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

Application of Pacific Gas and Electric Company
To Revise Its Electric Marginal Costs, Revenue
Allocation, and Rate Design, including Real Time
Pricing, to Revise its Customer Energy Statements,
and to Seek Recovery of Incremental Expenditures.

(U 39 M)

Application No. 10-03-014
(Filed March 22, 2010)

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 M) REPLY BRIEF ON A-6 AND
OPTION R RATE ISSUES ADDRESSED IN THE MEDIUM AND LARGE LIGHT
& POWER RATE DESIGN SUPPLEMENTAL SETTLEMENT AGREEMENT**

RANDALL J. LITTENEKER
GAIL L. SLOCUM
SHIRLEY A. WOO

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-2179
Facsimile: (415) 973-5520
E-Mail: rjl9@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

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TABLE OF CONTENTS

| | Page |
|---|-------------|
| I. INTRODUCTION | 1 |
| II. THE SOLAR ALLIANCE OPENING BRIEF FAILED TO ADDRESS MUCH OF THE EVIDENCE PRESENTED AT HEARINGS | 2 |
| III. SOLAR ALLIANCE DID NOT DEMONSTRATE ANY VALID REASONS TO REJECT THE MLLP SETTLEMENT | 4 |
| A. Senate Bill 1 Does Not Support The Proposal By Solar Alliance. | 4 |
| B. The Rates Charged Customers With Large Solar Systems More Than Adequately Compensate Them For The Costs They Allow The Utility To Avoid..... | 6 |
| C. Demand Charges For The Largest Customers Remain Sound Rate Design..... | 9 |
| D. The Cost Shift Associated With Extending A-6 and Option R to Solar Customers Would Be A New Subsidy..... | 12 |
| E. Solar Alliance Understates The Extent Of The Cost Shift Associated With Its Proposals, But Offers No Proof That Any New Subsidy Is Needed..... | 13 |
| IV. CONCLUSION..... | 16 |

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I. INTRODUCTION

Pacific Gas and Electric Company (PG&E) submits this Reply Brief on issues concerning the A-6 Pilot and Option R, responding to the Opening Brief filed by Solar Alliance opposing the motion of settling parties for adoption of Medium and Large Light and Power Rate Design Supplemental Settlement Agreement. (MLLP Settlement).

The Settlement Parties agreed to a rate design which they believe makes good sense for all E-19 and E-20 customers. Solar Alliance presented testimony and filed a brief arguing that the Settlement should be modified by the extension of the A-6 Pilot and the creation of an Option R, only for solar customers. However, the facts presented at that hearing demonstrated that the Settlement Agreement is reasonable, consistent with cost causation, and in the public interest, and Solar Alliance's proposals should not be adopted. No party disputes that both proposals by the Solar Alliance would create new cost shifts among customers. Similarly, Solar Alliance admits that the Commission has already rejected its claim that solar customers subsidize other customers (as opposed to the contrary, which is well supported by evidence presented by PG&E). Solar Alliance also testified that it does not ask the Commission to reverse that recent determination. Nor did Solar Alliance present a word of testimony to show that such rate proposals are actually required to meet the objectives of the California Solar Initiative (CSI) or

other approved CPUC programs. The Commission should approve the MLLP Settlement Agreement as filed.

II. THE SOLAR ALLIANCE OPENING BRIEF FAILED TO ADDRESS MUCH OF THE EVIDENCE PRESENTED AT HEARINGS

The Solar Alliance Opening Brief largely repeated its original filed testimony. However, at hearing, a great deal of additional and contrary evidence was presented, and the Solar Alliance brief addressed very little of that evidence. In particular, at hearings, Solar Alliance witness Beach admitted:

- Many of the arguments made by Solar Alliance have been presented at the Commission before and rejected.^{1/}
- The arguments about whether rates adequately compensate solar customers for the costs they allow the utility to avoid have been extensively considered by the Commission, which reached conclusions directly at odds with those presented in the Solar Alliance brief.^{2/}
- The Solar Alliance did not ask the Commission in this docket to reverse those prior determinations.^{3/}

^{1/} Mr. Beach admitted that the CPUC's Distributed Generation (DG) cost benefit decision, D.09-08-026 rejected many of the arguments he made in that docket and is again making in this docket. Solar Alliance/Beach, Transcript ("Tr.") pp. 947-949.

^{2/} In 2010, the Commission issued a Report to the Legislature on the costs and benefits of net metering, which concluded that net metering does indeed provide a subsidy to net metering customers which is paid for by non-participating customers. PG&E/Buller, Ex. 131, p. 17, fn. 6. The CPUC then commissioned the CPUC Solar Report, PG&E Cross Examination Ex. 140, which reached a similar conclusion.

^{3/} Solar Alliance's own testimony states that the instant proceeding is not the forum to review whether non-participating customers receive value and that the cost-effectiveness of DG is an issue the Commission is addressing in its DG Rulemaking (now R.10-05-004). Solar Alliance/Beach, Ex. 26, p. 24, lines 1-4. In addition, the Solar Alliance Opening Brief, at p. 6, fn. 6, stated "this is not the forum for reviewing whether non-participating customers are receiving adequate value." In fact, those reports (Net Metering Report and CPUC Solar Report) resolved whether solar customers are receiving adequate value.

- The Solar Alliance used a different methodology to attempt to value the costs and benefits than that previously adopted by the Commission, and used different inputs.^{4/}
- Many of the rate benefits that solar customers already receive were not included in the Solar Alliance analysis, thus seriously undermining the credibility of this analysis.^{5/}

Solar Alliance acknowledged that both of its proposed rate options are designed to reduce or eliminate the use of demand charges, and instead collect larger portions of costs in more readily avoidable energy (per kWh) charges. At hearing, it became clear that a key additional objective of this change is to allow solar projects with significant power exports to the grid to receive much larger payments for their exports during the entire summer on-peak TOU period.^{6/} Solar Alliance admits that it is seeking to increase peak rates provided to solar customers for exports from the 13 cents per kWh rate in E-19 to a price of 23 cents per kWh under Option R, or over 40 cents per kWh under A-6.^{7/} This rate would be available every peak hour for the entire six month summer season. Such a bill credit substantially exceeds the costs such solar power allows the utility to avoid. The facts do not support requiring other PG&E customers to bear such a cost, or to require the creation of such new rate alternatives.

Nor did the Solar Alliance brief address the weight to be given to the settlement here. The settlement parties include all parties who filed testimony on rate design for this class other than Solar Alliance, and settlements are accorded substantial weight if reasonable.

The MLLP Settlement Agreement should be approved as filed.

^{4/} Solar Alliance/Beach, Tr. p. 1450, line 13 to p. 1453, line 9; p. 1458 lines 6-10.

^{5/} Solar Alliance/Beach Tr. p. 1450, line 13 to p. 1453, line 9; p. 1458 lines 6-10. See esp. Tr. p. 1453, lines 2-4, where Mr. Beach admitted that his Tables 1 and 2 “just looked a part of the rate. I’m not looking at their entire rate.”

^{6/} Solar Alliance/Beach, Tr. p. 1500 line 25 to p. 1501, line 3.

^{7/} Solar Alliance/Beach, Tr. p. 1500 line 6 to p. 1501, line 18.

III. SOLAR ALLIANCE DID NOT DEMONSTRATE ANY VALID REASONS TO REJECT THE MLLP SETTLEMENT

In its Opening Brief, Solar Alliance made five sets of arguments. First, it argued that Senate Bill (SB) 1 requires adoption of its proposals. Second, it argued that the rates charged customers with large solar systems would not adequately reflect the costs they allow the utility to avoid. Third, it argued that demand charges are bad policy for solar customers. Fourth, Solar Alliance admitted that there would be a cost shift associated with its proposals, but argued that this would not be a subsidy. Fifth, it argued that PG&E exaggerated the extent of the cost shift associated with the Solar Alliance proposals. Many of these arguments were addressed in detail in PG&E's Opening Brief, and this brief will not repeat the arguments made there. This brief will respond to the remaining allegations in the Solar Alliance brief.

A. Senate Bill 1 Does Not Support The Proposal By Solar Alliance.

Solar Alliance continues to argue that SB 1 requires adoption of the A-6 extension and Option R. However, none of its arguments based on that statute actually support its claim here.

First, Solar Alliance argues, as it has in the past, that the Commission should create rates that create a "maximum incentive" to install solar. However, the Commission has twice rejected this claim by Solar Alliance, including in a prior decision in this docket.^{8/}

Second, Solar Alliance argues that SB 1 requires that rates be set to ensure that customers with solar systems receive "due value" for the purchase of their systems. This is just a variant of its "cost causation" argument. As explained in PG&E's Opening Brief and below, the Commission has already correctly determined that customers with solar systems already receive greater compensation by way of rate reductions than they allow the utility to avoid in costs.

Third, Solar Alliance argues that SB 1 requires that customers with solar systems continue to have incentives to use electricity efficiently. However, it does not explain why this is relevant in this docket. In fact, the settlement rates continue to give large incentives to

^{8/} D.07-06-014, at p. 8; *see also* the Residential Rate Design Decision in this docket, D.11-05-047 at p. 71.

customers, solar and otherwise, to use energy efficiently. There is nothing about the rate design for Schedules E-19 or E-20 in the Settlement that is in violation of SB 1.

Further, Solar Alliance fails to discuss one element of the statute it quotes. The statute says that the Commission may create tariffs which create an “incentive for ratepayers to install solar energy systems so that the system’s peak electricity production coincides with California's peak electricity demands....”^{9/} The A-6 and Option R rate proposals fail to do this because they incent production during peak solar output of noon-2:00 p.m. for the typical south facing unit, not PG&E's peak of 4:00-5:00 p.m. or later. By shifting its solar array towards the west, a customer can increase its solar output from 4:00-6:00 p.m. PG&E witness Quadrini described the Critical Peak Period as being from 2:00 pm to 6:00 pm and showed how much solar output drops off in the 4:00 to 5:00 p.m. peak hour followed by 5:00 to 6:00 p.m. hour. At hearing, he described PG&E’s peak demand dropping just 2.2% in the 5:00 to 6:00 p.m. hour, while solar output falls 60% for a south-facing system during the same period as compared to its noon to 2:00 p.m. output.^{10/}

In addition, even though it was set forth in PG&E’s testimony, Solar Alliance did not respond to the fundamental inconsistency between its proposal and the words of the net metering statute. The structure of net metering is established by Public Utilities Code section 2827. There, at subpart (g), the Legislature stated that “**each net energy metering contract or tariff shall be identical, with respect to rate structure, all retail rate components, and any monthly charges, to the contract or tariff to which the same customer would be assigned if the customer did not use an eligible solar or wind electrical generating facility,...**” Here, Solar Alliance is asking the Commission to create a new rate schedule applicable only to solar customers. This is quite clearly not an “identical” rate structure, as called for in Section 2827.

^{9/} Section 2851(a)(4), quoted in Solar Alliance Opening Brief at p. 4.

^{10/} PG&E/Quadrini, Ex. 131, p. 26, lines 8-16; Tr. p. 1420, line 25 to p. 1421, line 4.

B. The Rates Charged Customers With Large Solar Systems More Than Adequately Compensate Them For The Costs They Allow The Utility To Avoid.

Solar Alliance argues that installation of solar can allow the utility to avoid costs, and that the settlement rates do not provide customers with large systems adequate compensation for these savings. For the most part, this portion of its brief merely repeats its filed testimony. PG&E addressed that testimony and the hearing record in its Opening Brief at pp. 9-19, and will not repeat that showing here. However, there are a few new arguments that need to be addressed.

First, Solar Alliance does not dispute that customer-side solar does not meet the requirements for resource adequacy supply. However, it argues that by installing solar, it reduces the utility's need to procure resource adequacy supplies. But adding qualifying local supply in the resource adequacy numerator is not the same thing as reducing the amount that the utility must procure in the denominator. Moreover, even if it was, E-19 customers already receive appropriate compensation for reduced resource adequacy needs in the form of bill savings resulting from their solar installations. In the CPUC sponsored evaluation of the CSI program, Energy and Environmental Economics Inc. (E3) included avoided Resource Adequacy costs as a benefit from the solar installation. Despite inclusion of this factor (and all the other avoided costs),^{11/} E3 still found that the benefits to other ratepayers by way of costs avoided were less than the bill reductions provided to solar customers (which are then paid for all other ratepayers).^{12/}

Second, Solar Alliance argues that demand charges prevent a solar customer from avoiding generation capacity charges that they permit the utility to avoid. However, as explained in detail in PG&E's Opening Brief, to the extent installation of solar reduces the customer's demand, the demand charges on the customer's bill goes down. Moreover, customers with large

^{11/} CPUC Solar Report, Ex. 140, p. 28.

^{12/} CPUC Solar Report, Ex. 140, pp. 90 (Table 31) and A-28, (Table 56).

solar systems relative to load are able to export to the grid and receive bill credits far higher than any avoided costs.^{13/}

Third, in support of its claim that installing solar allows a utility to avoid building any transmission and distribution (T&D) lines, Solar Alliance states that the Itron Ninth Year impact report “calculates peak reduction factors of 30% to 42% of the PV nameplate.”^{14/} In fact, that report finds peak demand reduction factors on various feeders ranging from zero to 80% of nameplate,^{15/} which is consistent with PG&E’s Cross Examination Exhibit 138, which showed peak demand impacts ranging from 6% to 55%, depending on what time of day the utility system peak occurred. However, peak impact alone is not enough to ensure T&D deferrals. In fact, the Ninth Year Impact Report contains *no* finding that solar installations actually allowed the utilities to avoid any T&D upgrades.^{16/}

There is a good reason no such finding has been made to date. As explained in PG&E’s testimony, adding solar in one area does nothing to reduce T&D needs in another area, and may not even help in the area where it is installed. First, if there is no need for T&D upgrades in an area, there are no such upgrades to avoid. Similarly, if the line segment serving this load must be used to export an equivalent amount of power and provide standby when the solar unit is not producing, then adding solar panels does not avoid any new investment. Instead, as the CPUC has found, additional requirements must be met other than simply bringing a solar unit on line before T&D upgrades will be avoided. For example, in D.03-02-068, the Commission

^{13/} CPUC Solar Report, Ex. 140, pp. 28, 30, 90.

^{14/} Solar Alliance Opening Brief pp.11-12 and fn. 22.

^{15/} This report can be found at http://www.cpuc.ca.gov/NR/rdonlyres/70B3F447-ADF5-48D3-8DF0-5DCE0E9DD09E/0/2009_CSI_Impact_Report.pdf. See peak demand findings in Table 6-8 on p. 6-22. As noted in PG&E’s Opening Brief, this chapter also has findings on avoided line losses.

^{16/} The Report notes that solar projects may reduce system capacity needs and that collectively, large numbers of solar projects may thereby avoid some transmission upgrades. It includes calculations of “Transmission Capacity Benefits.” However, it uses a different methodology than the Sixth Year Impact Report. Moreover, it notes that its analysis of this topic is only a metric of deterred capacity and not directly useful for system planning purposes (p. 6-9). It also states that actual data on capital expansion deferral is unavailable. (p. 6-11).

concluded that such deferrals are time and location limited, and the similar T&D findings in D.09-08-026 are quoted in PG&E's Opening Brief at p. 17.

Fourth, Solar Alliance states that it has done a calculation of avoided T&D benefits using the E3 values previously used to value energy efficiency benefits adopted in D.09-08-026. However, Mr. Beach admitted on cross examination that the words of this decision contained two elements. Specifically, before using the E3 figures for energy efficiency to calculate the value of avoided T&D, the Commission required a calculation of the actual T&D avoided using the methodology in the Itron Sixth Year Impact Report.^{17/} Mr. Beach admitted that he had conducted no such study,^{18/} and that the Sixth Year Impact Report found no such benefits.^{19/}

Moreover, even if installation of solar did allow the utility to avoid T&D upgrades, the customer installing that generation already receives compensation that more than covers any such purported benefit.^{20/}

Finally, Solar Alliance did not explain in its brief why it used data inputs, assumptions, and figures directly at odds with those required by D.09-08-026. Nor did it reconcile its conclusion with the CPUC's findings in the Net Metering Report and the CPUC Solar Report that solar customers are already more than fully compensated for the costs they allow the utility

^{17/} Solar Alliance/Beach, Tr. p. 1460, line 23 to p. 1461, line 13. D.09-08-026 at p. 36 states "we direct that the Itron methodology, which uses the E3 calculator as set forth in the SGIP Year 6 Impact Report, be used to estimate T&D deferrals, if any, for either grid-side or customer-side DG installation...." Footnote 16 on p. 36 of that decision identifies what section of the Itron report was adopted by the Commission, and describes it. Ex. 139 is that section of the Itron report. The CPUC Solar Report, Ex. 140 expressly stated "The method used by Itron in its SGIP Year 6 Impact Report should be used for T&D deferral benefits." (pp. 30-33). In contrast, Mr. Beach just assumes that all solar units provide such T&D benefits.

^{18/} Solar Alliance/Beach, Tr. p. 1468, line 13 to p. 1469, line 15.

^{19/} Solar Alliance/Beach, Tr. pp. 1465 lines 9-25 admitted the text in Ex. 139, p. 5-27 found no distribution benefits. Similarly, the Itron Sixth Year Report found no transmission benefits. Ex. 139, page 5-34.

^{20/} The CPUC Solar Report, Ex. 140, after noting that the Itron method should be used to evaluate T&D deferral benefits, noted that it had not conducted such a study, and instead included sensitivity figures, one assuming that solar provided T&D benefits valued using E3 assumptions, and another assuming that solar provided no such benefits. It concluded "Inclusion or exclusion of T&D deferral benefits does not fundamentally alter the conclusions of the CSI evaluation. T&D deferral benefits account for roughly 10% of avoided costs and only roughly 5% over overall benefits..." Ex. 140, p. 32. See also Ex. 140 pp. 30-33 and 90-91.

to avoid. Solar Alliance claims that PG&E is arguing that solar customers receive non-rate subsidies, and goes on to say that solar customers should not have to pay electric rates that “force them to subsidize other electric ratepayers.”^{21/} However, the CPUC’s Solar Report looked at exactly this question, and concluded that in addition to non-rate subsidies, solar customers receive more *rate* benefits than they allow the utility to avoid. In particular, it found that solar customers receive reduced bills worth 23 to 25 cents per kWh, but only allow the utility to avoid 14 to 15 cents per kWh in costs.^{22/} The record in this case, based on the PG&E testimony, the CPUC’s own reports this year and last year, and the many admitted weaknesses in the Beach testimony, prevents any factual finding that solar rates for E-19 and E-20 customers will be subsidizing other customers.

C. Demand Charges For The Largest Customers Remain Sound Rate Design

Solar Alliance admits that for many decades, the Commission has approved and encouraged use of demand charges for service to PG&E’s largest electric customers. However, it argues that this strategy is outdated, and that energy-only rate design based on TOU data is a preferred rate strategy. It argues that many developments have eliminated the need for demand charges. It cites rapid advances in metering technology, and the development of solar and other distributed generation. It argues that customers with solar cannot control the weather and therefore have no ability to control their demand. It argues that changes must be made to accommodate these customers.^{23/}

These arguments are meritless. The fact that new meters are available may be a reason to extend demand charges to more customers, not to take them away from rate categories where

^{21/} Solar Alliance Opening Brief p. 4. See also its brief at page 7, claiming that solar customers “are subsidizing other medium and large light and power customers on the PG&E system.”

^{22/} CPUC Solar Report, Ex. 140, p. 90, Table 31. This includes both residential and non-residential rates.

^{23/} Solar Alliance Opening Brief pp. 13-21.

they are now used. Moreover, as explained in PG&E's testimony and Opening Brief, many costs do not vary with usage, and are instead incurred based on demand. All E-19 and E-20 customers should have an incentive to reduce demand in relevant time periods. They may not be able to control the weather, but they have substantial ability to control the 500+ kW of underlying load that requires them to be on the E-19 or E-20 rates.^{24/}

Moreover, current rates (and rates under the Settlement) make an enormous accommodation for customers with solar systems. This is provided by net metering. With this option, customers with solar can use their power generated on site to first reduce their demand, and thereafter they can export any surplus power. They receive a credit for the full retail value of those exports. The credit for such exports includes a value for generation, transmission and distribution, and public purpose charges. As discussed above, the Commission has already determined that the value of this credit is far in excess of avoided costs. That credit can be carried forward for a year, and can offset other electric charges. The Solar Alliance brief made no attempt to respond to any of this showing, simply arguing that it is not enough of an accommodation.^{25/}

Solar Alliance argues that Peak Day Pricing illustrates the move away from demand charges, and then argues that there is a close analogy between Peak Day Pricing rate design and its Option R proposal.^{26/} It is correct that in Critical Peak Pricing rates such as Peak Day Pricing, a portion of the demand charges are moved into energy charges. However, any other comparison is simply not accurate. Critical Peak Pricing rates use very high energy rates only during a very limited number of critical peak hours, only 9 to 15 times per year.^{27/} They do not apply any other time, let alone all year. Moreover, on cross-examination, Mr. Beach acknowledged that Critical

^{24/} PG&E/Bell, Tr. p. 1338, lines 2-18.

^{25/} Solar Alliance Opening Brief, p. 7.

^{26/} Solar Alliance Opening Brief, p. 15.

^{27/} Solar Alliance/Beach, Ex. 136, p. 18, lines 11-14.

Peak Pricing has nothing to do with noncoincident demand charges, and that it did not eliminate demand charges in this pricing scheme.^{28/}

Solar Alliance also argues that the CPUC is reducing the size of customers for whom time of use (TOU) rates are required.^{29/} However, it fails to explain what that has to do with reducing reliance on demand charges. Moreover, on cross, Mr. Beach acknowledged that these rates have not reduced reliance on noncoincident demand charges.^{30/} In addition, the claim by Solar Alliance that "TOU rates that closely reflect variations in cost causation over the course of a day, week, or season will provide the maximum incentive for PV systems to produce power when needed...."^{31/} is simply illogical, particularly as applied to the A-6 and Option R proposals. The CPUC has spent much time and energy developing Critical Peak Pricing ideas where reducing load in a few limited critical hours of peak demand is the focus. In contrast, the A-6 and Option R proposals would set rates for PV output that apply during *all* of the hours in each TOU period, with the summer hours lasting from May to October. That hardly creates an incentive to produce power when needed.

Finally, Solar Alliance spends many pages arguing that its proposal is supported by various documents by Barbara Barkovich, Bill Marcus, and Ren Orans.^{32/} However, none of these individuals appeared or testified in this portion of the case, nor expressed any support for the Solar Alliance proposals here. In the case of Dr. Barkovich, she testified in this case for CLECA, which is a Party to the MLLP Settlement which rejected the A-6 and Option R proposals of Solar Alliance. Mr. Marcus represents TURN, which has not opposed the MLLP Settlement. Ren Orans is a principal with E3, which prepared the two reports finding that solar

^{28/} Solar Alliance/Beach, Tr. p. 1477, line 27 to p. 1478, line 26.

^{29/} Solar Alliance Opening Brief p. 16.

^{30/} Solar Alliance/Beach, Tr. p. 1480, lines 10-13.

^{31/} Solar Alliance Opening Brief p. 5.

^{32/} Solar Alliance Opening Brief pp. 16-19.

customers already receive compensation in rates greater than they avoid in costs. It is not likely that Dr. Orans would contradict the work his firm did to support the opposite conclusion by Mr. Beach. Moreover, none of the three referenced documents discussed the rate proposals here. Mr. Beach acknowledged that he had no clue if any of these three individuals would actually support his proposals.^{33/} These documents should be accorded no weight.

Thus, the demand charge structure presented in the MLLP Settlement is consistent with rate design principles for large customers that remain as sound today as they have for decades.

D. The Cost Shift Associated With Extending A-6 And Option R To Solar Customers Would Be A New Subsidy.

Solar Alliance acknowledged there would be a cost shift associated with its proposals, but argued that this would not be a subsidy. PG&E appreciates that Solar Alliance recognizes that both the A-6 Pilot and Option R do in fact shift costs to other customers.^{34/} This was one of the questions posed by the Administrative Law Judge in his Ruling setting this settlement for hearing, where one purpose of hearings was identified as determining whether the proposal "would cause additional cost shifting to other customers...."^{35/}

However, Solar Alliance does not admit that this cost shifting is a subsidy. It makes two arguments. It first argues that the Settlement rates do not give enough value to solar customers compared with the costs they allow the utility to avoid. That argument is addressed above and in PG&E's Opening Brief.

Second, it argues that PG&E's current rate design gives a variety of rate options to business customers, and that customers pick the rate that serves them best. It argues that in the past, new rate options have been approved when these rates provide benefits to the utility or otherwise, citing interruptible rates.^{36/} Solar Alliance is correct that from time to time cost shifts

^{33/} Solar Alliance/Beach, Tr. p. 1484, line 12 to p. 1485 line 4; p. 1488, lines 1-5; p. 1491, lines 20-23.

^{34/} Solar Alliance Opening Brief p. 23.

^{35/} ALJ Ruling of June 8, 2011, p. 4.

^{36/} Solar Alliance Opening Brief pp. 23-25.

are created as customers choose the best rate option, when they are given a choice. However, as rates are designed, the revenue allocation is based on the characteristics of the customers who are likely to choose that rate. Customers who participate in the A-6 Pilot are mandatory E-19 customers. Rather, the A-6 rate was not designed for them and the revenue allocation was not based on their behavior. The E-19 rate was designed for these large E-19 customers and the revenue allocation and rate design for this class was based on their taking service under the E-19 rate. The A-6 rate was designed for an entirely different set of smaller customers.^{37/}

Creation (or extension) of a program that customers will only use if it is to their benefit creates a cost-shift. In this case, it is also a new subsidy. This subsidy is in addition to all the other subsidies that already exist for customers who install solar. Because the customers are already shifting costs to nonparticipating customers as a result of the existing subsidies, coupled with the fact that the value received for other customers from the solar installation is independent of the rate the participating customer chooses, it follows that the quantification of that subsidy is precisely the increased drop in revenues from the A-6 rate over the E-19 rate.^{38/}

E. Solar Alliance Understates The Extent Of The Cost Shift Associated With Its Proposals, But Offers No Proof That Any New Subsidy Is Needed.

Solar Alliance argued that PG&E exaggerated the extent of the cost shift associated with the two Solar Alliance proposals.

1. Option R Cost Shift.

First, Solar Alliance argued that PG&E's calculation of the cost shift associated with Option R was too high. PG&E witness Phillip Quadrini provided testimony showing that a customer with a peak demand of about 550 kW that installs a 1 MW PV system could lower its standard annual bill (excluding customer charges) under Schedule E-19 by \$212,000 (from \$344,000 to \$132,000) by installing the PV system, based on the proposed MLLP Settlement

^{37/} PG&E/Bell, Tr. p. 1337, lines 6-21.

^{38/} PG&E/Buller, Tr. p. 1380, lines 9-19.

rates. By reducing demand charges, Option R would further lower this customer's annual bill to approximately \$104,000, for an additional annual savings of \$28,000. Assuming this example is typical, the resulting new subsidy under Option R would be approximately \$7 million per year, if the 250 MW limit were to be fully subscribed.^{39/}

Solar Alliance did not dispute the load profile used by Mr. Quadrini in this testimony, his calculation of the amount the customer would be able to save, or his conclusion that this option would result in a cost shift of \$28,000 per 1 MW system. Instead, it argued that the full 250 MW requested by Solar Alliance will not be used.^{40/} There are several problems with this argument.^{41/} First, the 250 MW figure is the amount requested by Solar Alliance, which clearly thought that there was a basis for requesting this amount. It cannot now claim that the amount it requested is not a reasonable measure. Second, it is impossible to reconcile the Solar Alliance claim that few customers will take advantage of Option R when in the same brief it also argues that this Option R is "crucial to the achievement" of the Governor's 12,000 MW DG goal.^{42/}

2. A-6 Pilot Cost Shift.

Solar Alliance also argued that PG&E's calculation of the cost shift associated with extension of the A-6 pilot was too high. In her testimony, PG&E witness Susan Buller testified that the annual subsidy from the availability of the A-6 rate could be approximately \$104,000 for every MW installed under the pilot, or approximately \$3.1 million per year for the 30 MW expansion of the pilot proposed by Solar Alliance.^{43/} Solar Alliance argued that this cost shift estimate is not realistic. It does not dispute that the full 30 MW it requests to be approved is likely to be used, since more than 20 MW of customer requests for the A-6 pilot were made

^{39/} PG&E/Quadrini, Ex. 131, p. 27, line 13 to p. 28, line 6.

^{40/} Solar Alliance Opening Brief pp. 28-31.

^{41/} In addition, Solar Alliance failed to provide record evidence to complete the calculation of MW installed by equivalent Southern California Edison customers, and it does not dispute that PG&E customers have installed more solar than SCE.

^{42/} Solar Alliance Opening Brief p. 1.

^{43/} PG&E/Buller, Ex. 131, p. 19, lines 24-29.

during the last rate case cycle. Instead, it argues that the cost per MW calculated by Ms. Buller is too high. It argues that she should have made this calculation in other ways, offering no reason why it did not provide any testimony itself on the cost shift associated with this option. It then argues that the cost shift should be calculated using the *average load profile* of an E-19 customer.^{44/}

The record is actually insufficient to determine whether the illustrative example provided by PG&E is an exact estimate of the cost shift. However, the record supports the conclusion that using the load shape of an average E-19 customer will underestimate the actual cost shift. Solar Alliance suggests that E-19 customers who are better off on A-6 might be those customers who install larger systems. PG&E does not dispute that the amount of generation that is exported at the high summer peak A-6 rate will affect the customer's preference. But the record shows that seasonal variation will play a strong role as well, especially low summer usage (as with a school, winery or food processing plant)^{45/} and that a large number of A-6 Pilot participants fit this description.^{46/} The record also shows that the actual participants are not typical E-19 customers.^{47/} Therefore, use of the E-19 load shape to estimate a cost shift assumes A-6 Pilot participants look like the average E-19 customer, which they do not. Using the E-19 average load shape would tend to underestimate the cost shift.

Solar Alliance also implies that PG&E could have somehow used the program participants to calculate the cost shift. As explained in testimony, the lack of demand data for customers once they go on the A-6 rate means the E-19 bill cannot be calculated. Solar Alliance suggests that this is not a hindrance because "a certain percentage" of A-6 pilot customers had

^{44/} Solar Alliance Opening Brief p. 28.

^{45/} PG&E/Buller, Tr. p. 1388, line 23 to p. 1389, line 17.

^{46/} PG&E/Buller, Tr. p 1407, lines 17-22.

^{47/} PG&E/Buller, Tr. p. 1389, lines 12-17.

been on E-19 with an operating solar generator prior to the pilot.^{48/} However, only one of those customers actually chose A-6. The rest remained on E-19.^{49/}

Given the load profile of the likely participants, a substantial cost shift would result from the extension of the A-6 pilot.

3. No Need For Any New Subsidy Has Been Demonstrated

However, no matter what the exact cost shift will be, Solar Alliance has provided no demonstration of the need for *any* new rate subsidy for large business customers. The undisputed evidence shows that the solar program is a success, that E-19 and E-20 customers are installing solar systems, and have continued to do so without an A-6 rate or an Option R rate available to them.^{50/} Solar Alliance did not present testimony to support its claim that these rate options are “crucial” to the CSI or the Governor’s 12,000 MW DG goal. The already robust business of selling and installing solar panels in this state can and will continue unaffected by approval of the MLLP Settlement.

In addition, the record is undisputed that total installed costs for solar panels continue to drop significantly, and this trend is expected to continue.^{51/} There is simply no demonstrated need for a new subsidy for the largest business customers to install solar panels. Many are doing so now, and will continue to do so without adoption of the special set of rates proposed by Solar Alliance.^{52/}

IV. CONCLUSION

For the foregoing reasons and the reasons set forth in PG&E’s Opening Brief, the Commission should approve the MLLP Settlement Agreement as filed.

^{48/} Solar Alliance Opening Brief p. 27.

^{49/} PG&E/Buller, Tr. p. 1388, lines 19-22.

^{50/} PG&E/Buller, Ex. 131, p. 22, lines 4-13.

^{51/} PG&E/Buller, Ex.131, p. 21, lines 9-12 and fn. 11, p. 22, lines 1-3; Vote Solar/Rose, Tr. p. 507, lines 5-13.

^{52/} PG&E/Buller, Ex. 131, p. 22, lines 4-13; Tr. p. 1399, lines 20-28.

Respectfully submitted,

RANDALL J. LITTENEKER
GAIL L. SLOCUM
SHIRLEY A. WOO

By: _____/s/_____
RANDALL J. LITTENEKER

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105
Telephone: (415) 973-2179
Facsimile: (415) 973-5520
E-Mail: rjl9@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

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