BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop a Successor to Existing Net Energy Metering Tariffs Pursuant to Public Utilities Code Section 2827.1, and to Address Other Issues Related to Net Energy Metering.	Rulemaking 14-07-002 (Filed July 10, 2014)

REPLY BRIEF OF THE ALLIANCE FOR SOLAR CHOICE, THE SOLAR ENERGY INDUSTRIES ASSOCIATION AND THE CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION

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Pursuant to the schedule established at the end of hearings on October 7, 2015 by Administrative Law Judge Anne Simon, The Alliance for Solar Choice (TASC), the Solar Energy Industries Association (SEIA),[1] and the California Solar Energy Industries Association (CALSEIA) (hereinafter Joint Solar Parties or JSP), submit the following reply brief responding to the opening briefs filed on October 19, 2015. JSP responds to the opening briefs of Pacific Gas and Electric (PG&E), Southern California Edison (SCE), San Diego Gas & Electric (SDG&E), and the Office of Ratepayer Advocates (ORA).

I. INTRODUCTION

The hearings in this proceeding were limited to bringing a broader understanding to certain elements of the record that are crucial for the Commission to determine an appropriate Net Energy Metering (NEM) Successor Tariff. The hearings focused on three topics: (1) projections of prices of rooftop solar installations; (2) the investor-owned utilities' proposed charges in the successor tariff for interconnection of small systems; and (3) any proposed demand charges, capacity fees, standby charges, access fees, use charges, or other fixed charges for the successor tariff. Consistent with the ALJ's ruling limiting briefing to these topics, the JSP opening brief was limited to these issues and these issues alone. In stark contrast, the opening briefs of other parties spend pages raising points made in their prior comments that are not germane to the

[1] The comments contained in this filing represent the position of the Solar Energy Industries Association as an organization, but not necessarily the views of any particular member with respect to any issue.

instant issues set for briefing,[2] and some parties also seek to bolster their case by introducing new extra record evidence to the docket in a vain attempt to shore up the deficiencies in their proposals.[3] The JSP believe it is critical that the Commission ignore these portions of the parties' opening briefs in order to protect the due process rights of all parties.

At the same time that it is attempting to bolster its position through extra-record evidence, SDG&E attempts to improperly limit in the scope of the evidence presented by the JSP across the range of filings comprising the record in this docket, stating "the evidence presented by the solar parties establishes at most that solar industry growth under the NEM reform proposals would be at the rate calculated under the unaltered Public Tool using the base solar cost input."[4] This is an incorrect reading of the record. Solar cost is but one of the factors influencing adoption projections in the Public Tool, and there is more information beyond the Public Tool that the Commission must consider in weighing the adoption impacts of successor tariff proposals. The JSP in prior comments have submitted extensive information about various Public Tool inputs that primarily impact adoption,[5] and have presented a transparent analysis on capital recovery period for cash purchased systems and monthly savings for power purchase agreements (PPAs).[6] The fact that the scope of the hearings with respect to adoption was limited to factors related to solar price projections does not mean that is the only issue to be considered in association with the opportunity of customers to generate their own power.

In addition to exceeding the dictated scope of the issues to be briefed, PG&E and the other IOUs attempt to shift the burden of proving their arguments to the solar intervenors in this docket. The IOUs do this by repeatedly pointing out supposed failures by the JSP to provide detailed pricing and cost information on the California solar industry and insinuating that the JSP

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[2] *See, e.g.*, SCE Opening Brief at pgs. 1-5 (where SCE surprisingly reiterates its misunderstanding of CALSEIA's testimony in R.12-06-013, despite being corrected in the JSP opening comments on successor tariff proposals at pp. 41-42); SDG&E Opening Brief at pgs. 1-8; a majority of ORA's testimony and brief is beyond the scope of hearings.

[3] *See, e.g.*, SCE Opening Brief, information supported by footnotes 55, 64, 65, 86, and 91; SDG&E Opening Brief, information supported by footnotes 2, 4, 5, 13, 19, 20, 50, 60, and 85; ORA Opening Brief, information supported by footnotes 23, 26, and 52.

[5] JSP opening comments at pgs. 11-18 and pgs. 29-33.

[5] JSP opening comments at pgs. 11-18 and pgs. 29-33.

[6] JSP opening comments at pgs. 33-40 and Appendices B and C.

failure to produce this information is a flaw which we had a burden to correct.[7] The Commission must reject such attempts.

As a foundational matter, the solar intervenors are under no obligation to help the IOUs prove their arguments. As demonstrated in our proposals, comments and testimony, the JSP have more than adequately demonstrated our proposals are compliant with AB 327 by using publicly available (and unbiased) information on the solar industry. That is the extent of our burden in this docket. Furthermore, the JSP have used publicly available information because the Commission made its preference for use of publicly available information clear and because the trade associations that comprise most of the JSP must be careful not to engage in behavior that violates antitrust law, either to support our case or respond to the IOUs' assertions.[8] While the IOUs may think better data concerning solar industry costs and pricing is necessary to prove their points beyond what data is publicly available, the burden was on them to obtain information they deemed necessary to prove their case, not the JSP. For these reasons, the Commission should reject IOU arguments that attempt to shift to the JSP the burden of proving the IOUs case.

II. THE JSP HAVE CLEARLY DEMONSTRATED THAT THE LOW SOLAR COST CASE IN THE PUBLIC TOOL IS NOT A REASONABLE SCENARIO

In their opening briefs, the IOUs critique CALSEIA's testimony against relying on the low solar cost case for modeling in the Public Tool, generally arguing that CALSEIA has failed to meet its burden for showing that the low cost case's projections of solar costs are unrealistic. SCE states three times that the burden of proof is on CALSEIA to use anything other than the

[7] *See, e.g.*, PG&E Opening Brief at pg. 3 (arguing that solar pricing is opaque and "the industry has provided little evidence as part of this hearing to build the record on solar pricing"); pg. 18 (arguing that "like other information available to the Joint Solar Parties, that information was not provided" when discussing market shares of each firm in the industry, where they do business and what products are offered).

[8] *See, e.g.*, Spotlight on Trade Associations, Federal Trade Commission, available at: https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/dealings-competitors/spotlight-trade (explaining in general concerns with trade associations and noting that "[a]ny data exchange or statistical reporting that includes current prices, or information that identifies data from individual competitors, can raise antitrust concerns if it encourages more uniform prices than otherwise would exist.")

low solar cost case in modeling to support successor tariff proposals.[9] However, nothing in the Public Tool or its documentation suggests that any particular solar cost case out of the three in the Public Tool is the correct one. CALSEIA justified the use of the base solar cost case, and the burden of proof is on SCE to demonstrate that the low case is more appropriate if SCE believes that to be the case.

To support its views on the appropriateness of the base cost case, CALSEIA presented testimony from presidents of two solar companies with years of experience – Jose Luis Contreras and Mike Teresso – to explain to the Commission why the low cost case is unreasonable.[10] In addition to their experience, witness Contreras and Teresso utilized both (1) independent analysis of solar costs prepared by Woodlawn Associates based on a bottom-up detailed analysis of financial records from solar companies and (2) the Lawrence Berkeley National Lab (LBNL) "Tracking the Sun VIII" report to explain in detail why the low cost case is unrealistic. Thus, their testimony is solidly grounded in their professional experience in the solar industry and bolstered by unbiased research from an experienced and well-respected national lab on the topic of solar installed costs.

Rather than attack the substance of the evidence presented by witnesses Contreras and Teresso, the utilities point to the fact that these witnesses did not have detailed knowledge of the workings of the Public Tool as a reason to discount their testimony.[11] However, the solar cost question in these hearings has been about projections of future prices that can be used to predict future adoption in the Public Tool. It is not about the adoption model in the Public Tool and whether its predictions are accurate. Thus, knowledge of how the Public Tool works is irrelevant to the testimony of witness Contreras and Teresso, which focused on the reasonableness of inputs used in the Public Tool. It is common sense that if the inputs are wrong, then the outputs from the Public Tool will not be valuable (i.e. "garbage in, garbage out"). As demonstrated in our opening brief and herein, the obvious reason for the IOUs to take this approach is because their other attacks on the core testimony presented by CALSEIA and the JSP on the propriety of

[9] SCE Opening Brief at pg. 2, pg. 4, and pg. 5.
[10] *See* CALSEIA Opening Testimony at pg. 8, line 8 - Table 3 on pg. 11.
[11] *See, e.g.*, PG&E Opening Brief at pgs. 7-8. SCE did not even get its criticism straight, saying the CALSEIA witnesses did not have "even a superficial understanding of how the Public Tool developed its low cost case." (SCE Opening Brief at pg. 5) The methodology of how the solar cost case Public Tool inputs were derived was not raised at hearings.

utilizing the low solar cost case are meritless. As explained in our opening brief and below, the IOUs essentially ask the Commission to bank on a small number of unproven factors to create a wishful scenario for future solar prices. The IOUs do not attempt to show that average solar prices in the marketplace are different from the base solar cost case in the Public Tool. Rather, they find examples of price *quotes* from some companies for the simplest of installations and make the unfounded claim that the average solar price should be at that level.

A. PG&E's Arguments Concerning a Lack of Competition in the Solar Industry Are Meritless

1. Online Price Quotes Are Not Actual Prices for Installed Systems

In attacking CALSEIA's testimony, PG&E witness James asserts that quotes obtained online from select solar companies are indicative of actual prices of installed systems across the industry. PG&E uses these limited quotes in an effort to demonstrate that the low solar case is reasonable.[12] However, this leap in logic from a specific quote to industry-wide pricing suffers from a number of flaws.[13]

First, the record, including extensive discussion on the topic in Tracking the Sun VIII, adequately demonstrates that costs vary across the industry for numerous reasons,.[14] Moreover, as witness Contreras explained on the witness stand, quotes are not actual installed costs from real installations, but instead represent base prices that change based on the specific situation of

[12] Exhibit 20, pgs. 3-12, lines 4-16.

[13] Along a similar vein, in its opening brief, SCE encourages the Commission to consider the advanced solar panel manufacturing plant that SolarCity is building in New York and "assume that the industry can likely expect to experience reductions based on lower hardware costs and other efficiencies." SCE Opening Brief at pg. 7. However, the investments made by one company to lower its costs should not be seen as indicative of how costs may change across a diverse industry. The Commission must take a conservative position in determining what the NEM 2.0 tariff will look like by not relying too heavily on speculative pronouncements about the future based statements from or actions of one company.

[14] *See* Comments of The Alliance for Solar Choice, Solar Energy Industries Association, California Solar Energy Industries Association, and Vote Solar on Parties Proposals, filed September 1, 2015, pg. 84 (Section E Tracking the Sun VIII conclusions regarding price variations).

an individual customer's installation.[15] In fully explaining this common sense idea, Mr. Contreras provided specific examples of a range of prices that can occur due to characteristics of an individual system designed to meet requirements unique to a specific customer.[16] Despite that explanation of how online quotes fit within the real world of the solar industry, the IOUs continue to point to online quotes as definitive pricing offers. despite the fact that witness James dissembled during cross-examination on whether the prices from quotes he obtained were actually prices for installed systems.[17] The JSP submit that it is entirely reasonable for the Commission to conclude that the IOUs' use of quotes is simplistic and unhinged from a common sense understanding of what price quotes represent in the real world and, thus, do not provide any basis for concluding that installed solar prices are consistently as low as the quotes the IOUs obtained online.

2. The Commission Must Consider a Range of Prices

Testimony by witness Contreras also provides discussion of why pricing from one company cannot be seen as indicative of prevailing prices across the more than 1500 solar companies operating in California that face different costs.[18] In opening testimony, Contreras states, "a source of variation is the differences in system configuration and customer requirements. Some buildings are easier to equip with solar and some are more difficult. Some jobs require prevailing wage. Some are located in jurisdictions with more onerous permitting requirements. Some involve engineering disputes with the utility."[19] PG&E readily admits such a common sense view in their opening brief, arguing that "[d]ifferences in costs are a regular and often unavoidable occurrence among utilities"[20] when arguing for differential interconnection application fees. Yet, PG&E seems to forget this fact when arguing for uniform solar pricing in the solar industry.

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[15] Tr. Vol. 1 (CALSEIA-Contreras), pg. 15, line 16 – pg. 18, line 12. (explaining relationship of quotes to actual prices for installed systems).
[16] Tr. Vol. 1 (CALSEIA-Contreras), pg. 16, line 13 – pg. 18, line 12. (explaining how variations in system characteristics due to customer preferences or other factors can nearly double the cost per watt of an installed system).
[17] Tr. Vol. 1 (PG&E-James), pg. 163, line 22 – pg. 165, line 4.
[18] Exhibit 1, pg. 4, line 8 – pg. 5, line 5; pg. 14, line 23 – pg. 16, line 4.
[19] CALSEIA Opening Testimony at pg. 5. See also pg. 6, line 18 - pg. 7, line 14.
[20] PG&E Opening Brief at pg. 26.

Similarly, PG&E unreasonably recommends using Solare Energy's lowest pricing as the indicator of its average pricing pointing out that the Solare Energy base price of $3.58/W-DC "is as close to the 2015 Public Tool Low case of $3.08/W-DC as it is to the Base case of $4.08/W-DC."[21] If Solare Energy's base price is halfway between the two cases and its average price is much higher than its base price,[22] then then company's prices are clearly closer to, if not higher, than the Public Tool's base case. What is most reasonable to use in the Public Tool is the industry's average price, not the base or lowest price that any company may be able to offer to those customers whose systems are the easiest and cheapest to install.

3. PG&E's PPA Prices Are Not the Prices Used in the Public Tool

PG&E repeatedly refuses to acknowledge the scope of CALSEIA's opening testimony. PG&E's opening brief is critical of the CALSEIA witnesses for not having a deeper familiarity with how the Public Tool uses system cost data to simulate PPA prices. However, the testimony was about the impacts of competition on the system cost data used as an input to the Public Tool and never purported to address the functionality of the Public Tool. Moreover, it is PG&E that misstates how the Public Tool works. PG&E states, "The actual PPA prices in the Public Tool were put in evidence by PG&E witness Ted James."[23] That is not a true statement. PG&E witness James included in his testimony a table of PPA prices that he derived from the $/watt system cost data using his own assumptions and the Pro Forma module. This is not the "actual PPA prices in the Public Tool." The actual PPA prices in the Public Tool are calculated separately for each customer bin in each year. As shown in the JSP opening brief, those values are likely lower, on average, than the values shown in James's testimony.[24]

Further, IOU confusion on this issue is demonstrated by SCE's statement that "Neither of CALSEIA's experts made a similar calculation to rebut the Public Tool's third party owned pricing."[25] CALSEIA did not seek to rebut the Public Tool's third party owned pricing. Rather, CALSEIA challenges PG&E's price conversion as different from the pricing that is actually used

[21] PG&E Opening Brief at pg. 7.
[22] Tr. Vol. 1 (CALSEIA-Contreras), pg. 16, line 16 - pg. 17, line 11.
[23] PGE Opening Brief at pg. 10.
[24] *See* JSP Opening Brief at pg. 10.
[25] SCE Opening Brief at pg. 6.

in the functionality of the Public Tool. Thus, SCE fails to have a basic understanding of CALSEIA's position on the Public Tool's pricing inputs.

4. The IOUs Mix Pricing Data That Is Not Comparable

In its opening brief, PG&E confuses (1) PPA prices with escalators and (2) levelized PPA prices without the discipline to compare apples to apples. PG&E states:

> "15 cent prices for PPAs are widely available today, not the 20 cent base price in the Public Tool. As admitted by Mr. Contreras, Solare Energy's web site offers 15 cent per kWh leases for projects 6.38 kW and larger. Similarly, SolarCity's web site currently offers 17 cent per kWh PPAs in PG&E's service area …"[26]

This comparison is grossly off base. The two references to 15 cents prices are prices with escalators,[27] and the other prices are levelized. Further, the SolarCity 17 cent price is improperly discounted to spread the 20-year net present value over 25 years. Removing that error would produce a levelized price of 19 cents.[28]

Moreover, the information provided by the IOUs regarding prices in other states did not consider the many differences between states in the various components that constitute installation costs. For example, SDG&E points to a quote from a news article suggesting that the current national average installation price is $3.50/W without acknowledging that business costs are significantly higher in California, leading to higher installed costs, and without presenting an analysis of the extent of those differences are.[29]

Similarly, PG&E and SDG&E refer in opening briefs to a report by Bloomberg New Energy Finance that estimates current solar prices at $3.50/W,[30] but they fail to point out that the data source may be skewed. The report states, "Data in this report comes from a large sample of construction permits submitted by installers for residential solar arrays across the U.S."[31] The reason construction permits in some cities ask for system price is that the permit fee is based on

[26] PGE Opening Brief at pgs. 10-11.
[27] *See* JSP Opening Brief, footnote 26 at pg. 11.
[28] JSP Opening Brief at pp. 8-9 and pg. 11.
[29] Exhibit 9; SDG&E Opening Brief at pg. 12.
[30] Exhibit 10; PG&E Opening Brief at pg. 7; SDG&E Opening Brief at pg. 11.
[31] Exhibit 10 at pg. 3.

the project valuation which may bias prices stated in the report as it is unclear what cost basis developers are required to report for permitting purposes.

5. SDG&E Fails to Understand the Meaning of Soft Costs

SDG&E is confused about the differences between hard costs and soft costs. In its opening brief, SDG&E states, "Both Mr. Contreras and Mr. Teresso suggest that future cost reductions are possible only in equipment costs and labor costs." SDG&E then states that CALSEIA's "list of soft costs excludes equipment costs and labor costs."[32] In fact, both Contreras and Teresso state repeatedly that opportunities for hardware cost reduction are limited and there is more hope for reductions in non-hardware costs. Soft costs by definition exclude hardware costs, but do not exclude labor costs. Installation efficiency, customer acquisition, permitting and inspections efficiency, and interconnection efficiency are all labor costs.[33] SDG&E also creatively attempts to paint solar industry employment numbers as a negative, saying the fact that the solar industry employs more people than utilities is an indicator of inefficiency.[34] In making this statement, SDG&E fails to consider the fact that California has become a national and worldwide leader in solar development, with many prominent solar companies based in the state, due to long standing state support to bring the solar energy industry into the energy resource mainstream. These companies are not just developing distributed generation projects in California. Does SDG&E really think that it is "inefficient" and thus presumably bad for the state's economy that solar industry personnel based in California are leading a worldwide evolution toward clean energy?

B. Pricing Lower Than One's Competition Is Basic Business Common Sense

To bolster their argument that the low cost case is reasonable, witness James points to the fact that SolarCity charges prices below average utility rates across a range of jurisdictions.[35] However, the need to charge rates below the prevailing rate was explained by witness James

[32] SDG&E Opening Brief at pg. 14.

[33] CALSEIA Opening Testimony at pgs. 12-14.

[34] SDG&E Opening Brief at pgs. 16-17.

[35] Exhibit 20 (PG&E-James), Table 3-2 at pg. 3-20.

when he conceded on cross examination that "for a company to transact with the customer… [the company] would have to provide value to that customer financially."[36] Quotes from SolarCity's 2015 Second Quarter 10k from PG&E's testimony bolster this fact, noting that SolarCity "need[s] to offer a compelling financial benefit" to attract customers.[37] Thus, the rationale for SolarCity charging prices below the utilities is readily evident even from PG&E's own testimony. Finally, while witness James asserted that research is still emerging (and thus is not yet conclusive) that customer adoption is driven by minimum bill savings, the Commission has had research since 2010 demonstrating that solar customers' primary motivation for going solar are financial and driven by desire for bill savings.[38]

Thus, the record demonstrates that solar companies are pricing below the prevailing utility rate for two reasons – (1) solar companies are competing with IOUs for business by providing necessary bill savings to attract customer interest in solar and (2) they are competing with each other to earn the business of solar customers. The solar industry has faced these competitive pressures since its inception. This competitive pressure has resulted in an industry that witness James admitted on the stand has "a lot of innovation taking place with different financial products, different technologies."[39]

1. Relying on Competition Is Better Than Price Regulation

Arguments about a lack of competition in the solar industry are simply not credible. In response to information that there are more than a thousand companies with experience installing solar, SDG&E notes that many of them are not high volume and concludes, "This makes the degree of competitiveness of the rooftop solar market in California difficult, if not impossible, to determine."[40] Given the number and variety of entrepreneurial companies seeking opportunities to sell solar power, the JSP find it absurd that the IOUs characterize the California solar market

[36] Tr. Vol. 1 (PG&E-James), pg. 163, lines 5-19.
[37] Exhibit 20 (PG&E-James), pg. 3-18 line 25-35.
[38] *See* CPUC California Solar Initiative 2009 Program Impact Evaluation Final Report, prepared by Itron, Inc. and KEMA, Inc. for California Public Utilities Commission Energy Division, June 2010, pgs. 11-3 to 11-9.
[39] Tr. Vol. 2 (PG&E-James), pg. 202, lines 22-25.
[40] SDG&E Opening Brief at pg. 13.

as uncompetitive. If one company is overcharging, there is no shortage of other companies willing to jump into that sector and offer a better deal.[41]

The high degree of competitiveness of the industry is also evidenced by an LBNL report published in October 2014 that examined the residential PV industry in California to understand the share of incentives passed through from installers to consumers. The report found "an average pass-through rate of direct incentives of nearly 100%, though with regional differences among California counties. While these results could have multiple explanations, they suggest a relatively competitive market…"[42]

2. PG&E's Price Quote for a Theoretical SMUD Customer Is Not Useful Information

A large part of PG&E's argument seems to rest on SolarCity pricing information for customers of the Sacramento Municipal Utility District (SMUD). PG&E shows an online price quote tool that produces a price of $0.109/kWh for a SMUD customer, but that price quote only indicates a savings of 3% and PG&E offers no information on how many SMUD customers are signing up for solar with so little projected savings. PG&E states, "a comparison of pricing across utility service territories with similar cost structures suggests that solar vendors could immediately reduce PPA prices and maintain a thriving market."[43] PG&E has not demonstrated that cost structures are similar in SMUD and PG&E territories. PG&E's opening brief states, "one would *assume* the cost of doing business in Sacramento is comparable to the cost of doing business in the rest of California,"[44] despite PG&E witness James agreeing during cross-

[41] *See* CALSEIA Opening Testimony at pg. 5, line 18 - pg. 5, line 17.

[42] CALSEIA Opening Testimony at pgs. 6-7; C.G. Dong, Ryan Wiser and Varun Rai, "Incentive Pass-through for Residential Solar Systems in California," Lawrence Berkeley National Lab, October 2014, pg. 1, available at: https://emp.lbl.gov/sites/all/files/pass-through-report-oct7.pdf.

[43] PG&E Opening Brief, at pg. 15. PG&E similarly makes a blanket assumption about the health of a solar market by turning the German experience on its head, claiming that policies can be abruptly changed while maintaining a thriving market rather than acknowledging that the bottom fell out of the German solar market after policy changes there. PG&E witness James's interpretation of "retail operations" as "retail operations of selling panels" or "retail operations of utility scale solar" is not credible (Tr. Vol. 1 at p. 152, lines 4-10).

[44] PG&E Opening Brief, at pg. 21.

examination that the cost is likely lower, with SMUD customers all densely grouped near a SolarCity operations center while PG&E customers are spread over a wide geographic area.[45]

C. PG&E Presents No Substantive Analysis of Actual Margins in the Solar Industry

PG&E also attempts to utilize the fact that SolarCity's quotes are below prevailing utility prices to make the remarkable assertion that SolarCity's decision "implies that there is room for solar vendors to reduce prices in California simply by lowering their margins and more closely aligning price to cost structures."[46] This leap in logic again stumbles on the rocks of reality, however. As discussed above, online price quotes are not actual prices for installed systems. Moreover, online quotes from one solar company simply do not prove that high margins exist within the diverse California solar industry as PG&E suggests.

PG&E also points to statements in studies from government researchers that value-based pricing may exist in the United States to support their argument regarding margin. However, none of the studies witness James cites as support for his views on "value-based pricing" definitively conclude that such pricing is a dominant driver of pricing or even that it actually occurs.[47] In fact, careful review of the studies witness James cites shows that each of these studies extensively discuss differences across jurisdictions that can explain the variations in pricing the studies discuss.[48] Thus variations in solar pricing across jurisdictions are readily explainable by a host of factors, and the existence of "value-based pricing" is not supported by the record. Indeed, as discussed above, the solar industry in California is highly competitive.

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[45] Tr. Vol. 1 (PG&E-James), pg. 169, lines 7-19.

[46] *See* PG&E Opening Brief at pg. 16.

[47] To support this statement, witness James cites to Tracking the Sun VII at pgs. 1 and 23. However, the statement identified on pg 1 of Tracking the Sun VII is only a definition of value based pricing, not a definitive conclusion that value based pricing is occurring by the authors. Similarly, the statement witness James identified as supporting his statement that Tracking the Sun VII finds value based pricing exists states value based pricing "may" occur. *See* Exhibit 21. Ultimately, witness James conceded the point. *See* Tr. Vol. 1 (PG&E-James), pg. 136, lines 12-19.

[48] *See* Comments of The Alliance for Solar Choice, Solar Energy Industries Association, California Solar Energy Industries Association, and Vote Solar on Parties Proposals, filed September 1, 2015, pg. 84 (Section E Tracking the Sun VIII conclusions regarding price variations).

Competition drives prices down towards costs. Value based pricing cannot persist in the face of such competition.

III. PG&E FAILS TO JUSTIFY ITS HIGHER PROPOSED APPLICATION FEE FOR COMMERCIAL CUSTOMERS

In its opening brief, PG&E defends its lack of information on the basis for its proposed $1,600 application fee by pointing to the response of PG&E witness Gabbard to a question from the ALJ. Gabbard stated, "So the basis for cost is actual cost on both fees."[49] However, he presents no data. The Commission cannot rely on this statement without seeing any actual data.

Moreover, Gabbard further states, "we need to do additional assessment on 30 kW and above, because in some instances there are exceptions where additional upgrades are required…"[50] This statement is ambiguous at best. The witness appears to be stating that the $1600 application fee is based, in part, on the cost of distribution system upgrades. However, PG&E's proposal made no mention of distribution system upgrades. PG&E proposed: "All customers installing renewable generation will pay a combined application and study fee. The fee will apply to all studies required for the interconnection project (e.g. Initial Review and Supplemental Review)."[51]

Even without the upgrade costs, the JSP object to a flat fee that would apply to 35 kW systems that do not need a Supplemental Review study, apparently to cover the cost of such studies for other systems. Even more troubling is a fee for studies that is based, in part, on the cost of undefined distribution system upgrades.

IV. THE IOUS AND ORA FAIL TO ADDRESS THE LEGAL AND FACTUAL DEFICIENCES IN THEIR PROPOSED RATES AND CHARGES

The IOUs and ORA's opening briefs were notable for their failure to address the legal infirmities of their rate design proposals for a NEM successor tariff, problems which have been

[49] Tr. Vol. 1 (PG&E-Gabbard), pg. 120, lines 13-14.
[50] *Id*., pg. 20, lines 25-28.
[51] PG&E's Proposal for Net Energy Metering Successor Tariff, submitted on August 3, 2015, at pg. 25.

detailed by the JSP throughout this proceeding. State and federal law require that a separate rate structure for NEM customers be based on a substantial showing that the costs to serve such customers are different.[52] Neither the IOUs nor ORA made any such showing, and they have simply ignored the requirements of state and federal law. The Commission is not free to ignore these requirements.

When boiled down to their essence, the proposals of the IOUs and ORA are an attempt to recover revenue lost from the reduced usage of NEM customers. But as the Utah Commission recognized in rejecting discriminatory fees for residential NEM customers, "simply using less energy than average, but about the same amount as the most typical of PacifiCorp's residential customers, is not sufficient justification for imposing a charge, as there will always be customers who are below and above average in any class. Such is the nature of an average."[53] The IOUs and ORA have not distinguished NEM customers in any meaningful way from other lower usage customers. Thus they have provided no basis for assessing discriminatory charges on residential NEM customers, and their proposals must be rejected.

The JSP's opening brief also highlighted other infirmities in the IOUs' and ORA's proposals and we will not repeat those arguments here, but rather will focus on arguments advanced by the IOUs and ORA which are either inaccurate or advance a distortion of Commission precedent and/or its Rate Design Principles.

A. ORA's Proposal Is Extreme and Not a Middle Ground Proposal as ORA Asserts.

ORA's opening brief presents its proposed Installed Capacity Fee (ICF) without addressing any of the factual infirmities its proposal which the JSP have highlighted. Rather, ORA takes a different tactic, attempting to paint their proposal as a middle ground that everyone, including the JSP, is rallying around.[54] Such is not the case. ORA has mischaracterized the JSP

[52] *See* JSP Opening Brief, pgs. 22-24.
[53] Public Service Commission of Utah, *PacifiCorp dba Rocky Mountain Power 2014 General Rate Case*, Docket No. 13-035-184, Decision and Order (Aug. 29, 2014), pg. 67.
[54] ORA Opening Brief at pgs. 5-8.

position. The JSP is firmly opposed to the adoption of an ICF[55] and have demonstrated that ORA's proposal is far from a middle ground.

ORA's proposed ICF is grounded in an alleged cost shift between NEM customers and non-NEM customers. As clearly stated by JSP witness Beach, the JSP "don't believe that there's a significant cost shift. So from that perspective, *ORA's proposal is not necessary*."[56] Moreover, while JSP witness Beach may have testified that certain concepts embedded in ORA's ICF make it less objectionable that than the IOUs' proposal, the JSP have made clear that the actual "timeline, ramp up and proposed ICF fees would significantly reduce solar consumer savings and thus damage the market in a time of uncertainty,"[57] rendering these elements of ORA's proposal unworkable and damaging to the solar industry.

Indeed under the proposed ICF, once it reaches its maximum of $10 per installed kW per month, new NEM customers with a 5 kW system would pay a fixed charge of $50 per month - an amount that is 14 times higher than the ICF of $0.70 per kW per month that Arizona Public Service put in place for new solar customers last year[58] and is far in excess of any reasonable estimate of customer-related fixed costs incurred by the utilities.[59] Such an extreme proposal is simply not the middle ground.

In opening brief, ORA states, "no party has explicitly objected to the $2/kW and $5/kW ICF rates."[60] This is not true. The JSP have objected to an ICF at any level,[61] and the JSP reply testimony contained data demonstrating that the transitions to the $2/kW and $5/kW levels are excessive.[62] It is also surprising that ORA has stuck to its estimates of when adoption thresholds will be met[63] given how obviously wrong they are.[64] To say that solar in SDG&E territory will not reach 5% of aggregated customer peak demand until 2017 or 2018, among many other

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[55] When questioned under oath as to whether the JSP supported ORA's proposal, JSP witness Beach responded with an unequivocal "no". *See* Tr. Vol. 2 (JSP-Beach), pg. 512, line 26 to pg. 513, line 1.
[56] Tr. Vol. 2 (JSP-Beach), pg. 513, lines 1-4.
[57] Exhibit 2 (JSP), Executive Summary, pg. 1.
[58] Tr. Vol. 3 (ORA-Drew), pg. 420, lines 24-27.
[59] *Id.* at pgs. 411-412.
[60] ORA Opening Brief at pg. 9.
[61] JSP Reply Testimony at pg. 10, line 12 - pg. 12, line 4.
[62] JSP Reply Testimony at pg. 16, line 20 - pg. 18, line 2 and pg. 9, lines 27-28.
[63] ORA Opening Brief, Table 3 and Table 4.
[64] JSP Reply Testimony at pg. 12, line 9 - pg. 16, line 15.

factual errors, demonstrates a wholesale failure of data analysis. The fact that the values in Table 6 of ORA's opening brief are not 100% also demonstrates that ORA is using the Public Tool in a way that is beyond its capabilities.[65]

B. PG&E's Demand Charge Proposal Is Not Appropriate for Residential Customers

PG&E attempts to downplay the infirmities in its proposal to assess a non-coincident demand charge on residential customers by equating those customers to commercial and industrial customers and glossing over the lack of understanding of demand charges in the residential community. PG&E's attempts merely underscore the weaknesses of its own proposal. Moreover, PG&E's assertion that its proposal is supported by the cost shift illustrated by Energy Division's bookend scenarios is an inappropriate use of the Energy Division analysis.

1. Residential Customers Are Not the Same as Commercial/Industrial Customers for Purposes of Ratemaking

PG&E argues that "conceptually, the calculation of a maximum demand charge for small commercial and residential customers is no different from the calculation of these charge types for larger non-residential customers."[66] PG&E then cites to a few Commission decisions in which the Commission approved the use of non-coincident demand charges for the collection of distribution costs *from commercial and industrial customers*.[67] From this, PG&E makes the remarkable leap that it is appropriate to impose non-coincident demand charge on residential customers. PG&E's leap, however, glosses over important facts including that there is greater diversity of load on a residential circuit than on a commercial or industrial circuit. Thus, for example, the fact that the utility may serve just one or a small number of industrial customers from one circuit means that the utility must size the circuit to meet the sum of their non-

[65] Tr. Vol. 3 (ORA-Drew), pg. 436, line 1 - pg. 437, line 1.
[66] PG&E Opening Brief at pg. 31.
[67] The three decisions cited by PG&E, D. 11-12-053, D. 14-12-081 and D. 15-08-005 pertained to rate design for PG&E's commercial and industrial customers, in no manner addressing rate design for residential customers.

coincident peaks.[68] That simply is not the case with a residential distribution circuit, on which there is a significantly greater diversity of loads.

Although PG&E says that it takes that diversity into account in allocating costs to the entire residential class, it clearly does not consider diversity when it proposes to charge customers a demand charge based on their full non-coincident demand whenever that occurs regardless of what other customers on that circuit are doing at that time. Furthermore, PG&E argues that 70% of its distribution costs for residential and small commercial customers "are not time dependent."[69] If that is the case, then it is reasonable and cost-based to recover those costs through a flat, non-time-dependent volumetric charge per kWh consumed, as is done in rates today. In contrast, demand charges are highly time-dependent; they are associated with the customer's usage in one particular 15- or 60-minute period each month. There is a significant difference in terms of cost-of-service between 15-minute demand on a hot summer afternoon when the circuit is peaking and in stress, and 15-minute demand in the morning when the circuit is unloaded. Yet PG&E would bill customers exactly the same for maximum 15-minute demand at both times. For this exact reason, NRDC has backed away from its original proposal for a non-coincident demand charge for residential customers; the Commission also should reject the continued utility proposals for such non-cost-based rate elements.

PG&E characterizes the JSP's "primary attack" on PG&E's rate design proposal as "customers do not now and cannot be made to understand a demand charge."[70] In making this assertion, PG&E simply overlooks the JSP's other bases for opposition to PG&E proposal, *i.e.,* that it is inconsistent with state and federal law, that it is not cost based, and that it is inconsistent with a number of the Commission's Rate Design Principles for residential customers. Even with respect to the purported "primary attack," PG&E has mischaracterized the JSP's position.

The record is clear that customers do not understand demand charges.[71] The JSP have never attested that customers cannot "be made to understand a demand charge." Such throw away accusations by PG&E miss the point that the JSP have repeatedly made in this proceeding

[68] Exhibit 2 (JSP-Beach), pg. 32, lines 22-27.
[69] PG&E Opening Brief at pg. 33.
[70] PG&E Opening Brief at pg. 36.
[71] Tr. Vol. 2 (SDG&E-Fang), pg. 262, lines 9-20; (PG&E- Pease), pg. 345, line 1 to pg. 346, line 7.

and that PG&E has not been able to effectively rebut – that residential customers do not have ready access to demand data and that, despite this acknowledged lack of customer understanding of demand charges, PG&E has not presented the Commission with either a plan for data access or an educational plan, both of which are essential to allow customers to understand the basis upon which they are being charged. Assertions that "PG&E is committed to ensuring customers are adequately informed"[72] are insufficient for the Commission to determine that data will be available and the the rate will be understandable to customers. Similarly, PG&E's attempt to place the responsibility for such education on solar vendors is inappropriate.[73] While, no doubt, if a demand charge were approved, solar vendors would attempt to aid in their customers' understanding, the charge is being assessed by the IOU who must have the primary educational responsibility.

2. Energy Division's Bookend Scenarios Do Not Support the IOUs' Proposals

PG&E argues that the JSP's proposal to retain the current NEM structure runs counter to the Commission's rate design principle regarding cost causation, as it creates a cost shift. Specifically, PG&E asserts that "the Energy Division bookend scenarios show an annual cost shift by 2025 of $3.64 to $5.09 Billion Per Year. That level overwhelmingly flunks nearly half the Rate Design Principles adopted in D.15-07-00."[74] PG&E's use of the results of the Staff's bookend analysis as evidence of a cost shift is inappropriate and inconsistent with the record.

The Staff Tariff Report specifically notes that the scenarios utilized therein are intended solely "to demonstrate how to use the Public Tool to evaluate one or more successor tariffs / contracts."[75] The Staff Tariff Report was also careful to note that, "By including *illustrative* NEM successor tariff/contract scenarios in this paper, Staff is not intending to recommend or favor a particular scenario."[76] The Staff's bookend scenarios were not intended to be used as a case in point that a cost shift exists. If the IOUs think the bookend input values were the right

[72] PG&E Opening Brief at pg. 36.
[73] *Id*., pgs. 36-37.
[74] *Id.,* pg. 38.
[75] Staff Tariff Report, pg. 1-4.
[76] *Id.*

values to use in modeling the impacts of successor tariff proposals, they should have justified those inputs, as the JSP extensively justified their Public Tool inputs.[77] Because the IOUs offered no basis for the use of their inputs other than the fact that they were used in Energy Division information intended to demonstrate how the Public Tool works, the IOUs' Public Tool modeling resting on Energy Division analysis should be discounted entirely.

C. SCE's GAC Is Neither Cost Based nor Consistent with Rate Design Principles

In its Opening Brief SCE attempts to rehabilitate its analysis which purportedly illustrates that its transmission and distribution costs do not decrease when a residential customer installs solar. SCE also tries to illustrate that its proposed Grid Access Charge (GAC) comports with the Commission's Rate Design Principles. SCE's endeavors on both counts fall short, as explained below.

1. SCE's Analysis on System Costs Imposed by NEM customers Remains Faulty; Even Accepting Those Faults, SCE's Analysis Does Not Support the Rationale for SCE's GAC

SCE's proposed GAC is founded on the contention that NEM customers impose as many costs on the distribution and transmission systems after they install solar they did before. The analysis which SCE offers in support of this assertion[78] is an analysis that the Commission has already determined to be a deficient means to show to the difference between the "pre-solar" and "post solar" demands of solar customers -- a fact which the JSP highlighted in their rebuttal testimony. [79] In its Opening Brief, SCE attempts to distinguish its analysis by asserting that it "relies on data from far more than only two dates;" that "SCE provided monthly demand (kW) NCP and 12-CP data both before (2012) and after (2014) DG installation" that "demonstrate the

[77] *See* Comments of The Alliance for Solar Choice, Solar Energy Industries Association, California Solar Energy Industries Association and Vote Solar on Parties Proposals, R. 14-07-002 (September 1, 2015), pgs. 10-25

[78] Exhibit 16 (SCE -Behlihomji) at pgs. 6-10,

[79] Exhibit 2 (JSP-Beach) at pgs. 28-29; JSP Opening Brief at pgs. 28-30.

fundamental point that residential DG customers' demand is greater than the average for the residential class."[80] Such is simply not the case.

The data in Appendix B of SCE's testimony, to which SCE refers in its brief, disproves SCE's point, even if one disregards the flaw that the data are from two different years. SCE's Appendix B data show that the maximum coincident peak demand of NEM customers drops by 45% (from 4.2 kW pre-solar to 2.3 kW post-solar) and the 12-month average coincident peak (12-CP) demand drops by 41% (from 2.7 kW pre-solar to 1.6 kW post-solar). Thus, contrary to SCE's assertions in designing its GAC charge, solar customers do not impose the same level of demand on the system after adding solar. Instead, solar customers reduce their coincident and 12-CP demands substantially, and thus allow the utility to avoid significant generation and transmission capacity costs that are driven by, respectively, coincident and 12-CP demands. With respect to distribution costs, SCE has stated on the record that 70% of its distribution circuit peaks occur during the hours of maximum solar output.[81] Thus, solar DG customers can reduce such peaks and avoid distribution costs on a significant fraction (70%) of circuits, even if they cannot avoid such costs on all circuits. Simply put, SCE should not be allowed to impose a GAC that is premised on an assumption that, after a customer adds solar, SCE should continue to be able to recover 100% of the transmission and distribution costs paid by that customer before adding solar. This data also shows that the pre-solar average coincident peak for NEM customers is 1.9 times higher than for all residential customers, and that the post-solar ratio drops to 1.2. This demonstrates that solar transforms customers with peak demand that is nearly double the residential average into customers with peak demand that is only slightly above average. This is exactly the solution that rate design seeks to produce. In this regard, SCE data shows that encouraging solar adoption through the NEM tariff is effective at reducing the cost drivers of utility spending on distribution system infrastructure.

[80] SCE Opening Brief at pg. 21
[81] SCE reply comments, filed September 15, 2015 at pg. 22, footnote 53.

2. SCE's GAC Does Not Comply with the Commission's Rate Design Principles

SCE argues that, despite the Commission's finding in the RROIR that the imposition of fixed charges on residential customers is premature,[82] it is okay to impose such charges (like the GAC) on NEM customers because "the RROIR was predominantly [focused] on the rate design for the ***default*** residential rate structure" while "[t]he successor to the current NEM tariff will only apply to new residential DG installations, not millions of residential customers on a default basis."[83] This logic falters. First, in determining not to impose fixed charges on residential customers at this time and setting up a process for consideration of the potential assessment of such charges in the future, the Commission did not exclude NEM customers. Moreover, the only way that a customer could avoid SCE's proposed GAC is not to install DG. Thus for a residential customer who wants to install DG, the GAC will be the default residential rate (i.e. they will not be able to avoid it).

In a similar vein, SCE argues that it is okay if the GAC impairs conservation incentives for NEM customers, because, since it would apply only to a small percentage of residential customers, its effect on conservation for the residential rate class as a whole would get lost in the noise.[84] Such a concept turns the Commission's residential Rate Design Principles "on their ear." Essentially SCE is saying that if a residential rate only applies to a smaller subset of the residential class, then the Rate Design Principles can be ignored. This would be a dangerous road for the Commission to start going down.

D. SDG&E's Attempts to Shore Up its Proposal Fail

The discussion provided by SDG&E on its proposed rate design for a successor NEM tariff -- *i.e.*, a Grid Usage Charge (a fixed charge) couple with a System Access Fee (a non-coincident demand charge) -- is, for the most part, a recitation of its opening testimony,[85] thus it

[82] Decision 15-07-001 at pg. 217.
[83] SCE Opening Brief at pg. 15 (emphasis is original)
[84] *Id.*, pg. 18.
[85] *See, e.g.*, SDG&E Opening Brief at pgs. 18- 21 cf. Exhibit 26 (SDG&E), pgs. 2-4; *see, also*, SDG&E Brief pgs. 26-28 cf. Exhibit 26 (SDG&E-Fang) pgs. 9-11.

has already been fully refuted by the JSP through its rebuttal testimony and opening brief.[86] SG&E's meager attempts in its opening brief to rehabilitate its proposal in response to the some of the defects elucidated by the JSP fail.[87]

Furthermore, SDG&E's effort to utilize recent developments in Hawaii lend as support for its proposal is baseless.[88] First and foremost, AB 327 lays out a specific statutory framework for developing a successor NEM tariff which must be complied with and Hawaii does not have similar statutory mandates. Second, solar penetration in Hawaii is much higher than in California with Hawaii having more than 5 times the installed solar capacity per capita than California. In fact, penetration of on-site solar in California is more on par with penetration levels seen in Arizona at present – where the Commission has rejected efforts to end NEM and dramatically raise installed capacity fees. This fact is important because it is clear that the Hawaii Commission's rationale for ending NEM so abruptly was at least partially due to technical grid considerations.[89] Such grid considerations are simply not attendant at the far lower penetration levels seen in California. The JSP urge the Commission to focus on the evidence in this docket in reaching its conclusion and reject attempts by utilities to pull focus away from their deficient showings.

1. SDG&E's Lack of Education Plan is a Significant Deficiency in its Proposal

SDG&E attempts to respond to the fact that they have presented no plan for educating customers regarding their proposed demand charge by making a commitment to do so,[90] touting its past experiences with customer education,[91] and adding significant extra-record material

[86] Exhibit 2 (JSP-Beach), pgs. 33-44; JSP Opening Brief, pgs. 25-28 and 37-40.
[87] The JSP notes that SDG&E did not address all the infirmities in its proposal which have been highlighted by the JSP, such as the fact that SDG&E's proposed fix charge is in direct contravention to Decision 15-07-001.
[88] *See* SDG&E Opening Brief at p. 2.
[89] *See* Decision and Order No. 33258, Docket No. 2014-0192, issued October 12, 2015, at pgs. 161-162 (discussing need to change DER framework based on evolving utility needs and significant technical integration challenges).
[90] SDG&E Opening Brief at pgs. 34
[91] *Id.* at pgs. 34-35.

regarding their plan for customer outreach.[92] First, SDG&E's commitment to an educational program and past performance does not get around the fact that SDG&E is asking the Commission to approve a rate structure to which residential customers have never been subject, and which they do not understand, without providing the Commission with any idea of how customers will be educated. Moreover, SDG&E's attempt to pad the record at this point illustrates that they recognize a deficiency in their proposal. The Commission, however, cannot take into account new information added in an opening brief, as it has not been subject to review and cross examination by either the parties or the ALJ.

SDG&E also attempts to downplay the lack of information on the record regarding customer education by criticizing JSP witness Beach's assertion that customers do not understand demand charges. SDG&E's basis for the criticism is that witness Beach's assertion "relies on a study that does not relate to NEM and is not part of the record in this proceeding to support his assertion, and *entirely disregards* the NEM-specific customer research ("NEM Research") described by SDG&E in its August 3 Proposal and provided as an attachment to its September 15, 2015 filing in this proceeding;"[93] research which SDG&E purports illustrates that customers understand demand charges. SDG&E is wrong on both counts.

Mr. Beach did not "entirely disregard" the NEM Research -- which was, in fact, introduced into the hearing record by the JSP. Rather Mr. Beach explicitly addressed this research in his testimony:

> The complexity and confusion that demand charges will introduce are unlikely to support Rate Design Principles 6 and 10, which call for rates that are "stable and understandable and provide customer choice" and that "emphasize customer education and outreach that enhances customer understanding and acceptance of new rates." This conclusion is reinforced by a survey that SDG&E conducted of customer preferences for NEM successor tariff rate design.[94]

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[92] *Id*. at pgs. 35-36 ("Additionally, SDG&E is actively incorporating the concept of "demand" into its existing suite of customer tools such as the Bill Ready Notification and Weekly Alert Email. Utilizing modern infographic style, the Bill Ready Notification email displays key elements of a customer's bill "at a glance"…." SDG&E is also developing an educational video specifically to help customers understand demand.").

[93] SDG&E Opening Brief at pg. 34 (emphasis added).

[94] Exhibit 2 (JSP-Beach), pg. 36 *citing* SDG&E's NEM Research.

Moreover, SDG&E's assertion that "the NEM Research *found* that customers were able to state how a demand charge could [(1)] provide "[t]he ability to make your bill lower"; [(2)] give "me ability to alter my bill by changing behavior"; [(3)] ensure that "the consumer can control costs by spreading out energy usage throughout the day"; and [(4)] provide a price signal that "encourages me to not use a lot of appliances at once"[95] is a gross mischaracterization of the study's findings. The cherry picked statements by SDG&E were made by a small percentage of customers surveyed.[96] On the flip side, other customers surveyed stated that demand charges are "too complicated to understand" are "unpredictable (may pay more)," and that it "can be difficult to change behavior" in response to the charge.[97] For SDG&E to represent that the NEM Research found that, in general, customers understand how demand charges work and the price signal they send is disingenuous and misleading to the Commission. In fact, the conclusion of the survey was that customers strongly disfavored both demand charges (by a 3-to-1 margin) and an installed capacity fee (by a 4-to-1 margin).

2. SDG&E's Proposed Non-Coincident Demand Charges Are Not Cost Based

SDG&E implies that witness Beach's testimony that non-coincident demand charges for residential customers are not cost based is erroneous because he has a misunderstanding of what actually drives distribution costs -- *i.e.,* localized demand. That is not correct. Rather witness Beach's testimony on this matter is grounded in a fact, readily admitted by SDG&E, that the cost drivers behind distribution costs are based upon an *individual distribution circuit's maximum peak*,[98] the cost drivers are not based on the peak of an individual customer on that distribution circuit. As noted by TURN:

[95] SDG&E Opening Brief at pg. 34. (emphasis added).
[96] Exhibit 29 at pg. 7 (The study concluded that demand charges were favored by only 17% of solar interested home owners.).
[97] Exhibit 29 at pg. 36.
[98] SDG&E Opening Brief at pg. 38.

> SDG&E's approach is intended to capture the contribution of customers to circuit peaks but would be applied to an individual's noncoincident peak demand that could be completely uncorrelated with the drivers of peak circuit loads.[99]

Indeed, SDG&E has presented evidence that the majority of its distribution circuits peak in the afternoon[100]when solar output is at its strongest, thereby underscoring the fact that it is not cost-based to assess a demand charge on residential customers based on the customer's maximum use in *any* hour.

It is not just the JSP that have concerns regarding the deficiencies with SDG&E's proposal, TURN pointed out numerous concerns with SDG&E's proposal due to SDG&E's deviation from foundational ratemaking principles noting that "SDG&E's analysis of effective demand factors does not consider differences in demand-related costs of serving different customer subgroups (such as those living in multi-family buildings), does not consider variability by circuit, and is not differentiated based on customer location or available capacity on the distribution circuit."[101] TURN echoes concerns the JSP have raised in our comments concerning SDG&E's proposal noting that because SDG&E's proposal would recalculate the grid access and demand charges periodically in Phase 2 GRCs…"customers on the successor tariff would face potentially unpredictable fixed and demand charges over time. This uncertainty will undermine the ability of a customer to be able to forecast the value of investments in onsite generation."[102] TURN's concerns provide additional support for rejecting SDG&E's proposed charges.

V. THE JOINT SOLAR PARTIES REQUEST ORAL ARGUMENT

Pursuant to Rule 13.12, CALSEIA, SEIA, Vote Solar and TASC request the opportunity to present oral argument before the Commission after the issuance of a Proposed Decision (PD). The scoping memo in this proceeding required that such requests be made no later than the filing of reply briefs. Accordingly, the JSP make this request within their reply brief as allowed under

[99] TURN Opening Brief at pg. 4.
[100] Exhibit 28 (SDG&E-Fang), pg. 4, Chart 1.
[101] TURN Opening Brief at pg. 4.
[102] TURN Opening Brief at pg. 3.

Rule 13.13. In addition to that direction, the scoping memo included the following additional direction:

> The motion must state the request, the subject(s) to be addressed, the amount of time requested, recommended procedure and order of presentations, and anything else relevant to the motion. The motion must contain all the information necessary for the Commission to make an informed ruling on the motion, providing for an efficient, fair, equitable, and reasonable FOA. If more than one party plans to move for FOA, parties must use their best efforts to present a joint motion, including a joint recommendation on procedure, order of presentations, and anything else relevant to the motion. A response to the motion may be filed within five days of the date of the motion.

In terms of subjects to be addressed at oral argument, the JSP assume those topics will be limited to the those issues the parties have raised in support of their proposals, comments, testimony and briefing as informed by the findings and conclusions of the PD. Thus, the specific topics to be addressed at oral argument cannot be known until the PD is actually issued and parties have an opportunity to review it. In terms of amount of time, recommended procedure, and order of presentation, the specific aspects of these procedural matters cannot be known at this time as the PD has not issued. Should the Commission grant oral argument, the JSP believe the parties cooperation during hearings will continue such that the active parties to this docket will be able to work together to produce a recommended procedure and order of presentation to the Commission consistent with any ruling from the Commission regarding the matter. Because each active party bears the burden of justifying their proposal in the docket, the JSP believe that each party should be given an equal amount of time and that parties not be given time for rebuttal.[103] In the alternative, the Commission could allow equal time for (1) parties supporting continuation of NEM without major changes and (2) parties that would change the structure of NEM or apply new major rate elements to NEM customers.

[103] Rebuttal being typically reserved for the party that bears the ultimate burden in the proceeding for the matter at issue. For example, in a general rate case, it is the utility which bears the burden of ultimately proving their application to be just and reasonable, thus the utility is given an opportunity for rebuttal.

VI. CONCLUSION

For the reasons stated herein and in the JSP's opening brief and comments on parties' proposals, the JSP urge the Commission to reject party proposals for discriminatory fees and charges that will undermine continued growth in customer-sited renewable DG. Such proposals are illegal, not cost justified, and run roughshod over the Commission's Rate Design Principles. The discriminatory charges and fees which the parties opposed to NEM have proposed in this proceeding also chart a course that is at odds with the Commission's efforts in D.15-07-001 to design residential rates that are based on time of use based and that encourage customer choice. Finally, the proposed new demand charges and low export rates will not be readily understood or accepted by residential customers, which will result in a significant barrier to future customer adoption of renewable DG, a barrier that is not captured in the Public Tool modeling. Instead, the Commission should take the clear path of continuing NEM under its present structure, a structure which is transparent to the underlying residential rate design such that, if NEM is retained, all of the rate design reforms that the Commission has adopted in R. 12-06-013 will apply equally to DG and non-DG customers.

Respectfully submitted at San Francisco, California,

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