PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION **RESOLUTION E-4368**
December 16, 2010

R E S O L U T I O N

Resolution E-4368. Pacific Gas and Electric Company.

PROPOSED OUTCOME: This resolution implements Pacific Gas and Electric Company's Solar Photovoltaic Program. Specifically, this resolution adopts (1) a competitive solicitation process, program protocols and eligibility criteria, (2) standard power purchase agreements, and (3) annual compliance reporting requirements.

ESTIMATED COST: Actual costs are unknown at this time. Costs for any single power purchase agreement shall not exceed $295 per megawatt hour. Total program costs from power purchase agreements are not expected to exceed $2.85 billion and may be considerably less.

By Advice Letter 3674-E filed on May 24, 2010.

SUMMARY

This resolution implements Pacific Gas and Electric Company's (PG&E) Solar Photovoltaic Program. In Decision (D.) 10-04-052, the California Public Utilities Commission (Commission) adopted a five-year program to promote the development of distributed solar photovoltaic (PV) in PG&E's service territory, with a focus on ground-mounted projects in the one to 20 megawatt (MW) range (PG&E's Solar PV Program).

The intent of PG&E's Solar PV Program is to facilitate the development of 500 MW of solar PV facilities over five years, half of which will be owned and operated by PG&E and half of which will be owned and operated by independent power producers (IPP) with the generation sold to PG&E pursuant to power purchase agreements (PPA). Competitive solicitations will be used to select both the most cost-effective utility-owned generation (UOG) projects and

the most cost-effective IPP PPAs. This resolution addresses the requirements for the competitively-bid PPA portion of the program (PPA Program).

This resolution adopts a competitive solicitation process, eligibility criteria, administration protocols and two standard PPAs for the PPA Program. One standard PPA is for projects three MW and smaller in size and the other is for projects greater than three MW and up to 20 MW. This resolution also clarifies the process for PG&E to comply with the annual reporting requirements set forth in D.10-04-052.

PG&E's Solar PV Program - given its magnitude, its combination of UOG and IPP elements, and its utility-based administration - is a relatively new construct. In D.10-04-052, the Commission stated that it is reasonable to expect market, technical and regulatory challenges to arise as PG&E's Solar PV Program is implemented. Accordingly, this resolution implements the PPA portion of PG&E's Solar PV Program in a manner that provides sufficient flexibility to make changes in response to these issues as they emerge.

BACKGROUND

On February 2, 2009, Pacific Gas and Electric Company (PG&E) filed Application (A.) 09-02-019 seeking authorization for a five-year, 500 megawatt (MW) solar photovoltaic (PV) program. On April 22, 2010, the Commission adopted Decision (D.) 10-04-052 authorizing PG&E to own and operate 250 MW of primarily ground-mounted solar PV facilities in the one to 20 MW range and to enter into long-term power purchase agreements (PPA) for 250 MW of similarly configured facilities.

D.10-04-052 authorized PG&E to expend up to $1.454 billion for the capital costs associated with the UOG portion of PG&E's Solar PV Program based on an average capital cost of $4,312 per kilowatt (DC) inclusive of a 10% contingency amount. D.10-04-052 also authorized PG&E to hold solicitations for 20-year PPAs with solar PV developers, which will result in PG&E ratepayer costs that were considered, but not explicitly stated in the decision. The maximum estimated cost of the PPA Program is $2.85 billion, assuming that the program is fully subscribed at the maximum allowable price and assuming a 24% system

capacity factor and an annual degradation factor of 0.89%.[1] Actual costs will likely be lower than the maximum amount given that competitive solicitations will be used to award PPAs.

Pursuant to D.10-04-052, PG&E filed advice letter (AL) 3674-E on May 24, 2010. In AL 3674-E, which concerns the PPA portion of the program, PG&E seeks approval of: (1) a PPA solicitation process, including protocols and eligibility criteria; (2) a generation system interconnection application process and protocols; (3) a process for identifying preferred locations for PPA projects that optimize the locational value of project sites; and (4) a standard contract for projects between one and three MW in size and a standard contract for projects greater than three MW and up to 20 MW.

NOTICE

Notice of AL 3674-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section IV of General Order 96-B.

PROTESTS

On June 14, 2010, the Commission received timely protests to PG&E's AL 3674-E by the Division of Ratepayer Advocates (DRA), the Coalition of California Utility Employees (CUE), the Interstate Renewable Energy Council (IREC) and Republic Cloverleaf Solar. Also on June 14, 2010 the Commission received a timely response by the Solar Alliance. PG&E replied to parties' protests and responses on June 21, 2010.

DISCUSSION

Implementation of the PPA portion of PG&E's Solar PV Program includes establishing eligibility criteria, competitive solicitation protocols, a generation system interconnection application process and protocols, information that PG&E can provide to identify preferred project locations, standard contract

[1] This is consistent with the PV system capacity factor and degradation factor assumed by PG&E in its Application (A.) 09-02-019.

terms and conditions, and annual reporting requirements. We address each issue below.

It's important to note that pursuant to D.10-04-052, PG&E is required to convene a program forum for participants and stakeholders within 60 days of closing the PPA solicitation to identify program components that may need refinement.[2]

PG&E shall take the following actions to ensure that program forums are effective:

- Notice all stakeholders of the date, time, location and methods for participation[3] for each program forum;
- Issue a request for feedback from all stakeholders after the close of each solicitation in order to inform the agenda for the program forum;
- At the program forum, PG&E shall provide sufficient time to address key issues identified in the request for feedback and the independent evaluator's report;
- At the program forum, PG&E shall provide sufficient time for stakeholders to discuss their experience with the solicitation, interconnection process, or the program in general; and
- The independent evaluator should participate in the program forum.

Based on the feedback received through these program forums, and in consultation with Energy Division, PG&E may file a Tier 3 advice letter seeking modifications to the PPA Program solicitation protocols and standard contract terms and conditions adopted by this resolution. Furthermore, Energy Division may propose modifications to the PPA Program protocols and standard contracts by issuing a draft resolution on its own motion.

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[2] D.10-04-052, Ordering Paragraph 16.

[3] PG&E should utilize telecom and web-based technologies to facilitate remote participation.

Eligibility Criteria

As described in D.10-04-052, the PPA Program should incorporate clearly defined program eligibility criteria to facilitate market transparency. In this resolution the Commission adds an additional eligibility criterion to increase the likelihood that a PPA solicitation results in selection of the most cost-effective and viable projects. The eligibility criteria set forth in D.10-04-052 for the PPA Program require that the proposed PPA projects:

- Be primarily ground-mounted systems in the one to 20 MW range;
- Be located within PG&E's service territory;
- Demonstrate site control;
- Have a complete interconnection application filed with PG&E within two weeks following a shortlist notification;
- Have a pre time-of-delivery adjusted contract price no greater than $246/MWh;
- May not participate in the California Solar Initiative or net energy metering programs; and
- Must be scheduled to begin initial operation within 18 months following Commission approval of the PPA.

It is in the interest of PG&E customers and the efficient deployment of the PPA Program that participants have some level of project development experience with solar technology. PG&E includes "experience" as a criterion for selecting engineering, procurement and construction bids for its UOG projects and similar criteria should apply to the PPA Program.[4] Consequently, PG&E shall require a minimum level of developer experience as a criterion for participation in a PPA solicitation. Specifically: the IPP company and/or member of the project development team must have either completed or begun construction of a solar project that is at least 500 kilowatts (kW). Program stakeholders will have an opportunity to revisit this issue in the program forum process.

[4] *See,* Advice Letter 3691-E. (Referred to as "technical capability")

PV PPA Program Solicitation Protocols

Solicitation Frequency and Megawatt Amount

PG&E states that it will hold annual solicitations over the five-year program period for 50 MW of eligible solar PV PPAs. PG&E explains that if less than 50 MW is contracted for in a solicitation, or in the event that executed PPAs from prior solicitations are terminated, this capacity will be added to a future year's PPA solicitation. PG&E's proposed solicitation frequency and target capacity is consistent with D.10-04-052 and is adopted.

The Commission expects PG&E to take all reasonable measures to see that 250 MW of new solar PV projects are developed by IPPs through the PPA Program. Accordingly, PG&E shall employ a strategy that ensures, to the greatest extent practicable, that the PPA Program is fully subscribed.

PG&E's Right to Terminate a PPA Solicitation

Solar Alliance asserts that PG&E's solicitation protocol that permits PG&E to terminate a solicitation for any reason is contrary to the intent of D.10-04-052 for the PV Program to result in the near-term development of new renewable capacity. Solar Alliance recommends that the Commission require PG&E to show just cause before terminating a PPA solicitation.

In response, PG&E asserts that this solicitation protocol is reasonable and that Solar Alliance's request for proof of just cause is unnecessary because the Commission already requires PG&E to file an advice letter if PG&E elects to suspend or scale back its Solar PV Program.[5] PG&E contends that in cases where a solicitation is tainted by market manipulation, PG&E must be able to terminate the solicitation quickly and without legal recourse. PG&E also notes that delays from participants legally challenging PG&E's decision to terminate could result in PPA Program delays.

While the language at issue may appear far reaching, it is not uncommon for a utility to be granted the right to terminate a solicitation for any reason to ensure, among other things, that utility customers receive the maximum benefits of a

[5] *See,* D.10-04-052 at 54.

solicitation, including legal protection from an uncompetitive or defective solicitation. The Commission approved similar language in implementing the similarly-situated PPA portion of SCE's Solar PV Program (SPVP) and thus far, there is no evidence that this utility termination right has impeded participation in SCE's solar PV PPA solicitation, or that it has led to unreasonable results. Also, PG&E includes similar language in its RPS solicitation protocols. Given this precedent, the Commission is confident that approving this language here will not unreasonably impede participation in the PPA Program solicitation, and that it is a necessary protection for ratepayers.[6] Finally, D.10-04-052 clearly states that while there may be factors that could justify termination of the PPA Program, or a solicitation conducted therein, PG&E is required to file an advice letter demonstrating the need to do so. Consequently, PG&E may retain this language in its PPA solicitation protocols.

Waiver of Participant's Rights

Solar Alliance asserts that PG&E's PPA solicitation protocols at Section VIII would have participants waive a number of generally recognized legal rights and that requiring such waivers could limit PPA Program participation.[7]

In response, PG&E contends that its PPA solicitation protocols are reasonable and appropriately balance limiting PG&E's exposure to lawsuits while ensuring that participants are free to challenge the conduct or result of a PPA Program solicitation at the Commission. PG&E also states that the language at issue is consistent with provisions in PG&E's RPS solicitations.

Energy Division staff reviewed PG&E's proposed PPA protocol language and PG&E's most recently approved RPS protocols and found material differences. Most notably, PG&E's 2009 RPS protocols at Section XVII designates the Commission's RPS proceeding or alternative dispute resolution (ADR) process as the only forums in which an RFO participant may assert any challenge with respect to the conduct or results of the solicitation. The RPS protocols

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[6] *See*, PG&E's 2009 RPS Solicitation Protocols, Section XVII, available at: http://www.pge.com/includes/docs/word_xls/b2b/wholesaleelectricsuppliersolicitation/2009RPS/00_2009_RPS_RFO_Solicitation_Protocol.DOC.

[7] Solar Alliance response at 3-4.

specifically permit participants to protest an advice letter seeking approval of one or more contracts entered into as a result of the solicitation and the RPS protocols clearly state that, "nothing in this Protocol is intended to prevent any Participant from informally communicating with the CPUC or its staff regarding this Solicitation or any other matter."[8]

In contrast, PG&E's proposed PPA solicitation protocols provide (in part):[9]

> By submitting an Offer, the Participant further agrees that the sole forum in which Participant may assert any challenge with respect to the conduct or results of the RFO is the CPUC. The Participant further agrees that the sole means of challenging the conduct or results of the RFO is a protest to PG&E's filing before the CPUC seeking approval of one or more Agreements entered into as a result of the RFO.

PG&E has not presented a reason for why a PPA Program participant's waiver of claims and limitation of remedies needs to be materially different than those used in PG&E's general RPS procurement activities. PG&E shall modify section VIII of its proposed PPA Program solicitation protocols and use the same waiver of claims and limitation of remedies protocols used for its annual RPS solicitation.

Limitation on Quantity of Bids and Project Aggregation

Republic Solar protested AL 3674-E on the grounds that PG&E's proposed protocols would preclude projects developed on multiple non-contiguous land parcels from participating in the PPA Program. Republic Solar takes issue with PG&E's proposed requirement that each individual project interconnect via a single CAISO revenue meter and the provision that each participant may submit no more than five offers per solicitation. Republic Solar explains that allowing multiple projects on non-contiguous land to bid a single offer will allow smaller developers to benefit from the economies of scale and therefore lower development costs achieved by larger projects. Republic Solar described a 20 MW "project" comprised of 12 non-contiguous parcels as an example of potential

[8] PG&E's 2009 RPS Solicitation Protocols at Section VII.

[9] AL 3674-E, Attachment A at 12, Section VIII.

solar development that would be ineligible to bid into a single PPA solicitation.[10] No other party protested AL 3674-E on this issue.

In its response, PG&E maintains that its protocols strike a reasonable balance between allowing small projects on multiple, contiguous parcels to qualify for the minimum one MW program size requirement while still conforming to the terms and conditions of the standard PPA. PG&E acknowledges that not all projects may meet the PPA Program parameters, and identifies the general RPS solicitation as a suitable process for Republic Solar to offer PG&E its proposed project.

It is evident that more clarity and flexibility would be useful to facilitate aggregation of small projects to meet the one MW threshold. In SCE's SPVP the Commission granted flexibility for smaller aggregated projects provided that the aggregated sites interconnect within a single p-node.[11] It is reasonable to provide similar flexibility here.

In comments on the draft resolution, PG&E supported allowing less than one MW projects to aggregate, but requested that the Commission establish minimum project size of 500 kW consistent with SCE's SPVP. In reply comments, FIT Coalition considers setting a minimum project size as arbitrary and unnecessarily restrictive.[12]

Allowing projects less than one MW in size to aggregate provides reasonable flexibility for small projects to participate in PG&E's PPA Program. Consequently, PG&E shall revise its protocols so that a single project may be comprised of the aggregation of multiple sites to meet or exceed the one MW program eligibility threshold, provided that each system has a minimum 500 kW

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[10] Republic Solar protest at 3.

[11] A "p-node" is a single network Node or subset of network Nodes where a physical injection or withdrawal is modeled and for which a Locational Market Price is calculated and used for financial settlements. *See*, e.g., http://www.caiso.com/2457/2457e07768380.pdf

[12] FIT Coalition reply comments at 6-7.

Gross Power Rating. PG&E shall also revise its protocols so that a project comprised of aggregated sites shall interconnect within a single p-node rather than a single CAISO revenue meter.

In addition, PG&E asserts that its proposed limitation on the number of bids is intended to reduce the reliance on the performance of any single developer to meet the PPA Program goals. Based on this same logic, PG&E's protocols also establish that PG&E will execute no more than 20 MW of PPAs per participant per solicitation. Such provisions are intended to prevent seller concentration or a buyer's over reliance on one seller.

While the Commission agrees that protecting against seller concentration in any single solicitation is a valid concern, we reject PG&E's proposal to set a five bid limit per seller per solicitation. PG&E's limit on executing PPAs for no more than 20 MW per seller is sufficient to address seller concentration. Consequently, PG&E shall remove the provision that limits the number of bids allowed by a single participant.

Interconnection Procedure

For the PPA Program, PG&E has proposed to use the Wholesale Distribution Access Tariff (WDT) for distribution level interconnections and the Small Generator Interconnection Procedures (SGIP) for transmission level interconnections. PG&E states that the SGIP "is designed to avoid, to the maximum extent possible, expensive or time-consuming network upgrades."[13]

IREC submitted a protest to AL 3674-E, arguing that facilities receiving contracts through PG&E's PPA Program that are certified as Qualifying Facilities (QF) should be able to interconnect under California's Rule 21 interconnection procedures. IREC puts forth two main reasons for why Rule 21 may be preferred over SGIP. First, IREC states that many participants will be familiar with Rule 21, having participated in the California Solar Initiative (CSI) program. IREC states that using Rule 21 will create consistency for program participants, reduce project costs, and enhance worker safety. IREC also notes that Rule 21 is a state jurisdictional program, operating under the authority of the Commission, rather

[13] AL 3674-E at 7.

than under the authority of the Federal Energy Regulatory Commission (FERC), which administers the WDT and the SGIP.

In its reply, PG&E argues that IREC's argument is flawed because the PPAs executed under the PPA Program concern wholesale energy sales, not Public Utilities Regulatory Policies Act (PURPA) contracts priced at avoided cost.[14] For this reason, PG&E asserts that SGIP is the appropriate interconnection procedure.

We recognize that the interconnection process is integral to the success of the PPA Program. In the draft resolution, we required PG&E to use the Rule 21 interconnection tariff for all projects requesting interconnection at the distribution level. In their comments, PG&E and SCE argue that the Commission does not have jurisdiction over distribution level interconnection for systems that make wholesale energy sales and that the use of Rule 21 will create market confusion and delay. IREC and the FIT Coalition, however, assert that the use of Rule 21 is legally appropriate and preferred interconnection process.

The Commission's priority in this resolution is to implement PG&E's Solar PV Program in a timely manner. We note that these issues have been raised in FERC Docket No. ER11-1830-000. The Commission reserves the right to consider and address these issues in the future as appropriate and necessary, including, without limitation, ensuring non-discriminatory interconnection procedures based on developments in or resolution of the FERC proceeding. In addition, parties may raise these and related issues in any appropriate Commission forum.

In the interim, PG&E shall make the appropriate interconnection procedure available to each generator. Consequently, we emphasize that regardless of the interconnection process used, PG&E shall proactively modify its interconnection protocols for use in the PPA Program where such modifications are reasonable and would enhance the implementation timelines and probability of success of the PPA Program. Among other things, PG&E should consider adopting or modifying criteria for "fast track" processing where possible.[15]

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[14] PG&E response at 6.

[15] Wholesale Distribution Access Tariffs provide for a streamlined interconnection process for facilities that meet certain screens. See Section 2 of PG&E's WDT:

Footnote continued on next page

By deferring this issue, we do not intend to suggest that a PG&E election to use its SGIP WDT for the PPA Program constitutes an admission or decision by the Commission that those are the jurisdictionally appropriate or mandated processes for interconnection under the PPA Program. In no event will we allow UOG interconnections being preferred over PPA Program interconnections.

Location and interconnection information

One of the principal benefits of the PPA Program is that it should facilitate the development of new solar PV projects in PG&E's service territory, near load and where there is surplus capacity on the existing distribution system. However, in order to maximize this benefit, developers require access to information about the available capacity on PG&E's distribution system.

D.10-04-052 ordered PG&E to make available information to potential bidders indicating preferred interconnection locations. Specifically, the decision stated that "[t]his information could assist project developers to secure suitable locations to minimize the risk of facing unforeseen interconnection costs."[16] In providing this information, the Commission required that PG&E identify preferred locations on the grid where the deployment of distributed generation (DG) could help address anticipated peak load growth or relieve congestion. Finally, pursuant to the decision, PG&E is required to establish a process for identifying preferred locations for project development to optimize the locational value of project sites, including impacts on neighboring lands.[17]

In AL 3674-E, PG&E proposed to identify preferred locations based on the capacity of nearby substations throughout its service territory. PG&E is currently providing this information on its website using a Google Map-based

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http://www.pge.com/includes/docs/pdfs/shared/customerservice/nonpgeutility/electrictransmission/tariffs/WD%20Tariff%20-%20eTariff%20Baseline%20Version.pdf (last visited on 12/13/2010). SCE used a modified fast track interconnection process for its own solar photovoltaic program.

[16] D.10-04-052 at 42.

[17] D.10-04-052, Ordering Paragraph 9.

format. PG&E stated that it will update the information "prior to each program year solicitation."[18]

Solar Alliance and DRA both protest that the location information provided by PG&E is too vague to provide the type of information envisioned in the decision. Solar Alliance asserts that more detailed information about available capacity at the circuit level throughout PG&E's distribution system may be necessary to assist developers in securing locations that minimize interconnection costs. Solar Alliance also requests that after the first solicitation, the Commission reassess PG&E's locational information process to determine whether it has achieved the benefits sought by the Commission.[19] DRA asserts that PG&E's proposal does not meet the requirements in the decision and asks that the Commission require PG&E to also identify, "regional generation potential and regions identified by CAISO to have Local Capacity Requirement (LCR) deficiencies."[20] DRA asserts that providing this additional information should result in lower cost projects to the benefit of PG&E's ratepayers.

In its response, PG&E asserts that its current proposal for identifying preferred locations meets the conditions of the decision. PG&E argues that DRA's protest should be rejected because the decision did not require the identification of LCR areas as a component of preferred location. Furthermore, PG&E asserts that projects developed under the program currently do not "contribute qualifying capacity that could reduce any LCR deficiency."[21] PG&E also clarified in its response the analysis and methodology underlying its preferred locations maps and explained the additional work that PG&E is conducting or considering to refine this important component of the program going forward.[22]

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[18] AL 3674-E at 6.

[19] Solar Alliance protest at 3.

[20] DRA protest at 3.

[21] PG&E response at 3.

[22] PG&E response at 3-5.

Understanding the methodology used to generate the preferred locations is a key component of the use and usefulness of PG&E's maps. Consequently, PG&E shall include on its website and in its PPA Program solicitation materials a detailed description of the methodology employed to generate preferred location information. The description should be updated as PG&E refines its methodology going forward.

As previously stated by this Commission, having the utilities provide program stakeholders with useful information about where the distribution system may be able to accommodate new capacity at reasonable costs is an issue of critical importance to any program seeking to spur the development of new renewable generating capacity at the distribution level.[23] This is the case for PG&E's PPA Program, as it was for SCE's, and as it will be for San Diego Gas & Electric Company's solar PV program.[24] PG&E's map appears to provide information on the transformer capacity at the substation level, whereas SCE's map provides estimated available capacity in an area based on the circuit level.

In their comments on the draft resolution, the FIT Coalition proposed that the PG&E map provide the following information about PG&E's distribution system:[25]

1. Load and generation (or net load) for each substation and each feed line circuit emanating from it. Such information should specify minimum net loads categorized by time of day and time of year such that local generation profiles are designed not to exceed a safe percentage of that load.
2. Planned changes to the substation or circuit, including additional load servicing through new or upgraded facilities and queues for distributed generation applications and approved facilities.

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[23] *See, e.g.,* D.09-06-049, Resolution E-4299, D.10-04-052 and D.10-09-016.

[24] On September 2, 2010, the Commission adopted D.10-09-016, authorizing a solar PV program for SDG&E.

[25] FIT Coalition comments at 4-5.

3. Each feed line circuit and substation should be categorized as having an ability to accept additional generation interconnection within defined ranges of <1MW, 1-3MW, 3-5MW, 5-10MW, 10-20MW, 20-50MW, or 50-100MW.

In response, PG&E offered to investigate providing some of the information requested by the FIT Coalition, including information on annual peak loads, the capabilities of existing substation transformers and circuit outlets, and information on planned changes to substation transformer and circuit outlet capabilities. PG&E states that providing the requested information will require time and resources and it may not be available in time for the first PPA solicitation. Lastly, PG&E is hesitant to categorize the additional generation interconnection availability for each substation transformer and circuit outlet based on capacity-only since, according to PG&E, "other factors such as voltage regulation and protection requirements are also important elements to take into account."[26]

In order to facilitate developer selection of good interconnection sites, we will adopt the FIT Coalition's first two suggestions to the extent that PG&E has the data available. Given the size of PG&E's distribution system, PG&E may provide this more detailed information in increments, starting with areas that are load-constrained, such as the CAISO-designated local capacity requirement areas. We strongly encourage PG&E to begin to provide this more detailed information in time for the first PPA solicitation, but no later than 90 days before the second PPA solicitation.

Finally we do not require PG&E to depict and categorize the amount of available capacity at each circuit and substation in the ranges of <1MW, 1-3MW, 3-5MW, 5-10MW, 10-20MW, 20-50MW, or 50-100MW, as the FIT Coalition requests. We believe that solar developers will be able to deduct this information from the other data that PG&E is required to provide and categorizing available capacity as proposed is not necessary to identify preferred locations.

Program stakeholders shall have an opportunity to discuss the effectiveness of the information provided by PG&E and to revisit what information can be

[26] PG&E reply comments at 2-3.

provided to identify preferred locations during the program forums or other types of communication, and PG&E shall proactively undertake all feasible improvements. PG&E will include this issue on the agenda for the first program forum. PG&E shall also make improvements, where appropriate, at the direction of Energy Division staff.

In the absence of more detailed information in time for the first PPA solicitation, there are a number of ways to facilitate the implementation of, or to improve upon the protocols adopted here.

First, we strongly encourage PG&E to improve the quality of the locational information provided in time for the first PPA solicitation and throughout the implementation of its Solar PV Program, as discussed above. For instance, PG&E shall make information available about LCR areas in its preferred location map and any supporting materials. In comments on the draft resolution, DRA highlights that additional benefits may be obtained from having projects developed in areas that the CAISO has identified as deficient in local capacity requirements pursuant to North American Electric Reliability Corporation standards.[27] Based on the CAISO's 2011 Local Capacity Technical Analysis report there are several of these areas in PG&E's service territory.

Second, PG&E should provide location information about existing interconnected projects and projects that have submitted an interconnection request with PG&E. This information may facilitate the ability of developers to secure project sites that minimize the risk of facing unforeseen interconnection costs.

Third, program stakeholders have the ability, pursuant to the SGIP set forth in PG&E's FERC-filed WDT, to make informal requests to a designated PG&E employee about a proposed project or specific site. Section 1.2 of PG&E's WDT requires that:

> Electric system information provided to the Interconnection Customer should include relevant system studies, interconnection studies and other

[27] DRA references the CAISO's Annual Local Capacity Technical Analysis report, which was submitted in the Commission's Rulemaking 09-10-032.

> material useful to an understanding of an interconnection at a particular point on the Distribution Provider's Distribution System…

We expect PG&E has already designated such a representative pursuant to its WDT tariff and direct PG&E to make this representative's contact information available to program participants.

Finally, PG&E should leverage and/or integrate any related analysis concerning its electric distribution system that may benefit the Solar PV Program.[28]

Ranking of Bids to Account for Local Capacity Requirements

In its protest to PG&E's AL 3674-E, DRA argues that PG&E should be required to favor projects located in CAISO-identified local capacity requirement (LCR) areas because the capacity installed in these areas will provide greater value to the system, all else being equal.[29] In its response to DRA, PG&E opposes adopting an evaluation methodology to give any particular project bid an advantage in the solicitation process solely because it is located in an LCR deficient area because the SGIP interconnection process, which PG&E proposed for this program, does not currently provide a deliverability assessment. Without a deliverability assessment these projects would not provide qualifying capacity that counts toward PG&E's Resource Adequacy requirements nor would they contribute capacity toward reducing the LCR deficiencies in the areas cited by DRA.[30]

In comments on the draft resolution, DRA narrows its request and asks that PG&E use an LCR designation as a tie-breaker criterion when selecting projects through the PPA solicitation process, similar to how the UOG solar PV program has been implemented.[31] In its reply, PG&E argues that determining whether a

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[28] For example, the Commission's Smart Grid proceeding (R.08-12-009) provides an opportunity to evaluate the utilities' existing electric infrastructure.

[29] DRA protest at 4.

[30] PG&E response at 5.

[31] DRA comment at 1-3.

proposed project is in an LCR designated area could delay the PPA Program. FIT Coalition submitted reply comments in support of DRA's request.

While we agree with PG&E that it is premature to create an additional bid evaluation metric based on an LCR, DRA's request for LCR designation to serve as a tie-breaker among shortlisted projects, all else being equal, is reasonable. The CAISO's 2011 Local Capacity Technical Analysis referred to by DRA is prepared in part to allow load serving entities to make more informed procurement decisions so this analysis is relevant to PG&E's PPA Program. PG&E will include this issue on the agenda for the first program forum to seek feedback on this requirement.

Independent Evaluator

Pursuant to D.10-04-052, PG&E is required to enlist the services of an independent evaluator (IE) to oversee both the UOG and PPA solicitation processes, and inform the Commission on the degree to which the solicitations conform to the solicitation protocols. The Commission does not require PG&E to use the same IE in subsequent solicitation years.

DRA recommends that the Commission require that in any given year, the same IE oversee both the UOG and PPA solicitations. PG&E explains in its response that it has enlisted the same IE for the UOG and PPA portions of its Solar PV Program.[32] The use of a single IE to oversee both the UOG and PPA solicitations in a solicitation year is reasonable and this requirement is adopted for the five-year program.

DRA also requests the Commission to require that the IE perform analysis to compare the bidders and bids received in the PPA Program against the most recent RPS solicitation. DRA states that the analysis would provide useful information to the Commission regarding whether developers are forum shopping between programs for the highest priced contract, resulting in PG&E ratepayers paying more for generation than they would have otherwise. DRA states that if a project is bid into both the PPA Program and the RPS solicitation, that the lower priced offer should be considered.

[32] PG&E response at 8 and AL 3674-E.

PG&E in its reply explains that while an overlap in project eligibility may exist between the two programs, there may be justification for a developer to bid a different price into the two programs for the same project. For example, PG&E explains that the requirement of its Solar PV Program that projects are brought online within 18 months and that the program uses a standard contract is significantly different from the RPS program, where sellers propose a project's online date and may negotiate most contract terms and conditions. These notable differences between the two programs, PG&E claims, may likely result in different prices for the same project and that this fact, alone, should not be considered evidence of market manipulation. That said, PG&E does not object to having the IE perform the analysis requested by DRA.

While the Commission shares DRA's concern about PG&E's customers overpaying as a result of having multiple programs for the same seller to participate in, we do not anticipate the outcome of varying prices for the same project envisioned by DRA. It is possible that the competing programs will ultimately result in lowers prices to consumers. A seller participating in the PPA portion of PG&E's Solar PV Program may be able to bid a lower price that reflects the lower transaction costs of that program. In any event, the Commission expects robust competition in both programs, which should apply downward pressure on bid prices generally.

However, the Commission, like PG&E, does not object to having the IE compare the bidding behavior across the two programs, but it is unclear that the IE is the only entity, or the best entity, to conduct this analysis. Consequently, PG&E shall perform this analysis with oversight from the IE. Further, in order for any such analysis to be useful, PG&E shall incorporate the analysis into its regular and ongoing due diligence to procure least cost, best fit RPS-eligible resources. To this end, PG&E shall include in its annual report required pursuant to D.10-04-052 a discussion and analysis where practicable, whether a project bid into the Solar PV Program is also offered to PG&E in another forum (e.g., RPS solicitation or bilateral offer).

Confidentiality Protocols

Pursuant to D.10-04-052, PG&E developed confidentiality protocols to ensure that information given by developers to PG&E through the interconnection or

bidding process is not shared with PG&E staff working on the UOG portion of the program.[33] It is critical that participants have assurance that PG&E's Solar PV Program is administered fairly and that confidentiality protocols are followed. PG&E's proposed confidentiality protocols are substantially similar to those adopted for SCE to use in its SPVP and are adopted here. PG&E will adhere to the confidentiality protocols and inform Commission staff if any breach of these protocols occurs.

Standard PPA for Projects Greater than Three MW and up to 20 MW

In D.10-04-052, the Commission approved with modification PG&E's "Large Power Purchase Agreement" that would serve projects greater than three MW and up to 20 MW in size (Large PPA).[34] In AL 3674-E, PG&E made the required modifications to the Large PPA, including related changes to integrate the new language throughout the contract. PG&E also included terms and conditions related to tradable renewable energy credits.[35]

Labor Requirements

CUE protested PG&E's AL 3674-E on the grounds that PG&E's standard contracts do not "implement the Commission's directive in D.10-04-052 by failing to require IPPs to also provide training opportunities for apprentice electricians and hire qualified contractors and labor."[36]

In its response, PG&E argues that CUE's protest should be rejected on procedural and substantive grounds because the standard contracts submitted with AL 3674-E comply with D.10-04-052.

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[33] AL 3674-E, Attachment C.

[34] D.10-04-052, Ordering Paragraph 18.

[35] *See* August 25, 2010 proposed decision in Rulemaking (R.) 06-02-012. "Decision Modifying Decision 10-03-021 Authorizing Use Of Renewable Energy Credits for Compliance With The California Renewables Portfolio Standard And Lifting Stay And Moratorium Imposed By Decision 10-05-018."

[36] CUE protest at 2-3.

D.10-04-052 is clear with respect to requests made by CUE during the proceeding (A.09-02-019) and the Commission's decision on this matter.[37] D.10-04-052 adopts CUE's recommendation that developer's participating in the Solar PV Program must make reasonable efforts to pay prevailing wage. The standard contracts submitted with AL 3674-E include the Commission required language exactly as ordered in the decision.[38] Therefore, the Large PPA complies with D.10-04-052 and is approved.

CUE's protest is out of scope for this resolution and is denied. CUE may take up this issue under the processes provided by the Commission's Rules of Practice and Procedure for modifying a Commission decision.[39]

Standard PPA for Projects Three MW and Less

Pursuant to D.10-04-052, PG&E's AL 3674-E included a draft PPA for projects that are three MW in size and smaller (Small PPA).[40] PG&E explains that the Small PPA is a simplified version of the Large PPA approved by the Commission, with two notable differences.

Minimum Level of Energy Production

The proposed Small PPA would not require a minimum level of energy production where the Large PPA does and sets the delivery term security amount based on installed capacity rather than expected revenues. No party opposes PG&E's proposal to not require a minimum level of energy production for projects three MW and smaller and it is reasonable in this context.

Delivery Term Security

PG&E proposes a delivery term security provision of $150/kW for the Small PPA. Solar Alliance argues that these security terms are unreasonable and could

[37] D.10-04-052 at 59 and 63.

[38] D.10-04-052 at 84 (Ordering Paragraph 19).

[39] See, Rules of Practice and Procedure, Rule 16.4.

[40] D.10-04-052, Ordering Paragraph 9.

materially impact small project economics. Solar Alliance states that PG&E's proposal could result in a small project having to pay more security than a larger project. Solar Alliance also notes that SCE's solar PV program standard contract for projects less than five MW does not require delivery term security.

In response, PG&E asserts that delivery term security is necessary to protect its customers from having to buy higher priced replacement power in the event a seller fails to deliver under its PPA. PG&E acknowledges that its proposed language could result in a small project having to provide more delivery term security than a project delivering under the Large PPA. In order to remedy this unintended consequence, PG&E in its response agreed to revise its proposal to set the delivery term security for the Small PPA at equal to six months of expected revenue in a project's first year of operation calculated by using the facility's nameplate capacity, a fixed 25% proxy capacity factor, and the price of each PPA. This would make the delivery term security provisions of the Small PPA consistent with the Large PPA.

It's not clear that the risk of PG&E having to buy replacement power for these small facilities warrants requiring a security amount that would be held by PG&E for the 20 year contract term. Moreover, removing the delivery term security may result in lower PPA prices to the benefit of PG&E's ratepayers. Accordingly, PG&E shall modify its Small PPA to remove delivery term security provisions.

Solar PV Projects' Contribution to PG&E's Resource Adequacy Requirements

As mentioned briefly above, the CAISO is seeking approval from the FERC for modifications to its Generator Interconnection Procedures so that certain projects of 20 MW and less can qualify as RA resources. PG&E's Large and Small PPAs require that sellers make reasonable efforts for any facility developed under the PPA Program to qualify as a Resource Adequacy (RA) resource.[41] This provision ensures that when feasible, PG&E will obtain any RA value attributed to facilities PG&E contracts with under the PPA Program. This contractual requirement is consistent with D.10-04-052 and the RPS procurement rules generally, where the Commission expects utility ratepayers to obtain the maximum benefits from

[41] *See,* Small PPA at §3.3 and §3.4; Large PPA at §3.3 and Appendix X

long-term renewable power purchase agreements, i.e., sellers are expected to pursue RA qualification when available.

In comments on the draft resolution, PG&E proposes to (1) modify its solicitation protocol to require sellers to seek qualification as an RA resource in order to maintain eligibility to participate in the solicitation; and (2) modify its form PPAs to clarify that the Seller is obligated to seek a finding of full capacity deliverability to qualify for RA and to pay any costs associated with obtaining that finding, including, but not limited to, paying CAISO and related study costs, metering and equipment costs, and any network upgrade costs.[42]

FIT Coalition objects to PG&E's proposal. In its reply comments, FIT Coalition argues that the CAISO's proposed process for allowing 20 MW and smaller projects to qualify for RA will be a lengthy process and may result in projects not being able to achieve commercial operation within 18 months, as the PPA Program requires.

It is evident from the PG&E and FIT Coalition comments that it is unclear how the CAISO deliverability study process, if approved, will be implemented and how it will affect project development and the Solar PV Program in general.[43] That said, as stated above, the Commission expects sellers participating in this program to pursue RA qualification when available. PG&E may modify its solicitation protocol to require sellers to seek qualification as an RA resource in order to maintain eligibility to participate in the solicitation.

However, we reject PG&E's proposed modifications to the PPA at this time without prejudice. The standard PPAs were negotiated between PG&E and solar PV developers without full consideration of this issue. PG&E should work with stakeholders to modify the standard PPAs, if necessary, and PG&E may seek

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[42] PG&E comments at 4-5.

[43] We also note that the CAISO process only addresses transmission level interconnection. Many of the projects participating in the PPA Program will likely interconnect at the distribution level. It is unclear at this time what changes PG&E will have to make to its WDAT or Rule 21 interconnection tariffs to seek deliverability studies for projects interconnecting at the distribution level.

approval of such modifications consistent with D.10-04-052 and this resolution. PG&E will include this issue on the agenda for the first program forum.

Process for Seeking Commission Approval of Executed PPAs

PG&E states that it will seek Commission approval of PPAs resulting from PPA Program solicitations through the filing of a Tier 1 advice letter. PG&E asserts that a Tier 1 advice letter is the appropriate process because the PPAs will rely on a Commission approved standard contract.

DRA opposes the use of a Tier 1 advice letter. DRA argues that for administrative efficiency and simplicity, PG&E's Solar PV Program should employ the same processes adopted for SCE's program. Accordingly, DRA requests that the Commission require Tier 2 advice letters for all PPAs executed through PG&E's Solar PV Program.

PG&E does not oppose DRA's request.[44] The Tier 2 advice letter process allows for a full protest period for stakeholders to review the advice letter and still provides a reasonably quick approval timeframe of 30 days.[45] Accordingly, Tier 2 advice letters will be required for all PPAs executed under the PPA portion of PG&E's Solar PV Program that conform to this resolution and D.10-04-052.

Annual Reporting Requirements

Pursuant to D.10-04-052, PG&E shall file annual compliance reports on the status of its Solar PV Program.[46] In this manner, lessons learned during the implementation of the program and identified in the annual reports may be applied to future solicitations. Pursuant to D.10-04-052, the first compliance filing is due on March 1, 2011.

In comments on the draft resolution, PG&E states that the first PPA solicitation may not be complete before March 1, 2011 and that the first annual compliance

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[44] PG&E response at 12.

[45] Provided staff does not suspend the advice letter, pursuant to General Order 96-B, Section 7.5.2.

[46] *See,* D.10-04-052 at Ordering Paragraph 17.

report due date should be extended. Specifically, PG&E requests that the first annual report be due three weeks following PG&E's advice letter filing seeking approval of PPAs to allow for a more complete report. PG&E's request is reasonable and establishes a more efficient and effective process, however, this resolution cannot change the compliance date ordered in D.10-04-052. Therefore, the first annual report will be due on March 1, 2011, as ordered in D.10-04-052, and PG&E shall supplement this first annual report within 30 days after the advice letter is filed. The second and all subsequent compliance reports shall be due 30 days after PG&E files the advice letter seeking approval of PPAs resulting from a Solar PV Program solicitation.

Pursuant to D.10-04-052, PG&E must consult with staff to develop the format and content of the report. In comments on the draft resolution, FIT Coalition requested specific interconnection information be provided in the annual reports. We adopt some of those suggestions and provide the specific information that is required in Attachment A. Furthermore, PG&E shall supplement its annual report as needed and at the direction of Energy Division. The annual report prepared by PG&E shall also include a report by the independent evaluator.

General Order 156

Because PG&E's Solar PV Program will involve substantial procurement of goods and services, we remind PG&E of the declared policy of our State "to aid the interests of women, minority, and disabled veteran business enterprises in order to preserve reasonable and just prices and a free competitive enterprise, to ensure that a fair proportion of the total purchases and contracts or subcontracts for commodities, supplies, technology, property, and services for regulated public utilities are awarded to women, minority, and disabled veteran business enterprises, and to maintain and strengthen the overall economy of the state."[47]

We are pleased to see that PG&E has included "supplier diversity" as a criterion for evaluating offers received through its Solar PV Program. General Order 156 also requires certain utilities, including PG&E, "to submit annual detailed and verifiable plans for increasing women, minority and disabled veteran business

[47] Public Utilities Code Section 8281(a).

enterprises' (WMDVBE) procurement in all categories."[48] We urge PG&E to ensure that its solicitations are made widely available to all interested parties, including WMDVBE suppliers, so that they may actively participate in the solicitation process.

COMMENTS

Public Utilities Code 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 or reduced. Accordingly, this draft resolution was mailed to parties for comments on October 20, 2010.

Timely comments were submitted by PG&E, DRA, IREC, Solar Alliance, FIT Coalition, Republic Cloverleaf Solar and SCE on November 9, 2010. On November 15, 2010 timely reply comments were submitted by PG&E, IREC, FIT Coalition and SCE.

Parties commented on a broad range of issues. All comments and reply comments have been carefully considered. Republic Cloverleaf Solar's comments regarding bilateral contracting are out of scope for this resolution. The principle areas of revisions in the text of the draft resolution are noted here.

We have ordered revisions to PG&E's eligibility criteria and solicitation protocols.

The discussion on the appropriate interconnection process for projects developed under this program has been revised and clarified.

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[48] General Order 156, "Rules Governing the Development of Programs to Increase Participation of Women, Minority and Disabled Veteran Business Enterprises in Procurement of Contracts from Utilities as Required by Public Utilities Code Sections 8281-8286", current as of August 24, 2006, Rule 1.1.1.

The requirements for what location and interconnection information PG&E will provide has been expanded and clarified.

The discussions on the standard PPA and the annual reporting requirements have been expanded and clarified.

Additional changes and clarifications have been made to address less significant issues raised by the comments.

FINDINGS AND CONCLUSIONS

1. Pursuant to Decision 10-04-052, Pacific Gas and Electric Company is required to execute contracts through its solar photovoltaic program with independent power producers using a competitive solicitation process for 250 megawatts comprised of one to 20 megawatt solar photovoltaic facilities.
2. Pursuant to Decision 10-04-052, on May 24, 2010, Pacific Gas and Electric Company filed Advice Letter 3674-E to implement the competitively bid power purchase agreement portion of its solar photovoltaic program.
3. Decision 10-04-052 requires that Pacific Gas and Electric Company convene a program forum for participants and stakeholders within 60 days of closing the solicitation for power purchase agreements to identify program components that may need refinement. Based on the feedback received through these program forums, and in consultation with Energy Division, Decision 10-04-052 provides that Pacific Gas and Electric Company may file a Tier 3 advice letter seeking modifications to the solicitation protocols and standard contract terms and conditions adopted by this resolution.
4. It is reasonable to require a minimum level of developer experience as an eligibility criterion for the solar photovoltaic program.
5. It is reasonable to require Pacific Gas and Electric Company to take all reasonable measures to see that 250 megawatts of new solar photovoltaic projects are developed by independent power producers, consistent with Decision 10-04-052, including but not limited to, using the last year of the program to solicit for any unsubscribed capacity authorized under this program.
6. It is reasonable to use protocols in the solar photovoltaic program concerning Pacific Gas and Electric Company's right to terminate a solicitation for any reason and waiver of a program participants rights that are similar to those

protocols used in Pacific Gas and Electric Company's Renewables Portfolio Standard solicitation.

7. Pursuant to Decision 10-04-052, Pacific Gas and Electric Company shall file an Advice Letter if it seeks to terminate a solicitation, suspend or scale-back the solar photovoltaic program.
8. It is reasonable to limit seller concentration in each solar photovoltaic program solicitation by limiting the number of megawatts contracted to a single seller.
9. It is reasonable to allow participants to aggregate multiple facilities that have a minimum 500 kW Gross Power Rating in order to meet or exceed the one megawatt program eligibility threshold, provided that the aggregated project interconnects within a single p-node.
10. The Commission reserves the right to consider and address interconnection issues in the future as appropriate and necessary, including, without limitation, ordering changes to solar photovoltaic program documents based on developments in or resolution of FERC Docket No. ER 11-1830-000.
11. Pacific Gas and Electric Company's election to use a particular interconnection process for the power purchase agreement program does not constitute an admission or decision by the Commission that it is the jurisdictionally appropriate or mandated process for interconnection under the power purchase agreement program.
12. It is reasonable to expect Pacific Gas and Electric Company to proactively modify its interconnection protocols for use in the power purchase agreement program where such modifications are reasonable and would enhance the implementation timelines and probability of the program's success.
13. It is reasonable to require that Pacific Gas and Electric Company proactively, or at the direction of Energy Division staff, make incremental improvements to the quality of the preferred location information provided for the first solicitation and throughout the solar photovoltaic program.
14. At this time, the evaluation methodology for selecting projects from the solicitation for power purchase agreements will not favor projects located in local capacity requirement areas identified by the California Independent System Operator.

15. It is reasonable for Pacific Gas and Electric Company to use Local Capacity Requirement designation as a tie-breaker criterion when selecting projects through the power purchase agreement solicitation process.
16. It is reasonable for Pacific Gas and Electric Company to use the same independent evaluator to oversee the annual solicitations for power purchase agreements and utility-owned generation.
17. Pacific Gas and Electric Company's confidentiality protocols are adopted to ensure that information given by developers to Pacific Gas and Electric Company through the interconnection or bidding process is not shared with Pacific Gas and Electric Company staff working on the utility-owned generation portion of the program.
18. Pacific Gas and Electric Company's standard power purchase agreement for projects between three and 20 megawatts complies with Decision 10-04-052.
19. Pacific Gas and Electric Company's protocol that requires independent power producers to make reasonable efforts to pay prevailing wage is consistent with Decision 10-04-052.
20. The risk to Pacific Gas and Electric Company and its customers for having to procure replacement power does not warrant requiring delivery term security from sellers with facilities three megawatts and smaller.
21. It is reasonable to require that Pacific Gas and Electric Company seek Commission approval of executed contracts by filing a Tier 2 advice letter.
22. Pacific Gas and Electric Company is required to file annual compliance reports with the Commission and it is reasonable for Pacific Gas and Electric Company to supplement its annual report as needed and at the direction of Energy Division.
23. Pacific Gas and Electric Company will undertake all reasonable efforts to ensure that information about its solar photovoltaic program is made available to all interested parties, including women, minority, and disabled veteran business enterprise suppliers, so that they may actively participate in the program's solicitation process.
24. Advice letter 3674-E should be approved with modifications.

THEREFORE IT IS ORDERED THAT:

1. Pacific Gas and Electric Company's advice letter is approved with modification.
2. Pacific Gas and Electric Company shall take the following actions to ensure that program forums required by Decision 10-04-052 are effective:
    a. Notice all stakeholders of the date, time, location and methods for participation for each program forum;
    b. Issue a request for feedback from all stakeholders after the close of each solicitation in order to inform the agenda for the program forum;
    c. At the program forum, PG&E shall provide sufficient time to address key issues identified in the request for feedback and the independent evaluator's report;
    d. At the program forum, PG&E shall provide sufficient time for stakeholders to discuss their experience with the solicitation or the program in general; and
    e. The independent evaluator should participate in the program forum.
3. Based on feedback from the program forums, Energy Division staff may propose modifications to the protocols governing the power purchase agreement program and the standard contract terms and conditions by issuing a draft resolution on its own motion.
4. Pacific Gas and Electric Company shall remove the provision in its power purchase agreement solicitation protocols that limit the number of bids allowed by a single participant.
5. Pacific Gas and Electric Company shall revise its eligibility protocols so that:
    a. A single project may be comprised of the aggregation of multiple sites to meet or exceed the one megawatt program eligibility threshold, provided that each system has a minimum 500 kilowatt Gross Power Rating;
    b. A project comprised of aggregated sites interconnects within a single p-node; and
    c. A minimum level of developer experience is required for participation in a power purchase agreement solicitation. Specifically: the independent power producer company and/or

member of the project development team must have either completed or begun construction of solar project that is at least 500 kilowatts.

6. Pacific Gas and Electric Company shall proactively modify its interconnection protocols for use in the solar photovoltaic program where such modifications are reasonable and would enhance the implementation timelines and probability of achieving the program's goals.
7. Pacific Gas and Electric Company shall modify its solicitation protocols so that a Local Capacity Requirement designation will be used as a tie-breaker criterion when selecting projects through the power purchase agreement solicitation process.
8. Pacific Gas and Electric Company shall provide the following distribution system information, to the extent it is available at least 90 days before the second power purchase agreement solicitation opens:
   - Load and generation (or net load) for each substation and each feed line circuit emanating from it, and
   - Planned changes to the substation or circuit, including additional load servicing through new or upgraded facilities and queues for distributed generation applications and approved facilities.
9. Pacific Gas and Electric Company shall modify section VIII of its solicitation protocols and use the same waiver of claims and limitation of remedies protocols used for its 2009 Renewables Portfolio Standard solicitation.
10. Pacific Gas and Electric Company shall remove delivery term security provisions in its standard power purchase agreement for facilities three megawatts and smaller.
11. Within 30 days of the effective date of this resolution, Pacific Gas and Electric Company shall file a Tier 1 advice letter with the Energy Division demonstrating compliance with Ordering Paragraphs 4, 5, 7, 9 and 10 of this resolution.
12. All contracts executed under, and consistent with, the solar photovoltaic program adopted in Decision 10-04-052 and implemented by this resolution shall be filed by Tier 2 advice letter.
13. Pacific Gas and Electric Company shall prepare annual compliance reports that include, at a minimum, the information identified in Attachment A.

14. The first annual compliance report is due on March 1, 2011, as ordered in Decision 10-04-052, and Pacific Gas and Electric Company shall supplement this first annual compliance report within 30 days after filing an advice letter seeking approval of power purchase agreements resulting from a solar photovoltaic program solicitation. The second and all subsequent compliance reports shall be due 30 days after Pacific Gas and Electric Company files an advice letter seeking approval of power purchase agreements resulting from a solar photovoltaic program solicitation.
15. Pacific Gas and Electric Company shall supplement its annual report as needed and at the direction of Energy Division.
16. Pacific Gas and Electric Company's annual compliance reports, and any updates or supplements directed by the Energy Division, shall be filed and served in the proceeding for Application 09-02-019 and shall be served in the Renewables Portfolio Standard proceeding Rulemaking 08-08-009, or subsequent proceeding.

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 December 16, 2010; the following Commissioners voting favorably thereon:

/s/ PAUL CLANON
PAUL CLANON
Executive Director

MICHAEL R. PEEVEY
President
DIAN M. GRUENEICH
JOHN A. BOHN
TIMOTHY ALAN SIMON
NANCY E. RYAN
Commissioners

Attachment A

Annual Reporting Requirements

Reporting on the power purchase agreement (PPA) portion of the Solar PV Program

Solicitation Information

- Documentation of all solicitations issued for PPA projects;
- A description of the shortlist process;
- A description of all bids received from the PPA solicitations, including the name of the bidder, the project, the bid price, and a description of the proposed facility (generating capacity, type of technology, annual average expected generation, interconnection point depicted on a map), and identification of the winning bids;
- A description of all bids that were not shortlisted and the reasoning;
- Information related to General Order 156 reporting requirements.

Facility Performance Information

- The total electrical output for all PG&E Solar PV Program systems under PPAs that are currently selling electricity to PG&E, for each month of the previous year;
- A forecast of energy and capacity that will be sold to PG&E under the Solar PV Program on an annual basis throughout the contract term.

Interconnect Information

- A description of the project specific distribution and network upgrades, including costs;
- A description of any distribution and network upgrades generally needed to facilitate the PPA Program, in addition to project specific upgrades;
- A description of PPA bids and shortlisted projects rejected or projects with executed PPAs terminated because of the need for distribution or network upgrades and the projected cost of those network upgrades;
- Summary of Project Interconnection Results:
    - Date the interconnection request was submitted and received;
    - Date the interconnection application was deemed complete and queue position;
    - Type of interconnection request;

- Key milestone dates (e.g., date of scoping meeting, date of feasibility study, system impact study, and facilities study), initial requested online date and updated requested online date (if applicable), actual online date;
- Itemized fees and costs, including study fees and upgrade costs.

General Program Information

- A comparison of bidders and bids received during the most recent PPA Program solicitation, RPS program, and any other Commission program available to projects bidding into the PPA Program to assess whether PPA projects are being bid into multiple programs;
- An Independent Evaluator report;
- A description of the items that will be discussed at the program forum.

Reporting on the utility-owned generation (UOG) portion of the Solar PV Program

Solicitation Information

- Documentation of all solicitations issued for UOG projects, including the criteria PG&E established to evaluate bids; a description of the short list of bids, including the name of each bidder and the final price in the agreement, a description of the proposed facility, including generating capacity, type of technology, annual average expected generation, and proposed interconnection point; and identification of winning bids;
- Information related to General Order 156 reporting requirements.

Project Development Information

- A description of all UOG facilities for which work has been initiated or completed in the previous year, including: capital costs, and operations and maintenance expenses, generating capacity, type of technology, annual average expected generation, description of the site (existing PG&E-owned land or newly acquired/leased land, land/lease cost, proximity to substation), and progress toward completion;
- Quantification of the UOG capacity that came online in the previous calendar year, and how much un-deployed UOG capacity will be carried forward to the subsequent year subject to the 10 megawatt (MW) carryover limit adopted by the decision;

- A forecast of the UOG energy and capacity that will be built on an annual basis throughout the contract term.

Facility Performance Information

- Forecasted and actual calculation of the levelized cost of energy (LCOE) for each UOG facility that is in development or completed and interconnected to the grid. This calculation shall include work papers showing actual amounts for all cost and electrical output entries used to calculate the LCOE;
- Electrical output by month for the previous year for each PG&E-owned UOG facility that is completed and interconnected to the grid.

Interconnect Information

- Summary of Project Interconnection Results:
  - Date the interconnection request was submitted and received;
  - Date the interconnection application was deemed complete and queue position;
  - Type of interconnection request;
  - Key milestone dates (e.g., date of scoping meeting, date of feasibility study, system impact study, and facilities study), initial requested online date and updated requested online date (if applicable), actual online date;
  - Itemized fees and costs.
- Distribution and Network Upgrades
  - Description of the project specific distribution and network upgrades and distribution and network upgrades generally needed to facilitate the UOG project;
  - Known or projected costs of upgrades associated with interconnecting each UOG facility, including:
    - All distribution and network upgrades;
    - Identification of the UOG projects identified as triggering the need for network upgrades;
    - Identification of the UOG projects that do not trigger the need for network upgrades.

General Program Information

- An Independent Evaluator report.