, if relevant.

ORA does not yet take a position on whether and how the NEM elements should be modified. These program elements should be evaluated and ended only if they are no longer achieving the goals at the level of performance prescribed or expected by the Legislature and the Commission. The direct benefits provided to participants from these program elements should be modified in a way that is approximately equivalent to modifications adopted within the general NEM successor tariff.

12. What, if any, consumer protection issues should the Commission consider as part of the successor standard contract/tariff? Responses should address at least the following topics:

a. Maintaining approved equipment lists;

b. Warranty requirements;

c. Customer complaints and policing bad actors.

Extending consumer protection measures as part of the NEM program is appropriate in order to fulfill the Commission's purpose of serving "the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and

a healthy California economy."[50] ORA recommends that the Commission establish a separate track within this proceeding to conduct a more detailed review of the consumer protection measures that might be required as part of the NEM successor tariff program. A separate track may be necessary in order to have at least one workshop and round of comments focused solely on consumer protection issues, as well as providing the option for the Commission to issue a separate PD addressing consumer protection issues prior to a final decision on the successor tariff. Since the CSI program is all but closed for most customers who choose to self-generate and go on the NEM tariff, many of the consumer protection measures that have been part of the CSI program will not be available to customers taking the NEM tariff from today until the successor tariff is implemented.

ORA recommends that the Commission establish a separate track within this proceeding for the reasons stated above, because parties would not have had sufficient time to develop robust consumer protection recommendations within these comments, and because parties' responses to this question will not likely constitute a sufficient record for the Commission to rule on consumer protection measures for the NEM program. ORA identifies some consumer protection issues that should be considered as part of a more rigorous evaluation of consumer protection measures for existing NEM customers and successor tariff customers below.

ORA's principal recommendation for consumer protection is to ensure that solar consumers continue to have readily available and transparent information about their rights as utility customers; their available energy choices; the potential lifecycle costs and other consequences of purchasing, leasing, or entering into a power purchase agreement; and the impact that changing underlying rates can have on the economics of their energy choices. Currently there is no single organization that provides information in a fully comprehensive and transparent manner for solar consumers. The GoSolarCalifornia website,[51] currently managed jointly by the CEC and CPUC is the most familiar solar

[50] Current CPUC Mission Statement: http://www.cpuc.ca.gov/PUC/aboutus/pucmission.htm

[51] http://www.gosolarcalifornia.org.

consumer service brand in California. Each of the electric utilities, the CPUC, and the CEC have several pages on their websites where consumer information can be found, some of it overlapping with what is on the GoSolarCalifornia website, and some of it unique. ORA recommends continuing the GoSolarCalifornia website, which should be updated to include information about the existing NEM tariff as well as information about progress of the successor tariff as it becomes known.

The GoSolarCalifornia website should continue to maintain the list of "approved" system components that are currently provided by the CEC's PV system certification program. However, the list would simply be a list of PV modules and inverters that have safety certification from a Nationally Recognized Testing Laboratory and have had their electrical characterization data tested by a third party laboratory.

Purchasing solar or entering into a solar power purchase agreement; especially when considering the complexity of the economic, technical, and environmental considerations, will be a momentous and complicated financial decision for most utility customers. Consequently, it is reasonable for the Commission to establish a dedicated consumer protection advocate that is under contract with the Commission to serve as the primary resource for solar consumer complaints and questions.

In addition to maintaining a comprehensive source of information available to consumers on a familiar and trusted website, and a solar consumer advocate available to help consumers with their individual questions and complaints, the Commission should identify a mechanism to ensure that all utility customers who consider going solar are made aware of the website and the a solar consumer advocate before they make a commitment to install solar.

California Public Utility Code Section 387.5(d)(4) requires that all solar energy systems that receive a CSI incentive have a warranty of at least 10 years to protect against defects and undue degradation of electrical generation output. Installation contractors must also provide a minimum 10-year warranty for no-cost repair and replacement of the system and for expenses not otherwise covered by the equipment manufacturer. It is ORA's understanding that, in the absence of a state warrantee requirement, PV panel

manufacturers typically guarantee the power output of their panels for 10 to 25 years, and inverter manufacturers guarantee their inverters for 5 to 10 years. Therefore, it may not be advantageous to continue the warranty requirement within the NEM successor tariff since an administrative structure would need to be put in place to monitor and enforce the warrantee requirements. The CSI program was able to effectively monitor and enforce the warrantee requirement because the solar installer and/or solar customer was required to submit forms to the program administrator in order to reserve rebate funds prior to installing a qualifying system. If the Commission chooses to extend the CSI warrantee requirement, it will need to identify a mechanism to ensure that solar installers are complying with the warranty requirement, and to enforce these requirements when necessary.

In addition to any additional consumer protection measure adopted for solar customers within this proceeding, the Commission should continue to manage customer complaints and consumer outreach that is within its jurisdiction and enforcement ability.

13. What impact, if any, could any consumer protections you propose to consider in response to question 12, above, have on the total costs and benefits of the successor standard contract/tariff? Please be specific about the reasons for any impact discussed, and provide quantitative examples.

Implementing the consumer protection measures discussed in response to question twelve will incur some administration costs and decrease the cost-effectiveness of the contract/tariff. The magnitude of the impact will depend on how robust the consumer protection measures are that the Commission ultimately adopts as part of the successor tariff. As the Commission determines what specific consumer protection measure to put in place for the successor tariff, the cost implication will begin to emerge. If the consumer protection costs remain unknown when parties in this proceeding are developing contract/tariff proposals and testing their proposals within the public tool, then ORA recommends that Energy Division develop an approximate budget for consumer protections that is used as a standard public tool input for all proposals.

14. How should considerations of safety be included in the development of the successor standard contract/tariff? Please be specific, and consider at least:

a. compliance with existing interconnection rules;

b. implementation of requirements for projects larger than one MW;

c. consumer protection issues identified in response to question 12, above; and

d. any other safety issues that could arise in the implementation of the successor standard contract/tariff.

Current regulations regarding safety should continue to apply regardless of the form of the adopted NEM successor tariff. For interconnection issues, these would be addressed through Rule 21.

Respectfully submitted,

/s/ JAMES M. RALPH
JAMES M. RALPH

Attorney for
The Office of Ratepayer Advocates

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-4673
E-mail: james.ralph@cpuc.ca.gov

March 16, 2014