PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**Agenda ID 15639**

**ENERGY DIVISION RESOLUTION E-4841**

**May 11, 2017**

REDACTED

RESOLUTION

Resolution E-4841. Pacific Gas and Electric Company requests approval of two amendments with Solar Partners II, LLC related to Ivanpah Unit #1 and with Solar Partners VIII, LLC related to Ivanpah Unit #3.

PROPOSED OUTCOME:

* Approve amendments between Pacific Gas and Electric Company (PG&E) and Solar Partners II, LLC and between PG&E and Solar Partners VIII, LLC, without modification.

SAFETY CONSIDERATIONS:

* The second amendments approved by this resolution will not alter the capacity of the existing facility or require any additional construction at either of the facilities’ sites. Consequently, there are no incremental safety implications associated with approval of these amendments beyond the status quo.

ESTIMATED COST:

* There are no costs associated with the amendments of the Solar Partners II, LLC and Solar Partners VIII, LLC PPAs.

By Advice Letter 5012-E, filed on February 2, 2017.

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# Summary

**Pacific Gas and Electric Company’s (PG&E) proposed amendments between PG&E and Solar Partners II, LLC and between PG&E and Solar Partners VIII, LLC are approved without modification.**

Pacific Gas and Electric Company (PG&E) filed Advice Letter 5012-E (Solar Partners AL) on February 2, 2017, requesting the California Public Utilities Commission (Commission) to review and approve two PPA amendments. The amendment between PG&E and Solar Partners II, LLC is related to Ivanpah Unit #1, and the amendment between PG&E and Solar Partners VIII, LLC is related to Ivanpah Unit #3. Solar Partners II, LLC and Solar Partners VIII, LLC are jointly referred to as the “Solar Partners” in this resolution.

This resolution approves the amendments. PG&E’s execution of the amendments is fair and reasonable and any payments received by PG&E pursuant to the amendments shall be credited to PG&E’s ratepayers via PG&E’s Energy Resource Recovery Account.

# Background

**Overview of the Renewables Portfolio Standard (RPS) Program**

The California RPS program was established by Senate Bill (SB) 1078, and has been subsequently modified by SB 107, SB 1036, and SB 2 (1X) and SB 350.[[1]](#footnote-2) The RPS program is codified in Public Utilities Code Sections 399.11-399.32.[[2]](#footnote-3) The RPS program requires each retail seller to procure eligible renewable energy resources so that the amount of electricity generated from eligible renewable resources is an amount that equals an average of 20 percent of the total electricity sold to retail customers in California for compliance period 2011-2013; 25 percent of retail sales by December 31, 2016; 33 percent of retail sales by   
December 31, 2020, and corresponding increases up to 50% by   
December 31, 2030.

Additional background information about the Commission’s RPS Program, including links to relevant laws and Commission decisions, is available at <http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm> and <http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm>.

# Notice

Notice of the Solar Partners AL was made by publication in the Commission’s Daily Calendar. PG&E states that a copy of the Solar Partners AL was mailed and distributed to the R.15-02-020 service list and GO 96-B service lists in accordance with Section 4 of General Order 96-B.

# Protest

The Solar Partners AL was timely protested by the Office of Ratepayer Advocates (ORA), the City and County of San Francisco (CCSF), and jointly by Marin Clean Energy and Silicon Valley Clean Power (jointly the “CCAs”) on February 22, 2017.[[3]](#footnote-4) Additionally, NRG Energy[[4]](#footnote-5) filed a timely response on   
February 22, 2017. While NRG supports the amendments, ORA objects to the cost and value of the Solar Partners PPAs and recommends that the Commission reject the Solar Partners AL and order PG&E to terminate the PPA between PG&E and the Ivanpah 3 facility. The CCAs recommend in their protest that community choice aggregator customers should no longer pay for costs associated with the Solar Partners PPAs. Lastly, CCSF believes the AL should be rejected because ratepayers will benefit more from the termination of Solar Partners PPAs than they do from the facilities continued operation.

PG&E replied to the protests on March 1, 2017. In its reply, PG&E recommended denying the protests because they do not provide any substantive reasons for rejecting the Solar Partners AL as they raise issues either already considered by the Commission or outside the scope of the Solar Partners AL.

# Discussion

**PG&E requests approval of two amendments between PG&E and Solar Partners II, LLC and between PG&E and Solar Partners VIII, LLC**

In May 2009, PG&E submitted Advice Letter 3458-E requesting that the Commission approve two separate PPAs (Solar Partners PPAs) for Ivanpah Unit #1 and Ivanpah Unit #3 (the Projects). In August 2009, the Commission approved the Solar Partners PPAs in Resolution E-4266, which determined that the terms, conditions, and payments to be made under the Solar Partners PPAs were reasonable and “in the public interest.” Each of the Solar Partners PPAs has a twenty-five (25) year term and the Projects utilize a solar tower and tracking technology to heat steam and subsequently produce electricity using solar power.

In July 2010, PG&E submitted Advice Letter 3703-E requesting that the Commission approve amendments to the Solar Partners PPAs. The Commission reviewed the amendments and determined in Resolution E-4369 that the modifications were reasonable and that the total expected costs of the amended Solar Partners PPAs were reasonable.

After the first amendments to the Solar Partners PPAs were approved, the Solar Partners proceeded with permitting, financing and constructing the Projects. The Solar Partners applied for and obtained Department of Energy (DOE) loan guarantees for the Projects, as well as for Unit #2 which is under contract to Southern California Edison Company. The total DOE loan guarantee for all three units is approximately $1.6 billion.

On December 18, 2015, PG&E submitted Advice Letter 4761-E requesting that the Commission approve two Forbearance Agreements between PG&E and the Solar Partners. As a result of the forbearance agreements, PG&E agreed to withhold from taking any steps towards declaring an event of default through   
July 31, 2016. In exchange the Solar Partners agreed pay for any generation shortfalls through February 2017. The Commission approved AL 4761-E on March 17, 2016, in Resolution E-4771.

In the Solar Partners AL, PG&E explains that although both Ivanpah 1 and 3 have met their respective performance requirements under the Forbearance Agreements, Solar Partners’ estimates indicate that that Ivanpah 3 may not meet the Guaranteed Energy Production (GEP) (as defined in the PPA) requirement under its PPA once the forbearance period ends.

Under the second amendments considered herein, PG&E and the Solar Partners will modify the terms of the Solar Partners PPAs by adding a limit on the total deliveries that PG&E is obligated pay the full Contract Price (as defined in the PPAs). Additionally, the second amendments provide PG&E with curtailment rights and provide the Solar Partners with the ability to pay damages to cure GEP failures of the unmodified GEP requirements.

**Energy Division Evaluated the Second Amendments based on the following criteria:**

* Procurement Review Group Requirements
* Cost Reasonableness of the Amendments
* Amendments and Project Viability

Procurement Review Group (PRG) Participation Requirement

The PRG was initially established in D.02-08-071 to review and assess the details of the investor owned utilities’ (IOU’s) overall procurement strategy, solicitations, specific proposed procurement contracts and other procurement processes prior to submitting filings to the Commission as a mechanism for procurement review by non-market participants.

Participants in PG&E’s PRG include representatives from the Office of Ratepayer Advocates, The Utility Reform Network, and the California Utility Employees. In the Solar Partners AL, PG&E asserts that the proposed Amendment was presented to its PRG on January 17, 2017.

Consistent with D.02-08-071, PG&E’s Procurement Review Group participated in the review of the Amendment.

**Cost Reasonableness**

The second amendments to the Ivanpah PPAs do not modify the contract prices of the PPAs as approved in Resolution E-4369.

The terms of the second amendments include terms which allow PG&E to receive payments from the Solar Partners for any uncured shortfalls in guaranteed energy production. The second amendments allow the Solar Partners to cure failures of a GEP requirement by giving the Solar Partners one year to cure their deficiency. If the Solar Partners fail to remedy the deficiency during the one year cure period, then Solar Partners would be required to pay liquidated damages to PG&E. If the Solar Partners cannot cure the GEP failure, either by increasing generation or by paying damages, PG&E would have the ability to declare a default.

Additionally, the damage payments that are incorporated via the second amendments are consistent with PG&E’s CPUC-approved 2014 RPS pro forma PPA. Specifically, PG&E’s 2014 RPS pro forma PPA provides that GEP damage payments should be the difference between the current market price and the contract price, and should not be lower than a minimum amount of $20/MWh. The generation shortfall payments to ratepayers in the second amendments are consistent with those terms approved by the Commission in D.14-11-042. Therefore, the payment amounts for generation shortfalls are reasonable.

Lastly, the second amendments provide PG&E with curtailment rights. PG&E states that they believe the second amendments to the PPAs could provide customers with savings of approximately $130 million over the remaining life of the PPAs.[[5]](#footnote-6)

Any payments received by PG&E under the second amendments are reasonable and shall be credited to PG&E ratepayers via PG&E’s Energy Resource and Recovery Account (ERRA).

**PPA and Amendment Viability**

The Projects were developed by the Solar Partners. Solar Partners has received the necessary permits, including a conditional use permit from Clark County and approved habitat control plan. The Projects achieved commercial operation in January 2014. While production levels have been below the guaranteed energy production requirements of the amended Solar Partners PPAs, PG&E asserts that performance between the second year and first year has substantially increased and that NRG expects that performance of the Projects will improve going forward. See Confidential Appendix A for performance data.

Based on the terms and conditions of the second amendments, terms and conditions of the amended Solar Partners PPAs, and generation information provided by PG&E and the Solar Partners, it appears that the Solar Partners could meet the terms and conditions of the second amendments and the Solar Partners PPAs.

Independent Evaluator Review

At the request of Commission staff, Arroyo Seco Consulting evaluated the overall merits of the Second Amendment to the Solar Partners PPAs.

The Independent Evaluator (IE) report indicates that second amendments to the Ivanpah PPAs have merits and demerits. Confidential Appendix B includes excerpts from the IE report on the Solar Partners amendments.

An independent evaluator reviewed the second amendments to the Solar Partners PPAs to evaluate the fairness of project-specific negotiations and the merits of the second amendments to the Ivanpah PPAs.

**Protests to the Solar Partners AL are denied**

As stated above, the Solar Partners AL was protested by ORA, the CCAs, and CCSF. In addition to the protests a response was filed by NRG, and PG&E replied to each of the protests.

The Commission considered factual, legal, and technical issues raised in the protests, responses, and replies that related to the request included in the Solar Partners AL. Any issues relating to the amended Solar Partners PPAs, including price or recommendations for changes to the findings made in Resolutions   
E-4266 and E-4369, were not considered, except as described below. Simply stated, the amendments modify the GEP terms and grant PG&E curtailment rights over the facilities, the second amendments do not modify the contract prices of the Solar Partners PPAs, nor increase costs for ratepayers.

**Office of Ratepayer Advocates Recommend Rejection of the Solar Partners AL**

ORA recommends that Energy Division reject the Solar Partners AL and that the Commission order PG&E to declare a default on the Solar Partners VIII PPA. ORA asserts that continued operation of the Solar Partners facilities is not in ratepayers’ economic interests due to the Solar Partners PPAs’ high costs, and both Projects are not needed to meet PG&E’s RPS requirements.

Lastly, ORA argues that by approving this AL the Commission is effectively continually lowering performance standards of the Solar Partners PPAs, which is contrary to the Commission’s principles of least-cost dispatch and contract management. Specifically, ORA argues that second amendments’ change to the provisions necessary to declare a default following a failure in GEP have lowered the bar of the Project’s original intended performance standards.

PG&E’s reply recommends the Commission deny the entirety of ORA’s protest. PG&E notes that the most recent data from the Solar Partners facilities indicates that both facilities appear to be able to meet their GEP requirements, as prescribed in the Forbearance Agreement. Since both facilities will likely meet the terms of the Forbearance Agreements, there would be no event qualifying PG&E to declare that the Solar Partners project is in default. Furthermore, PG&E asserts that even if there were a basis upon which to declare a default litigating the termination of the PPAs would result in long and costly dispute resolution process with uncertain results. PG&E states that all of the costs related to litigating the termination would fall to PG&E’s ratepayers.

Additionally, PG&E argues that the Commission should deny ORA’s protest that the second amendments are not consistent with prudent contract administration or least cost dispatch. PG&E notes that the second amendments also provide PG&E with curtailment rights and the ability to flexibly manage the operations of the projects at their discretion. Given the potential for over-generation on the CAISO system, operational flexibility is an important benefit of the Solar Partners amendments. PG&E believes that these benefits will save customers millions over the remaining term of the PPAs.

The Commission denies ORA’s protests. As stated above, the costs of the PPAs have already been deemed reasonable in prior Commission Resolutions. These amendments do not modify price and, consequently, the Commission will not change the original finding that the costs of the PPAs are reasonable.

**Marin Clean Energy and Silicon Valley Clean Energy (the CCAs) Recommend Rejecting the AL Due to the Solar Partners PPAs’ Costs**

The CCAs recommend that Energy Division should reject the Solar Partners AL. The CCAs assert that departing CCA customers should not pay the high rates in the original contract. Specifically, the CCAs argue that because PG&E is executing the amendments instead of declaring an event of default, PG&E is making a choice to continue to purchasing power from the Solar Partners. The CCAs further argue that by PG&E making that choice, the costs of the Solar Partners PPAs are avoidable and should not be included in the Power Charge Indifference Adjustment (PCIA) and passed on to future CCA (and other direct access customers) customers pursuant to D.04-12-046.

PG&E replies that the issue of cost responsibility was already decided when the Commission approved the amended Solar Partners PPAs and that the second amendments do not justify any change to that earlier determination. Further, PG&E asserts that the production levels of both Ivanpah facilities have been increasing and, consequently, there is no event of default for PG&E to act on at this time.

The Commission denies the CCAs’ protest. The second amendments considered in this resolution do not amend the previously approved contract prices of the Solar Partners PPAs, and therefore do not justify any change to the Commission’s earlier determination regarding cost responsibility.

**City and County of San Francisco Argues that the Solar Partners PPAs’ Costs are too High and Executing these Amendments is Not Prudent**

CCSF recommends that Energy Division should reject the Solar Partners AL. CCSF asserts that the second amendments will not provide significant benefits to customers, and that ratepayers would benefit more from termination of the PPAs. Specifically, CCSF states that if the PG&E were to declare an event of default on the Ivanpah 3 PPA, and subsequently terminate the contract, PG&E would save their ratepayers potentially $803 million over the remaining life of the contract.

PG&E states the Commission should deny CCSF’s protest. As stated above, data from the Solar Partners facilities indicates that the both facilities seem likely to meet their GEP requirements. Consequently, there is no way for PG&E to declare an event of default.

The Commission denies CCSF’s protest. The second amendments considered in this resolution do not amend the previously approved contract prices of the Solar Partners PPAs, and therefore do not justify any change to the Commission’s earlier determination regarding cost reasonableness.

**NRG Energy, Inc. Recommends Approval of the Solar Partners AL**

NRG Energy Inc. submitted comments supporting the second amendments. NRG asserts that the second amendments’ terms and conditions carefully balance the commercial relationship between PG&E and Solar Partners with PG&E's ratepayer interests combined with its need to meet California's RPS requirements. Additionally, NRG asserts that the Solar Partners are highly confident the Ivanpah facilities will meet the guaranteed energy production requirements in the amendments.

**Safety Considerations**

Section 451 requires that every public utility maintain adequate, efficient, just, and reasonable service, instrumentalities, equipment and facilities to ensure the safety, health, and comfort of the public.

This resolution approves two proposed amendments. The amendments do not require any incremental construction or modifications to the existing facilities. Consequently, there are no incremental safety implications associated with approval of these amendments beyond the status quo.

Having said that, on May 19, 2016, several localized fires occurred at the Ivanpah 3 facility. The incident was reported to the CPUC Safety and Enforcement Division and investigated by an Engineer in the Electric Safety & Reliability Branch. There were no reports of injuries or fatalities as a result of the incident. The results of the investigation remain confidential at this time.

Based on the information before us, these amendments do not appear to result in any adverse safety impacts on the facilities or operations of PG&E.

Compliance with the Interim Greenhouse Gas Emissions Performance Standard (EPS)

Pub. Util. Code Sections 8340 and 8341 require that the Commission consider emissions costs associated with new long-term (five years or greater) baseload power contracts procured on behalf of California ratepayers.[[6]](#footnote-7)

D.07-01-039 adopted an interim EPS that establishes an emission rate for obligated facilities at levels no greater than the greenhouse gas emissions of a combined-cycle gas turbine power plant. Generating facilities using certain renewable resources are deemed compliant with the EPS.[[7]](#footnote-8)

Although the Solar Partners facilities use natural gas to assist their solar thermal generation, the facilities have forecasted annualized capacity factors of less than 60 percent and are not considered baseload generation under paragraphs 1(a)(ii) and 3(2)(a) of the Adopted Interim EPS Rules. Consequently, the Solar Partners PPAs are not covered procurement subject to the EPS and the California Energy Commission is responsible for determining the threshold for de minimums gas usage and RPS eligibility.

**Confidential Information**

The Commission, in implementing Section 454.5(g), has determined in   
D.06-06-066, as modified by D.07-05-032, that certain material submitted to the Commission as confidential should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations. D.06-06-066 adopted a time limit on the confidentiality of specific terms in RPS contracts. Such information, including price, is confidential for three years from the date the contract states that energy deliveries begin, or until one year following contract expiration, except contracts between IOUs and their affiliates, which are public.

The confidential appendices, marked “[REDACTED]” in the public copy of this resolution, as well as the confidential portions of the Solar Partners AL, remain confidential at this time.

# Comments

Section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than   
30 days from today.

# Findings

1. Consistent with D.02-08-071, PG&E’s Procurement Review Group participated in the review of the second amendments, which are the subject of the instant Advice Letter, between PG&E and Solar Partners II, LLC and Solar Partners VIII, LLC.
2. The second amendments do not amend the existing Solar Partners PPAs price terms, and therefore do not justify any change to the Commission’s earlier determination regarding cost responsibility.
3. Payments received by PG&E under the second amendments are reasonable and shall be credited to PG&E’s Energy Resource Recovery Account.
4. All protests to the Solar Partners advice letter are denied.
5. The confidential appendices, marked "[REDACTED]" in the public copy of this resolution, as well as the confidential portions of the Advice Letter   
   4761-E, remain confidential at this time.
6. Advice Letter 5012-E should be approved and effective today.

# Therefore it is ordered that:

1. The request of the Pacific Gas and Electric Company for review and approval of the proposed amendments with Solar Partners II, LLC and Solar Partners VIII, LLC, as requested in Advice Letter 5012-E, is approved without modification.
2. Pacific Gas and Electric Company shall record any payments received pursuant to the amended Solar Partners II PPA and the amended Solar Partners VIII PPA in their Energy Resource Recovery Account.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on May 11, 2017; the following Commissioners voting favorably thereon:

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TIMOTHY J. SULLIVAN

Executive Director

**Confidential Appendix A**

Evaluation Summary of the Amendment to Solar Partners PPAs

**[Redacted]**

**Confidential Appendix B**

Excerpt from the Independent Evaluator Report

**[Redacted]**

1. SB 1078 (Sher, Chapter 516, Statutes of 2002); SB 107 (Simitian, Chapter 464, Statutes of 2006); SB 1036 (Perata, Chapter 685, Statutes of 2007); SB 2 (1X) (Simitian, Chapter 1, Statutes of 2011, First Extraordinary Session); and SB 350 (De Leoñ, Chapter 547, Statutes of 2015). [↑](#footnote-ref-2)
2. All further statutory references are to the Public Utilities Code unless otherwise specified. [↑](#footnote-ref-3)
3. Energy Division partially granted ORA’s request to extend the protest period for the Solar Partners AL from January 7, 2016 to January 15, 2016. [↑](#footnote-ref-4)
4. NRG is a member of the “Solar Partners” and, consequently, is one of the owners of the Solar Partners’ projects. [↑](#footnote-ref-5)
5. The $130 million estimate is based on PG&E’s assumptions about future performance of the Projects and future market conditions, as well as other factors for the remaining 22 years of the PPAs’ deliveries. [↑](#footnote-ref-6)
6. **“**Baseload generation**”** is electricity generation at a power plant “designed and intended to provide electricity at an annualized plant capacity factor of at least 60%.” Pub. Util. Code Section 8340 (a). [↑](#footnote-ref-7)
7. D.07-01-039, Attachment 7, p. 4. [↑](#footnote-ref-8)