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#### ADVICE LETTER 2279 -E (U 902-E)

#### PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

# SUBJECT: REQUEST FOR APPROVAL OF RENEWABLE POWER PURCHASE WITH SOLARGEN 2 LLC

#### I. INTRODUCTION

#### A. <u>PURPOSE OF THE ADVICE LETTER</u>

San Diego Gas & Electric Company (SDG&E) seeks approval from the California Public Utilities Commission (the Commission or the CPUC) of a Power Purchase Agreement and First Amendment (together, the PPA) with Solar Gen 2 LLC (SolarGen 2). This proposed PPA between SDG&E and SolarGen 2 (the Proposed Agreement) is for a 25 year term and involves delivery of solar energy from three solar photovoltaic sites to be constructed in the Imperial Valley of California. The Proposed Agreement establishes the commercial online deadline of July 31, 2012 for an initial 50 MW and a guaranteed commercial operation date (COD) for the remaining 100 MW by September 30, 2012. The project will advance SDG&E's Renewables Portfolio Standard (RPS) procurement goals by supporting new renewable energy projects in California. The project will deliver renewable power into the Imperial Valley and make use of capacity across the Sunrise Powerlink to deliver renewable energy to SDG&E's load. The project is highly viable, based on the use of mature technology by an experienced management team, with a record of successful solar project development. In light of the near term COD and eligibility requirements of the section 1603 cash grant in lieu of the investment tax credit (ITC), SDG&E respectfully requests that the Commission review and approve the Proposed Agreement through the issuance of a resolution no later than October 20, 2011.

#### B. SUBJECT OF THE ADVICE LETTER

- 1. <u>PROJECT NAME</u>: Mayflower, Alhambra, and Sonora (collectively, SolarGen 2).
- <u>TECHNOLOGY (INCLUDING LEVEL OF MATURITY</u>): According to SolarGen 2, the proposed facility will utilize solar photovoltaic (PV) panel technology with single-axis tracking. PV technology is a reputable source of power generation and such systems typically come with a 20-year warranty.
- **3.** <u>**GENERAL LOCATION AND INTERCONNECTION POINT:**</u> The project will be located near Calapatria, California, approximately twenty-five (25) miles north of the City of El Centro,

Imperial County, California. The project busbar is the point of interconnection of the project within the Imperial Irrigation District (IID). Power will be exported into CAISO through the Imperial Valley substation (IV).

#### 4. <u>OWNER(S) / DEVELOPER(S)</u>:

- a. NAME(s): Solar Gen 2 LLC.
- b. <u>TYPE OF ENTITY(IES) (E.G. LLC, PARTNERSHIP)</u>: Solar Gen 2 LLC is a limited liability company
- c. **BUSINESS RELATIONSHIPS BETWEEN SELLER/OWNER/DEVELOPER:** Solar Gen 2 LLC is a privately held entity whose principals have interests in power generation, electricity, natural gas and transmission. SolarGen 2 is the developer of the project and has an option to purchase the land and interconnection rights.

#### 5. <u>PROJECT BACKGROUND, E.G., EXPIRING QF CONTRACT, PHASED PROJECT, PREVIOUS</u> <u>POWER PURCHASE AGREEMENT, CONTRACT AMENDMENT</u>

The proposed project is being developed by SolarGen 2. SolarGen 2 initially contacted SDG&E in the summer of 2010 and sent a bilateral written offer in January of 2011. The proposed agreement establishes an initial delivery date of July 31, 2012 determined by the in-service date of the first 50 MW of power and a ramping up of capacity to the full expected quantities of 150 MW by September 30, 2012. The First Amendment clarified the pricing language to be consistent with the Generator Interconnection Agreement (finalized) and the draft Energy Exchange Agreement.

#### 6. SOURCE OF AGREEMENT, I.E., RPS SOLICITATION YEAR OR BILATERAL NEGOTIATION

The Proposed Agreement is a product of bilateral negotiations between SDG&E and SolarGen 2, which began in earnest with the submission of SolarGen 2's written offer in January, 2011. As discussed in more detail below, SDG&E compared the unsolicited proposal from SolarGen 2 to all projects submitted in response to SDG&E's 2009 RPS request for offers (RFO). The project is competitive on a least-cost best-fit basis and would have been shortlisted had it been offered in response to the RFO. SDG&E believes that pricing offered in this Proposed Agreement remains competitive for a 2012 delivery PV system. See Confidential Appendix A. Section G. for comparison to 2009 RFO bids.

PROJECT NAME	SolarGen 2
TECHNOLOGY	Solar photovoltaic
CAPACITY (MW)	150 MW
<b>CAPACITY FACTOR</b>	30% average annual
EXPECTED GENERATION (GWH/YEAR)	390 GWh/ first year .7% annual degradation

#### C. <u>GENERAL PROJECT(S) DESCRIPTION</u>

INITIAL COMMERCIAL OPERATIONAL DATE <sup>1</sup>	July 31, 2012 for 50 MW
GUARANTEED COMMERCIAL OPERATION DATE	September 30, 2012 for full 150 MW
DATE CONTRACT DELIVERY TERM BEGINS	At commercial operation of the full 150 MW
DELIVERY TERM (YEARS)	25 years
VINTAGE (NEW / EXISTING / REPOWER)	New facility
LOCATION (CITY AND STATE)	Calapatria, California (Imperial County)
CONTROL AREA (E.G., CAISO, BPA)	Imperial Irrigation District (IID)
NEAREST COMPETITIVE RENEWABLE ENERGY ZONE (CREZ) <sup>2</sup>	Imperial North B (CREZ 31)
TYPE OF COOLING, IF APPLICABLE	Not applicable
PRICE <sup>3</sup> RELATIVE TO MPR (I.E. ABOVE/BELOW)	Above

#### D. GENERAL DEAL STRUCTURE

CHARACTERISTICS OF CONTRACTED DEAL (I.E. PARTIAL/FULL OUTPUT OF FACILITY, DELIVERY POINT (E.G. BUSBAR, HUB, ETC.), ENERGY MANAGEMENT (E.G. FIRM/SHAPE, SCHEDULING, SELLING, ETC.), DIAGRAM AND EXPLANATION OF DELIVERY STRUCTURE

The Proposed Agreement provides for the purchase of the full output of as-available bundled energy and green attributes from the SolarGen 2 facility as measured by the IID meter at the project busbar for a 25-year term. Solar Gen 2's photovoltaic facilities will be interconnected in Imperial Irrigation District's (IID's) balancing authority area (BAA). Pursuant to an energy exchange, supported by firm transmission rights from IID, Solar Gen 2's Scheduling Coordinator will schedule an energy import into the CAISO's BAA at the Imperial Valley Scheduling Point (IVLY2). The difference between generation from Solar Gen 2's generating facilities and the energy import schedule into the CAISO's BAA will be balanced by IID. The financial difference will be settled between Solar Gen 2 and SDG&E via a contract for differences based on the CAISO's Day-Ahead Locational Marginal Price (LMP) at Imperial Valley. The basic arrangement is:

<sup>&</sup>lt;sup>1</sup> As defined in the Proposed Agreement. Details are provided in Confidential Appendix D, Section D (1), "Energy Delivery Requirements" in the Matrix of Major Contract Provisions of this Advice Letter.

<sup>&</sup>lt;sup>2</sup> As identified by the Renewable Energy Transmission Initiative (RETI). Information about RETI is available at: http://www.energy.ca.gov/reti/

<sup>&</sup>lt;sup>3</sup> Refers to the maximum price under the Agreement.



Additional delivery details are discussed in Confidential Appendices A and D.

#### E. <u>RPS STATUTORY GOALS</u>

THE PROJECT IS CONSISTENT WITH AND CONTRIBUTES TOWARDS THE **RPS** PROGRAM'S STATUTORY GOALS SET FORTH IN PUBLIC UTILITIES CODE §399.11.

Public Utilities Code section 399.11 states in part that "increasing California's reliance on eligible renewable energy resources may promote stable electricity prices, protect public health, improve environmental quality, stimulate sustainable economic development, create new employment opportunities, and reduce reliance on imported fuels." The Proposed Agreement has a fixed price with an escalator for 25 years of deliveries, which will provide price stability for ratepayers. As a solar resource, it will generate clean, renewable energy with zero fuel costs (and therefore contributing zero need for foreign fuel imports) and zero greenhouse gas (GHG) emissions directly associated with energy production.

As discussed in more detail below, the PPA conforms to SDG&E's Commission-approved 2009 and 2011 RPS procurement plans. In both plans, SDG&E noted that it would "avail itself of the flexibility mechanisms permitted under the RPS program, including: (1) the ability to sign bilateral agreements."

Although the transaction was unsolicited, it complies with RPS program requirements and meets the portfolio needs outlined by SDG&E's RPS Procurement Plan.

#### F. CONFIDENTIALITY

CONFIDENTIAL TREATMENT OF SPECIFIC MATERIAL IS BEING REQUESTED. THE INFORMATION AND REASON(S) FOR CONFIDENTIAL TREATMENT IS CONSISTENT WITH THE SHOWING REQUIRED BY **D.06-066**, AS MODIFIED.

As directed by the CPUC's Energy Division, confidential information submitted in support of the Proposed Agreement is provided in Confidential Appendices A through G, as listed below:

- Appendix A: Consistency with Commission decisions and Rules and Project Development Status
- Appendix B: Solicitation Overview
- Appendix C: Final RPS Project-Specific Independent Evaluator Report
- Appendix D: Contract Summary
- Appendix E: Comparison of Contract with Utility's Pro Forma Power Purchase Agreement
- Appendix F: Power Purchase Agreement
- Appendix G: Project's Contribution Toward RPS Goals

These appendices contain market sensitive information protected pursuant to Commission Decision D.06-06-066, *et seq.*, as detailed in the concurrently-filed declaration. The following table presents the type of information contained within the confidential appendices and the matrix category under which D.06-06-066 permits the data to be protected.

Type of Information	D.06-06-066 Confidential Matrix Category
Analysis and Evaluation of Proposed RPS Projects	VII.G
Contract Terms and Conditions	VII.G
Raw Bid Information	VIII.A
Quantitative Analysis	VIII.B
Net Short Position	V.C
IPT/APT Percentages	V.C

#### II. CONSISTENCY WITH COMMISSION DECISIONS

SDG&E's RPS procurement process complies with the Commission's RPS-related decisions, as discussed in more detail in the following sections.

#### A. **<u>RPS PROCUREMENT PLAN</u>**

#### 1. <u>THE COMMISSION APPROVED SDG&E'S 2011 RPS PROCUREMENT PLAN AND</u> SDG&E ADHERED TO COMMISSION GUIDELINES FOR FILING AND REVISIONS.

On December 18, 2009 SDG&E filed its draft 2011 Renewable Procurement Plan (the 2011 RPS Plan).<sup>4</sup> On April 14, 2011, the CPUC issued D.11-04-030 ("the Decision") conditionally approving SDG&E's 2011 RPS Plan. In compliance with the direction set forth in the Decision, SDG&E filed a revised 2011 RPS Plan to incorporate changes required by the Commission. The Decision authorized SDG&E to proceed with its amended Plan unless suspended by the Energy Division Director. No such suspension was issued by the Energy Division; therefore, on May 12, 2011 SDG&E issued the 2011 RFO.

<sup>&</sup>lt;sup>4</sup> The draft Plan submitted by SDG&E was originally submitted as its 2010 draft Plan. D.11-04-030 refers to the draft Plan as the "2011" Plan since the decisión was issued in 2011 and the solicitation resulting from the final decisión was held in 2011.

As discussed in more detail below, SDG&E demonstrates the reasonableness of the Proposed Agreement through comparison of the terms and conditions of the Proposed Agreement against the results of its 2009 RPS RFO. The CPUC conditionally approved SDG&E's 2009 RPS Plan in D.09-06-018. SDG&E issued its 2009 RFO on June 29, 2009.

#### 2. THE PROCUREMENT PLAN'S ASSESSMENT OF PORTFOLIO NEEDS.

The 2009 and 2011 RPS Plans both express SDG&E's commitment to contract in excess of its mandated annual procurement targets in the near term and adopt a goal of serving 33% of SDG&E's retail sales with renewable resources by 2020. The plan further confirms SDG&E's commitment to providing 2,253 GWh per year of renewable energy on the Sunrise Powerlink and, as part of the Sunrise decision, to treat Imperial Valley region resources separately from other RPS offers in order to achieve this goal. SDG&E's goal is to develop and maintain a diversified renewable portfolio, selecting from offers using the Least-Cost, Best-Fit (LCBF) evaluation criteria.

The 2009 and 2011 RPS Plans also state that to the extent an unsolicited bilateral offer complies with RPS program requirements, fits within SDG&E's resource needs, is competitive when compared against recent RFO offers and provides benefits to SDG&E customers, SDG&E will pursue such an agreement. Amended contracts, like bilateral offers, will be compared to alternatives presented in the most recent RPS RFO.

SDG&E's 2009 RFO sought offers from all technologies of renewable projects that meet the requirements for eligible facilities as specified in applicable statute and as established by the California Energy Commission (CEC). The 2009 RFO sought unit firm or as-available deliveries starting in 2010, 2011, 2012, or 2013.

#### 3. THE PROJECT IS CONSISTENT WITH SDG&E'S PROCUREMENT PLAN AND MEETS SDG&E'S PROCUREMENT AND PORTFOLIO NEEDS (E.G. CAPACITY, ELECTRICAL ENERGY, RESOURCE ADEQUACY, OR ANY OTHER PRODUCT RESULTING FROM THE PROJECT).

The Proposed Agreement conforms to both the 2009 RPS Plan and to SDG&E's most recent Commission-approved 2011 RPS Plan by delivering bundled renewable energy and associated Green Attributes that fill a portion of SDG&E's RPS net short position. The Proposed Agreement also provides for annual options, exercisable by SDG&E, to purchase Resource Adequacy (RA). Although the transaction was unsolicited, it complies with RPS program requirements, meets the portfolio needs outlined by the 2009 and 2011 RPS Plans and is competitive when compared to the bids submitted to the 2009 RFO.

In its decision to grant a Certificate of Public Convenience and Necessity (CPCN) for the Sunrise Powerlink, the CPUC ordered that SDG&E procure a minimum cumulative total of 2,253 GWh/year of Imperial Valley renewable energy.<sup>5</sup> The average annual delivery over 25 year term is approximately 361 GWh from this project (assuming 150 MW installed). The project will be able to make use of

<sup>&</sup>lt;sup>5</sup> D.08-12-058, *mimeo*, at 265, note 680.

capacity across the Sunrise Powerlink to deliver renewable energy to the SDG&E load.

#### 4. THE PROJECT MEETS REQUIREMENTS SET FORTH IN THE SOLICITATION.

The minimum requirements established in the 2009 RFO were as follows:

- a. Deliveries must begin in 2010, 2011, 2012 or 2013.
- b. The project must be RPS-eligible.
- c. The Net Contract Capacity must be ≥ 1.5MW, net of all auxiliary and station parasitic loads; (if within SDG&E service area)
- d. The Net Contract Capacity must be  $\geq$  5MW, net of all auxiliary and station parasitic loads; (if outside of SDG&E service area)<sup>6</sup>
- e. The project meets the optional RFO requirement of contributing towards SDG&E's commitment to 2,253 GWh/year of renewable energy to be delivered over the Sunrise Powerlink by 2015.

The Proposed Agreement fulfills these minimum requirements; the proposed PPA's COD is 2012. Therefore, SDG&E accepted the bilateral offer and negotiated the Proposed Agreement.

#### B. BILATERAL CONTRACTING – IF APPLICABLE

#### 1. <u>THE CONTRACT COMPLIES WITH D.06-10-019 AND D.09-06-050</u>.

In D.06-10-019, the Commission concluded that bilateral contracts used for RPS compliance must be submitted for approval via advice letter and, while not subject to the MPR, must contain pricing that is "reasonable."<sup>7</sup> On June 19, 2009, the Commission issued D.09-06-050 establishing price benchmarks and contract review processes for very short term (< four years), moderately short term (at least 4 years, less than 10 yrs) and bilateral RPS contracts. Below, SDG&E reviews the Least Cost Best Fit evaluation used in the 2009 RPS RFO. The same analysis was performed on this PPA and the results were compared to the RFO results. This analysis confirms that the Proposed Agreement conforms to the price benchmarking requirements of D.06-10-019 and D.09-06-050.

2. <u>THE PROCUREMENT AND/OR PORTFOLIO NEEDS NECESSITATING **SDG&E** TO PROCURE BILATERALLY AS OPPOSED TO A SOLICITATION.</u>

 <sup>&</sup>lt;sup>6</sup> The minimum requirements established in the 2011 RFO were as follows: (a) Deliveries must begin in, 2011, 2012, 2013 or 2014, (B) The project must be RPS-eligible.(c) The Net Contract Capacity must be ≥ 1.5MW, net of all auxiliary and station parasitic loads; (if within SDG&E service area) (d) The Net Contract Capacity must be ≥ 5MW, net of all auxiliary and station parasitic loads; (if outside of SDG&E service area).

<sup>&</sup>lt;sup>7</sup> D.06-10-019, *mimeo*, p. 31.

Competitive RFOs are not the only authorized means of procurement; SDG&E's ability to consider bilateral offers widens the scope of resources available to SDG&E. The WECC has a well-established, liquid bilateral market. SDG&E, for the benefit of its ratepayers, can make full use of this valuable source of renewable supply. Not only is the bilateral market an important tool for procurement, it is available year-round. RPS RFOs, by contrast, are an annual batch-processing of commercial arrangements. The Commission approved SDG&E's 2009 and 2011 RPS Plan, both of which allow for bilateral renewable contracts. The Proposed Agreement resulted from negotiations during the first half of 2011. No RFO for 2010 was authorized by the Commission, and waiting for the 2011 RFO, which was issued in June 2011 with responses due by July 11, 2011, would not have advanced the project, which has a 2012 COD date, nor been in the interest of ratepayers.<sup>8</sup>

#### 3. <u>WHY THE PROJECT DID NOT PARTICIPATE IN THE SOLICITATION AND WHY THE</u> <u>BENEFITS OF THE PROJECT CANNOT BE PROCURED THROUGH A SUBSEQUENT</u> <u>SOLICITATION</u>.

Principals of SolarGen 2 first approached SDG&E in summer of 2010 and described a proposed transaction. Negotiations began in earnest in January 2011. With the uncertainty (at that time) surrounding when the next RPS RFO would be issued, it was decided to commence negotiations with SolarGen 2 rather than require SolarGen 2 to bid into the to-be-determined RFO. In order for the project to meet the 2012 COD and to qualify for the expiring section 1603 cash grant in lieu of the ITC under the American Recovery and Reinvestment Act as part of its financing, the PPA negotiations had to be expedited. This PPA was negotiated bilaterally to avoid continuing the delay by waiting for the next SDG&E solicitation and was seen as a good opportunity to expand the already existing portfolio by 150 MW with a short term commercial on-line date of mid 2012. The comparison and evaluation of the PPA's cost and value contained in Confidential Appendix D shows that this PPA compares favorably to offers received by SDG&E for the 2009 RFO's.

#### C. <u>LEAST COST BEST FIT (LCBF) METHODOLOGY AND EVALUATION – IF APPLICABLE</u>

The following sections review the SDG&E 2009 RPS RFO. The offers into that RFO were used to benchmark this bilateral project.

#### 1. <u>THE SOLICITATION WAS CONSISTENT WITH SDG&E'S COMMISSION-APPROVED REQUEST</u> FOR OFFERS (RFO) BIDDING PROTOCOL.

As specified by the Commission-approved RFO bidding protocol, the 2009 RFO was issued on June 29, 2009. Responses for projects not served by the Sunrise Powerlink were due August 25, 2009. Responses for projects that would flow on the Sunrise Powerlink were due September 8, 2009. SDG&E solicited bids from all RPS-eligible technologies.

SDG&E sought proposals for peaking, baseload, dispatchable (unit firm) or as-available deliveries. Such proposals could include capacity and energy from:

a) Re-powering of existing facilities;

<sup>&</sup>lt;sup>8</sup> With minor exceptions, the contract structure and pricing terms and conditions for the Proposed Agreement were completed prior to the issuance of the 2010 RFO.

- b) Incremental capacity upgrades of existing facilities;
- c) New facilities;
- d) Existing facilities that are scheduled to come online during the years specified in the RFO that have excess or uncontracted quantities of power for a short time frame;
- e) Existing facilities with expiring contracts; or
- f) Eligible resources currently under contract with SDG&E. SDG&E shall consider offers to extend terms of or expand contracted capacities for existing agreements.

SDG&E solicited three types of projects:

- a) Power purchase agreements for short-term deliveries up to nine years and long-term deliveries for ten years or more.
- b) A power purchase agreement with an option price for SDG&E to acquire the facility along with all environmental attributes, land rights, permits and other licenses, thus enabling SDG&E to own and operate the facility at the end of the PPA term.
- c) Turnkey projects to develop, permit, and construct new, RPS-eligible generating facilities to be acquired by SDG&E.

SDG&E established an open, transparent and competitive playing field for the procurement effort. The following protocols were established within its solicitation:

- a) An RFO website was created, allowing respondents to download solicitation documents, participate in a Question and Answer forum and see updates or revisions associated with the process;
- b) Internet upload capabilities were available to accept electronic offers;
- c) The Independent Evaluator participated in the selection process, including the direct evaluation of bids;

DATE	EVENT
June 29, 2009	RFO Issued
August 5, 2009	Pre-Bid Conference (in San Diego, California)
August 12, 2009	Pre-Bid Conference (in El Centro, California)
August 25, 2009	Offers Due (projects not flowing on Sunrise Powerlink)
September 8, 2009	Offers Due (projects flowing on Sunrise Powerlink)
September 25, 2009	Briefed PRG on all offers received, preliminary LCBF ranking, preliminary list of highest ranked offers and preliminary shortlist.
October 23, 2009	Briefed PRG and sought PRG feedback on SDG&E's need determination, selection criteria based on the need, final LCBF ranking and final shortlist based on the selection criteria.
November 23, 2009	Notified Energy Division of final shortlist.
December 4, 2009	Final LCBF Report to the CPUC

d) SDG&E adhered to the following RFO schedule:

2. <u>THE LCBF BID EVALUATION AND RANKING WAS CONSISTENT WITH COMMISSION</u> <u>DECISIONS ADDRESSING LCBF METHODOLOGY; INCLUDING SDG&E'S APPROACH</u> <u>TO/APPLICATION OF:</u> SDG&E evaluated all offers, including this bilateral offer from SolarGen 2, in accordance with the LCBF process outlined in D.03-06-071, D.04-07-029 and its approved RPS Procurement Plan. The Commission established in D.04-07-029 a process for evaluating "least-cost, best-fit" renewable resources for purposes of IOU compliance with RPS program requirements. SDG&E has adopted such a process in its renewable procurement plan. In D.06-05-039, the Commission observed that "the RPS project evaluation and selection process within the LCBF framework cannot ultimately be reduced to mathematical models and rules that totally eliminate the use of judgment."<sup>9</sup> It determined, however, that each IOU should provide an explanation of its "evaluation and selection model, its process, and its decision rationale with respect to each bid, both selected and rejected," in the form of a report to be submitted with its short list of bids (the "LCBF Report"). In addition, SDG&E authorized the Independent Evaluator to perform the LCBF analysis to determine the least-cost best-fit ranking of projects in the RFO.

#### A. MODELING ASSUMPTIONS AND SELECTION CRITERIA

To incorporate a "best-fit" element into evaluation of offers, instead of simply comparing prices for all offers (least-cost), SDG&E calculated an "All-In Bid Ranking Price" for each offer. Elements of the All-In Bid Ranking Price are described below.

The All-In Bid Ranking Price of the SolarGen 2 project, as calculated and presented in Confidential Appendix A, compared favorably versus the All-In Price of other bids and fell within the shortlisted range.

SDG&E compared bids by sorting all projects by the All-In Bid Ranking Price, from lowest to highest. Those projects with the lowest All-In Bid Ranking Price and passed through qualitative filters for location and viability were short listed. From a "best-fit" perspective for 2009, the projects that fit SDG&E's portfolio needs best were in-state projects that would flow on the Sunrise Powerlink. The project will be able to deliver renewable power into the Imperial Valley and make use of capacity on the Sunrise Powerlink.

#### B. **QUANTITATIVE FACTORS**

- i. Market valuation (the "All-In Bid Ranking Price") The following discussion describes how SDG&E calculated an all-in price that included the factors listed. Included in confidential Appendix D is a detailed description of how each of these factors applied to the specific calculation of the SolarGen 2 project's all-in price.
  - a. <u>Bundled energy prices</u>. The offered bundled energy prices form the basis of the LCBF ranking and are included in the All-In Price, as modified below.
  - b. <u>Time of Delivery ("TOD") cost adjustment.</u> SDG&E accounts for differences in the value of various delivery profiles. To properly asses the value of the deliveries from an intermittent resource, SDG&E divided the proposed energy price by SDG&E's Time-of-Delivery factors for each MWH the project delivers during each delivery period over the term of the agreement. The total cost

<sup>&</sup>lt;sup>9</sup> See D.06-05-039, *mimeo*, p. 42.

was summed and divided by energy delivered. A present value figure was calculated for the payment and energy streams and an overall levelized TOD Adjusted Bid Price on a \$/MWH was calculated. The difference between the levelized TOD Adjusted Bid Price and an unadjusted levelized bid price represented the TOD Adjustment Adder. Projects that provided a greater proportion of their annual deliveries in summer on-peak, winter on-peak, and summer semi-peak periods received a credit that effectively reduced the project bid price, whereas projects that provided a greater proportion of annual deliveries in summer off-peak periods received a debit that increased the project bid price. Baseload units deliver equally in all hours, which resulted in a net TOD Adjustment Adder at or close to zero.

- c. <u>Transmission Cost Adder.</u> SDG&E calculated costs for transmission network upgrades or additions, using the information provided through the Transmission Ranking Cost Report (TRCR) approved by the CPUC. To be as inclusive as possible, SDG&E used TRCR-based transmission costs even for offers that were not submitted to the TRCR rather than considering those offers to be non-conforming. The total amount of contemplated generation interconnections studied in the TRCR always exceeded the amount of generating capacity that SDG&E would consider shortlisting. See Confidential Appendix A, Section C for a discussion of the Least Cost Best Fit analysis and TRCR.
- d. <u>Resource Adequacy ("RA")</u>. All bids received a credit based on the amount of Resource Adequacy ("RA") benefits provided by each bid and the value assigned to that capacity. The RA benefit (in MW) of a wind or solar resource is a fraction of its capacity, derived from the Net Qualifying Capacity values that CAISO has assigned to resources of that technology.
- e. <u>Congestion cost adders</u>. Congestion analysis was performed using a model which provided hourly Locational Marginal Prices (LMP) for specific years for each of the shortlisted bids. Congestion costs (\$/MWh) were calculated based on the difference between the hourly LMP at each generator's injection point and the hourly LMP values for SDG&E's Load Aggregation Point (LAP). The LMP values in the LAP were weighted for all bus points within SDG&E's service territory using approved CAISO allocation factors. SDG&E subtracted the LMPs for each generator's injection point from the LMPs in SDG&E's LAP and multiplied the differences by the generator's hourly production profile (MWh). The congestion adder for each bid was the weighted average of the differences.
- f. <u>Duration equalization adders ("Begin Effects" and "End Effects")</u>. SDG&E used weighted average bid prices from its 2008 shortlist as market replacement costs to normalize bids of different starting periods and terms. SDG&E then levelized each bid from 2009 through the end of the evaluation period, putting all projects on equal terms.
- A. PORTFOLIO FIT

SDG&E's RPS Procurement Plan stated that SDG&E does not have a preference for a particular product or technology type and that SDG&E has latitude in the resources that it selects. However, as explained above, time of delivery factors, transmission cost, congestion costs, commercial operations date and resource adequacy adjustment were evaluated to determine the impact to SDG&E's portfolio. These portfolio fit factors were valued and included in the economic comparison of options in order to ensure the least-cost projects were also best-fit selections for the portfolio.

See the section entitled "Least Cost Best Fit" in the Confidential Appendix A for details on the Proposed Agreement's costs and benefits in the context of SDG&E's portfolio needs.

#### B. TRANSMISSION ADDER

SDG&E developed a transmission cost adder based on preliminary transmission studies or analysis. See the section entitled "Qualitative Factors" in the Confidential Appendix A for details on the transmission cost adder.

#### C. APPLICATION OF TIME OF DELIVERY FACTORS (TODS)

SDG&E utilized TOD factors in its LCBF evaluation via the aforementioned TOD Cost Adjustment. The average all-in bid price was adjusted to reflect the relative value of projected energy deliveries during peak, semi-peak and off-peak periods. The projected delivery profiles were provided by the respondents. Application of the TOD's in the evaluation of the Proposed Agreement is explained in Confidential Appendix A.

The TOD Cost Adjustments were derived from the TOD factors shown below:

	<u>SUMMER</u> July 1 – October 31	<u>WINTER</u> November 1 – June 30
On-Peak	Weekdays 11 am – 7 pm 1.6411	Weekdays 1 pm – 9 pm 1.1916
Semi-Реак	Weekdays 6 am – 11 am; Weekdays 7 pm – 10 pm 1.0400	Weekdays 6 am – 1 pm; Weekdays 9 pm – 10 pm 1.0790
Off-Peak*	All other hours 0.8833	All other hours 0.7928

#### D. OTHER FACTORS CONSIDERED

No other quantitative factor was considered.

#### C. QUALITATIVE FACTORS (E.G., LOCATION, BENEFITS TO MINORITIES, ENVIRONMENTAL ISSUES, ETC.)

As stated in the RFO, SDG&E differentiates offers of similar cost or may establish preferences for projects by reviewing, if applicable, qualitative factors including the following:

- a) Project viability
- b) Local reliability
- c) Benefits to low income or minority communities
- d) Resource diversity
- e) Environmental stewardship

At the time of execution of the Proposed Agreement, Imperial County was experiencing a 29-30% unemployment rate, the highest in all of California and the nation. The project is anticipated to create up to 300 temporary construction and 25-30 permanent jobs in Imperial County. Environmental benefits include the reduction of greenhouse gas emissions by providing renewable energy to 55,850 homes annually and off setting approximately 118,800 metric tons of greenhouse gas emissions, equivalent to removing 21,132 passenger vehicles from the highways.

#### D. COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

1. THE PROPOSED CONTRACT COMPLIES WITH D.08-04-009 AND D.08-08-028

The Proposed Agreement complies with D.04-06-014, D.08-04-009, D.08-08-028 and D.11-01-025. D.04-06-014 originally adopted standard contract terms and conditions for use in the RPS program; these standard terms and conditions were updated in D.08-04-009, D.08-08-028 and D.11-01-025. All non-modifiable terms and conditions remain intact in the Proposed Agreement and are used in the appropriate context. A summary of major contract provisions is provided in Confidential Appendix D. Copies of the PPA and supporting documentation are also provided in Confidential Appendix F.

#### 2. <u>SPECIFIC PAGE AND SECTION NUMBER WHERE THE COMMISSION'S NON-MODIFIABLE</u> TERMS ARE LOCATED IN THE **PPA**.

The locations of non-modifiable terms are indicated in the table below:

Non-Modifiable Term	BLE TERM PPA PAGE NUMBER PPA Section Number	
CPUC Approval	Page 6 , Section 1.1	
Green Attributes and RECs	Page 10-11, Section 1.1 Page 22, Section 3.1 (i)	
Eligibility	Page 43, Section 10.2	
Applicable Law	Page 50, Section 13.8	

#### 3. <u>REDLINE OF THE CONTRACT AGAINST SDG&E'S COMMISSION-APPROVED PRO FORMA</u> <u>RPS CONTRACT.</u>

A redline of the Proposed Agreement against SDG&E's Commission-approved 2011 pro forma RPS contract is provided in Confidential Appendix E of this advice letter.

#### E. UNBUNDLED RENEWABLE ENERGY CREDIT (REC) TRANSACTIONS

As defined under D.10-03-021, as modified by D.11-01-025, the Proposed Agreement is a bundled transaction.

#### F. <u>MINIMUM QUANTITY</u> MINIMUM CONTRACTING REQUIREMENTS APPLICABLE TO SHORT TERM CONTRACTS WITH EXISTING FACILITIES

#### 1. <u>THE PROPOSED CONTRACT DOES NOT TRIGGER THE MINIMUM QUANTITY REQUIREMENT</u> SET FORTH IN D.07-05-028.

In D.07-05-028, the Commission indicated that the ability to count short term contracts (less than ten years) toward SDG&E's RPS compliance goal is dependent upon satisfaction of Commission-established requirements for minimum quantities of long-term contracts (with new or existing facilities) and/or short-term contracts with newer facilities.

This Proposed Agreement does not trigger the minimum quantity requirement because it is a long term contract.

#### 2. THE EXTENT TO WHICH SDG&E HAS SATISFIED THE MINIMUM QUANTITY REQUIREMENT

This Proposed Agreement does not trigger the minimum quantity requirement because it is a long term contract.

#### G. TIER 2 SHORT-TERM CONTRACT "FAST TRACK" PROCESS

SDG&E is not seeking approval via a tier 2 advice letter and the "fast track" process set forth in D.09-06-050.

#### 1. THE FACILITY IS NOT IN COMMERCIAL OPERATION.

Commercial operation will be not achieved before February of 2012, which is the maximum six months required by the "fast track" process.

#### 2. <u>CONTRACT MODIFICATIONS TO THE COMMISSION-APPROVED SHORT-TERM PRO FORMA</u> <u>CONTRACT.</u>

This Proposed Agreement is not a short-term contract.

#### H. MARKET PRICE REFERENCE (MPR)

#### 1. CONTRACT PRICE RELATIVE TO THE MPR.

The pricing included in the Proposed Agreement is above the 2009 MPR but is still within the competitive range of the 2009 RPS RFO Shortlist. The exact pricing and its comparison to the MPR is discussed in detail in Confidential Appendix D.

#### 2. TOTAL COST RELATIVE TO THE **MPR**.

This Proposed Agreement has a total cost that is above the MPR, but is still within the competitive range of the 2009 RPS RFO Shortlist. The total contract cost and how it compares to the MPR is discussed in more detail within Confidential Appendix D.

#### I. <u>ABOVE MPR FUNDS (AMFS)</u>

#### 1. <u>ELIGIBILITY FOR AMFS UNDER PUBLIC UTILITIES CODE 399.15(D) AND RESOLUTION E-</u> 4199

The Proposed Agreement is a bilateral contract, and is therefore not eligible for AMFs.

#### 2. THE STATUS OF THE UTILITY'S AMFS LIMIT.

SB 1036 establishes five explicit criteria for the award of AMFs and states that once AMFs reach a cap that is equal to the maximum SEPs that would have been allotted to SDG&E, SDG&E is no longer required to procure renewable energy at above MPR prices. SDG&E's Commission-approved contracts have exhausted SDG&E's AMFs and, therefore, SDG&E is no longer required to procure renewable energy at above MPR prices.<sup>10</sup>

#### 3. <u>EXPLAINING WHETHER SDG&E VOLUNTARILY CHOOSES TO PROCURE AND INCUR THE</u> <u>ABOVE-MPR COSTS.</u>

SDG&E proposes to voluntarily procure bundled energy and green attributes under this Proposed Agreement at costs that are above the MPR, conditioned upon Commission approval of recovery of all such costs through rates.

#### J. INTERIM EMISSIONS PERFORMANCE STANDARD

COMPLIANCE WITH D.07-01-039, WHERE THE COMMISSION ADOPTED A GREENHOUSE GAS EMISSIONS PERFORMANCE STANDARD (EPS) APPLICABLE TO CONTRACTS FOR BASELOAD GENERATION, AS DEFINED, WITH DELIVERY TERMS OF FIVE YEARS OR MORE.

#### 1. EXPLAIN WHETHER OR NOT THE CONTRACT IS SUBJECT TO THE EPS.

This Proposed Agreement is not subject to the EPS as it is for as-available solar energy, with a capacity factor that is below the 60% limit established in the EPS decision.

#### 2. <u>HOW THE CONTRACT IS IN COMPLIANCE WITH D.07-01-039</u>

The project is not a baseload generating resource. Solar photovoltaic power plants produce no greenhouse gases and are therefore compliant with D.07-01-039 provided that there are no provisions in the PPA for the purchase of substitute energy from unspecified energy sources to meet contract delivery requirements.<sup>11</sup> There are no provisions in the Proposed Agreement for substitute energy purchases. Thus, the Proposed Agreement meets the requirements of D.07-01-039.

<sup>&</sup>lt;sup>10</sup> See correspondence from CPUC Energy Division Director, Julie Fitch, dated May 28, 2009 advising that SDG&E's AMF balance is zero.

<sup>&</sup>lt;sup>11</sup> D.07-01-039, *mimeo*, at p. 270.

3. HOW SPECIFIED BASELOAD ENERGY USED TO FIRM/SHAPE MEETS EPS REQUIREMENTS (ONLY FOR PPAS OF FIVE OR MORE YEARS AND WILL BE FIRMED / SHAPED WITH SPECIFIED BASELOAD GENERATION.)

The project will be connected directly to IID, and energy will be pre-scheduled on a dayahead basis as an energy export from IID's balancing area into the CAISO's balancing area at the Imperial Valley substation. Day-ahead energy schedules can be modified on an intra-day basis and scheduled into the hour-ahead market as necessary to account for situations such as unexpected equipment outages or changes to energy production forecasts. As with all CAISO pre-schedules, the energy delivery amounts will differ from the scheduled energy amounts. The energy imbalance service provided by IID ensures that the energy schedule to the CAISO is held constant for the hour. The as-available energy produced by SolarGen 2 does not require any firming and shaping for delivery to SDG&E, other than as specified by SolarGen 2's transmission agreements with IID.

#### 4. UNSPECIFIED POWER USED TO FIRM/SHAPE WILL BE LIMITED SO THE TOTAL PURCHASES UNDER THE CONTRACT (RENEWABLE AND NONRENEWABLE) WILL NOT EXCEED THE TOTAL EXPECTED OUTPUT FROM THE RENEWABLE ENERGY SOURCE OVER THE TERM OF THE CONTRACT. (ONLY FOR PPAS OF FIVE OR MORE YEARS.)

Although IID is providing energy imbalance service to ensure a constant hourly energy schedule into the CAISO, SDG&E is purchasing only renewable energy as measured at the IID revenue meters at the project. There is no non-renewable energy for SDG&E to purchase at the revenue meters.

The project is expected to produce approximately 389,916 MWh of renewable energy the first full year with .7 percent annual degradation or approximately 361 GW/year average over the 25 year term.

#### 5. <u>SUBSTITUTE SYSTEM ENERGY FROM UNSPECIFIED SOURCES</u>

#### a. <u>A SHOWING THAT THE UNSPECIFIED ENERGY IS ONLY TO BE USED ON A SHORT-TERM</u> BASIS

All renewable energy purchased by SDG&E under the PPA must be provided from the SolarGen 2 project, as tagged from the generator to the delivery point at the CAISO side of the Imperial Valley substation, verified by meter reads at the facility busbar (CAISO's application for Operational Meter Analysis and Reporting for settlement quality meter data). Therefore, this Proposed Agreement will not require the use of substitute system energy from unspecified sources. Due to the asavailable nature of solar energy, the IID as a California balancing authority may need to use other internal resources to firm and/or shape the plant's output to meet system reliability standards within the IID system and IID tariff. The actual imports into CAISO will meet CAISO tariff requirements for the scheduling of imports into CAISO.

#### b. THE UNSPECIFIED ENERGY IS ONLY USED FOR OPERATIONAL OR EFFICIENCY REASONS;

All renewable energy purchased by SDG&E under the PPA must be provided from the SolarGen 2 project, tagged from the generator to the delivery point at the CAISO side of the Imperial Valley substation, and verified by meter reads at the facility busbar. Therefore, this Proposed Agreement will not require the use of substitute system energy from unspecified sources. Due to the as-available nature of solar energy, the IID as a California balancing authority may need to use other internal resources to firm and/or shape the plant's output to meet system reliability standards within the IID system and IID tariff. The actual imports into CAISO will meet CAISO tariff requirements for the scheduling of imports into CAISO.

#### c. <u>THE UNSPECIFIED ENERGY IS ONLY USED WHEN THE RENEWABLE ENERGY SOURCE IS</u> <u>UNAVAILABLE DUE TO A FORCED OUTAGE, SCHEDULED MAINTENANCE, OR OTHER</u> <u>TEMPORARY UNAVAILABILITY FOR OPERATIONAL OR EFFICIENCY REASONS</u>

All renewable energy purchased by SDG&E under the PPA must be provided from the SolarGen 2 project, tagged from the generator to the delivery point at the CAISO side of the Imperial Valley substation, and verified by meter reads at the facility busbar] Therefore, this Proposed Agreement will not require the use of substitute system energy from unspecified sources. Due to the as-available nature of solar energy, the IID as a California balancing authority may need to use other internal resources to firm and/or shape the plant's output to meet system reliability standards within the IID system and IID tariff. The actual imports into CAISO will meet CAISO tariff requirements for the scheduling of imports into CAISO.

#### d. <u>THE UNSPECIFIED ENERGY IS ONLY USED TO MEET OPERATING CONDITIONS REQUIRED</u> <u>UNDER THE CONTRACT, SUCH AS PROVISIONS FOR NUMBER OF START-UPS, RAMP</u> <u>RATES, MINIMUM NUMBER OF OPERATING HOURS.</u>

All renewable energy purchased by SDG&E under the PPA must be provided from the SolarGen 2 project, tagged from the generator to the delivery point at the CAISO side of the Imperial Valley substation, and verified by meter reads at the facility busbar. Therefore, this Proposed Agreement will not require the use of substitute system energy from unspecified sources. Due to the as-available nature of solar energy, the IID as a California balancing authority may need to use other internal resources to firm and/or shape the plant's output to meet system reliability standards within the IID system and IID tariff. The actual imports into CAISO will meet CAISO tariff requirements for the scheduling of imports into CAISO.

#### K. PROCUREMENT REVIEW GROUP (PRG) PARTICIPATION

#### 1. **PRG** PARTICIPANTS (BY ORGANIZATION/COMPANY).

SDG&E's PRG is comprised of over fifty representatives from the following organizations:

- a. California Department of Water Resources
- b. California Public Utilities Commission Energy Division
- c. California Public Utilities Commission Division of Ratepayers Advocates
- d. The Utility Reform Network
- e. Union of Concerned Scientists
- f. Coalition of California Utility Employees

#### 2. WHEN THE PRG WAS PROVIDED INFORMATION ON THE CONTRACT

The PRG was provided with a detailed summary of this bilateral proposal during the March 18, 2011 regularly scheduled PRG meeting, and was provided an update at the April 15, and May 20, 2011 meetings. The contract was also mentioned in written materials for the June 17, 2011 regularly scheduled PRG meeting.

#### 3. SDG&E CONSULTED WITH THE PRG REGARDING THIS CONTRACT

SDG&E consulted with the PRG regarding this Proposed Agreement at the meetings listed above.

#### 4. WHY THE PRG COULD NOT BE INFORMED (FOR SHORT-TERM CONTRACTS ONLY)

The Proposed Agreement is not a short-term contract.

#### L. INDEPENDENT EVALUATOR (IE)

THE USE OF AN IE IS REQUIRED BY D.04-12-048, D.06-05-039, 07-12-052, AND D.09-06-050

#### 1. **NAME OF IE:** PA Consulting Group

#### 2. OVERSIGHT PROVIDED BY THE IE

PA Consulting Group has been involved in all aspects of SDG&E's 2009 RPS RFO process including, but not limited to: reviewing RFO document development and creation of evaluation criteria, reviewing and monitoring of all received bids, involvement in bid evaluation for conformance and ranking, conducting the LCBF analysis, monitoring of communications and negotiations with affiliated parties. An independent IE report was issued on the Proposed Agreement and is included as Confidential Appendix C. The public version (redacted) is also attached to this advice letter and served on the service list

SDG&E worked with its IE on evaluation of the Proposed Agreement. The IE has reviewed the major contract terms and SDG&E's method of comparing the projects to bids received from the 2009 RFO and has spot-checked relevant calculations.

#### 3. IE MADE ANY FINDINGS TO THE PROCUREMENT REVIEW GROUP

The IE did not provide any specific findings related to the Proposed Agreement to the PRG.

#### 4. PUBLIC VERSION OF THE PROJECT-SPECIFIC IE REPORT

The public version of the IE report is attached to this Advice Letter. The IE recommends approval of the proposed PPA.

#### III. PROJECT DEVELOPMENT STATUS

#### A. <u>COMPANY / DEVELOPMENT TEAM</u>

#### 1. <u>RELEVANT EXPERIENCE OF PROJECT DEVELOPMENT TEAM AND/OR COMPANY PRINCIPALS</u>

Members of the developer's leadership team have spent their 20 plus year careers in the utility industry and have successfully developed 12 utility scale projects, 9 of which are generation plants and 3 transmission facilities. The principals of SolarGen 2 have completed nearly \$12 billion of energy industry transactions and have broad experience in all areas of the energy sector including project development, project financing, EPC procurement, construction management, operations, regulatory, environmental, legal, and tax matters. Principals of SolarGen 2 have experience managing all commercial aspects of power generation development and operations. Solar Gen 2's leadership team participated in the successful development of a 50 MW solar PV project in Sault Ste. Marie Ontario, representing one of the largest PV projects in North America. In addition, Solar Gen 2's Steve Zaminski was on the board of Nautilus Solar, a retail rooftop solar company that has completed 11 solar PV projects since inception.

#### 2. <u>SUCCESSFUL PROJECTS</u> (RENEWABLE AND CONVENTIONAL)

Principals of SolarGen 2 have successfully developed over 800 MW of generating capacity in the United States and Canada and have been involved in the operation of 15 power generation facilities and development and operation of 3 transmission systems, including the Path 15 upgrade project in California. Principals of the SolarGen 2 team expanded into the development of solar renewable generating projects in 2008 through sponsoring Nautilus Solar, a retail PV rooftop development company. Nautilus Solar has successfully completed 11 development projects and is operating over60 MW of solar PV. Members of the Solar Gen 2 leadership team have executed numerous PPAs with IOUs and municipalities, including a 15-year PPA with PG&E in support of the successfully completed 120 MW project known as Starwood-Power Midway that was completed on time in May 2009 outside of Fresno California.

#### B. TECHNOLOGY

#### 1. <u>TECHNOLOGY TYPE AND LEVEL OF TECHNOLOGY MATURITY</u>

#### a. THE TYPE AND STAGE OF THE PROJECT'S PROPOSED TECHNOLOGY

According to SolarGen 2, the project plans to use flat panel single axis tracking solar photovoltaic technology and electronic DC-to-AC power conditioning equipment (inverters) to produce three-phase, 60 Hz, utility-grade electric power in proportion to the available solar radiation. There is no storage of energy in this project.

#### b. **COMMERCIAL DEMONSTRATION**

With over 1,100 MW currently operating world-wide, 74 MW in the United States and 29 MW in California,<sup>12</sup> photovoltaic technology has been commercially demonstrated. It has

<sup>&</sup>lt;sup>12</sup> Based upon statistics computed from <u>www.pvresources.com</u> and <u>www.industcards.com/solar-usa-ca.htm</u>. Original DC capacities were reduced by 15% as an approximate aggregate conversion to AC capacity.

an established history of operation, with utility-scale operations dating back to the 1984 installation of the Rancho Seco solar power station by the Sacramento Municipal Utility District.

#### C. <u>THE CONFIGURATION AND POTENTIAL ISSUES AND/OR BENEFITS CREATED BY THE</u> <u>HYBRID TECHNOLOGY.</u>

The technology is not a hybrid technology.

#### 2. QUALITY OF RENEWABLE RESOURCE

#### a. THE QUALITY OF THE RENEWABLE RESOURCE THAT THE PROJECT WILL RELY UPON.

The project is to be located within a region with one of the best solar resources in the United States in terms of hours of sunshine and solar intensity. The quality of the renewable resource is based on the technology and the driver for producing electricity. The technology, photovoltaic panels on a single axis tracker, is a proven technology that is extensively employed. The driver is solar radiation. Solar radiation, as measured in watts per square meter, in the Imperial Valley is among the highest levels in North America. See the link below for NREL's annual solar radiation map.

#### http://www.nrel.gov/gis/images/map\_pv\_us\_annual10km\_dec2008.jpg

The link below is the National Solar Radiation Database which houses solar and meteorological data for over 1,400 sites in the United States. Data for Imperial, California is available from the database.

#### http://rredc.nrel.gov/solar/old\_data/nsrdb/1991-2005/

The SolarGen 2 project site is approximately 17 miles northeast of the closest NREL weather data station, the Imperial County Airport. The Imperial County Airport is a National Solar Radiation Data Base (NSRDB) Class II<sup>13</sup> data site with weather data from 1991-2005. The average direct normal irradiation (DNI) for the SolarGen 2 site is 7.232 kWh/m2/day or 2640 kWh/m2/y.

#### a. <u>FUEL RESOURCE ANALYSIS AND THE DEVELOPER'S FUEL SUPPLY PLAN</u> (FOR BIOMASS PROJECTS ONLY)

#### i. FROM WHOM/WHERE IS THE FUEL BEING SECURED; AND

Not applicable. This proposed solar project will not depend on biomass fuel.

#### ii. WHERE THE FUEL IS BEING STORED

Not applicable. This proposed solar project will not depend on biomass fuel.

<sup>&</sup>lt;sup>13</sup> The datasets for the National Solar Radiation Database were grouped into three classes, with Class I being the datasets with the least uncertainty and Class III being sets of incomplete data. For more details, refer to NREL's Technical Report TP-581-43156, "Users Manual for TMY3 Data Sets", by S. Wilcox and W. Marion (updated May 2008).

#### b. <u>CONFIDENCE THAT THE PROJECT WILL BE ABLE TO MEET THE TERMS OF THE</u> <u>CONTRACT GIVEN SDG&E'S INDEPENDENT UNDERSTANDING OF THE QUALITY OF</u> <u>THE RENEWABLE RESOURCE</u>.

The SolarGen 2 project site is approximately 17 miles northeast of the closest NREL weather data station, the Imperial County Airport. The Imperial County Airport is a National Solar Radiation Data Base (NSRDB) Class II data site with weather data from 1991-2005. The average direct normal irradiation (DNI) for the SolarGen 2 site is 7.232 kWh/m2/day or 2640 kWh/m2/y. Given that the quality of the solar resource in the project area is determined by these publicly-available statistics accumulated over a prolonged (14 year) period of time, SDG&E believes that the renewable resource is capable of producing sufficient energy to meet the terms of the PPA.

#### 3. OTHER RESOURCES REQUIRED

#### a. <u>OTHER FUEL SUPPLY (OTHER THAN THE RENEWABLE FUEL SUPPLY DISCUSSED ABOVE)</u> NECESSARY TO THE PROJECT AND THE ANTICIPATED SOURCE OF THAT SUPPLY;

This Proposed Agreement will not depend on any fuel supply other than the renewable solar energy supply discussed above.

#### b. <u>EXPLAIN WHETHER THE DEVELOPER HAS SECURED THE NECESSARY RIGHTS FOR</u> WATER, FUEL(S), AND ANY OTHER REQUIRED INPUTS TO RUN THE PROJECT.

According to SolarGen 2, water used by the project will be provided by local water providers. According to SolarGen 2, water use is expected to be less than is currently used on the project properties for irrigation. Information regarding the water supply agreement information is provided in the Confidential Appendix A.

## c. ESTIMATED ANNUAL WATER CONSUMPTION OF THE FACILITY (GALLONS OF WATER/YEAR)

Water used at the project will be required for panel washing, employee needs (potable water, sewer, etc.) and miscellaneous uses (dust control, landscaping, etc.) SolarGen 2 estimates that annual water usage for these purposes would be approximately 2 acre-ft/yr during construction and 2 acre-ft/yr for post-COD operations. The bulk of the water will be used for panel washing. Actual water usage will depend on weather conditions and panel soiling.

#### d. <u>CONFIDENCE THAT THE PROJECT WILL BE ABLE TO MEET THE TERMS OF THE</u> <u>CONTRACT GIVEN SDG&E'S INDEPENDENT UNDERSTANDING OF THE ADEQUACY OF</u> <u>THE ADDITIONAL FUEL OR ANY OTHER NECESSARY RESOURCE SUPPLY.</u>

As stated above, the site has adequate solar insolation. According to SolarGen 2, the project's water requirements are modest compared to most other generation technologies. No additional fuel or other resources are required.

#### C. <u>DEVELOPMENT MILESTONES</u>

#### 1. SITE CONTROL STATUS

#### a. SITE CONTROL TYPE (E.G. OWNERSHIP, LEASE, BLM, ETC.)

As is usual and customary for development projects of this type, SolarGen 2 has 100% site control through an option to purchase agreement. This purchase agreement was executed with Green Light Corporation, on March 31, 2011. All three sites that will support the SolarGen 2 project do not require any right of way or easements as existing interconnecting transmission lines with adequate capacity cross each site.

#### i. <u>DURATION OF SITE CONTROL AND ANY EXERCISABLE EXTENSION OPTIONS (LEASE</u> ONLY)

SolarGen 2 has 100% control of the land for longer than the 25 year term of this Proposed Agreement under a purchase agreement option. The land will be owned by SolarGen 2, not leased.

#### ii. <u>LEVEL OR PERCENT OF SITE CONTROL ATTAINED – IF LESS THAN 100%, DISCUSS</u> SELLER'S PLAN FOR OBTAINING FULL SITE CONTROL

Not applicable as SolarGen 2 has executed a purchase agreement for all the project sites.

#### 2. EQUIPMENT PROCUREMENT STATUS

#### a. <u>STATUS OF THE PROCUREMENT OF MAJOR EQUIPMENT (E.G. EQUIPMENT IN-HAND,</u> <u>CONTRACTS EXECUTED AND EQUIPMENT IN DELIVERY, NEGOTIATING CONTRACTS</u> <u>WITH SUPPLIER(S), ETC.).</u>

Members of SolarGen 2 are negotiating a detailed term sheet with several Engineering, Procurement and Construction (EPC) contractors and expect to make an EPC selection shortly. Status of major equipment procurement is further discussed in Confidential Appendix A of this advice letter.

#### b. <u>THE DEVELOPER'S HISTORY OF ABILITY TO PROCURE EQUIPMENT.</u>

Principals of SolarGen 2 have an extensive history of power plant development, construction and operation, which requires the ability to handle complex equipment procurement issues. Refer to Section III of this Advice Letter for SolarGen 2's background in plant development and operation. The developer has employed good development practices and included contingencies in the budget to accommodate the inevitable variations in cost. The developer's utility industry financing and procurement of equipment is further described in Confidential Appendix.

#### c. <u>IDENTIFIED EQUIPMENT PROCUREMENT ISSUES, SUCH AS LEAD TIME, AND THEIR</u> EFFECT ON THE **P**ROJECT'S DATE OF OPERABILITY.

Issues relating to long lead time equipment procurement are further explained in Confidential Appendix A of this advice letter.

#### 3. <u>PERMITTING / CERTIFICATIONS STATUS</u>

#### a. <u>STATUS OF THE PROJECT'S RPS-ELIGIBILITY CERTIFICATION FROM THE CEC. EXPLAIN</u> <u>IF THERE IS ANY UNCERTAINTY REGARDING THE PROJECT'S ELIGIBILITY.</u>

This project will be located within the state of California, will be connected to a California balancing authority and will utilize solar photovoltaic technology. The project satisfies the criteria for RPS-eligible resources. CEC Pre-Certification and Verification application for the proposed project is scheduled to be filed in the fall of 2011.

#### b. <u>THE FOLLOWING TABLE DESCRIBES THE STATUS OF ALL MAJOR PERMITS OR</u> <u>AUTHORIZATIONS NECESSARY FOR DEVELOPMENT AND OPERATION OF THE PROJECT.</u>

Permitting status and information is located in Confidential Appendix A, Project Development Status, paragraph C.3 (Permitting Status).

#### 4. PRODUCTION TAX CREDIT (PTC) / INVESTMENT TAX CREDIT (ITC) – IF APPLICABLE

The project does not expect to utilize investment tax credits (ITCs) available under Section 48 of the U.S. Internal Revenue Code.

#### a. <u>THE PROJECT'S POTENTIAL ELIGIBILITY FOR TAX CREDITS BASED ON THE TECHNOLOGY</u> OF THE PROJECT AND CONTRACT OPERATION DATE.

The project will pursue the section 1603 cash grant in lieu of the ITCs. In order to qualify, the project must commence construction prior to the end of 2011 or qualify by way of the established 5% Safe Harbor plan.

#### b. <u>WHETHER THE DEVELOPER INTENDS TO SEEK PTCS/ITCS, ANY PLANS FOR OBTAINING</u> <u>THE PTCS/ITCS, AND ANY CRITERIA THAT MUST BE MET.</u>

The Developer will pursue the section 1603 cash grant in lieu of the ITCs.

#### c. <u>PARTY (SDG&E OR DEVELOPER) BEARING THE RISK IF THE ANTICIPATED TAX</u> CREDITS ARE NOT OBTAINED.

A discussion of the contractual terms and implications surrounding the anticipated grant is located in Confidential Appendix A, Project Development Status, paragraph D (PTC/ITC).

#### 5. TRANSMISSION

#### a. <u>STATUS OF THE PROJECT'S INTERCONNECTION APPLICATION, WHETHER THE PROJECT</u> <u>IS IN THE CAISO OR ANY OTHER INTERCONNECTION QUEUE, AND WHICH</u> <u>TRANSMISSION STUDIES ARE COMPLETE AND/OR IN PROGRESS.</u>

The project is not within CAISO, but it is within IID's service territory. According to SolarGen 2, there is no applicable queue, and SolarGen 2 has already entered into a Generator Interconnection Agreement (s) with IID. The project proposes interconnection to the Imperial Irrigation District (IID) transmission system. The project submitted an interconnection request to IID and was studied through IID's Open Access Transmission Tariff process. The System Impact Study identified minor upgrades which would be required to accommodate additional generation onto IID's electric system. This study has been reviewed by the developer and incorporated into the Generator Interconnection Agreements (GIA) between IID and the developer which has been finalized and executed.

#### b. <u>STATUS OF THE INTERCONNECTION AGREEMENT WITH THE INTERCONNECTING</u> <u>UTILITY (E.G., DRAFT ISSUED, EXECUTED AND AT FERC, FULLY APPROVED).</u>

Pursuant to IID's Tariff requirements, and according to SolarGen 2, IID has finalized two GIAs to include the three project sties. The GIAs cover an aggregate of 150 MWs and were executed by IID's President of the Board on August 9, 2011.

#### c. <u>REQUIRED NETWORK AND GEN-TIE UPGRADES AND THE CAPACITY TO BE AVAILABLE</u> <u>TO THE PROJECT UPON COMPLETION, INCLUDING PROPOSED CURTAILMENT SCHEMES.</u>

The introduction of the project's generation into IID's system will create certain, minor impacts to the IID system. The impacts do not require any system upgrades to support the project's interconnection to the IID grid, or to transport and export the energy to the CAISO. See Confidential Appendix A for additional information.

#### d. REQUIRED SUBSTATION UPGRADES OR CONSTRUCTION.

Aside from the three site specific generation substations, the GIAs do not require any substation upgrades or construction of any facilities to allow the interconnection of the 150 MWs to IID grid.

#### e. <u>TIMING AND PROCESS FOR ALL TRANSMISSION-RELATED UPGRADES, INCLUDING</u> <u>CRITICAL PATH ITEMS AND POTENTIAL CONTINGENCIES IN THE EVENT OF DELAYS.</u>

As part of the IID OATT System Impact Study, IID has identified all critical path upgrades attributable to the project. Aside from the generator step-up transformers, no additional transmission related upgrades have been identified. A final report has been issued to the developer that requires the developer to provide support certain upgrades being pursued by IID. IID anticipates the projects interconnection facilities would be constructed by the developer, according to the developer's construction schedule. All upgrades will be constructed according to IID standards and inspection requirements.

#### f. <u>ISSUES RELATING TO OTHER GENERATING FACILITY PROJECTS IN THE TRANSMISSION</u> QUEUE AS THEY MAY AFFECT THE PROJECT.

SolarGen 2 was in the IID Generator Interconnection Queue identified in the Confidential Appendices. The project has executed two GIAs to include the three sites and SolarGen 2 is finalizing an Energy Exchange Agreement with IID for unit contingent firm export of power to the CAISO delivery point. The developer does not anticipate any issues relating to other generation projects in which may affect its inservice date.

#### g. <u>DEPENDENCY ON TRANSMISSION THAT IS LIKELY TO BE CONGESTED AT TIMES,</u> <u>LEADING TO A PRODUCT THAT IS LESS THAN 100% DELIVERABLE FOR AT LEAST</u> <u>SEVERAL YEARS AND HOW SDG&E FACTORED THE CONGESTION INTO THE LCBF BID</u> <u>ANALYSIS.</u>

Congestion costs were calculated for this project as part of its assessment in the 2009 RPS RFO. See Confidential Appendix A for more details on congestion costs.

#### h. <u>ALTERNATIVE TRANSMISSION ARRANGEMENTS AVAILABLE AND/OR CONSIDERED TO</u> <u>FACILITATE DELIVERY OF THE PROJECT'S OUTPUT.</u>

The project does not anticipate any difficulties with interconnection feasibility or costs; however, SolarGen 2 has some flexibility to request that transmission schedules be "redirected" due to a transmission outage or de-rate. Redirecting transmission schedules allows the developer to deliver energy at alternative injection points into the CAISO without incurring additional wheeling fees.

#### D. FINANCING PLAN

#### 1. <u>DEVELOPER'S MANNER OF FINANCING (E.G. PROJECT FINANCING, BALANCE SHEET</u> <u>FINANCING, UTILITY TAX EQUITY INVESTMENT, ETC.)</u>

Principals of SolarGen 2 anticipate using traditional project finance markets to debt finance the project. SolarGen 2 personnel plan to fund the construction of the project on a standalone, limited recourse, project finance basis including a section 1603 cash grant. Committed equity will be contributed via SolarGen 2 affiliates and potential business partners. It is anticipated that the total amount of construction debt raised for the project will be up to 100% of total project cost assuming appropriate backstop letters of credit. Such a structure is dependent on the financing markets, eligibility for the section 1603 cash grant and the final project costs. SolarGen 2 personnel continue to active discussions with project lenders and expect to close financing in November, 2011 to support the PPA COD requirements and to satisfy the eligibility requirements of the section 1603 cash grant.

#### 2. <u>DEVELOPER'S GENERAL PROJECT FINANCING STATUS.</u>

See Confidential Appendix A for details regarding this project's financing status.

#### 3. <u>THE EXTENT (%)THE DEVELOPER RECEIVED FIRM COMMITMENTS FROM FINANCERS (BOTH</u> <u>DEBT AND EQUITY), AND HOW MUCH FINANCING IS EXPECTED TO BE NEEDED TO BRING</u> <u>THE PROJECT ONLINE.</u>

The developer's plans to obtain financing and any other capital resources are confidential and are described in Confidential Appendix A. SolarGen 2 has a proven, successful track record of procuring financing for power projects, (see Confidential Appendix A, Section III A.2). The principals of SolarGen 2 have completed nearly \$12 billion of power industry transactions including the successful completion of 12 greenfield development projects.

#### 4. GOVERNMENT FUNDING OR AWARDS RECEIVED BY THE PROJECT.

The project has not yet been awarded any government funding. However, the project does expect to utilize a federal cash grant.

#### 5. CREDITWORTHINESS OF ALL RELEVANT FINANCIERS.

It is expected that the financiers will have a high investment grade rating. See Confidential Appendix A for details regarding this project's financing status.

#### 6. <u>DEVELOPER'S HISTORY OF ABILITY TO PROCURE FINANCING.</u>

Principals of SolarGen 2 have successfully arranged for third party financing in each development project that it has developed. See Confidential Appendix A for greater detail.

#### 7. <u>PLANS FOR OBTAINING SUBSIDIES, GRANTS, OR ANY OTHER THIRD PARTY MONETARY</u> <u>AWARDS (OTHER THAN PRODUCTION TAX CREDITS AND INVESTMENT TAX CREDITS)</u> AND HOW THE LACK OF ANY OF THIS FUNDING WILL AFFECT THE **PROJECT**.

The developer will pursue the Section 1603 cash grant program in lieu of the ITC. The developer bears the risk if the cash grant is not received.

#### IV.CONTINGENCIES AND/OR MILESTONES

#### A. MAJOR PERFORMANCE CRITERIA AND GUARANTEED MILESTONES.

Performance standards, contingencies and milestones associated with the Proposed Agreement are summarized in Confidential Appendix A.

#### B. <u>OTHER CONTINGENCIES AND MILESTONES</u> (I.E. 500 KV LINE, INTERCONNECTION COSTS, GENERATOR FINANCING, PERMITTING)

Please see Confidential Appendix A for a comprehensive list of contingencies and milestones.

#### V. PROCEDURAL MATTERS

#### A. <u>REQUESTED RELIEF</u>

SDG&E respectfully requests that the Commission review and approve the Proposed Agreement through the issuance of a resolution no later than October 20, 2011.

As detailed in this Advice Letter, SDG&E's entry into the Proposed Agreement and the terms of such agreement are reasonable; therefore, all costs associated with the Proposed Agreement, including energy, green attributes, and resource adequacy should be fully recoverable in rates.

The Proposed Agreement is conditioned upon "CPUC Approval." SDG&E, therefore, requests that the Commission include the following findings in its Resolution approving the PPA:

- 1. The Proposed Agreement is consistent with SDG&E's CPUC-approved RPS Plan and procurement from the Proposed Agreement will contribute towards SDG&E's RPS procurement obligation.
- SDG&E's entry into the Proposed Agreement and the terms of such agreement are reasonable; therefore, the Proposed Agreement is approved in its entirety and all costs of the purchase associated with the Proposed Agreement, including for energy, green attributes, and resource adequacy are fully recoverable in rates over the life of the Proposed Agreement, subject to Commission review of SDG&E's administration of the Proposed Agreement.
- 3. Generation procured pursuant to the Proposed Agreement constitutes generation from an eligible renewable energy resource for purposes of determining SDG&E's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewable Portfolio Standard program (Public Utilities Code §§ 399.11, *et seq.* and/or other applicable law) and relevant Commission decisions.
- 4. The Proposed Agreement will contribute to SDG&E's minimum quantity requirement established in D.07-05-028.
- 5. Expected Project deliveries are eligible for earmarking treatment under RPS flexible compliance mechanisms.

#### B. PROTEST

Anyone may protest this advice letter to the California Public Utilities Commission. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. The protest must be made in writing and received no later than September 12, 2011, which is 20 days from the date this advice letter was filed with the Commission. There is no restriction on who may file a protest. The address for mailing or delivering a protest to the Commission is:

CPUC Energy Division Attention: Tariff Unit 505 Van Ness Avenue San Francisco, CA 94102 Copies should also be sent via e-mail to the attention of Honesto Gatchallian (jnj@cpuc.ca.gov) and Maria Salinas (mas@cpuc.ca.gov) of the Energy Division. It is also requested that a copy of the protest be sent via electronic mail <u>and</u> facsimile to SDG&E on the same date it is mailed or delivered to the Commission (at the addresses shown below).

Attn: Megan Caulson Regulatory Tariff Manager 8330 Century Park Court, Room 32C San Diego, CA 92123-1548 Facsimile No. 858-654-1879 *E-Mail: MCaulson@semprautilities.com* 

#### C. EFFECTIVE DATE

SDG&E respectfully requests that the Commission issue a resolution approving this advice letter on or before October 20, 2011.

#### D. NOTICE

In accordance with General Order No. 96-B, a copy of this filing has been served on the utilities and interested parties shown on the attached list, including interested parties in R.11-05-005, by either providing them a copy electronically or by mailing them a copy hereof, properly stamped and addressed.

Address changes should be directed to SDG&E Tariffs by facsimile at (858) 654-1879 or by e-mail to SDG&ETariffs@semprautilities.com.

CLAY FABER Director – Regulatory Affairs

(cc list enclosed)

# CALIFORNIA PUBLIC UTILITIES COMMISSION ADVICE LETTER FILING SUMMARY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)				
Company name/CPUC Utility No. SAN DIEGO GAS & ELECTRIC (U 902)				
Utility type:	Contact Person: Joff Morales			
	Phone #: (858) <u>65</u>			
PLC HEAT WATER	E-mail: jmorales@	semprautilities.com		
EXPLANATION OF UTILITY T	EXPLANATION OF UTILITY TYPE (Date Filed/ Received Stamp by CPUC)			
ELC = Electric GAS = Gas PLC = Pipeline HEAT = Heat WATER = Water				
Advice Letter (AL) #: <u>2279-E</u>				
Subject of AL: Request for Approval o	f Renewable Power	Purchase with Solargen 2, LLC		
Keywords (choose from CPUC listing):	Procurement, Pow	ver Purchase Agreement		
AL filing type: 🗌 Monthly 🗌 Quarter	ly 🗌 Annual 🗌 On	e-Time 🔀 Othe r		
If AL filed in compliance with a Comm	ission order, indicat	e relevant Decision/Resolution #:		
Does AL replace a withdrawn or rejecte	ed AL? If so, identi	fy the prior AL: <u>None</u>		
Summarize differences between the AL	and the prior with	drawn or rejected AL <sup>1</sup> : <u>N/A</u>		
Does AL request confidential treatmen	t? If so, provide exp	Ianation: <u>None</u>		
Resolution Required? 🛛 Yes 🗌 No		Tier Designation: 🗌 1 🔲 2 🔀 3		
Requested effective date: 10/20/2011		No. of tariff sheets: 0		
Estimated system annual revenue effe	ct: (%): <u>N/A</u>			
Estimated system average rate effect (	%): <u>N/A</u>			
When rates are affected by AL, include attachment in AL showing average rate effects on customer classes				
(residential, small commercial, large C/I, agricultural, lighting).				
Tariff schedules affected:				
Service affected and changes proposed <sup>1</sup> . No re				
Pending advice letters that revise the same tariff sheets: <u>None</u>				
Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:				
CPUC, Energy Division San Diego Gas & Electric				
Attention: Tariff Unit Attention: Megan Caulson				
505 Van Ness Ave.,				
San Francisco, CA 94102				
mas@cpuc.ca.gov and jnj@cpuc.ca.gov		ncaulson@semprautilities.com		

 $<sup>^{\</sup>scriptscriptstyle 1}$  Discuss in AL if more space is needed.

**Public Utilities Commission** DRA D. Appling S. Cauchois J. Greig R. Pocta W. Scott **Energy Division** P. Clanon S. Gallagher H. Gatchalian D. Lafrenz M. Salinas CA. Energy Commission F. DeLeon R. Tavares Alcantar & Kahl LLP K. Harteloo American Energy Institute C. King **APS Energy Services** J. Schenk BP Energy Company J. Zaiontz Barkovich & Yap, Inc. B. Barkovich **Bartle Wells Associates** R. Schmidt Braun & Blaising, P.C. S. Blaising California Energy Markets S. O'Donnell C. Sweet California Farm Bureau Federation K. Mills California Wind Energy N. Rader Children's Hospital & Health Center T. Jacoby City of Chula Vista M. Meacham E. Hull City of Poway R. Willcox City of San Diego J. Cervantes G. Lonergan M. Valerio **Commerce Energy Group** V. Gan Constellation New Energy W. Chen CP Kelco A. Friedl Davis Wright Tremaine, LLP E. O'Neill J. Pau

#### General Order No. 96-B ADVICE LETTER FILING MAILING LIST

Dept. of General Services H. Nanio M. Clark Douglass & Liddell D. Douglass D. Liddell G. Klatt **Duke Energy North America** M. Gillette Dynegy, Inc. J. Paul Ellison Schneider & Harris LLP E. Janssen Energy Policy Initiatives Center (USD) S. Anders Energy Price Solutions A. Scott Energy Strategies, Inc. K. Campbell M. Scanlan Goodin, MacBride, Squeri, Ritchie & Day B. Cragg J. Heather Patrick J. Squeri Goodrich Aerostructures Group M. Harrington Hanna and Morton LLP N. Pedersen Itsa-North America L. Belew J.B.S. Energy J. Nahigian Luce, Forward, Hamilton & Scripps LLP J. Leslie Manatt, Phelps & Phillips LLP D. Huard R. Keen Matthew V. Brady & Associates M. Brady Modesto Irrigation District C. Mayer Morrison & Foerster LLP P. Hanschen MRW & Associates D. Richardson Pacific Gas & Electric Co. J. Clark M. Huffman S. Lawrie E. Lucha Pacific Utility Audit, Inc. E. Kelly <u>R. W. Beck, In</u>c. C. Elder San Diego Regional Energy Office S. Freedman J. Porter School Project for Utility Rate Reduction M. Rochman

Shute, Mihaly & Weinberger LLP O. Armi Solar Turbines F. Chiang Sutherland Asbill & Brennan LLP K. McCrea Southern California Edison Co. M. Alexander K. Cini K. Gansecki H. Romero TransCanada R. Hunter D. White TURN M. Florio M. Hawiger UCAN M. Shames U.S. Dept. of the Navy K. Davoodi N. Furuta L. DeLacruz Utility Specialists, Southwest, Inc. D. Koser Western Manufactured Housing **Communities Association** S. Dev White & Case LLP L. Cottle Interested Parties R.11-05-005

San Diego Gas & Electric Advice Letter 2279-E August 23, 2011

## ATTACHMENT A

### DECLARATION OF MAUREEN BISHOP REGARDING CONFIDENTIALITY OF CERTAIN DATA

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

#### DECLARATION OF F. MAURENE BISHOP REGARDING CONFIDENTIALITY OF CERTAIN DATA

I, F. Maurene Bishop, do declare as follows:

1. I am an Energy Contracts Originator for San Diego Gas & Electric Company ("SDG&E"). I have reviewed Advice Letter 2279-E, requesting approval of a Power Purchase Agreement and First Amendment with SolarGen 2, LLC (with attached confidential and public appendices), dated August 23, 2011 ("Advice Letter"). I am personally familiar with the facts and representations in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or belief.

2. I hereby provide this Declaration in accordance with D.06-06-066, as modified by D.07-05-032, and D.08-04-023, to demonstrate that the confidential information ("Protected Information") provided in the Advice Letter submitted concurrently herewith, falls within the scope of data protected pursuant to the IOU Matrix attached to D.06-06-066 (the "IOU Matrix").<sup>1</sup>/ In addition, the Commission has made

<sup>&</sup>lt;sup>11</sup> The Matrix is derived from the statutory protections extended to non-public market sensitive and trade secret information. (See D.06-06-066, mimeo, note 1, Ordering Paragraph 1). The Commission is obligated to act in a manner consistent with applicable law. The analysis of protection afforded under the Matrix must always produce a result that is consistent with the relevant underlying statutes; if information is eligible for statutory protection, it must be protected under the Matrix. (See Southern California Edison Co. v. Public Utilities Comm. 2000 Cal. App. LEXIS 995, \*38-39) Thus, by claiming applicability of the Matrix, SDG&E relies upon and simultaneously claims the protection of Public Utilities Code §§ 454.5(g) and 583, Govt. Code § 6254(k) and General Order 66-C.

clear that information must be protected where "it matches a Matrix category exactly . . .

or consists of information from which that information may be easily derived."<sup> $\frac{1}{2}$ </sup>

3. I address below each of the following five features of Ordering Paragraph 2 in

D.06-06-066:

- That the material constitutes a particular type of data listed in the Matrix,
- The category or categories in the Matrix to which the data corresponds,
- That it is complying with the limitations on confidentiality specified in the Matrix for that type of data,
- That the information is not already public, and
- That the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.<sup>3/</sup>
- 4. <u>SDG&E's Protected Information</u>: As directed by the Commission,

SDG&E demonstrates in table form below that the instant confidentiality request satisfies

the requirements of D.06-06-066: $\frac{4}{2}$ 

Data at issue	D.06-06-066 Matrix	How moving party
	Requirements	meets requirements
Bid Information <sup>5</sup>	Demonstrate that the	The data provided is
-	material submitted	non-public bid data from
Locations:	constitutes a particular	SDG&E's Renewable
1. Confidential Appendix A	type of data listed in	RFOs.
Section C, LCBF, page 4	the IOU Matrix	
<ul> <li>Consistency with Commission</li> </ul>	Identify the Matrix	This information is

<sup>&</sup>lt;sup>2/</sup> See, Administrative Law Judge's Ruling on San Diego Gas & Electric Company's April 3, 2007 Motion to File Data Under Seal, issued May 4, 2007 in R.06-05-027, p. 2 (emphasis added).

<sup>&</sup>lt;sup>3/</sup> D.06-06-066, as amended by D.07-05-032, *mimeo*, p. 81, Ordering Paragraph 2.

<sup>&</sup>lt;sup>4/</sup> See, Administrative Law Judge's Ruling on San Diego Gas & Electric Company's Motions to File Data Under Seal, issued April 30 in R.06-05-027, p. 7, Ordering Paragraph 3 ("In all future filings, SDG&E shall include with any request for confidentiality a table that lists the five D.06-06-066 Matrix requirements, and explains how each item of data meets the matrix").

<sup>&</sup>lt;sup>5</sup> The confidential information referenced has a **GREEN** font color / has a green box around it in the confidential appendices.

Decisions and Rules section,	category or categories	protected under IOU
paragraph C.2 (Portfolio Fit) – project ranking with other bids	to which the data corresponds	Matrix category VIII.A.
<ul> <li>in 2009 RPS RFO and Application of TODs on p.4,5;</li> <li>Project Development Status section, paragraph G.2. – Project Viability Calculator (PVC) scoring and associated narrative on p.54-55;</li> <li>Project Development Status section, paragraph G.2. – RPS Workpaper Graphs – "Viability of 2009 Bids by Technology" and "Viability of 2009 Shortlisted vs Rejected Bids" on p.55-56;</li> </ul>	corresponds Affirm that the IOU is complying with the limitations on confidentiality specified in the Matrix for that type of data Affirm that the information is not already public	In accordance with the limitations on confidentiality set forth in the IOU Matrix, SDG&E requests that this information be kept confidential until the final contracts from each of the RFOs have been submitted to the CPUC for approval. SDG&E has not publicly disclosed this information and is not
<ul> <li>Project's PVC results, paragraph G.3. – Project Viability Calculator (PVC)</li> </ul>		aware that it has been disclosed by any other party.
<ul> <li>scoring, narrative and comparison on p.57.</li> <li>2. Confidential Appendix B – embedded 2009 Solicitation Overview Report on p.58.</li> <li>3. Confidential Appendix C – embedded project specific IE Report on p. 59.</li> <li>4. Confidential Appendix D</li> <li>Contract Price Section, paragraph 12, Graphs from RPS Workpapers – "RPS Solicitation BSC - 2009 – All Bids vs Current Shortlist"; "2009 RFO Mean and Median Bid Prices by Technology" on p.77-78.</li> </ul>	Affirm that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.	SDG&E cannot summarize or aggregate the bid data while still providing project- specific details. SDG&E cannot provide redacted or masked versions of these data points while maintaining the format requested by the CPUC.
<ul> <li>Specific Quantitative Analysis<sup>6</sup></li> <li>Location: <ol> <li>Confidential Appendix A</li> <li>Consistency with Commission Decisions and Rules section, paragraph C.1 (Project Bid</li> </ol> </li> </ul>	Demonstrate that the material submitted constitutes a particular type of data listed in the IOU Matrix	This data is SDG&E's specific quantitative analysis involved in scoring and evaluating renewable bids. Some of the data also involves analysis/evaluation of

 $<sup>^{6}</sup>$  The confidential information referenced has a **BLUE** font color / has a blue box around it in the confidential appendices

Scores) – computed factors for	· · · · ·	proposed RPS projects.
Project in 2009 LCBF	Identify the Matrix	This information is
evaluation on p.6-7;	category or categories	protected under IOU
Consistency with Commission	to which the data	Matrix categories VII.G
Decisions and Rules section,	corresponds	and/or VIII.B.
paragraph C.2 (Portfolio Fit) -	Affirm that the IOU is	In accordance with the
computed factors for Project in	complying with the	limitations on
2009 LCBF evaluation and	limitations on	confidentiality set forth
embedded SDG&E's LCBF	confidentiality	in the IOU Matrix,
Ranking for the 2009 RPS RFO	specified in the Matrix	SDG&E requests that
on p. 4;	for that type of data	this information be kept
Consistency with Commission		confidential for three
Decisions and Rules section,		years.
paragraph C.2 (Transmission	Affirm that the	SDG&E has not publicly
Adders) - computed factors for	information is not	disclosed this
Projects in 2009 LCBF	already public	information and is not
evaluation and embedded		aware that it has been
SDG&E's LCBF Ranking for		disclosed by any other
the 2009 <b>R</b> PS RFO on p.5;		party.
<ul> <li>Consistency with Commission</li> </ul>	Affirm that the data	SDG&E cannot
Decisions and Rules section,	cannot be aggregated,	summarize or aggregate
paragraph C.3 (LCBF Adders	redacted, summarized,	the evaluation data while
and Impact on Ranking) -	masked or otherwise	still providing project-
computed factors for Project in	protected in a way that	specific details. SDG&E
2009 LCBF evaluation on p.6-	allows partial	cannot provide redacted
7;	disclosure.	or masked versions of
Consistency with Commission		these data points while
Decisions and Rules section,		maintaining the format
paragraph H - MPR on p.37-		requested by the CPUC.
<i>38;</i>		
<ul> <li>Company Development Team,</li> </ul>		
Locational attributes, p. 51;		
<ul> <li>Financing Plan, page 53-54;</li> <li>Consistency with Commission</li> </ul>		
<ul> <li>Consistency with Commission Decisions and Rules section,</li> </ul>		
,		
paragraph I – AMFs on p.45;		
<ul> <li>Project Development Status section, paragraph G.3. – RPS</li> </ul>		
Workpaper Graphs – "Viability		
of 2009 Bids by Technology";		
"Viability of 2009 Shortlisted vs		
Rejected Bids" on p.55;		
<ul> <li>Rejected bias on p.35,</li> <li>Project Development Status</li> </ul>		
section, paragraph G.4. "The		
Project's PVC Results"; on		
p. 56-57;		
p.50 57,	I	l

	T	
2. Confidential Appendix B –		
embedded 2009 Solicitation		
Overview Report on p.58.		
3. Confidential Appendix C –		
Final RPS Project-Specific		
Independent Evaluator		
Report on p.71.		
4. Confidential Appendix D		
Terms and Conditions of		
Delivery, 2. Firming and		
Shaping, pg 64-65		
Contract Price, Levelized		
contract price, p. 70		
Contract Summary section,		
paragraph E.10,		
Congestion costs p. 72		
AMF calculations, AMF		
Results and embedded		
AMF calculator on p.74-		
76;		
Contract Price Section,		
paragraph 12, Graphs		
from RPS Workpapers –		
"RPS Solicitation BSC -		
2009 – All Bids vs Current		
Shortlist"; "2009 RFO		
Mean and Median Bid		
Prices by Technology" on		
p.77-78;		
Contract Summary section,		
paragraph E.13, Contract		
Price Comparison on p.90-		
91.		
• IE Report, 5.8 Results		
Analysis p 5.5-7		
• <i>IE Report</i> , 7.1.2 Project		
Viability Calculator p 7.2-3		
Contract Terms <sup>7</sup>	Demonstrate that the	This data includes
T	material submitted	specific contract terms.
Locations:	constitutes a particular	
1. Confidential Appendix A	type of data listed in	
<ul> <li>Consistency with</li> <li>Commission Decisions and</li> </ul>	the IOU Matrix	This information :-
Commission Decisions and	Identify the Matrix	This information is

 $<sup>^7</sup>$  The confidential information referenced has a **RED** font color / has a red box around it in the confidential appendices
	Rules section paragraph C,	category or categories	protected under IOU
	LCBF, Discussion of PPA	to which the data	Matrix category VII.G.
	term, p. 3-4	corresponds	
	Application of TODs, pg. 5	Affirm that the IOU is	In accordance with the
	Paragraph D – Standard	complying with the	limitations on
	Terms and Conditions,	limitations on	confidentiality set forth
	Nonmodifiable and	confidentiality	in the IOU Matrix,
	Modifiable Contract Terms	specified in the Matrix	SDG&E requests that
	Summary Table (Modifiable	for that type of data	this information be kept
	Terms) and Modifiable		confidential for three
	Terms Red-line table on p.8,		years.
	<i>9-37</i> ;	Affirm that the	SDG&E has not publicly
	Project Development Status	information is not	disclosed this
	Paragraph B.1 –	already public	information and is not
	Technology Maturity		aware that it has been
	(narrative) on p.46;		disclosed by any other
	Project Development Status		party.
	Paragraph D – PTC/ITCs	Affirm that the data	In order to include as
	(narrative)on p.63;	cannot be aggregated,	much detail as possible,
2.		redacted, summarized,	SDG&E has provided
	Contract Summary Section	masked or otherwise	specific contract terms
	Paragraph D.1. – Major	protected in a way that	instead of summaries.
	Contract Provisions A. Site	allows partial	
	location, pg 61,	disclosure.	
	Maps, pg. 62-64,		
	Contract Summary Section		
	Paragraph E.2 – narrative		
	and table on p.70;		
	Contract Summary Section		
	Paragraph E.3 -5 narrative		
	on p.71, 72;		
	Contract Summary Section		
	Paragraph E.8. – Indirect		
	Expenses on p.73;		
	Contract Summary Section		
	Paragraph E.9 – pricing		
	and notes within table on p.		
	73;		
	Contract Summary Section		
	Paragraph E.10 – narrative,		
	<i>p</i> .74		
	Contract Summary Section		
	Paragraph E.11. – narrative		
	on p. 77;		
	Paragraph E.12 – RPS		
	Contract Price Supply	,	

	g	,
Curve Graph (2009 all		
executed contracts) on p. 77,		
78;		
Paragraph E.14 – Rate		
impact and embedded rate		
impact calculation		
spreadsheet on p.79.		
3. Confidential Appendix E		
<ul> <li>Embedded files containing</li> </ul>		
comparison of Proposed		
Power Purchase Agreement		
with SDG&E's Pro Forma		
<i>PPA on p.92.</i>		
4. Confidential Appendix F		
<ul> <li>Embedded files –Executed</li> </ul>		
Version of Proposed Power		
Purchase Agreement and		
First Amendment on p 81.		
• IE Report, 6.3 Terms and		
conditions p 6.1-2		
• IE Report, 7.1.1 Pricing p		
7.1		
Analysis and Evaluation of	Demonstrate that the	The Commission has
Proposed RPS Projects <sup>8</sup>	material submitted	concluded that Actual
1 5	constitutes a particular	Procurement Percentage
Locations:	type of data listed in	data must be protected in
1. Confidential Appendix A	the IOU Matrix	order to avoid disclosing
<ul> <li>Consistency with</li> </ul>		SDG&E's Bundled
Commission Decisions and		Retail Sales data. <sup>9/</sup>
Rules section, Paragraph	Identify the Matrix	This information is
C.4. – How Project's Bid	category or categories	protected under IOU
Ranking Changed –	to which the data	Matrix category V.C.
narrative on p.7,8;	corresponds	
<ul> <li>Consistency with</li> </ul>	Affirm that the IOU is	In accordance with the
Commission Decisions and	complying with the	limitations on
Rules section, Paragraph	limitations on	confidentiality set forth
C.5 Why the Submitted	confidentiality	in the IOU Matrix,
Contract was Preferred –	specified in the Matrix	SDG&E requests that
narrative on p.8;	for that type of data	the "front three years" of
<ul> <li>PRG Participation and</li> </ul>		this information be kept
Feedback, paragraph J on		confidential.
p. 38;	Affirm that the	SDG&E has not publicly
Project Development Status	information is not	disclosed this

<sup>&</sup>lt;sup>8</sup> The confidential information referenced has a **VIOLET** font color / has a violet box around it in the confidential appendices  $\frac{2^{j}}{Id}$ .

section, paragraph C.3. – Permitting Status – embedded document on p.47-51; Project Development Status section, paragraph F. – Financing plan narrative on p.53, 546;	already public Affirm that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial	information and is not aware that it has been disclosed by any other party. It is not possible to provide this data point in an aggregated, redacted, summarized or masked fashion.
<ul> <li>IPT/APT Percentage<sup>10</sup></li> <li>Locations:         <ol> <li>Confidential Appendix A - Consistency with Commission Decisions and Rules section, paragraph A, the project's contribution numbers to the SDG&amp;E's RPS obligations on p3;</li> <li>Confidential Appendix G, table on p.83.</li> </ol> </li> </ul>	disclosure. Demonstrate that the material submitted constitutes a particular type of data listed in the IOU Matrix	The Commission has concluded that since APT Percentage is a formula linked to Bundled Retail Sales Forecasts, disclosure of APT would allow interest parties to easily calculate SDG&E's Total Energy Forecast – Bundled Customer (MWH). <sup>11/</sup> The same concern exists with regard to IPT percentage.
	Identify the Matrix category or categories to which the data corresponds Affirm that the IOU is complying with the limitations on confidentiality specified in the Matrix for that type of data Affirm that the information is not	This information is protected under IOU Matrix category V.C. In accordance with the limitations on confidentiality set forth in the IOU Matrix, SDG&E requests that the "front three years" of this information be kept confidential. SDG&E has not publicly disclosed this

<sup>&</sup>lt;sup>10</sup> The confidential information referenced has a AQUA font color / has a aqua box around it in the confidential appendices <sup>11/</sup> See. Administrative Law Judge's Ruling on San Diego Gas & Electric Company's April 3, 200

<sup>&</sup>lt;sup>11</sup> See, Administrative Law Judge's Ruling on San Diego Gas & Electric Company's April 3, 2007 Motion to File Data Under Seal, issued May 4, 2007 in R.06-05-027; Administrative Law Judge's Ruling Granting San Diego Gas & Electric Company's May 21, 2007 Amendment to April 3, 2007 Motion and May 22, 2007 Amendment to August 1, 2006 Motion, issued June 28, 2007 in R.06-05-027.

already public	information and is not aware that it has been disclosed by any other party.
Affirm that the data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure.	It is not possible to provide these data points in an aggregated, redacted, summarized or masked fashion.

5. As an <u>alternative</u> basis for requesting confidential treatment, SDG&E submits that the Power Purchase Agreement enclosed in the Advice Letter is material, market sensitive, electric procurement-related information protected under §§ 454.5(g) and 583, as well as trade secret information protected under Govt. Code § 6254(k). Disclosure of this information would place SDG&E at an unfair business disadvantage, thus triggering the protection of G.O. 66-C.<sup>[II]</sup>

6. Public Utilities Code § 454.5(g) provides:

The commission shall adopt appropriate procedures to ensure the confidentiality of any market sensitive information submitted in an electrical corporation's proposed procurement plan or resulting from or related to its approved procurement plan, including, but not limited to, proposed or executed power purchase agreements, data request responses, or consultant reports, or any combination, provided that the Office of Ratepayer Advocates and other consumer groups that are nonmarket participants shall be

<sup>&</sup>lt;sup>[1]</sup> This argument is offered in the alternative, not as a supplement to the claim that the data is protected under the IOU Matrix. California law supports the offering of arguments in the alternative. *See, Brandolino v. Lindsay*, 269 Cal. App. 2d 319, 324 (1969) (concluding that a plaintiff may plead inconsistent, mutually exclusive remedies, such as breach of contract and specific performance, in the same complaint); *Tanforan v. Tanforan*, 173 Cal. 270, 274 (1916) ("Since . . . inconsistent causes of action may be pleaded, it is not proper for the judge to force upon the plaintiff an election between those causes which he has a right to plead.")

provided access to this information under confidentiality procedures authorized by the commission.

7. General Order 66-C protects "[r]eports, records and information requested or required by the Commission which, if revealed, would place the regulated company at an unfair business disadvantage."

8. Under the Public Records Act, Govt. Code § 6254(k), records subject to the privileges established in the Evidence Code are not required to be disclosed.<sup>12/</sup> Evidence Code § 1060 provides a privilege for trade secrets, which Civil Code § 3426.1 defines, in pertinent part, as information that derives independent economic value from not being generally known to the public or to other persons who could obtain value from its disclosure.

9. Public Utilities Code § 583 establishes a right to confidential treatment of information otherwise protected by law.<sup>13/</sup>

10. If disclosed, the Protected Information could provide parties, with whom SDG&E is currently negotiating, insight into SDG&E's procurement needs, which would unfairly undermine SDG&E's negotiation position and could ultimately result in increased cost to ratepayers. In addition, if developers mistakenly perceive that SDG&E is not committed to assisting their projects, disclosure of the Protected Information could act as a disincentive to developers. Accordingly, pursuant to P.U. Code § 583, SDG&E seeks confidential treatment of this data, which falls within the scope of P.U. Code § 454.5(g), Evidence Code § 1060 and General Order 66-C.

<sup>&</sup>lt;sup>12/</sup> See also Govt. Code § 6254.7(d).

<sup>&</sup>lt;sup>13/</sup> See, D.06-06-066, mimeo, pp. 26-28.

11. Developers' Protected Information: The Protected Information also constitutes confidential trade secret information of the developer listed therein. SDG&E is required pursuant to the terms of its original Power Purchase Agreement as amended, to protect non-public information. Some of the Protected Information in the original Power Purchase Agreement as amended, and my supporting declaration (including confidential appendices), relates directly to viability of the respective projects. Disclosure of this extremely sensitive information could harm the developers' ability to negotiate necessary contracts and/or could invite interference with project development by competitors.

12. In accordance with its obligations under its Power Purchase Agreement as amended; and pursuant to the relevant statutory provisions described herein, SDG&E hereby requests that the Protected Information be protected from public disclosure.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 23<sup>rd</sup> day of August, 2011 at San Diego, California.

Maurene Bishop
 Energy Contracts Originator
 Electric and Fuel Procurement
 San Diego Gas & Electric

San Diego Gas & Electric Advice Letter 2279-E

August 23, 2011

# ATTACHMENT B

## REQUEST FOR APPROVAL OF RENEWABLE POWER PURCHASE WITH SOLARGEN 2, LLC

# PUBLIC VERSION (Distributed to Service List R.11-05-005)

## PART 2 – CONFIDENTIAL APPENDICES OF ADVICE LETTER

**P**ROTECTED INFORMATION WITHIN **P**ART **2** OF THIS **A**DVICE **L**ETTER IS IDENTIFIED WITH COLOR FONTS AND CATEGORIZED IN ACCORDANCE WITH THE CONFIDENTIALITY CODE SHOWN BELOW:

#### CONFIDENTIALITY KEY

VIOLET FONT = ANALYSIS AND EVALUATION OF PROPOSED RPSP ROJECTS (VII.G) RED FONT = CONTRACT TERMS & CONDITIONS (VII.G) GREEN FONT = BID INFORMATION (VIII.A) BLUE FONT = SPECIFIC QUANTITATIVE ANALYSIS (VIII.B) BROWN FONT = NET SHORT POSITION (V.C) AQUA FONT = IPT/APTERCENTAGES (V.C)

BID INFORMATION (VIII.A) AND SPECIFIC QUANTITATIVE

- 1 -

# **Confidential Appendix A**

# Consistency with Commission Decisions and Rules and Project Development Status

This ConfidentialAppendix A

1. Provides, where appropriate, confidential information mecessary to fully answer any items in Part 1 of the advice letter.

2. Provide answers to the additionalitems included in this Appendix A. To the extent such information is not confidential, it is included in the public version of the Advice Letter.

Consistency with Commission Decisions and Rules

#### A. RPS Procurement Plan

In Part 1 of this Advice Letter, SDG&E demonstrates how this Proposed Agreement is consistent with SDG&E's RPS Plan. This proposed PPA is a product of bilateral negotiations between SolarGen 2 and SDG&E. From a least-cost best fit (LCBF) perspective, the SolarGen 2 contract ranks favorably when compared to other offers SDG&E shortlisted in its 2009 RPS solicitation. The SolarGen 2 project itself is located within the Imperial Valley area, which was first defined in CPUC Decision D.09-06-018. SolarGen 2 make use of capacity on the Sunrise Powerlink ("Sunrise"). SolarGen 2 provides SDG&E an opportunity for incremental RPS procurement beginning July 31, 2012, (the Commercial Operation Date). The renewable energy from this project will contribute in its' first full year of operation and in 2020 to SDG&E's RPS obligation.

#### B. Bilaterals

In D.06-10-019, the Commission concluded that bilateral contracts used for RPS compliance must be submitted for approval via advice letter and, while not subject to the MPR, must contain pricing that is "reasonable."<sup>1</sup> On June 19, 2009, the Commission issued D.09-06-050 establishing price benchmarks and contract review processes for very short term (less than four years), moderately short term (at least 4 years, less than 10 yrs) and bilateral RPS contracts. Below, SDG&E reviews the LCBF evaluation used in the 2009 RPS RFO. The same analysis was performed on this PPA and the results were compared to the RFO results. This analysis confirms that the Proposed Agreement conforms to the price benchmarking requirements of D.06-10-019 and D.09-06-050.

Competitive RFOs are not the only authorized means of procurement. SDG&E's ability to consider bilateral offers widens the scope of resources available to SDG&E. The WECC has a well-established, liquid bilateral market. SDG&E, for the benefit of its ratepayers, can make full use of this valuable source of renewable supply. Not only is the bilateral market an important tool for procurement, it is available year-round. RPS RFOs, by contrast, are an annual batch-processing of commercial arrangements.

#### C. Least-Cost Best-Fit – if applicable

The Project's bid scores under SDG&E's approved LCBF evaluation criteria.

<sup>1</sup> D.06-10-019, mimeo, p. 31

LCBF Criteria / Components	Project Score / Details	
Levelized Bid Price (without TOD pricing)		
Begin / End Affects Adder		
TOD Adjustment Adder		
TRCR Adder		
Resource Adequacy Credit		
Congestion Adder		
Total LCBF Ranking Price		

LCBF Criteria / Components	Project Score / Details	
Levelized Bid Price (without TOD pricing)		
Begin/End Affects Adder		
TOD Adjustment Adder		
TRCR Adder		
Resource Adequacy Credit		
Congestion Adder		
Total LCBF Ranking Price		

1. How the Project compares with other bids received in the solicitation with regard to each LCBF factor and why the submitted contract ranked higher (QUANTITATIVELY AND/OR QUALITATIVELY) THAN THE OTHER BIDS USING THE LCBF CRITERIA.



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#### \* TRANSMISSION ADDER



#### \* APPLICATION OF TODS







\* QUALITATIVE FACTORS

This project will complement the proposed Pattern Ocotillo and Sempra Sierra Juarez wind energy projects in the Imperial Valley region (totaling 402 MW) and the Centinela 1 and 2 projects previously submitted to the Commission, by diversifying the resources. Wind typically generates off peak, while solar is on peak.

As was stated in Part 1 of this Advice Letter, this project is estimated to bring up to 300 construction jobs to Imperial County during the construction period, and approximately 25 - 30 permanent jobs at the site for operations and maintenance. Imperial County is currently ranked by the Associated Press as the most economically stressed county in California<sup>2</sup>. As a solar energy source, this project will help San Diego County residents by providing power during peak periods of demand, helping to reduce the need for fossil-fuel fired peaking resources in San Diego, which will contribute to reductions in greenhouse gas emissions.

3. The adders applied in the LCBF analytical process and the impact of those adders on the Project's ranking.



<sup>2</sup> "Down But Not Out, Imperial County Looks to a Better Future" by Cathleen Decker, Los Angeles Times, May 9, 2010.

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and why the Project's bid ra	nking changed af	ter negotiations.	



5. Using LCBF criteria and other relevant criteria, explain why the submitted contract was preferred relative to other shortlisted bids or other procurement options.



Modifiable? (Yes/No)	STC No.	STANDARD TERM AND CONDITION	Modified? (Yes/No)	Description of Change and Rationale
	1	CPUC Approval	No	
Νο	2	RECs and Green Attributes	No	
	6	Eligibility	No	
	17	Applicable Law	No	
No	REC-1	Transfer of RECs	No	
Νο	REC-2	Tracking of RECs in WREGIS	No	
Νο	REC-3	CPUC Approval		
Yes	4	Confidentiality		
	5	Contract Term		

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#### D. Standard Terms and Conditions

Note: Decision D.08-04-009 removed STC 3, stating: "Given implementation of SB 1036, STC 3 has no continuing relevance and should be deleted from the current 14 STCs"

#### Modifiable Term Red-line Table

(Red-line is actual contract language relative to the standard modifiable term language)

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
STC 1: CPUC Approval (Non-Modifiable)	
"CPUC Approval" means a final and non-appealable order of the CPUC, without conditions or modifications unacceptable to the Parties, or either of them, which contains the following terms:	
(a) approves this Agreement in its entirety, including payments to be made by the Buyer, subject to CPUC review of the Buyer's administration of the Agreement; and	

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
<ul> <li>(b) finds that any procurement pursuant to this Agreement is procurement from an eligible renewable energy resource for purposes of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 <i>et seq.</i>), Decision 03-06-071, or other applicable law.</li> <li>CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable.</li> </ul>	
STC 2: RECs and Green Attributes (Non- Modifiable)	STC 2: RECs and Green Attributes (Non- Modifiable)
"Green Attributes" means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere; <sup>3</sup> (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser's discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy	

<sup>&</sup>lt;sup>1</sup> Avoided emissions may or may not have any value for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.

Language from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
028	
accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. Green Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project and other financial incentives in the form of credits, reductions, or allowances associated with the project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or "tipping fees" that may be paid to Seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular preexisting pollutants or the promotion of local environmental benefits, or (iv) emission reduction credits encumbered or used by the Project for compliance with local, state, or federal operating and/or air quality permits. If the Project is a biomass or biogas facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the Project.	
Green Attributes. Seller hereby provides and conveys all Green Attributes associated with all electricity generation from the Project to Buyer as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Project, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Project.	
STC 6: Eligibility (Non-Modifiable)	STC 6: Eligibility (Non-Modifiable)
Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource ("ERR") as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project's output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this	

· · · · · · · · · · · · · · · · · · ·	
Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.	
STC REC-1. Transfer of renewable energy credits	
<b>Renewable Energy Credits. (Non-modifiable)</b> Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the renewable energy credits Renewable Energy Credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.	
STC REC-2. Tracking of RECs in WREGIS. (Non-	
modifiable) Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract.	
STC 17: Applicable Law (Non-Modifiable)	STC 17: Applicable Law (Non-Modifiable)
Governing Law. THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED	

Language from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
028	
AND PERFORMED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. TO THE EXTENT ENFORCEABLE AT SUCH TIME, EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.	
STC 4: Confidentiality (Modifiable)	STC 4: Confidentiality (Modifiable)
"Confidentiality: Neither Party shall disclose the non- public terms or conditions of this Agreement or any Transaction hereunder to a third party, other than (i) the Party's employees, lenders, counsel, accountants or advisors who have a need to know such information and have agreed to keep such terms confidential, (ii) for disclosure to the Buyer's Procurement Review Group, as defined in CPUC Decision (D.) 02-08-071, subject to a confidentiality agreement, (iii) to the CPUC under seal for purposes of review, (iv) disclosure of terms specified in and pursuant to Section 10.12 of this Agreement; (v) in order to comply with any applicable law, regulation, or any exchange, control area or ISO rule, or order issued by a court or entity with competent jurisdiction over the disclosing Party ('Disclosing Party'), other than to those entities set forth in subsection (vi); or (vi) in order to comply with any applicable regulation, rule, or order of the CPUC, CEC, or the Federal Energy Regulatory Commission. In connection with requests made pursuant to clause (v) of this Section 10.11 ('Disclosure Order') each Party shall, to the extent practicable, use reasonable efforts: (i) to notify the other Party prior to disclosing the confidential information and (ii) prevent or limit such disclosure. After using such reasonable efforts, the Disclosing Party shall not be: (i) prohibited from complying with a Disclosure Order or (ii) liable to the other Party for monetary or other damages incurred in connection with the disclosure of the confidential information. Except as provided in the preceding sentence, the Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation." "10.12 RPS Confidentiality. Notwithstanding Section 10.11 of this Agreement at any time on or after the date on which the Buyer makes its advice filing	

Language from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
028         letter seeking CPUC Approval of the Agreement either Party shall be permitted to disclose the following terms with respect to such Transaction: Party names, resource type, delivery term, project location, and project capacity. If Option B is checked on the Cover Sheet, neither Party shall disclose party name or project location, pursuant to this Section 10.12, until six months after such CPUC Approval."         The Cover Sheet of the Agreement shall be amended by adding to Article 10, Confidentiality, a new "Option B," as follows:         * Option B RPS Confidentiality Applicable. If not checked, inapplicable?"         * Option C Confidentiality Notification: Option C is checked on the Cover Sheet Seller has waived its right to notificatior accordance with Section 10.11 (v)."	
STC 5: Contract Term (Modifiable)	STC 5: Contract Term (Modifiable)
The following provision shall be included as a standard term in the Confirmation(s) for the Transaction(s) entered into under the Agreement: "Delivery Term: The Parties shall specify the period of Product delivery for the 'Delivery Term,' as defined herein, by checking one of the following boxes:	

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
<ul> <li>* Delivery shall be for a period of ten (10) years.</li> <li>* Delivery shall be for a period of fifteen (15) years.</li> </ul>	
* Delivery shall be for a period of twenty (20) years.	
* Non-standard Delivery shall be for a period of years."	
If the "Non-standard Delivery" contract term is selected, Parties need to apply to the CPUC justifying the need for non-standard delivery.	
non standard denvery.	
STC 7: Performance Standards/Requirements (Modifiable)	STC 7: Performance Standards/Requirements (Modifiable)
A. The following shall be included in the applicable post Commercial Operation Date performance standards/requirement provisions of the Agreement or Confirmation for "As Available" projects:	
<u>"Energy Production Guarantees</u> The Buyer shall in its sole discretion have the right to declare an Event of Default if Seller fails to achieve the Guaranteed Energy Production in any [12 month period] [or] [24 month period] and such failure is not excused by the reasons set forth in subsections (ii), (iii), or (v) of Section of this Agreement, "Excuses for Failure to Perform."	
Guaranteed Energy Production = MWh."	

Lar 028	nguage from D.08-04-009, as amended by D.08-08- 3	Parallel Term in SDG&E - SolarGen 2 PPA
B.	The following shall be included in the applicable performance standards/requirement provisions,	
	as "Excuses for Failure to Perform" in the Agreement or Confirmation for "As Available"	
	projects:	
	"Seller shall not be liable to Buyer for any damages determined pursuant to Article Four of	
	the Agreement in the event that Seller fails to deliver the Product to Buyer for any of the	
	following reasons:	
	i. if the specified generation asset(s) are	
	unavailable as a result of a Forced Outage (as defined in the	
	NERC Generating Unit Availability Data System	
	(GADS) Forced Outage reporting guidelines) and such	
	Forced Outage is not the result of Seller's negligence or willful	
	misconduct;	
	ii. Force Majeure;	
	iii. by the Buyer's failure to perform;	
	iv. by scheduled	
	maintenance outages of the specified units;	
	v. a reduction in	
	Output as ordered under terms of the dispatch down and	
	Curtailment provisions (including CAISO or Buyer's	
	system emergencies); or	
	vi. [the unavailability of landfill gas	
	which was not anticipated as of the date this [Confirmation] was	

a ground to probably in motoriality	
agreed to, which is not within the reasonable control of, or the	
result of negligence of, Seller or	
the party supplying such landfill	
gas to the Project, and which by	
the exercise of reasonable due	
diligence, Seller is unable to	
overcome or avoid or causes to	
be avoided; OR insufficient	
wind power for the specified	
units to generate energy as	
determined by the best wind	
speed and direction standards	
utilized by other wind	
producers or purchasers in the	
vicinity of the Project or if	
wind speeds exceed the	
specified units' technical	
specifications; OR the	
unavailability of water or the	
unavailability of sufficient	
pressure required for	
operation of the hydroelectric	
turbine-generator as	
reasonably determined by Seller within its operating	
procedures, neither of which	
was anticipated as of the date	
this [Confirmation] was	
agreed to, which is not within	
the reasonable control of, or	
the result of negligence of,	
Seller or the party supplying	
such water to the Project, and	Sourcessources and a second seco
which by the exercise of due	
diligence, such Seller or the	
party supplying the water is	
unable to overcome or avoid	
or causes to be avoided.]	

Language from D.08-04-009, as amended by D.08-08- 028	Parallel Term in SDG&E - SolarGen 2 PPA
	within the reasonable control of, or the result of
The performance of the Buyer to receive the Product may be excused only (i) during periods of Force Majeure, (ii) by the Seller's failure to perform or (iii) during dispatch down periods."	

Lan 028	guage from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
с.	The following shall be included in the applicable performance standards/requirement provisions as "Excuses for Failure to Perform" in the Agreement or Confirmation for "Unit Firm" projects: <u>"Net Rated Output Capacity</u> . If the Net Rated Output Capacity at the Commercial Operation Date or at the end of the first twelve (12) consecutive months after the Commercial Operation Date [and every twelve (12) consecutive months thereafter] is less than MW, Buyer shall have the right to declare an Event of Default. For subsequent contract years, Buyer shall trigger an Annual Capacity Test to determine each year's Net Rated Output Capacity by scheduling Deliveries from the facility for two consecutive weeks. Buyer shall provide Seller two (2) weeks notice of the Annual Capacity Test. For the second year and thereafter the Net Rated Output Capacity shall be the ratio of the sum of average hourly Energy Delivered for two (2) weeks divided by 336 hours (24 hours x 14 days). Energy Delivered shall exclude any energy greater than MW average in each hour. The resulting Net Rated Output Capacity shall remain in effect until the next Annual Capacity Test. The Net Rated Output Capacity shall not exceed the Contract Capacity ofMW. <u>Additional Event of Default</u> . It shall be an additional Event of Default. It shall be an additional Event of Default if (i) the Availability Adjustment Factor is less than% for consecutive months, or (ii) Net Rated Output Capacity falls below MW. In no event shall the Seller have the right to procure Energy from sources other than the Facility for sale and delivery pursuant to this Agreement."	Excuses for Failure to Perform for Unit Firm projects Contract is not for Unit Firm Product.
D.	The following shall be included in the applicable performance standards/requirement provisions of the Agreement or Confirmation for "Unit Firm" projects:	Excuses for Failure to Perform – availability adjustment factor: Contract is not for Dispatchable Product.

Language from D.08-04-009, as amended by D.08-08- 028	Parallel Term in SDG&E - SolarGen 2 PPA
<ul> <li>"Seller shall be excused from achieving the Availability Adjustment Factor for the applicable time period, in the event that Seller fails to deliver the Product to Buyer for any of the following reason: <ol> <li>during Force Majeure;</li> <li>by Buyer's failure to perform; or,</li> <li>a reduction in Output as ordered under terms of the dispatch-down and Curtailment provisions (including CAISO or Buyer's system emergencies.)"</li> </ol> </li> </ul>	
<ul> <li>E. The following shall be included in the applicable performance standards/requirement provisions as "Excuses for Failure to Perform" in the Agreement or Confirmation for "Unit Firm," "Baseload," "Peaking," and "Dispatchable" Products:</li> <li>"Seller shall not be liable to Buyer for any damages determined pursuant to Article Four of the Agreement, in the event that Seller fails to deliver the Product to Buyer for any of the following reason: <ol> <li>i. if the specified generation asset(s) are unavailable as a result of a Forced Outage (as defined in the NERC Generating Unit Availability Data System (GADS) Forced Outage reporting guidelines) and such Forced Outage is not the result of Seller's negligence or willful misconduct;</li> <li>ii. Force Majeure;</li> <li>iii. by the Buyer's failure to perform;</li> <li>iv. by scheduled maintenance outages of the specified units; or, a reduction in Output as ordered under terms of the dispatch down and Curtailment provisions (including CAISO or Buyer's system emergencies).</li> </ol> </li> <li>The performance of the Buyer to receive the product may be excused only (i) during periods of Force Majeure, (ii) during periods of dispatch-down, or (iii) by the Seller's failure to perform."</li> </ul>	Excuses for Failure to Perform – unit firm: Contract is not unit firm, baseload or dispatchable.
STC 8: Product Definitions (Modifiable)	STC 8: Product Definitions (Modifiable)

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
" ' <u>As Available</u> ' means, with respect to a Transaction, that Seller shall deliver to Buyer and Buyer shall purchase at the Delivery Point the Product from the Units, in accordance with the terms of this Agreement and subject to the excuses for performance specified in this Agreement."	"As-Available" means, with respect to a
STC 9: Non-Performance or Termination Penalties and Default Provisions (Modifiable)	STC 9: Non-Performance or Termination Penalties and Default Provisions (Modifiable)
<ul> <li>"5.1<u>Events of Default</u>. An 'Event of Default' shall mean, with respect to a Party (a 'Defaulting Party'), the occurrence of any of the following: <ul> <li>(a) the failure to make, when due, any payment required pursuant to this Agreement if such failure is not remedied within three (3) Business Days after written notice;</li> <li>(b) any representation or warranty made by such Party herein is false or misleading in any material respect when made or when deemed made or repeated;</li> <li>(c) the failure to perform any material covenant or obligation set forth in this Agreement (except to the extent constituting a separate Event of Default, and except for such Party's obligations to deliver or receive the Product, the exclusive remedy for which is provided in Article Four) if such failure is not remedied within three (3) Business Days after written notice;</li> </ul> </li> </ul>	
(d) such Party becomes Bankrupt;	
<ul> <li>(e) the failure of such Party to satisfy the creditworthiness/collateral requirements agreed to pursuant to Article Eight hereof;</li> </ul>	
<ul> <li>(f) such Party consolidates or amalgamates with, or merges with or into, or transfers all or substantially all of its assets to, another entity and, at the time of such consolidation, amalgamation, merger or transfer, the resulting, surviving or transferee entity fails to assume all the obligations of</li> </ul>	

Language from 028	D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
	such Party under this Agreement to which it or its predecessor was a party by operation of law or pursuant to an agreement reasonably satisfactory to the other Party;	
(g)	if the applicable cross default section in the Cover Sheet is indicated for such Party, the occurrence and continuation of (i) a default, event of default or other similar condition or event in respect of such Party or any other party specified in the Cover Sheet for such Party under one or more agreements or instruments, individually or collectively, relating to indebtedness for borrowed money in an aggregate amount of not less than the applicable Cross Default Amount (as specified in the Cover Sheet), which results in such indebtedness becoming, or becoming capable at such time of being declared, immediately due and payable or (ii) a default by such Party or any other party specified in the Cover Sheet for such Party in making on the due date therefore one or more payments, individually or collectively, in an aggregate amount of not less than the applicable Cross Default Amount (as specified in the Cover Sheet);	
(h)	with respect to such Party's Guarantor, if any:	
	<ul> <li>(i) if any representation or warranty made by a Guarantor in connection with this Agreement is false or misleading in any material respect when made or when deemed made or repeated;</li> </ul>	
	<ul> <li>(ii) the failure of a Guarantor to make any payment required or to perform any other material covenant or obligation in any guaranty made in connection with this Agreement and such failure shall not be remedied within three (3) Business Days after written notice;</li> </ul>	
	(iii) a Guarantor becomes Bankrupt; the failure of a Guarantor's	

guaranty to be in full force and effect for purposes of this Agreement (other than in accordance with its terms) prior to the satisfaction of all obligations of such Party under each Transaction to which such guaranty shall relate without the written consent of the other Party; or (v) a Guarantor shall repudiate, disaffirm, disclaim, or reject, in whole or in part, or challenge the validity of any guaranty." Section 5.1 of the Agreement, as provided above, shall be modified as follows: Section 5.1(b) is anded by deleting the reference to "three (3) Business Days" and replacing it with "thirty (30) days," and Section 5.1(b) and 5.1(h)(i) are amended by adding the following at the end thereof: "or with respect to the representations and warranties greed upon by the parties, any such representation and warranty becomes false or misleading in any material respect during the term of this Agreement, as amended: Section 5.1 of the Agreement, as not generated by the Unit(s)"; and Section 5.1 (i) is added as follows: "failure to meet this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet this performance requirements agreed to pursuant to Section 5.1(j) is added as follows: "failure to meet to performance requirements agreed to pursuant to Section 5.1(j) is added as follows: "failure to meet to performance requirements agreed to pursuant to Section 5.1(j) is added as follows: "failure to meet to performance requirements agreed to pursuant to Section 5.1(j) is added as follows: "failure to meet to performance requirements agreed to pursuant to Section 5.1(j) is added as follows: "failure to meet to performance requirements agreed to pursuant to Section _hereof."	<ul> <li>ciffect for purposes of this Agreement (other than in accordance with its tems) prior to the satisfaction of all obligations of such Party under each Transaction to which such guaranty shall relae without the written consent of the other Party; or</li> <li>(*) a Guarantor shall repudiate, disaffirm, disclaim, or reject, in whole or in part, or challenge the validity of any guarany."</li> <li>Section 5.1 of the Agreement, as provided above, shall be modified as follows:</li> <li>Sections 5.1(c) is amended by deleting the reference to "three (a) Business Days" and replacing it with "thirty (30) days," and</li> <li>Sections 5.1(b) and 5.1(h)(i) are amended by adding the representations and warranties gareed up by the parties, any such representation and warranty becomes false or misleading in any material respect during the term of this Agreement, as amended:</li> <li>Section 5.1 of the Agreement, sa mended:</li> <li>Section 5.1 of the Agreement, sa mended:</li> <li>Section 5.1 of the Agreement, as amended:</li> <li>Section 5.1 of the Agreement, sa mended:</li> <li>Section 5.1 (i) is added as follows: "failure to meet the performance requirements agreed to pursuant to</li> </ul>	Language from D.08-04-009, as amended by 1 028	D.08-08- Parallel Term in SDG&E - SolarGen 2 PPA
parties, any such representation and warranty becomes false or misleading in any material respect during the term of this Agreement or any Transaction entered into hereunder." The following new "Events of Default" shall be included in Section 5.1 of the Agreement, as amended: Section 5.1 (i) is added as follows: "if at any time during the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	parties, any such representation and warranty becomes false or misleading in any material respect during the term of this Agreement or any Transaction entered into hereunder." The following new "Events of Default" shall be included in Section 5.1 of the Agreement, as amended: Section 5.1 (i) is added as follows: "if at any time during the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	guaranty to be in full force effect for purposes of this Agreement (other than in accordance with its terms to the satisfaction of all obligations of such Party each Transaction to which guaranty shall relate with written consent of the oth Party; or (v) a Guarantor shall repudia disaffirm, disclaim, or rej whole or in part, or challe validity of any guaranty." Section 5.1 of the Agreement, as provided above be modified as follows: Section 5.1(c) is amended by deleting the referer "three (3) Business Days" and replacing it with "to (30) days;" and Sections 5.1(b) and 5.1(h)(i) are amended by add following at the end thereof: "or with respect to representations and warranties made pursuant to	b) prior under n such out the er te, ect, in enge the , shall hcce to thirty ling the the
in Section 5.1 of the Agreement, as amended: Section 5.1 (i) is added as follows: "if at any time during the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	in Section 5.1 of the Agreement, as amended: Section 5.1 (i) is added as follows: "if at any time during the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	representations and warranties agreed upon by parties, any such representation and warranty b false or misleading in any material respect durin term of this Agreement or any Transaction enter	ecomes g the
Section 5.1 (i) is added as follows: "if at any time during the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	Section 5.1 (i) is added as follows: "if at any time during the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	The following new "Events of Default" shall be	ncluded
the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	the Term of Agreement, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement electrical power that was not generated by the Unit(s)"; and Section 5.1(j) is added as follows: "failure to meet th performance requirements agreed to pursuant to	in Section 5.1 of the Agreement, as amended:	
deliver to the Delivery Point for sale under this         Agreement electrical power that was not generated by         the Unit(s)"; and         Section 5.1(j) is added as follows: "failure to meet th         performance requirements agreed to pursuant to	deliver to the Delivery Point for sale under this         Agreement electrical power that was not generated by         the Unit(s)"; and         Section 5.1(j) is added as follows: "failure to meet th         performance requirements agreed to pursuant to		
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		performance requirements agreed to purs	

Language from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
Non- Performance/Termination penalites:	
" 'Gains' means with respect to any Party, an amount equal to the present value of the economic benefit to it, if any (exclusive of Costs), resulting from the termination of a Terminated Transaction for the remaining term of such Transaction, determined in a commercially reasonable manner. Factors used in determining economic benefit may include, without limitation, reference to information either available to it internally or supplied by one or more third parties, including, without limitation, quotations (either firm or indicative) of relevant rates, prices, yields, yield curves, volatilities, spreads or other relevant market data in the relevant markets market referent prices for renewable power set by the CPUC, comparable transactions, forward price curves based on economic analysis of the relevant markets, settlement prices for comparable transactions at liquid trading hubs (e.g., NYMEX), all of which should be calculated for the remaining term of the applicable Transaction and include the value of Environmental Attributes."	
The definition of "Losses" shall be deleted in its entirety and replaced with the following: " 'Losses' means with respect to any Party, an amount	

Language from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
equal to the present value of the economic loss to it, if any (exclusive of Costs), resulting from the termination of a Terminated Transaction for the remaining term of such Transaction, determined in a commercially reasonable manner. Factors used in determining the loss of economic benefit may include, without limitation, reference to information either available to it internally or supplied by one or more third parties including without limitation, quotations (either firm or indicative) of relevant rates, prices, yields, yield curves, volatilities, spreads or other relevant market data in the relevant markets, market referent prices for renewable power set by the CPUC, comparable transactions, forward price curves based on economic analysis of the relevant markets, settlement prices for comparable transactions at liquid trading hubs (e.g. NYMEX), all of which should be calculated for the remaining term of the applicable Transaction and include value of Environmental Attributes." The definition of "Costs" shall be deleted in its entirety and replaced with the following: " 'Costs' means, with respect to the Non-Defaulting Party, brokerage fees, commissions and other similar third party transaction costs and expenses reasonably incurred by such Party either in terminating any arrangement pursuant to which it has hedged its obligations or entering into new arrangements which replace a Terminated Transaction; and all reasonable attorneys' fees and expenses incurred by the Non- Defaulting Party in connection with the termination of a Transaction." The definition of "Settlement Amount" shall be adopted in its entirety as follows: "1.56 'Settlement Amount" shall be adopted in its entirety as follows: "1.56 'Settlement Amount" shall be adopted in its entirety as follows: "1.56 the liquidation of a Terminated Transaction pursuant to Section 5.2."	

Language from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
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Section 5.2 of the Agreement shall be deleted in its entirety and replaced with the following: "5.2 Declaration of Early Termination Date and Calculation of Settlement Amounts: If an Event of Default with respect to a Defaulting Party shall have occurred and be continuing, the other Party ('Non-Defaulting Party') shall have the right to (i) designate a day, no earlier than the day such notice is effective and no later than 20 days after such notice is effective, as an early termination date ('Early Termination Date') to accelerate all amounts owing between the Parties and to liquidate and terminate all, but not less than all, Transactions (each referred to as a 'Terminated Transaction') between the Parties, (ii) withhold any payments due to the Defaulting Party under this Agreement and (iii) suspend performance. The Non-defaulting Party shall calculate, in a commercially reasonable manner, a Settlement Amount for each such Terminated Transaction as of the Early Termination Date. Third parties supplying information for purposes of the calculation of Gains or Losses may include, without limitation, dealers in the relevant markets, end-users of the relevant product, information. The Settlement Amount shall not include consequential, incidental, punitive, exemplary, indirect or business interruption damages. The Non-Defaulting Party shall not have to enter into replacement transactions to establish a Settlement Amount."	
Section 5.3 through 5.5 of the Agreement shall be	
adopted in their entirety. For reference Section 5.3 – 5.5 are as follows:	
"5.3 <u>Net Out of Settlement Amounts</u> . The Non- Defaulting Party shall aggregate all Settlement Amounts into a single amount	

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by: netting out (a) all Settlement Amounts that are due to the Defaulting Party, plus, at the option of the Non-Defaulting Party, any cash or other form of security then available to the Non-Defaulting Party pursuant to Article Eight, plus any or all other amounts due to the Defaulting Party under this Agreement against (b) all Settlement Amounts that are due to the Non-Defaulting Party, plus any or all other amounts due to the Non-Defaulting Party under this Agreement, so that all such amounts shall be netted out to a single liquidated amount (the 'Termination Payment'). If the Non-Defaulting Party's aggregate Gains exceed its aggregate Losses and Costs, if any, resulting from the termination of this Agreement, the Termination Payment shall be zero.	
5.4 Notice of Payment of Termination Payment. As soon as practicable after a liquidation, notice shall be given by the Non-Defaulting Party to the Defaulting Party of the amount of the Termination Payment and whether the Termination Payment is due to the Non-Defaulting Party. The notice shall include a written statement explaining in reasonable detail the calculation of such amount and the sources for such calculation. The Termination Payment shall be made to the Non-Defaulting Party, as applicable, within two (2) Business Days after such notice is effective.	
<ul> <li>5.5 <u>Disputes With Respect to Termination</u></li> <li><u>Payment</u>. If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Termination</li> <li>Payment, in whole or in part, the Defaulting Party shall, within five (5) Business Days of receipt of</li> <li>Non-Defaulting Party's calculation of the</li> <li>Termination Payment, provide to the Non-Defaulting Party a detailed written explanation of the basis for such dispute; provided, however, that if the Termination Payment is due from the</li> <li>Defaulting Party, the Defaulting Party shall first transfer Performance Assurance to the</li> <li>Non-defaulting Party in an amount equal to the Termination Payment."</li> </ul>	

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
STC 12: Credit Terms (Modifiable) Sections 8.1 through 8.3 of the EEI Agreement shall be adopted in their entirety for inclusion in the Agreement as follows: "8.1 Party A Credit Protection. The applicable credit and collateral requirements shall be as specified on the Cover Sheet and shall only apply if marked as "Applicable" on the Cover Sheet. (a) Financial Information. Option A: If requested by Party A, Party B shall deliver (i) within 120 days following the end of each fiscal year, a copy of Party B's annual report containing audited consolidated financial statements for such fiscal year and (ii) within 60 days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Party B's quarterly report containing unaudited consolidated financial statements for such fiscal quarter. In all cases the statements shall be for the most recent accounting period and prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such	
delay shall not be an Event of Default so long as Party B diligently pursues the preparation, certification and delivery of the statements. Option B: If requested by Party A, Party B shall deliver (i) within 120 days following the end of each fiscal year, a copy of the annual report containing audited consolidated financial statements for such fiscal year for the party(s) specified on the Cover Sheet and (ii) within 60 days after the end of each of its first three fiscal quarters of each fiscal year, a copy of quarterly	

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
report containing unaudited consolidated financial	
statements for such fiscal quarter for the party(s)	
specified on the Cover Sheet. In all cases the statements	
shall be for the most recent accounting period and shall	
be prepared in accordance with generally accepted	
accounting principles; provided, however, that should	
any such statements not be available on a timely basis	
due to a delay in preparation or certification, such delay	
shall not be an Event of Default so long as the relevant	
entity diligently pursues the preparation, certification	
and delivery of the statements.	
Option C: Party A may request from Party B the	
information specified in the Cover Sheet.	
(b) Credit Assurances. If Party A has	
reasonable grounds to believe that Party B's	
creditworthiness or performance under this Agreement	
has become unsatisfactory, Party A will provide Party B	
with written notice requesting Performance Assurance	
in an amount determined by Party A in a commercially	
reasonable manner. Upon receipt of such notice Party B	
shall have three (3) Business Days to remedy the	
situation by providing such Performance Assurance to	
Party A. In the event that Party B fails to provide such	
Performance Assurance, or a guaranty or other credit	
assurance acceptable to Party A within three (3)	
Business Days of receipt of notice, then an Event of	
Default under Article Five will be deemed to have	
occurred and Party A will be entitled to the remedies set	
forth in Article Five of this Master Agreement.	
(c) Collateral Threshold. If at any time and	
from time to time during the term of this Agreement	
(and notwithstanding whether an Event of Default has	
occurred), the Termination Payment that would be owed	
to Party A plus Party B's Independent Amount, if any,	
exceeds the Party B Collateral Threshold, then Party A,	
on any Business Day, may request that Party B provide	
Performance Assurance in an amount equal to the	
amount by which the Termination Payment plus Party	
B's Independent Amount, if any, exceeds the Party B	
Collateral Threshold (rounding upwards for any	
fractional amount to the next Party B Rounding Amount)	
("Party B Performance Assurance"), less any Party B	
Performance Assurance already posted with Party A.	
Such Party B Performance Assurance shall be delivered	
to Party A within three (3) Business Days of the date of	
such request. On any Business Day (but no more	
frequently than weekly with respect to Letters of Credit	
and daily with respect to cash), Party B, at its sole cost,	
may request that such Party B Performance Assurance	
be reduced correspondingly to the amount of such	
Language from D.08-04-009, as amended by D.08-08- 028	Parallel Term in SDG&E - SolarGen 2 PPA
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excess Termination Payment plus Party B's Independent	
Amount, if any, (rounding upwards for any fractional	
amount to the next Party B Rounding Amount). In the	
event that Party B fails to provide Party B Performance	
Assurance pursuant to the terms of this Article Eight	
within three (3) Business Days, then an Event of Default	
under Article Five shall be deemed to have occurred and	
Party A will be entitled to the remedies set forth in	
Article Five of this Master Agreement.	
For purposes of this Section 8.1(c), the	
calculation of the Termination Payment shall be	
calculated pursuant to Section 5.3 by Party A as if all	
outstanding Transactions had been liquidated, and in	
addition thereto, shall include all amounts owed but not	
yet paid by Party B to Party A, whether or not such	
amounts are due, for performance already provided	
pursuant to any and all Transactions.	
(d) Downgrade Event. If at any time there	
shall occur a Downgrade Event in respect of Party B,	
then Party A may require Party B to provide	
Performance Assurance in an amount determined by	
Party A in a commercially reasonable manner. In the	
event Party B shall fail to provide such Performance	
Assurance or a guaranty or other credit assurance	
acceptable to Party A within three (3) Business Days of	
receipt of notice, then an Event of Default shall be	
deemed to have occurred and Party A will be entitled to	
the remedies set forth in Article Five of this Master	
Agreement.	
(e) If specified on the Cover Sheet, Party B	
shall deliver to Party A, prior to or concurrently with the	
execution and delivery of this Master Agreement a	
guarantee in an amount not less than the Guarantee	
Amount specified on the Cover Sheet and in a form	
reasonably acceptable to Party A.	
8.2 Party B Credit Protection. The applicable	
credit and collateral requirements shall be as specified	
on the Cover Sheet and shall only apply if marked as "Applicable" on the Cover Sheet.	
(a) Financial Information. Option A: If requested by Party B, Party A shall deliver (i) within 120	
days following the end of each fiscal year, a copy of	
Party A's annual report containing audited consolidated	
financial statements for such fiscal year and (ii) within	
60 days after the end of each of its first three fiscal	
quarters of each fiscal year, a copy of such Party's	
quarterly report containing unaudited consolidated	
financial statements for such fiscal quarter. In all cases	
the statements shall be for the most recent accounting	
period and prepared in accordance with generally	

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accepted accounting principles; provided, however, that	
should any such statements not be available on a timely	
basis due to a delay in preparation or certification, such	
delay shall not be an Event of Default so long as such	
Party diligently pursues the preparation, certification	
and delivery of the statements.	
Option B: If requested by Party B, Party A shall	
deliver (i) within 120 days following the end of each	
fiscal year, a copy of the annual report containing	
audited consolidated financial statements for such fiscal	
year for the party(s) specified on the Cover Sheet and (ii)	
within 60 days after the end of each of its first three	
fiscal quarters of each fiscal year, a copy of quarterly	
report containing unaudited consolidated financial	
statements for such fiscal quarter for the party(s)	
specified on the Cover Sheet. In all cases the statements	
shall be for the most recent accounting period and shall	
be prepared in accordance with generally accepted	
accounting principles; provided, however, that should any such statements not be available on a timely basis	
due to a delay in preparation or certification, such delay	
shall not be an Event of Default so long as the relevant	
entity diligently pursues the preparation, certification	
and delivery of the statements.	
Option C: Party B may request from Party A the	
information specified in the Cover Sheet.	
(b) Credit Assurances. If Party B has	
reasonable grounds to believe that Party A's	
creditworthiness or performance under this Agreement	
has become unsatisfactory, Party B will provide Party A	
with written notice requesting Performance Assurance	
in an amount determined by Party B in a commercially	
reasonable manner. Upon receipt of such notice Party A	
shall have three (3) Business Days to remedy the	
situation by providing such Performance Assurance to	
Party B. In the event that Party A fails to provide such	
Performance Assurance, or a guaranty or other credit	
assurance acceptable to Party B within three (3)	
Business Days of receipt of notice, then an Event of	
Default under Article Five will be deemed to have	
occurred and Party B will be entitled to the remedies set	
forth in Article Five of this Master Agreement.	
(c) Collateral Threshold. If at any time and	
from time to time during the term of this Agreement	
(and notwithstanding whether an Event of Default has	
occurred), the Termination Payment that would be owed	
to Party B plus Party A's Independent Amount, if any,	
exceeds the Party A Collateral Threshold, then Party B,	
on any Business Day, may request that Party A provide	
Performance Assurance in an amount equal to the	

D28         amount by which the Termination Payment plus Party A's Independent Amount, if any, exceeds the Party A Collateral Threshold (rounding upwards for any fractional amount to the next Party A Rounding Amount) ("Party A Performance Assurance"), less any Party B. Such Party A Performance Assurance shall be delivered to Party A With three (3) Business Day (but no more frequently than weekly with respect to letters of Credit and daily with respect to cash), Party A, at its sole cost, may request that such Party A Performance Assurance be reduced correspondingly to the amount of such excess Termination Payment plus Party A's Independent Amount, if any, (rounding upwards for any fractional amount to the next Party A Rounding Amount). In the event that Party A falls to provide Party A Performance Assurance pursuant to the terms of this Article Eight within three (3) Business Days, then an Event of Default under Article Five shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.         For purposes of this Section 8.2(c), the calculation of the Termination Payment plus Party A to provide performance already provided pursuant to section 5.3 by Party B as if all outstanding Transactions had been liquidated, and in addition threa to provide pursuant to section fractions.         (d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party P, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B, whether or not such amount, are due, for performance Assurance in an amount determined by Party B, an commercically resonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B withis three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have	Language from D.08-04-009, as amended by D.08-08-	Parallel Term in SDG&E - SolarGen 2 PPA
A's Independent Amount, if any, exceeds the Party A Collateral Threshold (rounding upwards for any fractional amount to the next Party A Rounding Amount) ("Party A Performance Assurance"), less any Party A Performance Assurance shall be delivered to Party B within three (3) Business Days of the date of such request. On any Business Days (but no more frequently than weekly with respect to Letters of Credit and daily with respect to cash), Party A, at its sole cost, may request that such Party A Performance Assurance be reduced correspondingly to the amount of such excess Termination Payment plus Party A's Independent Amount, if any, (rounding upwards for any fractional amount to the next Party A Rounding Amount). In the event that Party A fails to provide Party A Performance Assurance pursuant to the terms of this Article Eight within three (3) Business Days, then an Event of Default under Article Five shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement. For purposes of this Section 8.2(c), the calculation of the Termination Payment Ball be calculated pursuant to Section 5.3 by Party B as if all outstanding Transactions had been liquidated, and in addition thereto, shall include all amounts owed but not yet paid by Party A to Party B, whether or not such amounts are due, for performance already provided pursuant to any and all Transactions. (d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party A, then Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B willin there (3) Business Days of receipt of notice, then an Event of Default shall be dement to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.	028	
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had been liquidated, and in addition thereto, shall include all amounts owed but not yet paid by Party A to Party B, whether or not such amounts are due, for performance already provided pursuant to any and all Transactions. (d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party A, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
include all amounts owed but not yet paid by Party A to Party B, whether or not such amounts are due, for performance already provided pursuant to any and all Transactions. (d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party A, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
Party B, whether or not such amounts are due, for performance already provided pursuant to any and all Transactions. (d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party A, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
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Transactions. (d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party A, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
(d) Downgrade Event. If at any time there shall occur a Downgrade Event in respect of Party A, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
shall occur a Downgrade Event in respect of Party A, then Party B may require Party A to provide Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
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Performance Assurance in an amount determined by Party B in a commercially reasonable manner. In the event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
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event Party A shall fail to provide such Performance Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
Assurance or a guaranty or other credit assurance acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
acceptable to Party B within three (3) Business Days of receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
receipt of notice, then an Event of Default shall be deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
deemed to have occurred and Party B will be entitled to the remedies set forth in Article Five of this Master Agreement.		
the remedies set forth in Article Five of this Master Agreement.		
Agreement.		
(e) If specified on the Cover Sheet, Party A	-	
	(e) If specified on the Cover Sheet, Party A	
shall deliver to Party B, prior to or concurrently with the		
execution and delivery of this Master Agreement a	execution and delivery of this Master Agreement a	
guarantee in an amount not less than the Guarantee	guarantee in an amount not less than the Guarantee	
Amount specified on the Cover Sheet and in a form	Amount specified on the Cover Sheet and in a form	
reasonably acceptable to Party B.		
8.3 Grant of Security Interest/Remedies. To		
secure its obligations under this Agreement and to the		

Language from D.08-04-009, as amended by D.08-08- 028	Parallel Term in SDG&E - SolarGen 2 PPA
determined in [the sole discretion of] [or] [by] Buyer and (b) from the Commercial Operation Date until the end of the Term [INSERT TYPE OF COLLATERAL]in the amount of \$[], the form of which shall be determined [in the sole discretion of] [or][by] the Buyer. Any such security shall not be deemed a limitation of damages."	Security, Delivery Term Security. To secure its

Language from D.08-04-009, as amended by D.08- 028	08- Parallel Term in SDG&E - SolarGen 2 PPA
STC 15: Contract Modifications Modifiable)	
"Except to the extent herein provided for, no	
amendment or modification to this Agreement shall be enforceable unless	
reduced to writing and executed by both	
parties."	

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
STC 16: Assignment (Modifiable)	STC 16: Assignment (Modifiable)
"Assignment. Neither Party shall assign this Agreement or its rights hereunder without the prior written consent of the other Party, which consent shall not be unreasonably withheld; provided, however, either Party (and without relieving itself from liability hereunder), transfer, sell, pledge, encumber or assign this Agreement or the accounts, revenues or proceeds hereof to its financing providers and the financing provider(s) shall assume the payment and performance obligations provided under this Agreement with respect to the transferring Party provided, however, that in each such case, any such assignee shall agree in writing to be bound by the terms and conditions hereof and so long as the transferring Party delivers such tax and enforceability assurance as the non- transferring Party may reasonably request."	

Language from D.08-04-009, as amended by D.08-08-028	Parallel Term in SDG&E - SolarGen 2 PPA
STC 18: Application of Prevailing Wage (Modifiable) To the extent applicable, Seller shall comply with the prevailing wage requirements of Public Utilities Code section 399.14, subdivision (h).	STC 18: Application of Prevailing Wage (Modifiable)

# E. <u>Unbundled Renewable Energy Credit Transactions</u>

This Proposed Agreement is not an unbundled Renewable Energy Credit transaction.

## F. Minimum Quantity (if applicable)

As described in Part 1 of the Advice Letter the Proposed Agreement does not trigger the minimum quantity requirements set forth in D.07-05-028.

### G. Short-term Contract (if applicable)

The Proposed Agreement is not a short term contract.

# H. <u>MPR</u>

# I. <u>AMFs</u>

Emissions Performance Standard

Part 1 of the Advice Letter provides a discussion of how the Proposed Agreement complies with EPS requirements of D.07-01-039.

J. PRG Participation and Feedback



## K. Independent Evaluator

The Independent Evaluator, PA Consulting, was involved in every step of the 2009 RPS RFO process and evaluated bids for the 2009 RPS RFO. The Independent Evaluator was also monitored the negotiations between the parties and provided information in this Advice Letter to evaluate the fairness of this Project's evaluation compared to other bids the 2009 RPS RFO.

Project Development Status

A. Company / Development Team

Part 1 of the Advice Letter provides a general discussion of the development team's experience and successful projects owned, constructed and/or operated by the company.

If the Project is not yet operational, please discuss the status of the Project factors outlined below and their impact on the Project's viability<sup>4</sup>. Provide answers to <u>all</u> questions. If a complete answer to the question may not be provided without disclosing confidential information, then answers should be supplemented in confidential

<sup>&</sup>lt;sup>4</sup> Project viability is defined as the probability that the Project associated with a contract can be financed and completed as required by the contract and will be available to provide capacity, electrical energy, green attributes, resource adequacy, and meet any other performance obligations set forth in the contract.

Appendix D. As much information as possible, however, should be included in this public section.

## Company / Development Team

1. Describe the Project development team and / or company principals and describe how many years of experience they have had on the development side of the electric industry.

Members of the developer's leadership team have spent their careers in the utility industry and have successfully developed 12 utility scale projects in both generation and transmission. Overall, the leadership team has nearly 100 years of utility experience.

### <u>Stephan Zaminski</u>

Mr. Zaminski has over 19 years of power industry experience, having participated in the closing of over \$11 billion of transactions. Prior to his current role, Mr. Zaminski joined Starwood Capital Group in 2005 and went on to co-found Starwood Energy Group. In 2008, Mr. Zaminski and his partners at Starwood Energy Group successfully closed a \$433 million dedicated energy fund. Mr. Zaminski co-led Starwood Energy Group's fund investment strategy having committed to over \$3.5 billion of enterprise value energy assets. Prior to Starwood, Mr. Zaminski was an investment banker – initially with Deutsche Banc Alex Brown's Global Energy and Utilities Group followed by McManus & Miles. Prior to Deutsche Bank, Mr. Zaminski worked as a management consultant where he advised Fortune 500 energy industry clients. In 1996, Mr. Zaminski founded Horizon Financial – a mortgage brokerage business that he later sold. Mr. Zaminski began his career with UltraSystems Development Corporation, an independent power developer now owned by LG&E. Mr. Zaminski is a frequent industry speaker at events sponsored by Platts, a division of The McGraw-Hill Companies, Euromoney Institutional Investor PLC, Skadden, Arps, Slate, Meagher & Flom LLP, Environmental Protection Agency, Energy Securities Analysis, Inc. and the California Energy Commission. Mr. Zaminski holds a BS in Mechanical Engineering from the University of Maryland where he is on the Board of Visitors, and received an MBA, graduating with honors, from the Wharton School.

### Jesse Montaño

Mr. Montaño has more than 25 years of experience in the electric industry. Prior to his current role, Mr. Montaño spent 13 years managing the operation and maintenance of multiple renewable generating facilities in Southern California for Cal Energy Corp. In 2001, he joined the Imperial Irrigation District (IID) as a Transmission and Reliability System Operator where he operated IID's high voltage electric system, became certified as a WECC System Operator, was responsible for managing IID's Open Access Same Time Information System (OASIS) and adopting an Open Access Transmission Tariff. Mr. Montaño was instrumental in the creation and development of WesTTrans.net, the OASIS site boasting 22 transmission providers serving 14 states in the western United States. He then chaired the WesTTrans Technical Committee for a period of time.

Additionally, Mr. Montaño administered short and long term transmission capacity purchases, sales, and interchanges with a number of marketers, brokers, and the California ISO. Mr. Montaño managed IID's generator interconnection process and oversaw the interconnection process for multiple generators that are now interconnected to the electrical grid and delivering energy. Mr. Montaño also managed the IID's business development section where he negotiated multiple power purchase agreements.

Mr. Montaño has a degree in Public Accounting from the Universidad de Sonora – Hermosillo Sonora, MX.

#### Ziad Alaywan, P.E.

Mr. Alaywan has over 22 years of experience in the Electric Energy Sector, primarily in transmission, generation and market operations with emphasis on financial settlements, electricity market design, forecasting, transmission and ancillary services pricing, auction design, and various power system modeling and economic analysis. Mr. Alaywan has extensive experience in implementing large projects and managing complex issues related to grid reliability, asset valuation, renewable Integration, electricity market design and energy policy.

Prior to his current role, Mr. Alaywan was the Managing Director of Market Operations at the California Independent System Operator (CAISO) where he was responsible for development, start-up, implementation and operational oversight of the CAISO's multi-billion dollar energy markets. In addition, Mr. Alaywan ensured CAISO operational compliance with NERC balancing authority reliability requirements for one of the largest balancing authorities in the United States.

As a member of the California Restructuring Trust, Mr. Alaywan acted in the capacity as Chief Engineer for the State of California's Governor's Office where he was responsible for setting the foundation for the CAISO by establishing a start-up organization along with a transition plan for moving from three vertically integrated utilities that operated independently to a single entity operating in a market-based environment.

Mr. Alaywan also worked for Pacific Gas and Electric Company (PG&E) as a Plant Engineer where he was responsible for engineering systems for two 750 MW natural gas fired power plants. As a Senior Operations and Transmission Engineer, he was responsible for assessing operational conditions and scenarios to identify potential reliability issues on the transmission grid. Acting as Manager of Real Time Grid Operations, Mr. Alaywan was responsible for real time operations of PG&E's bulk electric transmission system with a peak load of 20,000 MW.

Mr. Alaywan has been twice awarded PG&E's CEO Award for (1) rapid recovery during the 1989 San Francisco earthquake and (2) recognition of effective team work and action taken to avoid a wide spread electric disruption in the Western U.S. in the summer of 1995. In addition, he

was presented with an award from the California Governor and CAISO Governing Board for significant efforts in starting up CAISO within one year.

Mr. Alaywan is a Senior Member of the Institute of Electrical and Electronics Engineers, a Senior Advising member of the Electric Power Research Institute, was voted to represent the Western Grid on Northern Electric Reliability Council in 2002-2005 and is a member of the European Center of Economic and Public Policy in Toulouse, France. Mr. Alaywan is a Registered Professional Electrical Engineer.

Mr. Alaywan obtained a Bachelor of Science and Master of Science degrees in Electrical Engineering from Montana State University – Bozeman, Montana. He has also done post-doctorate work in HVAC Power System Applications, Optimization, Production Model, Unit Commitment and Power Economics at Montana State University. In addition, he has completed work in the Haas Business School Executive Program, University of California – Berkeley, California.

## Kevin Coffee, P.E.

Mr. Coffee has over 25 years of hands on experience in the energy industry. This includes twelve years of experience in power system analysis and electrical design for power generation facilities. In addition, Mr. Coffee had the opportunity to direct operational aspects associated with the launch of an innovative electronic platform for non-standard energy transactions for the purpose of providing wholesale power to retail direct access customers. Prior to his current role, Mr. Coffee was responsible for directly managing energy procurement, transmission assessment, and asset management designed to minimize costs to Pacific Gas and Electric Company's retail electricity customers.

Mr. Coffee obtained Bachelor of Science and Master of Science degrees in Electrical Engineering from New Mexico State University – Las Cruces, New Mexico. He is a Registered Professional Electrical Engineer in California.

2. List any successful projects (renewable and conventional) the Project development team and / or company principals have owned, constructed, and / or operated. See the tables below:





Solar Gen Development Team Recently	•		, 		(	
Projects	Location	Engineering Design	Procurement Support	Construction Management	Startup Commission	EPC
					11001100000000000000000000000000000000	
Navy I 50 MVA, 115 kV Substation	Coso-Ridgecrest, California	*	*175-01-01-01-01-01-01-01-01-01-01-01-01-01-	*	*	
Navy II, 50 MVA, 115 kV Substation	Coso-Ridgecrest, California	*		*	*	-
BLM West, 50 MVA, 230 kV Substation	Coso-Ridgecrest, California	*	·	*	*	1150-11010-1010-1010-1010-1010-1010-101
BIM East, 50 MVA, 230 kV Substation	Coso-Ridgecrest, California	*		*	*	
Plains End, 240 MVA, 230 kV Swtichyard	Colorado, USA	*	*	*	*	
/liramar, 62 MVA, 69 kV Substation	San Diego, California	*	*	*	*	
Chula Vista, 62 MVA, 69 kV Substation	San Diego, California	*	*	*	*	
Escondido, 62 MVA, 69 kV Substation	San Diego, California	*	*	*	*	
Bowling Green 69 kV Substation	Bowling Green, Ohio	*	*	*	*	
Vapoleon, 62 MVA, 69 kV Substation	Napoleon, Ohio	*	*	*	*	
Galion 69 kV Substation	Galion, Ohio	*	*	*	*	25-2400000000000000000000000000000000000
Domtar, 70 MVA, 69 kV Substation	San Leandro, California					*
Canandaigua, 20 MVA, 69 kV Substation	Madera, California		n - A A A Anna ann an Anna an Anna an Anna an Anna an Anna An	5. /		*
/ondavi, 20 MVA, 69 kV Substation	Lodi, California			n na fheannainn deachan na na deachannainn an dad bhean		*
Mare Island, 30 MVA, 115 kV Substation	Mare Island, California	*		*	n de demande a constant a serie a francé de management en este de constant a serie de constant a serie de const	
Areno Valley, 33 kV Substation	Moreno Valley, California	*		*		- ^
Bagubah 33 kV Substation	Baqubah, Iraq	*	*			
Fransmission						
Chevron 2-mile, 115 kV Transmission Line	Richmond, California	*				······
		*	*	*	*	
Bowling Green 2-mile, 69 kV Transmission Line	Bowling Green, Ohio	*	*	*		***********
Napoleon 4-mile, 69 kV Transmission Line	Napoleon, Ohio	*	*	*	*	
Coso 29-mile, 230 kV Transmission	Coso-Ridgecrest, California	*	*	*	*	
Coso 50-mile, 230 kV Transmission	Cramer Junction, California		*	*	*	1011/01101011/0110101/011010101010110110
Coso 29-mile, 115 kV Transmission	Coso-Ridgecrest, California	*				
Vind Power 345 kV Substations	New Mexico	••		96/10/16/06/09/06/06/06/06/06/06/06/06/06/06/06/06/06/		
		*				011/11110001001004000000000000000000000
Jnderground 21-kV Distribution System	Pittsburg, California					101010100101010000000000000000000000000
		*		111001010101010101010101010-0-071	101101107-0000-00101010100-00001001	
Chula Vista, 50 MW Gas-Turbine Generators	San Diego, California	*	- 10011/01100100100100000000000000000000		9777755555977560575555555555555555555555	25-01000040150-0-0101100-0100100
Escondido, 50 MW Gas-Turbine Generators	San Diego, California	*				
Bowling Green 50 MW Gas-Turbine Generators	Bowling Green, Ohio	1000000-0-0100000100000000000000		5-61/07/010100/04/2022/2011/19-05-0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	11111111111111111111111111111111111111	-179.03103000010100000101000000000000000000
Vapoleon, 50 MW Gas-Turbine Generators	Napoleon, Ohio	*	**	10-01-00-00-00-00-00-00-00-00-00-00-00-0		
Galion 50 MW Gas-Turbine Generators	Galion, Ohio	*				
Neft Dashly 48 MW Offshore Co-generation	Caspian Sea, Azeebaijan	*			••••••••••••••••••••••••••••••••••••••	
Renewables				24		
750 kW Solar PV Projects	Ridgecrest, California	*		*		
329 kW Solar PV Projects	Los Angeles, California	*		*		
20 kW Solar PV Projects	Sab Diego, California	*		*		
0 kW Solar PV Project	Bakersfield, California					*
60 kW Solar PV Project	San Carlos, California		• • • • • • • • • • • • • • • • • • •			*
60 kW Solar PV Project	Bakersfield, California	•1767-6481/07068881/07088881/0708888999788888978				*
250 MW Wind Project	Techaphapio, CA	*	*	*	*	
North Brawley Geothermal Power Plant	Imperial Valley, California	*				
nterconnection Requests - IPP Projects	California, Utah, Arizona	*			110.1111.115.154999999999	
		*				
ransmission Service Requests - Wind Projects	New Mexico					

## <u>Technology</u>

#### 1. <u>TYPE AND LEVEL OF TECHNOLOGY MATURITY</u>.

Solar photovoltaic technology has been used in commercial power applications, and has been in use on a utility scale as per the description in Part 1 of the Advice Letter. According to SolarGen 2, their project will be the largest to be constructed in California.

#### 2. <u>RESOURCE AND/OR AVAILABILITY OF FUEL</u>

Part 1 of the Advice Letter provides a discussion regarding the adequacy of the resource.

### C. Development milestones

1. SITE CONTROL



a. <u>STATUS OF THE PROCUREMENT OF MAJOR EQUIPMENT (E.G. EQUIPMENT IN-HAND,</u> <u>CONTRACTS EXECUTED AND EQUIPMENT IN DELIVERY, NEGOTIATING CONTRACTS</u> <u>WITH SUPPLIER(S), ETC.).</u>

SolarGen 2 is negotiating a detailed term sheet with several Engineering, Procurement and Construction (EPC) contractors and expects to make an EPC selection shortly.

b. <u>THE DEVELOPER'S HISTORY OF ABILITY TO PROCURE EQUIPMENT.</u>

SolarGen 2 has an extensive history of power plant development, construction and operation, which requires the ability to handle complex equipment procurement issues. Refer to Section III of this Advice Letter for SolarGen's background in plant development and operation. The developer has employed good development practices and included contingencies in the budget to accommodate the inevitable variations in cost. Overall, Solar Gen 2 principals have successfully completed nearly \$12 billion of power industry transactions. Solar Gen 2 principals have also successfully completed twelve greenfield development projects, including successful financing of a 50 MW solar PV plant in Sault Ste. Marie Ontario in August 2010. At that time, the Sault Ste. Marie project was the largest solar PV financing in North America. In May of 2009, principals of Solar Gen 2 completed Starwood-Power Midway, a 120 MW gas-fired peaking plant, near Fresno California on time in support of a PPA with PG&E. Each of the completed development projects required the procurement and successful execution of an EPC contract. Many of these projects required tight coordination between regulatory approvals, financing, permitting, design, procurement and testing to ensure meeting agreed-upon milestone dates.

c. <u>IDENTIFIED EQUIPMENT PROCUREMENT ISSUES, SUCH AS LEAD TIME, AND THEIR</u> EFFECT ON THE **P**ROJECT'S DATE OF OPERABILITY.



#### 3. PERMITTING STATUS

The entire Project area is zoned A3 (heavy agriculture) which, pursuant to Section 90509.02 (Uses Permitted with a Conditional Use Permit Only) of Division 5 of Title 9 of the Imperial County Land Use Code, provides for the construction and operation of "Solar energy plants," subject to first securing a conditional use permit in accordance with the procedures and standards established within Title 9 of the Imperial County Code (Land Use Ordinance). All of the Project area lands are currently farmed with various hay and grass crops.

Approval	Responsible Agency	CurrentStatus	Comments
Right-of-Way Grants for the transmission gen-tie lines	NA		
National Environmental Policy Act "NEPA") certification	NA		
Conditional Use Permit ("CUP")	Imperial County Planning Department		

California Environmental Quality Act ("CEQA") Certification	Imperial County Planning Department	
Excavation and Class 'A' Permanent Resurfacing Permit Grading Permits Haul Route Permits Encroachment Permits Cable Crossing Easements/ Permits	Imperial County Planning and Development Services	
Permit for Use of Septic System	NA	
Permits for: Building Electrical Mechanical Fire Sprinkler Grading Plumbing Demolition	County of Imperial, Building Division	
Permit for Alteration of Storm Facilities	County of Imperial, Department of Public Works, Flood Control	

Hazardous Material Business Plan for Operation of the Facility	County of Imperial Department of Public Works, Flood Control	
Easements for Right of Way Crossings/Encro achments Cable Crossing and Road Encroachment permits	IID	
Consultations, actions, and permits under Sections 1602 and/or 2081 of the Fish and Game Code relative to impacts to waters of the state and protection of rare, threatened, and endangered species or other sensitive species protected by law (discretionary).	State of California, Department of Fish and Game ("CDFG")	ths after CUP approval.
Biological Opinion	United States Fish & Wildlife Service ("USFWS")	

Section 401 Water Quality Certification	Regional Water Quality Control Board – Colorado Region ("RWQCB")	
General Permit for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities	State Water Resources Control Board ("SWRCB")	
General Permit for Discharges of Storm Water Runoff Associated with Industrial Activities	SWRCB	
Section 404 under the Clean Water Act	U.S. Army Corps of Engineers ("USACE")	

Encroachment and Oversize Load Permits	NA	
Interconnection Agreement	Imperial Irrigation District (IID)	

# D. PTC/ITC

Part 1 of the Advice Letter provides a discussion of the project's eligibility and plans regarding the ITC cash grant. The project will pursue the section 1603 cash grant in lieu of ITCs.

# E. Transmission

1. HOW ELECTRICITY WILL BE DELIVERED UNDER THE CONTRACT IN TERMS OF COST, TIMING, AND LOCATION. ANY IMPROVEMENTS, TRANSACTIONS, AND OTHER CONTINGENCIES THAT MUST BE MET, TO ENABLE DELIVERY AS PLANNED

Provided in Public portion of the Advice Letter

2. <u>CONFIDENTIAL INFORMATION ON GEN-TIE AND NETWORK UPGRADES AND COSTS THAT IS</u> <u>NOT PROVIDED IN THE PUBLIC PORTION OF THE ADVICE LETTER.</u>

Provided in Public portion of the Advice Letter.

3. LOCATIONAL ATTRIBUTES OF THE CONTRACT SUCH AS, CONGESTION RISK, IMPACT ON THE STATUS OF RUN MUST RUN (RMR) GENERATORS, AND RESOURCE ADEQUACY REQUIREMENTS.



# 4. TRANSMISSION DETAILS:

TRANSMISSION DETA	ILS
QUEUE NUMBER (SPECIFY CONTROL AREA :CAISO,IID, ETC) AND RELATIVE POSITION	
IF IN CAISOS ERIAL GROUP, STATUS OF:	
FEASIBILITY STUDY	
System Impact Study	
FACILITIESSTUDY	
IF IN CAISOC LUSTER:	
NAME OF CLUSTER	
STATUS OF PHASE I AND II STUDIES	
INTERCONNECTION AGREEMENT – DATE SIGNED OR ANTICIPATED	
PREFERRED POINT OF INTERCONNECTION (LINE, SUBSTATION, ETC.)	
EARLY INTERCONNECTION DETAILS, IF APPLICABLE	
GEN-TIE TYPE (NEW LINE, RECONDUCTOR, INCREASED TRANSFORMERBANK CAPACITY, INCREASED BUS CAPACITY, INCREASED SUB AREA)	

Gen-Tie Length	
GEN-TIE VOLTAGE	
DEPENDENT NETWORK UPGRADE(S)	
EXPECTED NETWORK UPGRADE COMPLETION DATE	

The following charts explain the IID process for obtaining interconnection rights.



OATT TSR Long Term Process Flowchart.PE



# F. Financing Plan (continued from Advice Letter public portion)

1. Explain developer's manner of financing (e.g. project financing, balance sheet financing, utility tax equity investment, etc.).



3. To what extent (%) has the developer received firm commitments from financers (both debt and equity), and how much financing is expected to be needed to bring the Project online?

	4.	List any government funding or awards received by the Project.
	5.	Explain the creditworthiness of all relevant financiers.
	6.	Describe developer's history of ability to procure financing.
		e developer has successfully completed nearly \$12 billion of power industry financing, cluding 12 other project financings in support of development projects.
	7.	Describe any plans for obtaining subsidies, grants, or any other third party monetary awards (other than Production Tax Credits and Investment Tax Credits) and discuss how the lack of any of this funding will affect the Project.
<u>G.</u> ope		roject Viability Calculator (PVC) – not applicable if Project is commercially tional

1. MODIFICATIONS THAT WERE MADE TO THE PVC

SDG&E did not make any modifications to the Energy Division issued PVC.

2. <u>THE PROJECT'S PVC SCORE RELATIVE TO OTHER PROJECTS ON THE SHORTLIST AND IN</u> <u>THE SOLICITATION (E.G. RELATION TO MEAN AND MEDIAN, ANY PROJECTS NOT</u> <u>SHORTLISTED WITH HIGHER PVC SCORES, ETC.). USE FIGURES FROM BID WORKPAPERS,</u> <u>AS APPROPRIATE.</u>



# 3. GENERATED GRAPHS FROM THE RPSW ORKPAPERS:

VIABILITY OF 2009B IDS BY TECHNOLOGY

# 4.THE PROJECT'S PVC RESULTS

# **Confidential Appendix B** 2009 Solicitation Overview

ATTACH IS SDG&E'S 2009S OLICITATION OVERVIEW, SUBMITTED AS SECTION 3 OF SDG&E'S 2009LCBFR EPORT.



# **Confidential Appendix C Final RPS Project-Specific Independent Evaluator Report**

### ATTACHED IS THE FINAL, CONFIDENTIAL VERSION OF THE IE'S PROJECT-SPECIFIC REPORT

# **Confidential Appendix D**

# Contract Summary: SolarGen 2

This Confidential Appendix D sets forth the information required to develop the Project contract summary.

## Contract Summary

# A. Site

<u>1. Address and latitude and longitude of the Project's proposed site</u> (in decimal degree and degrees: minutes: seconds form (e.g. 49.5000°,-123.5000° and 49°30'02"N, 123°30'30"W ))

- \* Name: SolarGen 2
- \* Address:

The electric generating units utilized as generation assets as part of the Project are described below:

(T23)

- \* County Name: Imperial | City: Calapatria, near the southern end of the Salton Sea, north of El Centro, CA.
- \* State: California
- 2. Latitude/Longitude:



# 3.GENERAL MAP OF THE PROJECT'S PROPOSED LOCATION (THREE SITES).





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	 <u> </u>	



# B. <u>Project's contribution to SDG&E's RPS procurement targets</u>

The table in Appendix G (below) sets forth the Project's contribution to SDG&E's APT and IPT goals on a percentage basis. The project contributes in the first full year and in 2020 toward fulfillment of SDG&E's RPS obligation, based upon a .7% annual degradation of the technology.

# C. <u>Terms and Conditions of Delivery</u>

#### 1. <u>THE POINT OF DELIVERY FOR THE PROJECT'S ENERGY AND THE SCHEDULING</u> <u>COORDINATOR</u>.

The point of delivery in the PPA is the CAISO side of the Imperial Valley substation, but SDG&E pays for all generation metered at the project busbar interconnected with Imperial Irrigation District.

#### 2. INFORMATION REGARDING FIRMING AND SHAPING ARRANGEMENTS, OR OTHER PLANS TO MANAGE DELIVERY OF THE ENERGY THAT IS NOT INCLUDED IN THE PUBLIC SECTION OF THE ADVICE LETTER.



# D. Major Contract Provisions

# 1. MAJOR CONTRACT PROVISIONS ARE SUMMARIZED IN THE THE MATRIX BELOW.

TERM/CONDITION	RPSC ONTRACT
TYPE OF PURCHASE (Renewable, renewable/conventional hybrid, etc.)	As-available, bundled Renewable (solar)
UTILITY OWNERSHIP OPTION	
Conditions Precedent and Date Triggers	
Average Actual Price (\$/MWH)	
TERM/CONDITION	RPSC ONTRACT
---	--------------
Product Type	
KEY CONTRACT DATES (INITIAL STARTUP DEADLINE, COMMERCIAL OPERATION DEADLINE, P T CDEADLINES, ETC.)	
Firming/Shaping Requirements	
EXPECTED PAYMENTS	
Scheduling Coordinator	
ALLOCATION OF CAISO (OR OTHER CONTROL AREA) CHARGES	
Allocation of Congestion Risk	
PROJECT DEVELOPMENT SECURITY	
DAILY DELAY DAMAGES	

TERM/CONDITION	RPSC ONTRACT
Seller-Required Performance	
SELLER PERFORMANCE ASSURANCES (CALCULATION METHODOLOGY, FORM OF PERFORMANCE ASSURANCE AND AMOUNT)	
AVAILABILITY GUARANTEES	
ENERGY DELIVERY REQUIREMENTS	

TERM/CONDITION	RPSC ONTRACT
LIQUIDATED DAMAGES / PENALTIES FOR FAILURE TO PERFORM	
* Force Majeure Provisions	

TERM/CONDITION	RPSC ONTRACT
No Fault Termination	
Seller's Termination Rights	
Utility's Termination Rights	
RIGHT OF FIRST REFUSAL OR RIGHTS OF FIRST OFFER	

#### 2. <u>CONTROVERSIAL AND/OR MAJOR PROVISIONS NOT EXPRESSLY IDENTIFIED IN THE MATRIX</u> <u>ABOVE</u>.



- 3. OTHER CONTRACT PROVISIONS
  - a. <u>ANY OTHER SIGNIFICANT OR UNIQUE CONTRACT PROVISIONS TO</u>O DETAILED AND/OR COMPLICATED TO INCLUDE IN THE MATRIX ABOVE.



**b.** WHETHER THE DEVELOPER IS TAKING ON THE FULL RISK UNDER CURRENT CONTRACT TERMS AND PRICE (FOR BIOMASS CONTRACTS ONLY).

The project does not depend on biomass fuel.

- E. Contract Price
- 1. <u>THE LEVELIZED CONTRACT PRICE USING **SDG&E**'S BEFORE TAX WEIGHTED AVERAGE COST OF CAPITAL DISCOUNT RATE IS INDICATED BELOW.</u>

	PRICE	Notes
LEVELIZED BID PRICE – INITIAL (\$/MWH)		
LEVELIZED BID PRICE – FINAL (\$/MWH)**		
LEVELIZED CONTRACT PRICE – FINAL (\$/MWH)		
TOTAL SUM OF CONTRACT PAYMENTS		

## 2. THE INDIVIDUAL COMPONENTS OF THE CONTRACT PRICING STRUCTURE ARE AS FOLLOWS:

- \* FLAT PRICING:
- \* INDEXED PRICING:
- \* ESCALATION FACTORS:
- \* NON-AMFS SUBSIDIES: NOT APPLICABLE
- \* OTHER:

TOD Delivery Period	First Year Price (\$/MWh)	TOD Multiplier	First Year TOD Contract Price (\$/MWh)
Summer On-Peak			
Summer Semi-Peak			
Summer Off-Peak			
Winter On-Peak			
Winter Semi-Peak			
Winter Off-Peak			

#### 3. CONTRACT TERMS THAT PERMIT MODIFICATIONS TO THE CONTRACT PRICE.

4. PRICE ADJUSTMENTS/MODIFICATIONS REQUESTED OF THE DEVELOPER DURING THE NEGOTIATION PERIOD. PRICE ADJUSTMENTS/MODIFICATIONS REQUESTED OF THE UTILITY DURING THE NEGOTIATION PERIOD. REASON(S) FOR THE PRICE ADJUSTMENT(S). HOW THE INITIAL BID PRICE COMPARES TO THE FINAL CONTRACT PRICE. 5. <u>PROJECT CHARACTERISTICS (E.G. NETWORK UPGRADE COSTS, EQUIPMENT COSTS, CHANGES IN CAPACITY FACTOR, ETC.) THAT COULD CHANGE THE CONTRACT PRICE AND THEIR EFFECT ON THE LEVELIZED CONTRACT PRICE.</u>

#### 6. FOR BIOMASS PROJECTS:

1. <u>WHAT LENGTH FUEL CONTRACT(S) HAS BEEN SIGNED, AND FOR HOW MANY YEARS OF</u> <u>THE **PPA** HAVE FUEL CONTRACT(S) BEEN SECURED?</u>

The project will not depend on biomass fuel.

2. DESCRIBE THE DEVELOPER'S FORECASTED PRICE FOR FUEL SUPPLIES.

The project will not depend on biomass fuel.

3. EXPLAIN HOW THE CONTRACT PRICE TAKES FUEL PRICE VOLATILITY INTO ACCOUNT.

The project will not depend on biomass fuel.

4. <u>EXPLAIN WHAT THE DEVELOPER PLANS TO DO IF FUEL SOURCE DISAPPEARS OR</u> <u>BECOMES MORE EXPENSIVE.</u>

The project will not depend on biomass fuel.

#### 7. <u>THE FOLLOWING TABLE ESTIMATES/PROVIDES ALL APPLICABLE ASSUMPTIONS</u> <u>REGARDING DIRECT OR INDIRECT CONTRACT COSTS THAT ARE PART OF THE CONTRACT,</u> <u>BUT NOT INCLUDED IN THE CONTRACT'S \$/MWH PRICE.</u>



- 8. INDIRECT EXPENSES [ARE/ARE NOT] BUILT INTO THE CONTRACT PRICE, PROVIDE:
  - a. A CALCULATION THAT SUBTRACTS THE INDIRECT EXPENSES FROM THE CONTRACT'S TOTAL ABOVE-MARKET COSTS, AND
  - b. A DESCRIPTION OF THE METHODOLOGY USED FOR THE CALCULATION.
- 9. FOR AN OUT-OF-STATE CONTRACT IN WHICH THE ENERGY WILL BE FIRMED AND SHAPED, THE TABLE BELOW IDENTIFIES ALL FIRMING AND SHAPING COSTS ASSOCIATED WITH THE PROJECT AND WHETHER THEY ARE INCLUDED IN THE CONTRACT PRICE. (IF THERE ARE MULTIPLE POTENTIAL DELIVERY OPTIONS, THE TABLE IDENTIFIES THE FIRMING AND SHAPING COSTS ASSOCIATED WITH EACH OPTION, AND A NARRATIVE BELOW EXPLAINS WHICH OPTION SDG&E EXPECTS IS THE MOST AND LEAST LIKELY.)

The project is not an out-of-state contract in which the energy will be firmed and shaped.

(\$/MWн)	EXPECTED CASE	Best Case	Worst Case	IMPORTING INTO CALIFORNIA
PPAPRICE				
MAXIMUM PRICE				
FIRMING/SHAPING				
TRANSMISSION LOSSES:				
TRANSMISSION SERVICE (WHEELING):				
IMBALANCE ENERGY Charges:				
Ancillary Service Charges:				
TOTAL FIRMING/SHAPING:				
ALL-INTOTAL				
RELEVANTMPR				
Maximum Price + Total Firming/Shaping:				

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# 10. RESULTS FROM THE ENERGY DIVISION'S A MFS CALCULATOR

	(\$/MWH)	NOTES
LEVELIZED TOD-ADJUSTED CONTRACT PRICE		As per AMF Calculator
LEVELIZED TOD-ADJUSTED TOTAL CONTRACT COST (CONTRACT PRICE + FIRMING AND SHAPING)		
LEVELIZED MPR	\$108.52	Base MPR for 2012. See discussion in Section E(11) of this Advice Letter
LEVELIZED TOD-ADJUSTED MPR		As per AMF Calculator
ABOVE-MPRC OST (\$/MWH)		As per AMF Calculator
TOTAL SUM OF ABOVE-MPRP AYMENTS (\$)		As per AMF Calculator

The page below presents



	RESU	LTS PAGE		
INPUTS (Transferred from Inpu	ts Sheet)			
Facility Name		Solargen2		
Solicitation/MPR Year Contract Start Year	#REF!			
Contract Term Capacity (MW)				
Contract Price (\$/MWh)				
MPR for Contract Start Year (\$ WACC (Utility specific) Purchasing Utility	MWh)	SDG&E		
RESULTS				
Levelized Final Contract Price			\$/MWh	1101011/015_p.700001110.0.011010101010101010101010
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Levelized TOD-Adjusted MP				
prices in 2012 dollars				
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Il prices in 2012 dollars ContractYear StartYear Annual Sales (kt/h)					
ContractYear StartYear Annual Sales (kWh)		d MPR (\$/MWh) over ti	he term of the contract	\$/MWh	
ContractYear Annual Sales (kWh)	All prices in 2012 dollars				
	ContractYear	Start Year			
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#### 11. EXPLAINING WHICH MPR WAS USED FOR THE AMFS / COST CONTAINMENT CALCULATION (ONLY IF THE CONTRACT IS ELIGIBLE FOR AMFS).

## 12. GRAPHS FROM THE RPS WORKPAPERS: PS

RPS SOLICITATION BID SUPPLY CURVE: 2009A LL BIDS VS. CURRENT SHORT LIST







#### 13. HOW THE CONTRACT PRICE COMPARES WITH THE FOLLOWING:

- a. OTHER BIDS IN THE SOLICITATION,
- b. OTHER BIDS IN THE RELEVANT SOLICITATION USING THE SAME TECHNOLOGY,
- c. RECENTLY EXECUTED CONTRACTS
- d. (OTHER PROCUREMENT OPTIONS (E.G. BILATERALS, UTILITY-SPECIFIC PROGRAMS, ETC.)
- 14. <u>THE RATE IMPACT OF THE PROPOSED CONTRACT (CENTS PER KILOWATT-HOUR) BASED ON</u> THE RETAIL SALES FOR THE YEAR WHICH THE PROJECT IS EXPECTED TO COME ONLINE.

# **Confidential Appendix E**

# **Comparison of Contract with SDG&E's Pro Forma Power Purchase Agreement**

THE FILE ATTACHED BELOW IS A REDLINE OF THE CONTRACT AGAINST **SDG&E**'S COMMISSION-APPROVED **2011** PRO FORMA **RPS** CONTRACT. MODIFIABLE TERMS ARE HIGHLIGHTED IN GREEN AND NON-MODIFIABLE TERMS ARE HIGHLIGHTED IN YELLOW.



# **Confidential Appendix F**

# **Power Purchase Agreement and First Amendment**

# THE FILE ATTACHED BELOW IS A COPY OF THE POWER PURCHASE AGREEMENT AND FIRST AMENDMENT



# **Confidential Appendix G**

# **Project's Contribution Toward RPS Goals**

# **Project's Contribution to RPS Goals**

Project	Technology	COD	Location
Name			
SolarGen 2	Solar PV	07/31/2012	Calipatria,
			California

			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
				<b></b>
A.				

# THE PROJECT WAS NOT PREVIOUSLY INCLUDED AS PART OF THE UTILITY'S BASELINE. THEREFORE, THE FOLLOWING TABLE IS NOT APPLICABLE AS **SDG&E**'S BASELINE WILL NOT CHANGE..

	DELIVERIES (GWH/YR)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
PRE-2002/B ASELINE	0	0	0	0	0	0	0	0	0	0	0
DELIVERIES FROM PROPOSED PROJECT	0	0	0	0	0	0	0	0	0	0	0

UPDATED BASELINE	0	0	0	0	0	0	0	0	0	0	0	
------------------	---	---	---	---	---	---	---	---	---	---	---	--

# THE PROJECT IS NEW TO **SDG&E**. THEREFORE, THE FOLLOWING TABLE IS NOT APPLICABLE AS IT IS NOT AN EXPIRING CONTRACT.

	DELIVERIES (GWH/YR)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Expiring Contracts	0	0	0	0	0	0	0	0	0	0	0
EXPIRING DELIVERIES FROM PROPOSED PROJECT	0	0	0	0	0	0	0	0	0	0	0
UPDATED EXPIRING Contracts	0	0	0	0	0	0	0	0	0	0	0

San Diego Gas & Electric Advice Letter 2279-E August 23, 2011

# Public Version of the Project Specific IE Report

# San Diego Gas & Electric Co.

Report of the Independent Evaluator on the 150 MW Solar Gen 2 contract relative to the results of the 2009 Request for Offers from Eligible Renewable Resources (2009 Renewable RFO)

August 11, 2011

# San Diego Gas & Electric Co.

Report of the Independent Evaluator on the 150 MW Solar Gen 2 contract relative to the results of the 2009 Request for Offers from Eligible Renewable Resources (2009 Renewable RFO)

August 11, 2011

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Prepared by:

Jonathan M. Jacobs

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Version: 1.2

# FOREWORD

This is PA Consulting Group's Independent Evaluator (IE) Report analyzing the contract between San Diego Gas & Electric Company (SDG&E) and Solar Gen 2 LLC for a 150 MW photovoltaic project to spread over three sites in the Imperial Valley, interconnected to Imperial Irrigation District, and deliver to SDG&E via a swap or "energy exchange" agreement. This is a pure bilateral contracts; the project was not bid into any of SDG&E's Renewables RFOs.

The CPUC requires an IE report accompany any bilateral contract submitted for approval, and the template provided by the CPUC relates to RFOs. Since this contract was not submitted into any RFO, PA has based its report upon its IE report for the most recently completed (2009) RFO.

This report is based on PA Consulting Group's Preliminary Report on the 2009 RFO. The Preliminary Report addressed the conduct and evaluation of San Diego Gas & Electric Company's 2009 Renewables RFO through the selection of its preliminary short list. This report contains all the text of the Preliminary Report except for placeholder text in chapters 6 and 7. In the body of the report (that is, except for this Foreword), text from the Preliminary Report is in gray while new text is presented in black. This should help the reader identify the new text.

This report contains confidential and/or privileged materials. Review and access are restricted subject to PUC Sections 454.5(g), 583, D.06-06-066, GO 66-C and the Confidentiality Agreement with the CPUC.

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# 1. INTRODUCTION

PA Consulting Group, Inc. (PA) has served as the Independent Evaluator (IE) of San Diego Gas & Electric Co.'s (SDG&E's) 2009 Request for Offers from Eligible Renewable Resources (2009 Renewable RFO). This Report provides PA's evaluation of the fairness of the solicitation, up to and including the identification of a "short list" of bidders with whom SDG&E may pursue contract negotiations. This document has been formatted in accord with a template provided by Cheryl Lee of the CPUC Energy Division in an email dated Oct. 27, 2009.

# 2. ROLE OF THE INDEPENDENT EVALUATOR (IE)

Template language: "Describe the IE's role."

This chapter describes the history of the requirements for Independent Evaluators at the Federal level and in California. It includes a list of the roles of the IE as well as a summary of PA's activities in fulfilling those roles.

# 2.1 THE IE REQUIREMENT

Template language: "Cite CPUC decisions requiring IE participation in RPS solicitations: D.04-12-048 (Findings of Fact 94-95, Ordering Paragraph 28) and D.06-05-039 (Finding of Fact 20, Conclusion of Law 3, Ordering Paragraph 8)."

Regulatory requirements for an IE of resource procurement can be traced to the Federal Energy Regulatory Commission's (FERC's) "Opinion and Order ... Announcing New Guidelines for Evaluating Section 203 Affiliate Transactions" (108 FERC ¶ 61,081 (2004)). That decision addressed ways to demonstrate that a utility's procurement of power from an affiliate was not abusive or unfair, under the standards of the *Edgar* decision (55 FERC ¶ 61,382 (1991)). FERC provided a set of guidelines, which presumably would be sufficient to demonstrate that the utility had not unfairly favored its affiliate. One of those guidelines was that "an independent third party should design the solicitation, administer bidding, and evaluate bids prior to the company's selection." FERC proposed not just independent evaluation but independent conduct of all aspects of the solicitation (except, presumably, the need determination).

The California Public Utilities Commission (CPUC) referenced those guidelines in its December 2004 decision on long-term resource procurement.<sup>1</sup> The CPUC stated that although it had not previously required the use of an IE for resource procurement, it would "require the use of an IE in resource solicitations where there are affiliates, IOU-built, or IOU-turnkey bidders" from that point forward.<sup>2</sup> The CPUC's intention was clearly that the IE should ensure that the utility did not favor itself, its affiliates or its shareholders (shareholders would earn a return on "ownership projects" – IOU-built or turnkey – but not on independent PPAs). The CPUC stated explicitly that it would not require the IE to conduct or administer the solicitation, nor would it "allow the IEs to make binding decisions on behalf of the utilities." Under this decision the role of the IE is to provide advice to the utility in "the design, administration, and evaluation aspects of the RFO" and to observe the utility's procurement and evaluation process in order to provide a fairness opinion.

D. 04-12-048 did not require IEs for procurements in which there were no affiliate or ownership bids. But in its decision approving the utilities' plans for 2006 Renewable Portfolio Standard (RPS) solicitations, the CPUC determined that Independent Evaluators would be required for these and "all future solicitations" (it is unclear whether this means only all future

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<sup>&</sup>lt;sup>1</sup> California Public Utilities Commission, Decision (D.) 04-12-048, May 26, 2006, p. 135f and Findings of Fact 94-95 on pp. 219-220.

<sup>&</sup>lt;sup>2</sup> D. 04-12-084, p. 135f and Ordering Paragraphs 26i and 28 on p. 245.

## 2. Role of the Independent Evaluator (IE)

*RPS* solicitations).<sup>3</sup> The role of the IE is still not to conduct or administer the solicitation but to "separately evaluate and report on the IOU's entire solicitation, evaluation and selection process".<sup>4</sup> The Decisions that approved the utility RPS solicitation plans for 2007 and 2008<sup>5</sup> did not further elaborate on the IE role but took the participation of an IE as a given.

D. 09-06-018, which approved the utility RPS solicitation plans for 2009, contained additional requirements related to the use of Project Viability Calculators and directed "that project-specific project viability information should be included in the confidential appendices to advice letters and validated by the IE in the confidential versions of IE reports."<sup>6</sup> The reference to the Project Viability Calculator has been incorporated by Energy Division in its template language for Section 7, which is only completed in the final IE report submitted with each contract Advice Letter.

D. 09-06-050, which was primarily concerned with the definition of a "fast-track" procedure for selecting and approving short-term renewable contracts, also clarified the procedure for approving bilateral contracts. It specifies that "long-term bilateral contracts should be reviewed according to the same processes and standards as contracts that come through a solicitation. This includes review by the utility's Procurement Review Group and its Independent Evaluator."<sup>6A</sup> This section of the decision does not specify that a bilateral contract should be reviewed in the context of an RFO, although the IE report template distributed by the Energy Division only apply to RFOs (Energy Division also distributed a template for a "short form" report related to the special approval procedure for short-term contracts).

Furthermore, D. 09-06-050 orders "the Director of Energy Division [to use] the market price referent calculated for the same solicitation year in which the contract is signed as a price reasonableness benchmark."<sup>6B</sup> That would imply the reasonableness of a contract should be judged against the contemporary market price referent (MPR), and similarly against the shortlist of the contemporary RFO. In this specific case PA has used the results of the 2009 RPS RFO.

# 2.2 PA'S ROLE AS INDEPENDENT EVALUATOR

Template language: "Description of key IE roles: IEs provide an independent evaluation of the IOU's RPS bid evaluation and selection process:

<sup>6</sup> California Public Utilities Commission, Decision (D.) 09-06-018, June 8, 2009, p. 24.

<sup>6A</sup> California Public Utilities Commission, Decision (D.) 09-06-050, June 19, 2009, p. 28f.

<sup>6B</sup> D. 09-06-050, Ordering Paragraph 7, p. 42.

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<sup>&</sup>lt;sup>3</sup> California Public Utilities Commission, Decision (D.) 06-05-039, May 26, 2006, p. 46, Finding of Fact 20b on p. 78, Conclusion of Law 3e(2) on p. 82 and Ordering Paragraph 8 on p. 88.

<sup>&</sup>lt;sup>4</sup> D. 06-05-039, p. 46.

<sup>&</sup>lt;sup>5</sup> California Public Utilities Commission, Decision (D.) 07-02-011, Feb. 15, 2007 and Decision (D.) 08-02-008, Feb. 15, 2008. The decisions actually only conditionally approved the plans but the conditions were not connected with the use of IEs.

## 2. Role of the Independent Evaluator (IE)

"1. Did the IOU do adequate outreach to potential bidders and was the solicitation robust?

"2. Was the IOU's LCBF methodology designed such that all bids were fairly evaluated?

"3. Was the IOU's LCBF bid evaluation and selection process fairly administered?

*"4. Did the IOU make reasonable and consistent choices regarding which bids were brought to CPUC for approval?"* 

In April 2006, SDG&E retained PA to be the Independent Evaluator for an All-Source Request for Offers (All-Source RFO). SDG&E anticipated that there might be affiliate bids in that RFO, as in fact there were. The CPUC Energy Division, as well as the rest of SDG&E's Procurement Review Group (PRG), participated in the decision to select PA. PA's contract was subsequently amended to include the independent evaluation of additional SDG&E procurement activities.

When PA was contracted as IE for the All-Source RFO, PA and SDG&E agreed on an interpretation of the IE role that would not include a complete LCBF evaluation or full replication of the utility's computations, although PA would spot-check them. PA's role would be that of an observer and an adviser as needed. PA subsequently served as Independent Evaluator for SDG&E's 2006 Renewable RFO and the Local Peaker RFO (conducted in 2006-7). In each case, PA and SDG&E used the above interpretation of the IE role, and it was adopted for the 2009 Renewables RFO.

PA's emphasis has been on issues of fairness and equity. PA reviews the reasonableness of SDG&E's evaluation criteria and algorithms and spot-checks the calculations but does not enforce a single standard of evaluation. While PA may have an opinion about the "best" way to value certain attributes or even to conduct a multi-attribute evaluation, its role as IE has not been to judge SDG&E's evaluation against a standard, but rather to determine that SDG&E's evaluation has not unfairly favored affiliates or ownership bids, or favored SDG&E and its shareholders in any other way<sup>7</sup>.

For the 2009 RFO, SDG&E also asked PA to conduct the quantitative LCBF evaluation of bids, except for the congestion adder computation. This was a direct response to experience of past RFOs, and the efforts that SDG&E had to make to avoid any appearance of conflict in its evaluation of affiliate bids. PA also determined the TRCR clusters, and hence TRCR costs, in cases where the bidder had not specified them. PA's approach to conducting this evaluation was consistent with its approach to reviewing SDG&E's evaluation: the criteria to be applied were SDG&E's, not PA's, the spreadsheet model used to apply those criteria had been developed by SDG&E, and PA ensured that the criteria and model were reasonable and then applied them. PA did not itself determine the evaluation standards but PA did advise SDG&E on the definition and refinement of the evaluation criteria.

<sup>&</sup>lt;sup>7</sup> E.g., it would have been unfair for SDG&E to design an evaluation method that favored a category of bidders on whose behalf SDG&E would have to make extensive rate-based transmission or distribution investments.

# 2.3 PA'S ACTIVITIES

Template language: "Description of activities undertaken by the IE to fulfill the IE's role (i.e. attended negotiation meetings, reviewed Request for Proposals materials, attended pre-bid conference, evaluated proposals and/or reviewed evaluation process and results, etc.) and reporting/consultation with CPUC, PRG and others."

PA and SDG&E began to discuss plans for the 2009 RFO during and after the 2008 RPS RFO evaluation, including the possibility of PA conducting the LCBF evaluation. SDG&E provided PA the draft RPS plan for review prior to its filing, and PA responded with a number of specific comments based on past experience. SDG&E and PA discussed several of these areas at length, most notably the treatments of duration equivalence and resource adequacy. SDG&E adopted several of PA's suggestions and declined to adopt others. In all these cases SDG&E's decisions were reasonable (even if they were to disagree with PA).

PA was provided access to all the SDG&E staff involved in the evaluation of the Renewables RFO. In general, the bid evaluation criteria were similar to those that had been used in past RFOs. PA met with SDG&E to review the evaluation criteria and reviewed the LCBF model constructed by SDG&E.

PA was present at both bidder conferences: in San Diego on August 5 and in El Centro on August 12. PA was provided all questions submitted by bidders either at the bidder conference or later in writing, as well as SDG&E's answers. PA received the electronic bids from SDG&E in San Diego on both days bids were due.

PA was in regular contact with the SDG&E evaluation team. PA was provided all the data in the evaluation process. PA was responsible for interpreting all bids in order to conduct the LCBF evaluation. PA identified missing or incomplete information, including viability scorecards, and requested additional data from bidders. PA also reviewed questions put by SDG&E to bidders, and bidders' answers. PA advised SDG&E on judgments that certain bids did not conform to RFO requirements. PA participated in Procurement Review Group (PRG) meetings during the evaluation period. SDG&E discussed the short list with PA as well as with the PRG.

SDG&E in no way prevented PA from observing its process and analyzing its methods, and did not interfere with PA's conduct of the LCBF evaluation.

# 2.4 CONFIDENTIALITY AND ADDITIONAL COMMENTS

Template language: "Any other relevant information or observations."

It is PA's understanding that confidential treatment of the information in an IE report is obtained through procedures defined in CPUC Rulemaking (R.) 05-06-040.<sup>8</sup> Under that Ruling a person or party that serves testimony, supplies data or files an advice letter requests confidential treatment of some data within that submittal and must accompany the data by a declaration under penalty of perjury that justifies the claim of confidentiality.

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<sup>&</sup>lt;sup>8</sup> "Administrative Law Judge's Ruling Clarifying Interim Procedures for Complying with Decision 06-06-066", August 22, 2006.

## 2. Role of the Independent Evaluator (IE)

PA delivers its IE report to SDG&E and SDG&E in turn submits it to the CPUC. It is PA's understanding that each utility separately submits its IE's report and requests confidential treatment for parts of that report. Because it is the utility that identifies confidential data and provides the associated declaration, PA believes that it is the utility's right to determine which data in the report is confidential and the utility's responsibility to defend that determination. SDG&E's view of confidentiality may be more or less expansive than PA's. While PA has in the past provided recommendations to SDG&E about which parts of its IE reports should be held confidential, in general PA takes a "minimal redaction" (redaction only of information about identifiable bids) view. SDG&E always makes the ultimate determination of data to redact.

# 3. ADEQUACY OF OUTREACH AND ROBUSTNESS OF THE SOLICITATION

Template language: "Did the IOU do adequate outreach to bidders and was the solicitation robust?"

This chapter describes the information provided by the utility to potential bidders, and the utility's efforts to stimulate a wide and robust response to the RFO.

# 3.1 SOLICIATION MATERIALS

Template language: "Were the solicitation materials clear and concise to ensure that the information required by the utility to condut [sic] its evaluation was provided by the bidders?"

PA reviewed SDG&E's RFO and supporting forms. PA's opinion was that the RFO was clear and supporting forms were generally well-designed and would elicit appropriate information except as noted in the next paragraph. Even so, not all bidders entered data correctly and completely, but PA does not believe this was the fault of the forms.

SDG&E held two pre-bid conferences, in San Diego and El Centro, and also posted on its website answers to questions submitted by bidders. Even so, the solicitation forms and posted responses did not always elicit the type of information required by the Project Viability Calculator. In particular, the PVC scoring criteria are based on specific information – e.g., identification of projects to support assertion of project development experience, or an explanation of why a particular interconnection milestone with IID is or is not equivalent to a CAISO milestone.

# 3.2 ADEQUACY OF OUTREACH

Template language: "Identify guidelines used to determine whether IOU did adequate outreach (e.g., sufficient publicity, emails to expected interested firms). Did IOU do adequate outreach? If not, explain how it was deficient."

California's Renewable Procurement Standard and its utilities' attempts to meet that standard have been widely publicized. The investor-owned utilities have conducted annual RFOs for renewable resources for several years. Because of the publicity, it should not have been necessary for SDG&E to take on the responsibility of informing bidders that California has a renewables program or that utilities would be contracting with renewable suppliers. Furthermore, it was well-known in the California energy industry that at the time of the adoption of the RPS, SDG&E was the furthest of the three utilities from satisfying the RPS (least renewable energy relative to retail sales). It would have been adequate for SDG&E to advertise the RPS solicitation on its website and to a sizable email list.

In PA's opinion, SDG&E did adequate outreach. SDG&E provided PA with a list of 686 email addresses, associated with 545 separate organizations, to which it sent the RFO. Some of those addresses are consultants probably not working with any particular bidder. In addition, SDG&E publicized the RFO with a press release, and notices appeared in Platt's *MW Daily* and *California Energy Markets*.

# 3.3 SOLICITATION ROBUSTNESS

Template language: "Identify guidelines used to determine adequate robustness of solicitation (e.g., number of proposals submitted, number of MWhs associated with submitted proposals). Was solicitation adequately robust?"

PA judges the robustness of the solicitation by the number of bids received. In PA's opinion, the solicitation engendered a robust response. 56 separate organizations responded to the solicitation with a total of 158 project proposals with 289 pricing options. The CPUC had encouraged SDG&E to do specific outreach to the Imperial Valley and, more generally, the SPL area. 34 project proposals were submitted from the SPL area, with 67 pricing options, from a total of 22 separate bidders.

# 3.4 FEEDBACK

Template language: "Did the IOUs seek adequate feedback about the bidding/bid evaluation process from all bidders after the solicitation was complete?"

SDG&E did not formally seek bidder feedback.

# 3.5 ADDITIONAL ISSUES

Template language: "Any other relevant information or observations"

PA has nothing else to add to this chapter.

## 4. FAIRNESS OF THE DESIGN OF SDG&E'S METHODOLOGY FOR BID EVALUATION AND SELECTION

*Template language: "Was the IOU's LCBF methodology designed such that bids were fairly evaluated?"* 

This chapter describes SDG&E's quantitative evaluation methodology and PA's opinion of its application.

# 4.1 PRINCIPLES USED TO EVALUATE METHODOLOGY

Template language: "Identify the principles the IE used to evaluate the IOU's bid evaluation methodology. Example principles (each IE should include the specific principles he/she used in his/her evaluation):

*"1. The IOU bid evaluation should be based only on information submitted in bid proposal documents."* 

*"2. There should be no consideration of any information that might indicate whether the bidder is an affiliate.* 

"3. Procurement targets and objectives were clearly defined in IOU's solicitation materials.

*"4. The IOU's methodology should identify quantitative and qualitative criteria and describe how they will be used to rank bids. These criteria should be applied consistently to all bids.* 

*"5. The LCBF methodology should evaluate bids in a technology-neutral manner."* 

*"6. The LCBF methodology should allow for consistent evaluation and comparison of bids of different sizes, in-service dates, and contract length."* 

PA has used the following principles to guide its evaluation. These principles were originally codified by PA in its report on SDG&E's 2006 RPS RFO:<sup>9</sup>

- \* The evaluation should only be based on those criteria requested in the response form. There should be no consideration of any information that might indicate whether the bidder is an affiliate.
- \* The methodology should identify how quantitative measures will be considered and be consistent with an overall metric.
- \* The approach should not be biased for or against specific technologies, solely based on the choice of technology (as opposed to, e.g., quantifiable differences between the value of peaking and baseload technologies).

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<sup>&</sup>lt;sup>9</sup> Jacobs, Jonathan M., *Preliminary Report of the Independent Evaluator on the 2006 Request for Offers from Eligible Renewable Resources (Renewable RFO)*, PA Consulting Group, Los Angeles CA, January 16, 2007, p. 2-1.

- PA
- \* The methodology does not have to be the one that the IE would independently have selected but it needs to be "reasonable".

These principles do not require the upfront identification of procurement targets, as those may depend on committed contract quantities and commitments may be made between release of the RFO and selection of the shortlist. They do not also specifically address "consistent" evaluation of bids of different sizes and timing because PA considers the fairness of such analysis to fall within the area of reasonableness; and it is conceivable that a consistent evaluation may not be the most reasonable.

# 4.2 SDG&E'S LCBF METHODOLOGY

Template language: "Describe IOU LCBF methodology."

SDG&E ranked bids using a spreadsheet. The following quantitative values went into the ranking:

- \* Adjusted, levelized offer price
- \* Estimated costs of transmission network upgrades or additions
- \* Estimated congestion costs
- \* Estimated RA credit

Debt equivalence was not considered, per CPUC D. 07-12-052. The next four subsections describe the four bullet items above. The fifth subsection addresses a specific change to one of the details of the LCBF calculation relative to previous renewable RFOs. PA's opinion of the use of LCBF methodology is included in section 5.8.

# 4.2.1 Adjusted, levelized offer price

SDG&E's bid evaluation method does not directly compare costs and benefits of individual contracts; rather it creates an "adjusted price" metric for each contract, and compares contracts based on that metric rather than on a measure of net benefits or net costs. This means that SDG&E does not compute an "avoided cost" or "market price" by hour or subperiod to be compared with contract costs. Such a computation would be appropriate if the source of contract value was energy value (avoided energy purchases). But RPS-qualified energy is not interchangeable or fungible with spot energy, because spot energy is not guaranteed to be RPS-qualified.

The benefit or value of RPS-qualified energy is in its renewability. In that sense every MWh from a renewable resource has equal benefit regardless of the contract or the time of delivery. But SDG&E also recognized that RPS-qualified energy has both "renewability value" and "energy value", and that the energy value depends on time of delivery (TOD). To recognize this, SDG&E uses as its measure of contract cost the average of the projected contract payments in different TOD periods weighted by the product of volume and a TOD weighting factor. The weighting factors have been approved by the CPUC and PA did not investigate their source.

For each year, the adjusted or "benefit-weighted" price is the average payment, divided by a MWh-weighted average TOD factor. For contracts with TOD pricing (where in each period

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the payment per MWh equals the contract price times the TOD factor) it is the same as the contract price. The offer price term is the levelization of the adjusted price: for each year, the adjusted price in \$/MWh is multiplied by projected deliveries in MWh to get a stream of revenues, and the offer price term is the constant price in \$/MWh that would yield a stream of energy revenues having the same net present value.

## 4.2.2 Estimated costs of transmission network upgrades or additions

For offers for new projects or projects proposing to increase the size of existing facilities, SDG&E's model calculated costs for transmission network upgrades or additions, using the information provided through the TRCRs. (Two projects had CAISO-approved, completed System Impact Studies that could have been used but since they were ranked below the shortlist cutoff before adding any transmission costs, this specialized effort was not undertaken.) If a bidder identified the cluster to which a project belonged, the transmission cost corresponded to the cost of the first plant in that cluster according to the utility's TRCR. If the bidder had not identified the cluster, PA applied its own judgment to determine the cluster based on the project location and interconnection information. Projects outside of the California ISO were expected to have internalized the cost of transmission to the ISO, as well as the cost of required transmission upgrades outside the ISO, into their bid price; they could still be assigned additional upgrade costs within California based on the TRCRs.

## 4.2.3 Estimated congestion costs

Congestion impacts from the proposed point of delivery to SDG&E's load aggregation point were determined after LCBF rankings had been computed without congestion information. In this way SDG&E was able to reduce the number of projects for which congestion impacts were computed. In past RFOs the congestion study had been conducted by ABB Inc. ABB was unable to do so for the 2009 study. PA agreed that it was reasonable for SDG&E's transmission planning group to conduct the study given the separation from the procurement group provided for under the FERC Code of Conduct. As for the 2008 RFO, there was no pre-Sunrise case. Congestion adders for the projects that ranked highest based on the other LCBF components were all small and therefore congestion costs did not affect the composition of the short list.

# 4.2.4 RA credit

Renewable projects under contract to SDG&E would provide varying amounts of resource adequacy (RA) credit. In the 2008 RPS RFO for which PA served as IE, SDG&E had represented RA as a cost rather than a credit, based on the cost SDG&E would incur for additional RA credits equal to the difference between a bid's capacity and its own RA credit. PA argued that this approach unduly relied on a bid's "nameplate" capacity, which had no real relation to any commodity the bid provided to SDG&E and which could in some cases be an artificial value. SDG&E accepted PA's argument for the 2009 RFO and assigned each bid a cost credit equal to the value of the RA credit the bid would be expected to receive based on technology and the RA capacity credits that have been assigned by CAISO to projects of similar technology (normalized by capacity). The result is an annual RA credit in \$/year (a unit cost in \$/kW-yr multiplied by capacity in kW). The credit is converted to levelized \$/MWh, similar to the levelization of the offer price term.

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## 4.2.5 Duration equalization

In past Renewables RFOs, SDG&E used a "duration equalization" approach to handle start and end effects. This has addressed principle 6 from the Template (section 4.1). All contracts were put on an equal term basis by using an early start date (in principle, the earliest start date over all bids) and a late end date (in principle, the latest end date over all bids). The pricing for each contract prior to its start date and after its end date was based on an MPR proxy, that is, a value computed using the CPUC's MPR methodology applied to contemporary cost assumptions. For the 2009 RFO, SDG&E's evaluation model was constructed to use the average bid price of bids shortlisted in 2008 as a proxy instead of the MPR; all other aspects of the design were the same as before.

#### 4.3 EVALUATION OF THE STRENGTHS AND WEAKNESSES OF SDG&E'S LCBF METHODOLOGY IN THIS SOLICITATION

*Template language: "Using the principles indentified in section III.A, evaluate the strengths and weaknesses of IOU's methodology in this solicitation:* 

- "1. Market valuation
- "2. Evaluation of various technologies and products
- "3. Evaluation of portfolio fit
- "4. Evaluation of bids with varying sizes, in-service dates, and contract length
- "5. Evaluation of bids' transmission costs
- "6. Evaluation of bids' project viability
- "7. Other."

Overall, PA believes that the SDG&E methodology is reasonable. This judgment is within the context of the principles set forth in 4.1, especially the last: "The methodology does not have to be the one that the IE would independently have selected but it needs to be 'reasonable'." PA has detailed comments on a limited number of the points above.

## 4.3.1 Evaluation of various technologies and products

PA did not detect any technology bias in the methodology; however there were certain biases present in the qualitative evaluation which should be mentioned.

First, SDG&E preferentially selected bids in the Imperial Valley or "SPL area". This is consistent with other commitments SDG&E has made, for example to replace failed projects with projects from the SPL area. This geographic bias had no technology component and comports with the CPUC's policy directive to encourage development in the Imperial Valley. PA believes that it is reasonable for SDG&E to exercise such a bias provided that it is does not depend on the identities of bidders, and that SDG&E only uses it to distinguish among projects of substantially similar LCBF rankings.

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## 4. Fairness of the design of SDG&E's methodology for bid evaluation and selection

Second, SDG&E decided against selecting any out-of-state wind projects. These projects were generally the lowest-priced offers and required "firming and shaping" arrangements to deliver their power to California. SDG&E recently had several hundred MW of out-of-state wind contracts approved by the CPUC and was probably influenced by recent public discussion, including in the Legislature, against the use of out-of-state projects for RPS compliance. PA disagreed with this decision but did not strongly advocate against it, because it was a legitimate exercise of SDG&E's judgment.

## 4.3.2 Evaluation of portfolio fit

The Renewable Portfolio Standard is based on raw renewable MWh, with no time differentiation. Furthermore, the quantitative LCBF analysis is but part of a process that includes consideration of bidders' track records and viability and extensive negotiation – another IE has characterized the process as more like a "competitive negotiation" rather than a sealed-bid auction.<sup>10</sup> SDG&E's LCBF computation bears a similar relation to a more complex time-differentiated analysis as a "screening curve" analysis does to an optimal capacity expansion model; yet as a part of a larger process the screening curve analysis is often quite adequate.

## 4.3.3 Evaluation of bids' transmission costs

PA assigned TRCR clusters to those projects that did not provide such information. PA did not consider SCE's TRCR to contain a sufficient definition of its clusters, and requested additional information, which was received from an SCE attorney. In mid-August, PA was informed that SDG&E's procurement group was considering requesting from its transmission planning group a special TRCR-like upgrade analysis for Imperial Valley resources, but if such a study was conducted its results were not used in the LCBF evaluation. SDG&E's Evaluation Team requested a congestion analysis from SDG&E's Transmission function; PA reviewed the information provided by the Evaluation Team and ensured that no data was transmitted that could identify bidders.

## 4.3.4 Evaluation of bids' project viability

SDG&E eliminated certain bids due to low viability. These judgments did not always accord with bidders' Project Viability Calculators, which had been self-scored. It was necessary to rescore all high-ranking bids. In one case SDG&E relied on its own experience analyzing and eliminating a potential developer site that was subsequently bid into the 2009 RFO.

## 4.4 FUTURE IMPROVEMENTS

Template language: "What future LCBF improvements would you recommend?"

PA has no improvements to recommend at this time.

<sup>&</sup>lt;sup>10</sup> Private conversation.

## 4.5 ADDITIONAL COMMENT ON THE METHODOLOGY

Template language: "Any additional information or observations regarding the IOU's evaluation methodology."

PA has nothing else to add to this chapter.

## 5. PROCEDURAL FAIRNESS OF THE BID EVALUATION

Template language: "Was the LCBF bid evaluation process fairly administered?"

This chapter addresses the application or administration of the methodology described in chapter 4

## 5.1 PRINCIPLES USED TO DETERMINE FAIRNESS OF PROCESS

Template language: "A. Identify guidelines used to determine fairness of evaluation process. Example guidelines (each IE should identify the specific guidelines he/she used in his/her evaluation)

1. Were all bids treated the same regardless of the identity of the bidder?

2. Were bidder questions answered fairly and consistently and the answers made available to all bidders?

3. Did the utility ask for "clarifications" that provided one bidder an advantage over others?

4. Was the economic evaluation of the bids fair and consistent?

5. Was there a reasonable justification for any fixed parameters that were a part of the IOU's LCBF methodology (e.g., RMR values; debt equivalence parameters)?

6. What qualitative and quantitative factors were used to evaluate bids?"

As in the previous section, PA used principles originally codified by PA in its report on SDG&E's 2006 RPS RFO:<sup>11</sup>

- \* Were affiliate bids treated the same as non-affiliate?
- \* Were bidder questions answered fairly and consistently and the answers made available to all?
- \* Did the utility ask for "clarifications" that provided the bidder an advantage over others?
- \* Were bids given equal credibility in the economic evaluation?
- \* Was the procurement target chosen so that SDG&E would have a reasonable chance of meeting its 20% target (taking into account contract failures)?
- \* Was there a reasonable justification for any fixed parameters that enter into the methodology (e.g., RMR values; debt equivalence parameters)?
- \* Were qualitative factors used only to distinguish among substantially equal bids?

<sup>&</sup>lt;sup>11</sup> Jacobs, op. cit., p. 3-1.

## 5.2 ADMINISTRATION AND BID PROCESSING

Template language: "Utilizing the guidelines in Section IV.A, describe the IE methodology used to evaluate administration of the IOU LCBF process."

A complete description of PA's activities is in section 2.3. Most of the guidelines above are addressed in detail in subsequent sections of this chapter, but three of them, which are not addressed below, can be answered here succinctly:

- \* Bidder questions were answered fairly and consistently.
- \* SDG&E did not ask for clarifications in such a way as to advantage any bidder.
- \* All bids were given equal credibility in the quantitative (LCBF) evaluation.

## 5.3 CONFORMANCE CHECK

Template language: "Did the utility identify, for each bid, the terms that deviate from the utility RFO? Did the IOU identify nonconforming bids fairly – fair both to the nonconforming bidders and to conforming bidders?"

PA verified that each offer received conformed with the requirements of the RFO. Nonconforming bids were identified as such but not immediately discarded. As in previous renewables solicitation, the RFO stated that non-conformance "may disqualify [a] proposal from further consideration". SDG&E and PA interpreted this somewhat broadly and attempted to evaluate the nonconforming bids if possible. Extensive efforts were made to contact bidders and give them opportunities to provide additional information that would bring their bids into conformance. PA recommended that SDG&E eliminate a small number of offers as non-conforming:

- \* A "hybrid combined-cycle plant" consisting of a solar thermal plant that provided heat to the steam turbine of a gas-fired combined-cycle plant. Because only a minority of the energy produced would be RPS-qualified the bid did not conform to the RPS RFO. PA suggested that the plant could qualify if the gas-fired energy were accepted in SDG&E's ongoing conventional RFO, but it did not so qualify
- \* An offer of "firming and shaping" services that did not provide any net renewable energy
- \* An offer that was deemed equivalent to a financial contract providing no net renewable energy
- \* An offer using a unique technology that would be sited within SDG&E's gas distribution network but for which, despite repeated efforts, we were unable to obtain sufficient information on which to base an evaluation. Because of the potentially interesting and unusual (although possibly incompletely developed) technology, PA has recommended that SDG&E be open to this bidder on a bilateral basis.

In addition, several offers including "negotiation prices" or unspecified "SDG&E participation" in development were eliminated as being incompletely priced. In each case, these were additional options associated with PPA offers, so that the projects themselves were not eliminated.

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PA believes that SDG&E's treatment of non-conforming bids was fair and reasonable.

#### 5.4 PARAMETERS AND INPUTS FOR SDG&E'S ANALYSIS

Template language: "If the IOU conducted any part of the bid evaluation, were the parameters and inputs determined reasonably and fairly? What controls were in place to ensure that the parameters and inputs were reasonable and fair?"

The quantitative bid analysis was conducted by PA. Certain key parameters were supplied by SDG&E independent of any bids, including the RA price estimate, RA cost factors, the proxy price for duration equalization, TOU pricing factors, and financial parameters of the revenue requirements model for Alternative III bids. Parameters and inputs for the congestion analysis were determined by SDG&E's transmission function independent of the procurement group.

## 5.5 PARAMETERS AND INPUTS FOR OUTSOURCED ANALYSIS

Template language: "If the IE or a third party conducted any part of the bid evaluation, what information/data did the utility communicate to that party and what controls did the utility exercise over the quality or specifics of the out-sourced analysis?"

PA conducted the quantitative LCBF analyzing using a spreadsheet model and parameters supplied by SDG&E. SDG&E and PA were in communication throughout the analysis, generally about modifications to the model that became necessary in the course of the analysis and about missing data. SDG&E did not exercise control over the quality or specifics of the analysis. SDG&E and PA did work together to identify and solicit missing information from bidders.

Congestion impacts from the proposed point of delivery to SDG&E's load aggregation point were determined by a study conducted by SDG&E's transmission function. SDG&E's procurement group communicated to the transmission function the locations and general characteristics of a set of high-ranking bids for this analysis. PA reviewed that communication to ensure it included no identifying information.

## 5.6 TRANSMISSION ANALYSIS

*Template language: "Were transmission cost adders and integration costs properly assessed and applied to bids?"* 

For offers for new projects or projects proposing to increase the size of existing facilities, SDG&E's model calculated costs for transmission network upgrades or additions, using the information provided through the TRCRs or a CAISO-approved, completed System Impact Study. PA identified clusters for projects whose bids did not contain that information. Projects outside of the California ISO were expected to have internalized the cost of transmission to the ISO, as well as the cost of required transmission upgrades outside the ISO, into their bid price; they could still be assigned additional upgrade costs within California based on the TRCRs.

## 5.7 ADDITIONAL ISSUES

*Template language: "Describe any additional criteria or analysis used in creating its short list (e.g. seller concentration). Were the additional criteria included in the solicitation materials?"* 

## 5.7.1 Affiliate bids and UOG ownership proposals

The treatment of affiliate bids has been a focus of PA throughout its tenure as Independent Evaluator for SDG&E. Although the Energy Division's template does not specifically call for discussion of the handling of affiliate bids and UOG ownership proposals, the CPUC and FERC have both expressed concern about the fair treatment of non-affiliate bids. They required particular attention in past RFOs because SDG&E was conducting the evaluation itself, rather than having the IE do so. In this case, since PA conducted the evaluation, no special "masking" was required as in past RFOs.

SDG&E provided three alternative forms for bids: PPA, PPA with buyout option, and turnkey. The latter two are utility ownership forms. Several bidders submitted Alternative II (PPA with buyout) bids. In all cases these were additional options to Alternative I bids but the buyouts did not provide identifiable value. Several bidders submitted Alternative III (turnkey) bids, which were evaluated using a variant of a "revenue requirements" model and treating the revenue requirement to finance the purchase similarly to an annual PPA payment.

## 5.7.2 Viability

Developer and project viability have become a key concern in the Renewable RFO, because of the delays and contract failures that have affected several projects. The CPUC devoted special attention to viability in 2009, requiring "that each IOU include a project viability methodology and calculator in its amended 2009 Procurement Plan and solicitation package."<sup>12</sup>

SDG&E requested bidders to complete a Project Viability Calculator (PVC) for each bid, rather than fill out the PVC for each bid. The PVC form was based on the format developed by the Energy Division. This was in order to avoid having the utility or IE create a PVC for every bid, since SDG&E did not know in advance how many bids would be received. In the event, 158 separate project proposals were received

SDG&E's intent was that after the quantitative evaluation it would eliminate bids that, while scoring high, did not appear viable. One basis for doing so could have been the bidder-supplied PVCs; however, SDG&E and PA both expected bidders to take an optimistic view of viability and had therefore decided to rescore the PVCs from those bidders who scored highest in the LCBF ranking, beginning from the bidders' own scoring. SDG&E and PA separately rescored sets of high-ranking bids. PA rescored a total of 52 of the 53 highest-ranked projects (based on LCBF ranking); the unscored project is already in operation and therefore 100% viable.

The original and revised scores are shown in Figure 1 in section 5.8.

<sup>&</sup>lt;sup>12</sup> D. 09-06-018, p. 21.

## 5.7.3 Concentration risk

Before any bids were received, PA expressed to SDG&E its concern that much of the current base of RPS contracts is dependent on the completion of the Sunrise Power Link (Sunrise) transmission project. PA did not express such concern in 2009 and there was no particular evaluation of concentration risk. There were two reasons for this: (1) The Sunrise project has received its regulatory approval, removing a major risk factor and also relieving any concern about the impact of bid selection on that approval; (2) The CPUC specifically instructed SDG&E to encourage bidders who would deliver over Sunrise.

# 5.8 RESULTS ANALYSIS

Template language:" 1. Please identify instances where the IE and the IOU disagreed in the LCBF evaluation process.

- a. Discuss any problems and solutions
- b. Identify specific bids if appropriate

c. Does the IE agree that the IOU made reasonable and justifiable decisions to exclude, shortlist and or/ execute contracts with projects? If the IE did its own separate bid ranking and selection process and it differed from the IOU's results, then identify and describe differences.

d. What actions were taken by the IOU to rectify any deficiencies associated with rejected bids?

- e. Other
- 2. Overall, was the overall bid evaluation fairly administered?"





SDG&E generally shortlisted bids in order of LCBF ranking, but in two cases chose not to shortlist bids due to low viability. The viability scores are illustrated in Figure 1. The two rejected bids are indicated by red X's. In one case the bidder had not provided a Project Viability Calculator; in the other, PA and SDG&E agreed that the bidder's self-score was overly optimistic. This graph also indicates the biogas project, which had not provided a self-score and to which PA attributed a viability score below 60%.



Figure 1 - Project Viability Scores

San Diego Gas & Electric Co. 8/11/11

PA

#### 5. Procedural fairness of the bid evaluation

The shortlist contains one existing wind project (GWh), three projects in the SPL area (about GWh), and the Borrego Springs project (GWh). SDG&E has basically by having shortlisted the wind repowering, but has shortlisted a reasonable project portfolio. This is in contrast to the 2008 RFO, where SDG&E shortlisted three times its identified need but wound up terminating negotiations with many counterparties. PA believes that a smaller shortlist (3 projects) will be easier for SDG&E to manage.

In PA's opinion, SDG&E conducted the RFO in fair and equitable manner. There were areas in which PA and SDG&E disagreed, as has been noted, but in each case PA believes that these were issues on which reasonable parties could disagree and that SDG&E, as the party at risk to meet its RPS objective, should have the prerogative to make those decisions.

One affiliate bid, Sempra Generation Energia Sierra Juarez - Jacume, is on the short list reported above. Of the SPL-area projects bid into this RFO, it was the second most highly ranked in the LCBF analysis.

SDG&E did not favor this affiliate bid, because PA conducted the LCBF evaluation, PA decided to evaluate the bid based on its indicative price, and SDG&E has conditioned the negotiation Because this is an affiliate bid

negotiation PA intends to continue to follow closely the negotiations with Sempra. SDG&E has stated that they will invite the IE to all negotiation sessions with the affiliate (as opposed to just providing regular reports on the negotiations).

#### 5.9 ADDITIONAL ISSUES

appropriate to shortlist this bid.

Template language: "Any other relevant information or observations."

PA has nothing else to add to this chapter.

PA believes it was

## 6. FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

Since January 2010, SDG&E has provided its Independent Evaluators with a weekly "status matrix" describing ongoing negotiations. The Solar Gen 2 offer first appeared in the March 11, 2011, edition of the Status Matrix. It was first reported to SDG&E's Procurement Review Group on March 18. PA followed the contract negotiations mostly by reviewing contract drafts and the successive weekly status matrices; by following reports to the Procurement Review Group; and through discussions with SDG&E negotiators.

## 6.1 PRINCIPLES OF EVALUATION

Template language: "A. Identify principles used to evaluate the fairness of the negotiations."

The key questions are whether SDG&E showed favoritism to this or any other bidder, and whether SDG&E negotiated harder or less hard with them than with any other bidder. Note that in the context of negotiations, favoritism toward a bidder is not the same as favoritism toward a technology.

## 6.2 PROJECT-SPECIFIC NEGOTIATIONS

Template language: "Using the above principles (section V.A), please evaluate fairness of project-specific negotiations."

In general PA does not directly observe most contract negotiations, except for those with affiliates. PA follows negotiations through discussions with SDG&E, summaries of current proposals and SDG&E's reports to its Procurement Review Group. This is consistent with the original understanding of PA's role as IE, which was developed when PA and SDG&E negotiated their initial contract (with the participation of the PRG). PA usually tries to participate in at least one meeting between the parties, to gain some familiarity with the participants and explain the IE role. In this case PA did not participate in any of the meetings.

It is PA's opinion that these contracts reflect fair negotiations.

## 6.3 TERMS AND CONDITIONS

Template language: "Identify the terms and conditions that underwent significant changes during the course of negotiations."

The contracts contain several changes from the model PPA that was included with the 2009 RFO package. Most of the changes are similar to modifications SDG&E has made to every recent contract, such as language related to the



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There	is no condition related to	. Presumably Solar Ger	n 2 will have



The contract terms appear reasonable and fairly balanced.

#### 6.4 RELATION TO OTHER NEGOTIATIONS

Template language: "Was similar information/options made available to other bidders, e.g. if a bidder was told to reduce its price down to \$X, was the same information made available to others?"

PA does not believe that SDG&E provided Solar Gen 2 with information of the type addressed here.

#### 6.5 ADDITIONAL ISSUES

Template language: "Any other relevant information or observations."

PA has nothing else to add to this chapter.

#### 7. **PROJECT-SPECIFIC RECOMMENDATION**

The pricing of the Solar Gen 2 contract is quite attractive compared with the 2009 shortlist although the project viability score is low. The risk is probably that the project will be completed late, not that it will fail.

#### 7.1 **EVALUATION**

Template language: "A. Provide narrative for each category and describe the project's ranking relative to: 1) other bids from the solicitation and 2) from an overall market perspective:

- 1. Contract Price, including transmission cost adders
- 2. Portfolio Fit
- 3. Project Viability
- a. Project Viability Calculator score
- b. IOU-specific project viability measures

c. Other (credit and collateral, developer's project development portfolio, other site-related matters, etc.)

4. Any other relevant factors."

#### 7.1.1 Pricing

PA reviewed the Solar Gen 2 contract using the same evaluation model that had been used







#### 7.1.2 Project Viability Calculator

SDG&E provide PA with a Project Viability Calculator for this project indicating a score of This was based on the most current Project Viability Calculator (released for use with the 2011 RFO). The Project Viability Calculator used with the 2009 RFO (more appropriate for a project to be compared with that RFO's shortlist) had somewhat different criterion weightings and scoring guidelines. PA transferred SDG&E's criterion scores to the older form (which actually improved the overall score) and scored the project's viability itself:

	_	- score card -		
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Company/ Development	Team _			
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	Total Category			
	Weighted Criteria			
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Resource Quality				
Manufacturing Supply Chain				
	Total Category			
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	Normalized Category			
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Development Milestones	ſ			
Site Control				
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Interconnection Progress				
Transmission Requirements				
Reasonableness of COD				
	Total Category			
	Weighted Criteria			
	Normalized Category			
	Weighted Category			
Tot	al Weighted Score			



\* <u>Team experience</u>: The Solar Gen 2 team, as it has been presented, does not represent an established development organization but is made of an experienced financier (CEO) and a group of consultants.

The CEO apparently has experience developing power projects, including a thermal plant in Fresno. Neither the CEO nor the consultants appear to have been involved in owning and operating power plants, based on the information we have.

- \* <u>Technical feasibility</u>: PA rated this (as with the other large PV contracts submitted recently) because no 150 MW solar plant has been built yet in the Western hemisphere. In fairness there has been a MW phase built (the final phase of the Sarnia plant), comparable to the three individual MW sites. PA is also concerned about the feasibility of completing financing, permitting, and construction of a MW installation within 12 months, and this is supported by a communication we saw from Solar Gen 2 stressing the importance of a quick action by the CPUC.
- \* <u>Resource quality</u>: PA rated this because, although it is well-known that the Imperial Valley has good insolation, we have not seen a "verified third party resource assessment" (in the language of the criteria scoring guidelines).
- \* Permitting status: Solar Gen 2

   ).

   \* Project financing status: There is no indication that Solar Gen 2

   interconnection progress: The Generator Interconnection Agreements for Solar Gen 2 were on the IID Board agenda for August 9 but as of this writing the minutes are not available so we cannot verify their disposition.
   \* Site control: Although the scores from PA and SDG&E on this item are identical we
- \* Site control: Although the scores from PA and SDG&E on this item are identical we must note that Solar Gen 2's site control is indirect. Solar Gen 2 apparently has an option to purchase a company called

PA is concerned about Solar Gen 2's ability to complete the project by the Commercial Online Date, and to complete 50 MW of it two months earlier. On the other hand, it is not unreasonable for the project to be completed less than a year late, and therefore we have agreed with SDG&E's '10' score for Reasonableness of COD.

## 7.2 RECOMMENDATION

Template language: "Do you agree with the IOU that the contract merits CPUC approval? Explain the merits of the contract based on bid evaluation, contract negotiations, final price, and viability."

The Solar Gen 2 contract is well-priced. Importantly, it appears to have the active support of the host utility. On the other hand, the Project Viability Calculator score is one of the lower ones among contracts SDG&E has submitted; the team exhibits limited development

7-3

experience and little operating experience. PA believes they will be able to complete the project, but not necessarily according to the aggressive schedule in this contract. While SDG&E may not get as much renewable energy in the 2011-3 period as it expects, the project should be an economic success. Therefore PA believes it merits approval.

#### 7.3 **ADDITIONAL ISSUES**

Template language: "Any other relevant information or observations."

PA has nothing else to add to this chapter.

San Diego Gas & Electric Advice Letter 2279-E August 23, 2011

**IID Process** 

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Tuesday, March 24, 2009

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#### TSR - Transmission Service Agreement Completion Phase