

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

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Order Instituting Rulemaking to Continue	)	Rulemaking 11-05-005
Implementation and Administration of California	)	(Filed May 5, 2011)
Renewables Portfolio Standard Program.	)	

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**SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E)  
2014 RENEWABLES PORTFOLIO STANDARD  
PROCUREMENT PLAN COMPLIANCE FILING**

**(\*PUBLIC VERSION\*)**

AIMEE M. SMITH  
101 Ash Street, HQ-12  
San Diego, CA 92101  
Phone: (619) 699-5042  
Fax: (619) 699-5027  
E-mail: [amsmith@semprautilities.com](mailto:amsmith@semprautilities.com)

Attorney for  
SAN DIEGO GAS & ELECTRIC COMPANY

December 9, 2014

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (the “Commission”) and the *Decision Conditionally Accepting 2014 Renewables Portfolio Standard Procurement Plans and Off-Year Supplement to 2013 Integrated Resource Plan* (the “2014 Plan Decision”), issued in the above-captioned docket on November 24, 2014, San Diego Gas & Electric Company (“SDG&E”) hereby submits its final 2014 Renewables Portfolio Standard (“RPS”) Procurement Plan and related appendices (together, the “Plan”).

SDG&E’s final Plan is attached hereto as Attachment A. The Plan includes the following Appendices:<sup>1/</sup>

- Appendix 1 – Project Development Status Update (**PUBLIC VERSION**)
- Appendix 2 – Quantitative Information (**PUBLIC VERSION**)

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<sup>1/</sup> In accordance with Ordering Paragraph 17 of D.14-11-042, SDG&E will not issue a Request for Offers (“RFO”) for RPS purchases in the 2014 cycle. Accordingly, it does not include herewith bid solicitation protocol documents or a description of its bid evaluation methodology. Attached updated solicitation materials have been included to prevent these documents from becoming stale and to enable use of the most current version of the RPS Model PPA for renewable procurement that occurs through the preferred resources solicitation issued in accordance with D.14-03-004.

- Appendix 3 – Cost Quantification Table (***PUBLIC VERSION***)
- Appendix 4 – Expiring Contracts
- Appendix 5 – Important Plan Changes from 2013 Plan to 2014 Plan
- Appendix 6 – 2014 RPS Model Power Purchase Agreement (“PPA”)
- Appendix 7 – 2014 RPS Renewable Energy Credit (“REC”) Agreement
- Appendix 8 – 2014 RPS Sale (Request for Proposals [“RFP”] Document)
- Appendix 8.A – 2014 RPS Sales Model PPA (RPS Sales PPA)
- Appendix 9 – Redline of Draft 2014 RPS Solicitation Protocol Against Final 2014 RPS Solicitation Protocol
- Appendix 10 – Redline of Draft 2014 RPS Plan (Protocol Documents omitted) against Draft 2014 RPS Plan (Protocol Documents omitted)

Respectfully submitted this 9<sup>th</sup> day of December, 2014.

/s/ Aimee M. Smith

AIMEE M. SMITH

101 Ash Street, HQ-12

San Diego, CA 92101

Phone: (619) 699-5042

Fax: (619) 699-5027

E-mail: [amsmith@semprautilities.com](mailto:amsmith@semprautilities.com)

Attorney for

SAN DIEGO GAS & ELECTRIC COMPANY



**ATTACHMENT A**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**2014 RPS PROCUREMENT PLAN**

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## I. EXECUTIVE SUMMARY

San Diego Gas & Electric Company's ("SDG&E's") 2014 Renewable Portfolio Standard ("RPS") Procurement Plan (the "RPS Plan") describes the process used by SDG&E to determine its RPS procurement need, as well as the methods it will use to manage its RPS portfolio in order to meet RPS program compliance targets in a cost-effective manner. The RPS Plan establishes guidelines for SDG&E's procurement of Least-Cost Best-Fit ("LCBF") RPS-eligible resources that will enable SDG&E to achieve the following levels of renewable deliveries during each relevant Compliance Period ("CP"): (a) an average of 20% of retail sales between January 1, 2011 and December 31, 2013, inclusive<sup>1</sup> ("CP1"); (b) 25% of retail sales by December 31, 2016, with reasonable progress made in 2014 and 2015<sup>2</sup> ("CP2"); (c) 33% of retail sales by December 31, 2020, with reasonable progress made in 2017, 2018 and 2019<sup>3</sup> ("CP3"); and (d) 33% of retail sales in each year beyond 2020<sup>4</sup> ("Post-2020 CP").

In order to determine the quantity of renewable generation that must be procured to meet SDG&E's RPS procurement need in each CP, SDG&E will follow the Need Determination Methodology described below. To determine its optimal portfolio mix, SDG&E manages its portfolio to conform to the portfolio content and balance requirements established through the RPS program. SDG&E will implement a work plan to fulfill its need, including soliciting additional multi-product and multi-term contracts through RPS solicitations, considering bilateral proposals, utilizing banked procurement, selling surplus generation when appropriate, and pursuing utility investment opportunities and/or utility ownership when economic and prudent.

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<sup>1</sup> Compliance towards Compliance Period 1 goals shall be measured in accordance with D.11-12-020, Ordering Paragraph ("OP") 1.

<sup>2</sup> Compliance towards Compliance Period 2 goals shall be measured in accordance with D.11-12-020, OP 2.

<sup>3</sup> Compliance towards Compliance Period 3 goals shall be measured in accordance with D.11-12-020, OP 3.

<sup>4</sup> Compliance towards Post-2020 Compliance Period goals shall be measured in accordance with D.11-12-020, OP 4.

## II. ASSESSMENT OF RPS PORTFOLIO SUPPLIES AND DEMAND

### A. *Need Determination Methodology*

SDG&E makes procurement decisions based on how its risk-adjusted RPS position forecast (referred to herein as its “RPS position”) compares to its RPS program compliance requirements, the result of which is its probability-weighted procurement need or Renewable Net Short (“RNS”). In order to calculate its RPS Position, SDG&E assigns a probability of success, following a qualitative and quantitative assessment, to the expected deliveries for each project in its portfolio<sup>5</sup> and then adds the risk-adjusted expected deliveries across all projects in its entire RPS portfolio. Probabilities are used because renewable projects and their deliveries are exposed to multiple risks, and the flexible compliance mechanisms that allowed for borrowing from future procurement were eliminated by Senate Bill (“SB”) 2 (1X).<sup>6</sup> These risks include approval risks (*e.g.*, Commission approval and the timing of such), development risks (*e.g.*, permitting, financing, or transmission interconnection), delivery risks (*e.g.*, generation fluctuations given the variant-intermittent nature of some renewable resources, or operational challenges), and/or other risks (*e.g.*, under-development of transmission infrastructure common to a group of projects).

In general, if SDG&E’s RPS Position is less than its RPS requirements, SDG&E will likely procure additional resources. If, on the other hand, its RPS Position is greater than its RPS requirements, SDG&E will consider opportunities to bank or sell surplus generation. In addition, in order to optimize the relative value of renewable energy across compliance periods, SDG&E also considers short-term contracts when, for example, it is short<sup>7</sup> in the most immediate CP but long in the subsequent CP. SDG&E will also consider procurement strategies that maximize the product category limitations in order to optimize ratepayer value across compliance periods, and strategies that secure greater value from approved RPS expenditures. SDG&E strives to have a well-diversified RPS portfolio so that its RPS compliance, particularly in the most immediate

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<sup>5</sup> For purposes of determining its RPS Position, SDG&E considers its portfolio to include all executed contracts until contract expiration (*e.g.* it does not assume expiring contracts will be renewed and excludes contracts under-negotiation unless indicated otherwise) and investment and UOG projects where relevant progress has been made.

<sup>6</sup> Stats. 2011, Ch. 1.

<sup>7</sup> The term “short” is used herein to refer to an RPS Position that is lower than the relevant RPS program requirements. The term “long” is used to refer to an RPS Position that is higher than relevant RPS program requirements.



compliance period, is not unduly exposed to any given risk (*e.g.*, a particular technology, region, counterparty, etc.). SDG&E’s RPS portfolio management strategy involves identifying needs and risks and managing them as well as possible in a cost-effective manner.

The following sections explain SDG&E’s methodology for determining its RNS. First, the process used to compute the RPS Position is explained. Then, needs by compliance periods are inferred by comparing RPS requirements to RPS Positions.

**i. Assessment of Probability of Success for Various Project Types as a Key Component of Calculating the Probability-Weighted RPS Position Forecast**

SDG&E must assess the probability of success of the following main types of projects: (a) delivering; (b) approved but not yet delivering; and (c) not yet approved.<sup>8</sup> SDG&E evaluates the probability of success for each project in its portfolio on a monthly basis in order to calculate its RNS, which is the basis for its procurement need. To do this, SDG&E conducts a monthly review with an interdisciplinary team and uses the most up-to-date qualitative and quantitative information to assign a probability of success to each individual project. SDG&E’s May, 2014 most up-to-date assessment is set forth in Appendix 2. SDG&E applies the following methodology to analyze each project type:

*a. Assessment of Performance of Delivering Projects*

Projects that have already achieved commercial operation and begun delivering energy provide the most stable source of RPS deliveries when forecasting RPS procurement need. These projects have overcome development hurdles and are supported by steady revenues under executed Power Purchase Agreements (“PPAs”). However, it is crucial to consider the potential fluctuations in deliveries that these projects can experience and the impact that such fluctuations could have on SDG&E’s need to procure additional resources to meet its RPS goals. As discussed further in Section V, deliveries from these projects can be impacted by resource availability, regulatory changes, economic environment, operational performance, and evolving technologies. These types of fluctuations can be significant. In order to ensure RPS compliance, SDG&E must account for potential fluctuations (while recognizing that swings in production could be positive). The monitoring of performance of delivering contracts and the assessment of

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<sup>8</sup> See the Renewable Net Short Calculation set forth in Appendix 2.

probabilities focuses on (a) understanding the historical profile of generation of each project and how it has differed year-on-year and relative to forecasts; and (b) the operational track record of any given project. SDG&E has found that a weighting of 100% is typically appropriate for delivering contracts, but if the fluctuations in generation have been high and/or the operational track record has been poor, SDG&E will revise its forecast accordingly. Adjusting forecasts when necessary is a crucial component of SDG&E's need assessment methodology.

*b. Assessment of the Development Progress of Approved Projects that Have Not Yet Begun Delivering*

Another important aspect of SDG&E's need assessment methodology is evaluating the development status of projects approved by the Commission, but that have not begun delivering energy. These projects are typically much riskier than projects that have begun delivering due to the challenges that can arise during the development process that might prevent a project from completing construction. Permitting, interconnection, financing and other development issues are discussed further in Section IV. SDG&E currently estimates a 90% success rate on average<sup>9</sup> for all contracts presently in effect. SDG&E must account for development risks when determining its procurement need and the monitoring of development status is the most critical aspect of SDG&E's need assessment methodology. As with delivering contracts, SDG&E meets internally on a monthly basis to assign a probability of success to each of its developing projects. SDG&E's May, 2014 current assessment is provided in the Renewable Net Short Calculation in Appendix 2.

*c. Assessment of the Approval Queue for Projects that Have Been Submitted to the Commission, but are not Yet Approved*

SDG&E typically meets at least monthly with Energy Division staff to discuss the likely approval timetable of projects that SDG&E has submitted to the Commission for approval. The discussion covers expected timing of Commission action and any potential constraints that might necessitate expedited Commission action or additional information needed. Since the Commission has indicated that it can take action on only one contract per business meeting,<sup>10</sup> SDG&E works collaboratively with the Commission to develop a work plan that results in timely

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<sup>9</sup> See Appendix 2 for a list of SDG&E's risk assessment by project.

<sup>10</sup> E-mail from Julie Fitch, former Energy Division Director, dated December 18, 2009.

approval. It is possible, however, that the shortage of Energy Division staff or other procedural challenges can result in approval delays that can impact a project's ability to achieve milestones. SDG&E must monitor this process closely to determine what, if any, impact it may have on the timing of expected deliveries or sales.

## **ii. Assessment of Other Portfolio Impacts**

Once SDG&E has determined the probability of success for each of the contracts in its portfolio, SDG&E must also consider a broader range of risk factors that can impact multiple projects or its entire portfolio. SDG&E evaluates the impact of these factors on a monthly basis, and describes its methodology for analyzing these risk factors below.

### *a. Impact of Retail Sales Fluctuations*

Since RPS compliance is based on a GWh target that is calculated using a percentage of retail sales, it is important to monitor fluctuations in forecasted retail sales. In accordance with Commission guidance, SDG&E uses a forecast based upon the assumptions used to develop its most recently-approved Long-Term Procurement Plan ("LTPP").<sup>11</sup> SDG&E currently uses its own internal forecast for the first five years, and the California Energy Commission's ("CEC's") forecast<sup>12</sup> beginning in year six, as authorized in Decision ("D.")12-01-033.<sup>13</sup> SDG&E monitors its retail sales forecasts on a monthly basis in order to identify potential fluctuations and their impact on its RPS requirements.

### *b. Impact of Solar Panel Degradation*

Contracts with solar photovoltaic ("PV") developers incorporate a degradation factor which is used to forecast the project's performance over time as the panels age and become less efficient. SDG&E utilizes the degradation factor provided by the bidder in its LCBF evaluation, and uses the contractual degradation factor when calculating project deliveries for its RPS

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<sup>11</sup> San Diego Gas & Electric Company's 2012 Long Term Procurement Plan, p. 89.

<sup>12</sup> SDG&E utilizes the LSE and BA Mid Demand Baseline-Mid AAEE CEC forecast which is available under the Adopted California Energy Commission Demand Forecast Report 2014-2024, Demand Forecast Forms, at: [http://www.energy.ca.gov/2013\\_energypolicy/documents/index.html#12112013](http://www.energy.ca.gov/2013_energypolicy/documents/index.html#12112013).

<sup>13</sup> D.12-01-033, *mimeo*, pp. 15-17, Ordering Paragraphs 3, 8, and 9.

position calculation (both nominal<sup>14</sup> and probability-weighted). To the extent deliveries are different than the provided estimates, SDG&E will adjust its RPS position calculation accordingly.

*c. Impact of Key Transmission Upgrades and/or Infrastructure*

Transmission has long been recognized as a barrier to achieving RPS goals, and SDG&E continues to monitor the progress of transmission upgrades on which SDG&E's RPS projects depend in order to assess potential delays and possible impacts.

*d. Impact of Contract Renewal*

SDG&E began signing RPS contracts in 2003, most of which had terms of 20 years. Some of these contracts are expected to deliver through 2023, and will impact SDG&E's procurement needs for the Post-2020 Compliance Period. Some contracts for renewable energy procurement, however, were signed before the institution of the RPS program. Some of these contracts are scheduled to terminate during Compliance Period 2 and Compliance Period 3. As part of its RPS position calculation, and in accordance with Commission direction,<sup>15</sup> SDG&E does not assume that these contracts will be renewed. Owners of these projects will be asked to bid such projects into future requests for offers ("RFO") to compete with other options available to SDG&E at that time, and these bids will be required to conform with the need identified in the then-current RFO.<sup>16</sup> SDG&E believes that ratepayers will benefit from this additional supply being submitted into competitive solicitations as this would both reduce costs for ratepayers during periods when SDG&E is over-procured, and provide these facilities with the opportunity to extend their contracts past the original termination dates into later years when SDG&E has a need for additional resources. Additionally, as explained under Section B, SDG&E may seek to extend the term of an existing contract when economically prudent.

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<sup>14</sup> Nominal RPS position refers to a position estimate assuming that deliveries from contracts will occur as expected 100% of the time.

<sup>15</sup> *Administrative Law Judge's Ruling on Renewable Net Short*, issued May 21, 2014.

<sup>16</sup> Qualifying Facilities with expiring RPS contracts may be able to sign a Standard Contract for Qualifying Facilities with a Power Rating that is Less than or Equal to 20 MW, which was approved by the Commission on November 23, 2011 as part of the Qualifying Facilities and Combined Heat and Power Program Settlement (the "QF Settlement").

*e. Impact of Contract Termination*

As part of its contract administration process, SDG&E actively monitors upcoming contractual conditions precedent that must be met (or waived) in order for the contract to continue to be viable. When SDG&E is the beneficiary of a condition precedent that may not be or has not been met, or when parties can mutually agree to a termination that is in the best interest of ratepayers, SDG&E will consider terminating the contract.

*f. Impact of Banking Rules*

RPS program rules allow SDG&E to bank excess procurement from one compliance period for use in another, with exceptions for short term contracts and products that meet the requirements of § 399.16(b)(3) (“Category 3”).<sup>17</sup> In accordance with Commission direction,<sup>18</sup> SDG&E assumes for purposes of calculating its RNS that eligible excess procurement<sup>19</sup> will be utilized in future compliance periods.<sup>20</sup> SDG&E’s RPS Position is also impacted by the fact that the Commission’s authorized RNS calculation methodology does not incorporate the strategy of holding Category 1 products in an active Western Renewable Energy Generation Information System (“WREGIS”) sub-account across compliance periods, as discussed in Section VI.

*g. Impact of the Deficit From 2010 RPS Program*

Pursuant to D.12-06-038, SDG&E must carry forward into CP1 its procurement deficit from the former RPS program, which required that retail sellers achieve 20% by 2010. SDG&E has incorporated this deficit in its need assessment for CP1 based on the methodology provided by the decision. SDG&E’s calculation of this deficit is provided in Appendix 2.

*h. Impact of the Resale Market*

SDG&E will closely monitor opportunities to sell excess procurement. SDG&E will assess the market when opportunities arise to determine whether it is more advantageous for SDG&E’s ratepayers to bank such excess procurement for use in a future compliance period or

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<sup>17</sup> Public Utilities Code § 399.13(a)(4)(B). All statutory references herein are to the Public Utilities Code unless otherwise noted.

<sup>18</sup> *Administrative Law Judge’s Ruling on Renewable Net Short*, issued May 21, 2014..

<sup>19</sup> Rules regarding excess procurement are set forth in D.12-06-038.

<sup>20</sup> Note that SDG&E may manage excess procurement by selling such products when doing so would benefit ratepayers, or by utilizing a retired renewable energy credit (“REC”) for RPS compliance in future compliance periods.

to sell it in the market. If SDG&E believes that the current market price is high and expects that it will be able to fulfill any future needs with more economic options, it may choose to sell excess procurement instead of banking<sup>21</sup> it. This strategy is described in more detail under Section B.

*i. Impact of Rim Rock Settlement*

In 2011, the Commission approved a settlement agreement between SDG&E, NaturEner Rim Rock Wind Energy, LLC, the Division of Ratepayer Advocates (“DRA”) and The Utility Reform Network (“TURN”) (together, the “Settling Parties”) regarding SDG&E’s tax equity investment in the Rim Rock wind project located in Montana.<sup>22</sup> As part of the settlement agreement, SDG&E has agreed not to procure any incremental renewable energy credits (“RECs”) from projects that are neither directly connected nor dynamically scheduled to a California-based Balancing Area Authority (“CBA”) if such purchase would cause SDG&E to meet more than 25% of its RPS requirements with such RECs through December 31, 2017. SDG&E currently includes Rim Rock in its RNS calculation. If the project ultimately does not become part of SDG&E’s portfolio, SDG&E may undertake procurement to fill the resulting need. This need can be filled with procurement from all categories, subject to the relevant portfolio balance limitations.

*j. Impact of Mandated Procurement Programs*

The Legislature has passed, and the Commission has been working to implement several renewable procurement programs mandated by state legislature: Senate Bill (“SB”) 43 (“Green Tariff Shared Renewables”), SB 1122 (“Bioenergy Feed-in-Tariff”), and the Renewable Market Adjusting Tariff (“Re-MAT”). The Commission also implemented its own mandated renewable procurement program, the Renewable Auction Mechanism (“RAM”) program. These programs will result in additional RPS procurement that SDG&E must include in its RNS calculation; this will impact SDG&E’s position and procurement decisions. Further detail regarding these programs is provided below:

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<sup>21</sup> Note that banking a REC may either mean that the REC is held in SDG&E’s active WREGIS sub-account to be used later in its 36 month active lifespan, or it can mean that the REC is retired before its 36 month active lifespan ends and is then held in SDG&E’s retirement account for use in future compliance periods.

<sup>22</sup> See D.11-07-002.

- Green Tariff Shared Renewables (“GTSR”): SB 43, which is intended to facilitate customer participation in offsite renewable generation facilities, became effective on January 1, 2014.<sup>23</sup> This bill requires participating utilities, including SDG&E, to file an application for a GTSR program, which would allow customers to buy some or all of their energy from local renewable projects. This bill also requires that SDG&E use “commission-approved tools and mechanisms to procure additional eligible renewable energy resources for the green tariff shared renewables program,”<sup>24</sup> and states that “[a]ny renewable energy credits associated with electricity procured by a participating utility for the shared renewable energy self-generation program, but not utilized by a participating customer, shall be counted toward meeting that participating utility’s renewables portfolio standard.”<sup>25</sup> SDG&E filed an application requesting approval of its “*connected.....to the sun*” program in January, 2012 (A.12-01-008), and has modified this application to comport with the GTSR program requirements of SB 43. This application is currently under review at the Commission.
- Bioenergy Feed-in-Tariff: SB 1122, which is intended to establish a rate based on quantifiable avoided cost, contain costs, ensure maximum value to the ratepayer and utility, and stimulate the development of in-state biogas, became effective on January 1, 2013.<sup>26</sup> This bill requires that the Commission create a new feed-in-tariff (“FiT”) for bioenergy projects commencing operations after June 1, 2013 that are no larger than 3 MW in size. SDG&E expects that it will be required to procure approximately 25 MW of bioenergy from one or more product categories. As explained in more detail below under Section B, SDG&E will continue to participate in the program design and implementation process with the goals of minimizing ratepayer costs, utilizing regional resource knowledge in the allocation methodology, and addressing the inherent overlap between this Bioenergy FiT and the Re-MAT FiT program.

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<sup>23</sup> Stats. 2013, Ch. 413.

<sup>24</sup> 2833(c)

<sup>25</sup> 2833(r)

<sup>26</sup> Stats. 2012, Ch. 612.

- Re-MAT: The Re-MAT program, which is intended to establish a rate based on quantifiable avoided cost, contain costs, ensure maximum value to the ratepayer and utility, and utilize locations close to load and the distribution system, began on October 1, 2013. This renewable energy tariff is offered to projects that are no larger than 3 MW in size on a first-come first-served basis. A project must apply to participate, and if SDG&E determines that a project is eligible, it will assign this project a Re-MAT Queue Number for the project’s relevant Product Type (Baseload, Peaking As-Available, and Non-Peaking As-Available), and the project will then be able to indicate acceptance of the price for its Product Type. Capacity is offered incrementally on a bi-monthly basis in 3 MW increments to each Product Type Queue to the extent possible. SDG&E’s target is 30.9 MW, which is based on its allocation of 48.8 MW, less the amount contracted under SDG&E’s prior FiT Programs, the Customer Renewable Energy (“CRE”) FiT and the Water Agency Tariff for Eligible Renewables (“WATER”) FiT.<sup>27</sup>
- Renewable Auction Mechanism: The Commission adopted the RAM program in December 2010 with the intent of creating a standardized method for procuring projects up to 20 MW in size in order to contribute to RPS goals in the near-term, and reduce transaction costs for all parties. D.10-12-048 directed the investor-owned utilities (“IOUs”) to hold four auctions over a two year period and to submit bidding protocols and standard contracts through a Tier 3 advice letter (“AL”). SDG&E’s program target is 155 MW, of which approximately 72 MW remain to be procured. SDG&E has held four auctions over the past 3 years, and Resolution E-4582 issued on May 13, 2013 authorized a fifth solicitation.<sup>28</sup> SDG&E issued this fifth solicitation on June 2, 2014 to solicit bids for its remaining capacity under the RAM program. Per D.14-11-042, SDG&E will issue a sixth RAM auction for approximately 82 MW<sup>29</sup> to close by June 30, 2015.

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<sup>27</sup> D.13-01-041, pp. 79-80.

<sup>28</sup> E-4582, Ordering Paragraph 2, p. 12.

<sup>29</sup> D.14-11-042, *mimeo*, p. 103.



*k. Impact of Local Capacity Resource Needs*

In D.14-03-004, the Commission directed SDG&E to procure 200 MW of preferred local capacity resources, which can include renewable energy, consistent with the loading order to meet its 2021 Local Capacity Requirements (“LCR”).<sup>30</sup> This decision also required that SDG&E submit a preferred resources procurement plan. SDG&E issued a solicitation targeted at preferred resources on September 5, 2014. To the extent SDG&E procures renewable projects to fill its LCR need, this renewable energy is RPS-eligible and all or a portion of this renewable energy is made available to SDG&E’s bundled customers, SDG&E will apply it towards its RPS requirements.<sup>31</sup>

*l. Impact of Distributed Generation Policy Goals*

The Governor’s commitment to renewable distributed generation (“DG”) continues to influence proceedings, programs, and legislation. This will ultimately shape the State’s renewable mix, and as load-serving entities (“LSEs”) reach compliance, they may be required to shift procurement from utility-scale projects to small-scale DG projects. SDG&E is monitoring the legislative and policy activities related to this goal, and any potential impacts to its portfolio.

*m. Impact of Energy Storage Procurement*

The Commission issued D.13-10-040 on October 1, 2013, requiring SDG&E to procure 165 MW of energy storage by 2020.<sup>32</sup> Energy storage itself is not explicitly RPS-eligible, as explained in the 7<sup>th</sup> Edition of the CEC’s RPS Renewables Portfolio Standard Eligibility Commission Guidebook (“RPS Guidebook”).<sup>33</sup> However, to the extent SDG&E procures energy storage that meets CEC criteria for RPS-eligibility, it will count this capacity towards its RPS targets.

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<sup>30</sup> D.14-03-004, Ordering Paragraph 2, p. 143.

<sup>31</sup> Resources procured to meet the LCR need are made to subject the Commission’s Cost Allocation Mechanism (“CAM”). The Commission has not yet addressed how costs related to a renewable resource would be allocated under the CAM.

<sup>32</sup> D.13-10-040, *mimeo*, Ordering Paragraph 3, p. 77.

<sup>33</sup> RPS Guidebook, pp. 64-65.

*n. Impact of California Energy Commission Requirements*

The CEC revises its RPS Guidebook with relative frequency, which sometimes results in changes to eligibility requirements for various renewable energy resources. SDG&E monitors this process and works with CEC staff to determine the effects, if any, on its portfolio as a result of these periodic Guidebook revisions. The CEC is also tasked with verifying RPS procurement. SDG&E submitted its remaining CP1 procurement data to the CEC on July 1, 2014. The CEC's subsequent verification will be the first opportunity for the CEC to verify SDG&E's procurement under the post-SB 2 (1X) rules. SDG&E is prepared to work with the CEC in this review process.

*o. Impact of New Generator Interconnection and Deliverability Allocation Procedure*

Under the California Independent System Operator's ("CAISO's") Generator Interconnection and Deliverability Allocation Procedure ("GIDAP") procedure, the CAISO will: (i) identify the needed transmission upgrades in its annual Transmission Planning Process ("TPP"); (ii) calculate the amount of transmission capacity ("TP Deliverability") available; and (iii) allocate this TP Deliverability to eligible projects based on project viability. As a part of this process, projects seeking either Full or Partial Capacity Deliverability Status will be required to select Option A (indicating the need for ratepayer-funded deliverability upgrades), or Option B (indicating the willingness and ability to self-fund the necessary upgrades). The outcome of this TP Deliverability allocation process can affect projects in several ways if they select Option A. While projects choosing Option A will receive cash reimbursement for upgrades in accordance with their assigned cost responsibility, they may have to downsize, keep their project size and accept "Partial Capacity Deliverability Status," convert to "Energy-Only Deliverability Status," or withdraw from the interconnection queue if they do not receive a sufficient TP Deliverability allocation. A project's TP Deliverability allocation and the consequences associated with it could make it difficult for the project to secure financing, and may also impact the project's ability to meet its contractual obligations, such as the project online date. SDG&E will closely monitor this process, and any affects it may have on its portfolio.

### **iii. Determination of the Compliance Needs for Each Compliance Period**

After probabilities are assigned to each project, SDG&E's RNS is calculated by multiplying the forward contractual delivery profiles (including degradation) of each project by each project's probability and then adding those generation profiles across the portfolio.<sup>34</sup> The discussion below describes SDG&E's current forecasted RNS for each compliance period based on its assessment as of May, 2014.

D.14-03-004 directs SDG&E to procure preferred resources to meet LCR needs, which may result in new renewables contracts, to fulfill system LCR requirements by 2021. This requirement, coupled with SDG&E's expectation that it will be able to meet its CP2 goals with procurement already under contract (as explained below), leads to the conclusion that the most reasonable course of action at this time is to refrain from soliciting new renewable resources in the 2014 procurement cycle. SDG&E also notes that it continues to procure renewable energy projects under mandated procurement programs, such as the RAM and Re-MAT. SDG&E reserves the right to file a motion to update its 2014 RPS Plan if it determines that an RPS RFO is necessary, and will seek Commission approval before pursuing RPS contracts other than those resulting from authorized programs such as the Re-MAT and RAM during the 2014 RPS RFO cycle.

Additionally, SDG&E continues to seek optimization opportunities, which may include the sale of RPS products via bilateral sales agreements and/or a request for proposals ("RFP"). These opportunities are market-driven. To the extent SDG&E determines that an RFP is necessary, it will issue the RFP attached in Appendix 8. SDG&E reserves the right to modify the content of the RFP document as necessary to reflect its need if SDG&E elects to issue this RFP in 2014. SDG&E will determine if a need for either a buy RFO or sales RFP exists at the time it files its final 2014 RPS Plan based upon updated information available at that time. More detail on SDG&E's need in each compliance period is provided in Appendix 2.

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<sup>34</sup> As explained above, SDG&E's practice is to exclude contracts under-negotiation and to not assume renewal for expiring contracts.

*a. Compliance Period 1 Procurement Needs*

SDG&E filed its 2014 33% RPS Procurement Progress Report on April 1, 2014, which will show that SDG&E met its CP1 RPS compliance obligations. However, the compliance reporting process for CP1 is not yet complete. SDG&E reported all RECs used for CP1 compliance to the CEC on June 25, 2014, and to the Commission on August 1, 2014. As explained under Section IV, the compliance process to be used following the submittal of these reports, as well as the documents and forms necessary for the August 1 report to the Commission, are currently under development. SDG&E will know the results of its CP1 RPS compliance efforts and any impact to its procurement needs once these elements of the compliance process are finalized and the process itself is completed.

*b. Compliance Period 2 Procurement Needs*

Based on current projections, SDG&E expects that it will meet its CP2 RPS goals with generation from contracts that have been executed, together with the deliveries from utility-owned generation (“UOG”) initiatives where relevant progress has been made.<sup>35</sup> SDG&E intends to manage potential over-procurement by banking it for future compliance needs, terminating contracts where conditions precedent are not met or where mutual agreement is reached, and/or selling such excess procurement.

*c. Compliance Period 3 Procurement Needs*

Based on SDG&E’s current probability-weighted RPS position forecast, it is possible that SDG&E will not require additional procurement in CP3. It is important to note, however, that this outlook is based on current data, and procurement needs are difficult to forecast for periods beyond several years into the future. The level of any new purchases required for CP3 will be a function of portfolio performance and will be subject to the level of banking, if any, related to potential excess procurement in CP2 into CP3. SDG&E intends to fill any remaining RPS need with viable low-cost opportunities from future solicitations, bilateral transactions, and potential investments, and will continue to procure from mandated programs to the extent required. SDG&E intends to manage potential over-procurement by banking it for future compliance

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<sup>35</sup> This analysis includes SDG&E’s Solar Energy Program.

needs, terminating contracts where conditions precedent are not met or where mutual agreement is reached, and/or selling such excess procurement.

*d. Post-2020 Compliance Period Needs*

SDG&E may undertake procurement for this period of time to ensure compliance subsequent to the end of CP3, with the understanding that any resulting excess can be either banked or sold bilaterally or through an RFO. Additional discussion regarding the analysis of selling versus banking can be found in Section B below.

**iv. Utility Tax Equity Investment and Utility Ownership Opportunities**

SDG&E's participation as a tax equity investor in renewable generation projects enhances project viability (through securing of financing) and decreases costs for ratepayers (given SDG&E's cost of capital relative to the renewable financing market). Tax equity investments by utilities and other non-traditional investors are particularly important in light of the phase out of the Cash Grant.<sup>36</sup> SDG&E is considering additional investment opportunities in a limited number of projects where: (a) its involvement might enhance the viability or cost competitiveness of a project; and/or (b) where a project may have a positive socioeconomic impact, potentially involving a Diverse Business Enterprise ("DBE").

Additionally, SDG&E continues to make progress on its Solar Energy Project,<sup>37</sup> pursuant to which SDG&E is authorized to build up to 26 MWs of utility-owned solar PV. SDG&E held an RFP in the fall of 2011 and has executed a contract for up to a total of 17 MW. This contract was subsequently reduced to 8.8 MW due to permitting issues. SDG&E expects construction of these projects to begin in 2015 depending on permitting success. Anticipated deliveries from these projects, expected to begin in Q4 2015, have been incorporated into SDG&E's RPS procurement need forecast.

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<sup>36</sup> The American Recovery and Reinvestment Act of 2009 (H.R. 1), enacted in February 2009, created a renewable energy grant program that is administered by the U.S. Department of Treasury. This cash grant may be taken in lieu of the federal business energy investment tax credit ("ITC").

<sup>37</sup> Approved by D.08-07-017.

## ***B. Portfolio Optimization Strategy***

SDG&E's optimization strategy is designed to allow SDG&E to meet and maintain its RPS compliance, while minimizing ratepayer costs, maximizing portfolio value and managing risk. SDG&E approaches this task from a variety of angles as described below.

### ***i. RNS Optimization***

The first step in SDG&E's portfolio optimization strategy is to determine its RPS need. As outlined above, the probability of success of each of the projects in SDG&E's portfolio is revised monthly in an interdepartmental meeting using the most current information. The result of this comprehensive review is a calculation of SDG&E's forecasted RPS position, which is then compared with SDG&E's RPS compliance requirements to determine its RNS. SDG&E uses this RNS to determine the appropriate level of procurement, including the necessary margin of over-procurement, going forward. Generally, if SDG&E foresees a shortfall then it will procure additional resources; if it foresees an excess then it will seek to sell a portion or all of this excess pending the results of a detailed cost and benefit analysis of banking versus selling. Once SDG&E has determined its need, it proceeds to manage its procurement by continually reviewing its portfolio to minimize costs, maximize value and manage risk.

The *Administrative Law Judge's Ruling on Renewable Net Short*, issued May 21, 2014, included specific questions regarding the RNS calculation and assumptions. Responses to these questions are set forth below:

- a. How do current and historical performance of online resources in your RPS portfolio impact future projections of RPS deliveries and your subsequent RNS?*

An explanation of SDG&E's methodology for forecasting project deliveries can be found in Section II(A)(i).

- b. Do you anticipate any future changes to the current bundled retail sales forecast? If so, describe how the anticipated changes impact the RNS.*

An explanation of SDG&E's methodology for forecasting bundled retail sales can be found in Section II(A)(ii)(a).

- c. Do you expect curtailment of RPS projects to impact your projected RPS deliveries and subsequent RNS?*

Curtailment is discussed in Section II(C)(i)(a).

- d. Are there any significant changes to the success rate of individual RPS projects that impact the RNS?*

The average success rate of SDG&E's contracts currently in effect is discussed in Section II(A)(i), and the success rates of individual projects are shown in Appendix 2.

- e. As projects in development move towards their COD, are there any changes to the expected RPS deliveries? If so, how do these changes impact the RNS?*

The average success rate of SDG&E's contracts currently in effect is discussed in Section II(A)(i), and the success rates of individual projects are shown in Appendix 2.

- f. What is the appropriate amount of RECs above the PQR to maintain? Please provide a quantitative justification and elaborate on the need for maintaining banked RECs above the PQR.*

SDG&E's current level of RECs above its PQR is discussed in Section VII, and is shown in Appendix 2.

- g. What are your strategies for short-term management (10 years forward) and long-term management (10-20 years forward) of RECs above the PQR? Please discuss any plans to use RECs above the PQR for future RPS compliance and/or to sell RECs above the PQR.*

An explanation of SDG&E's methodology for managing RECs above the PQR can be found in Sections II(B)(ii)(d) and II(B)(ii)(e).

- h. Provide VMOP on both a short-term (10 years forward) and long-term (10-20 years forward) basis. This should include a discussion of all risk factors and a quantitative justification for the amount of VMOP.*

A discussion of risk factors affecting RPS procurement can be found in Sections IV and V, and SDG&E's current level of RECs above its PQR is discussed in Section VII and is shown in Appendix 2.

- i. Please address the cost-effectiveness of different methods for meeting any projected VMOP procurement need, including application of forecast RECs above the PQR.*

An explanation of SDG&E's methodology for managing RECs above the PQR can be found in Sections II(B)(ii)(d) and II(B)(ii)(e).

- j. Are there cost-effective opportunities to use banked RECs above the PQR for future RPS compliance in lieu of additional RPS procurement to meet the RNS?*

An explanation of SDG&E's methodology for managing RECs above the PQR can be found in Sections II(B)(ii)(d) and II(B)(ii)(e).

- k. How does your current RNS fit within the regulatory limitations for PCCs? Are there opportunities to optimize your portfolio by procuring RECs across different PCCs?*

An explanation of the content categorization of SDG&E's portfolio can be found in Section II(A)(iii)(a), and an explanation of SDG&E's methodology for optimizing procurement across content categories can be found in Section II(A)(iii)(iv)(a).

## **ii. Cost Optimization**

Cost optimization begins before a contract is executed, with contract analysis methodology development and adoption. Once this analysis methodology is utilized and a contract is executed, if an opportunity to optimize this contract becomes apparent, SDG&E will investigate it to determine the best course of action for ratepayers.

- a. Least-Cost Best-Fit Analysis*

SDG&E carefully analyzes bids and bilateral proposals according to its LCBF methodology. This methodology is intended to optimize SDG&E's procurement decisions by minimizing cost and maximizing value. It includes analysis of the PPA price, which inherently includes the counterparty's interest, carrying, and transaction costs. The analysis also takes into account the energy and capacity value provided by each of the projects, congestion costs, and transmission costs. The LCBF process results in the quantification and subsequent ranking of the cost of each bid based on these metrics. The formula deducts the PPA Price (Levelized



Contract Cost), Transmission Cost, and Congestion Cost from the sum of the Energy Benefit and Capacity Benefits to determine a project's Net Market Value ("NMV"). These NMVs can then be compared and used to create the shortlist. The projects that are placed on the shortlist will have the lowest combined net cost when compared with other bids from the particular solicitation. SDG&E revises its LCBF methodology as necessary to incorporate new information.

*b. Revision of Time of Day Factors and Periods, and Capacity Values*

Integral to the LCBF calculation are the Time-of Day ("TOD") factors and periods, and Capacity values. TOD factors are also used in SDG&E's pro forma PPA, attached hereto as Appendix 6. SDG&E utilizes forward market conditions to calculate the TOD factors and periods as well as the Capacity values. As the forward market evolves, SDG&E will continue to assess the TOD factors and periods, and Capacity values, and prior to the issuance of any RPS solicitation, may update those factors, time periods, and values so that they are consistent with the latest forecasts.

*c. Contract Management*

SDG&E continually monitors its existing contracts and seeks to optimize their performance on behalf of customers. SDG&E may elect to modify a contract to meet its current portfolio needs, for example by allowing an alternate termination date<sup>38</sup> or a change in contract volumes. SDG&E may also have the opportunity to secure increased value from an RPS resource by adjusting terms of an existing contract, for example extending the contract term of a relatively inexpensive contract or by moving the project site to a location that provides greater capacity benefits. Additionally, in accordance with D.14-11-042, SDG&E has modified its PPA so that it has the right to review and accept or reject proposed material changes to a facility at its sole discretion.<sup>39</sup> Finally, SDG&E is also considering arrangements involving existing contracts that would improve counterparty financing options, thereby increasing the probability of project success. If opportunities such as these present themselves, SDG&E will perform a detailed analysis of the costs and benefits associated with making such a change, and if it determines that

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<sup>38</sup> For example, in Resolution E-4587, the Commission approved a contract amendment that established an earlier termination date for an existing RPS contract.

<sup>39</sup> D.14-11-042, *mimeo*, p. 29.

the proposed changes would result in more value for ratepayers it will pursue these options. These optimization methods provide SDG&E with flexibility in managing its portfolio and therefore portfolio costs.

*d. Banking vs. Sales Analysis*

Another optimization tool related to contract management is the analysis of the option to bank or sell excess procurement. When SDG&E has excess RPS procurement in its portfolio, it will perform a detailed analysis of both the quantitative and qualitative costs and benefits associated with either banking this excess, or selling it. The quantitative portion of the valuation takes into account SDG&E's RPS position and any opportunity costs associated with the transaction. If SDG&E determines that banking would provide the most value to SDG&E's ratepayers then this optimization method will be used. If it finds that a sale would provide customers with more value, then this optimization method will be chosen. SDG&E will reflect current industry best practices in its sales contracts.<sup>40</sup>

*e. Retirement Analysis*

There is a significant link between SDG&E's banking versus sales analysis and its retirement analysis where SDG&E evaluates its compliance position and strategy to ensure that RECs are handled in the most cost-effective way for SDG&E's ratepayers. SDG&E considers the time value of the rate impact to bundled customers when making the decision to buy, sell, bank, or delay the retirement of RECs. SDG&E evaluates and attributes value to the bankability of the different "bucket" categorization of RECs by assigning opportunity costs. These opportunity costs are only realized when the RECs can no longer be used for RPS compliance. This can occur under the following circumstances: (i) a REC is not retired within 36 months of the month in which is produced; (ii) a REC is retired, but cannot count toward RPS because it

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<sup>40</sup> In Resolution E-4572, the Commission approved Southern California Edison's ("SCE") request to enter into a 19.5 month renewable energy sales contract with Energy America LLC. Contractual deliveries began on May 15, 2012, and the contract was filed with the Commission on July 6, 2012. The Commission also approved in Resolution E-4639 Pacific Gas & Electric Company's ("PG&E") request to enter into two overlapping renewable energy sales agreements for a period of approximately 1 month and 9 days with Tenaska Power Services Company. Contractual deliveries began November 22, 2013, and the contract was filed with the Commission on December 19, 2013. In order to provide maximum flexibility and value to customers, SDG&E will also consider opportunities where deliveries begin before the contract is submitted and approval is granted retroactively.

violates the procurement rules set forth by the RPS guidelines (e.g. 10% Category 3 in Compliance Period 3); or (iii) a REC is retired and counts toward RPS, but results in RPS surplus. In circumstance (iii), it is assumed that the ratepayer has paid for this REC, but because its retirement resulted in excess procurement, it is not an optimal solution for ratepayers. The RNS model prescribed by the Commission does not take into consideration all of these circumstances, as a result, SDG&E intends to model each scenario to determine the optimal retirement strategy.

### **iii. Value Optimization**

In addition to its contract analysis and management strategies, SDG&E also seeks to add value to the RPS procurement process by actively participating in the discussion of current and proposed procurement programs, and by evaluating unique procurement opportunities.

#### *a. RAM Program*

As SDG&E's need declines and it begins to focus mainly on the procurement of smaller projects, changes to the RAM program become more important. SDG&E has actively participated in discussions regarding the future of this program, which were formally initiated on December 31, 2013 via the *Administrative Law Judge's Ruling Requesting Comments on the Renewable Auction Mechanism*. The Commission addressed the future of RAM in D.14-11-042, and determined that "the original objectives of RAM have been met... [however, as] suggested by SDG&E and [the Office of Ratepayer Advocates]... RAM may provide the IOUs with a procurement tool to facilitate more streamlined procurement for RPS needs... [therefore] starting with the 2015 annual RPS procurement plans filings, the utilities shall include, at the discretion of the utility, RAM as a streamlined procurement tool."<sup>41</sup>

SDG&E supports the continued availability of a streamlined procurement process for small to mid-sized RPS projects on an as-needed basis. It believes that the flexibility provided by the Commission in allowing the IOUs to utilize RAM as a need-based procurement tool provides a benefit not found in mandated procurement – proper alignment with actual procurement need. SDG&E intends to utilize the RAM tool on an as-needed basis to efficiently procure low cost RPS resources.

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<sup>41</sup> D.14-11-042, *mimeo*, pp. 91-92.

*b. SB 1122 Feed-in Tariff*

On December 20, 2013, SDG&E submitted comments on the *Administrative Law Judge's Ruling Seeking Comments on Staff Proposal on Implementation of Senate Bill 1122 and Accepting Consultant Report into the Record*, issued November 19, 2013. SDG&E also submitted reply comments on January 16, 2014. Both sets of comments focused on ratepayer protection, with the following key recommendations: (i) allow projects to self-select between the Re-MAT Baseload queue and SB1122 queue to avoid the use of any one queue as a “backup plan” thereby causing unnecessary price increases; (ii) allocate capacity to SDG&E based the resources available locally to offer the best probability of meeting program targets; (iii) incorporate the CEC fuel monitoring process to increase administrative efficiencies; (iv) scale all parts of the pricing mechanism to maintain the appropriate level of ratepayer protection; (v) use the same starting price as the Re-MAT program as the pricing mechanism is intended to operate to find the proper price; (vi) incorporate a cost cap and program sunset date to protect ratepayers from prolonged and excessive price increases; (vii) maintain consistency with Re-MAT to avoid unnecessary complications in program design; and (viii) to the extent the IOUs are directed to procure bioenergy resources that are intended to confer a statewide benefit to all parties located within California, the costs of such procurement should be distributed equally to all parties via the cost allocation mechanism (“CAM”), rather than being borne solely by utility ratepayers.

The Commission issued a proposed decision (“PD”) regarding the SB1122 program on November 18, 2014. The PD sets forth the MW allocations for each category and for each IOU, it also sets the program term, eligibility requirements, starting price and it explains the pricing mechanism. After approval, the next step is for the IOUs to file a uniform tariff and PPA. SDG&E looks forward to working with the Commission and stakeholders on the design and implementation of this program.

*c. Tax Equity*

As explained above, SDG&E evaluates tax equity opportunities as a procurement option and assesses the value of its involvement. SDG&E may participate in this type of project if its participation would either augment the probability of project success, and/or lead to a positive socioeconomic impact, for example potentially involving a DBE.

*d. Bilateral Transactions*

SDG&E will enter into bilateral purchase or sales agreements to the extent that these transactions benefit ratepayers. Not all products are well-suited for the RFO process due to, for example, deal timing and/or complexity. The ability to contract bilaterally is a valuable tool in maximizing value to ratepayers – it is useful in addressing an unforeseen need in a timely manner and also allows an IOU to take advantage of opportunities that are too complex to solicit through an RFO, such as tax equity or buy/sell transactions. In addition, the ability to engage in bilateral deals is necessary from a practical perspective; bilateral deals assist market development by offering an additional sales option, making project development less dependent on RPS solicitation cycles.

**iv. Risk Optimization**

The risk of noncompliance with RPS requirements can become a reality either before or after the conclusion of a CP. SDG&E has adopted several long-term and short-term strategies to mitigate this risk, and also seeks to add value by actively participating in discussions regarding compliance and enforcement rules.

*a. Category 1 Procurement*

While SDG&E faces some degree of risk related to a procurement deficit – and therefore, as explained herein, regularly reviews its RNS so that it has the best information available with which to manage its portfolio towards compliance – the most significant non-compliance risk faced by SDG&E relates to contract categorization under § 399.16(b) – *i.e.*, the risk that SDG&E’s categorization of the contracts in its portfolio will not be accepted by the Commission. SDG&E has expressed this concern verbally and in comments to the Commission filed in R.11-05-005. This concern will be alleviated somewhat after CP1 compliance has been determined, as many of the CP1 contracts span several compliance periods. Thus, any change in categorization of these contracts can be reflected going forward, and any discrepancies will have been explained and can be used to inform categorization determinations in the future. In the meantime, however, this uncertainty constrains SDG&E’s procurement activities and as a conservative measure, SDG&E’s long-term strategy is to continue to emphasize the procurement of products it considers to be Category 1.

*b. Voluntary Margin of Over-procurement*

A second long-term procurement strategy utilized by SDG&E is the adoption of a “buffer” or Voluntary Margin of Over-procurement (“VMOP”)<sup>42</sup> to ensure to the extent possible that SDG&E is able to reach its RPS goals, as explained in more detail below under Section VII. SDG&E seeks to minimize additional procurement during compliance periods in which it has already met RPS targets. As explained above, the anticipated success rate of the developing contracts presently in effect in SDG&E’s portfolio is currently 90%, and in combination with the constant fluctuation of RPS targets (based on retail sales), as well as continual changes in RPS deliveries, it is essentially impossible to meet the RPS targets exactly. SDG&E undertakes VMOP procurement as a prudent and conservative measure to guard against any unforeseen events that may impact its portfolio and jeopardize compliance.

*c. Short-term Contracts*

Due to unforeseen events, a situation in which SDG&E needs to procure a small amount of renewable energy in the near-term may occur. In this scenario, short-term contracting is a viable strategy as it allows SDG&E to respond quickly to a sudden change in portfolio status and manage a short-term need without entering into an unnecessary long-term commitment.

*d. Category 3 Procurement*

SDG&E intends to maximize its Category 3 procurement to the extent that such products continue to be cost-effective. However, SDG&E also intends to maintain enough room below its Category 3 procurement limits to ensure that Category 3 procurement is a potential strategy in the short-term should SDG&E need to procure to fill any unforeseen immediate need.

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<sup>42</sup> 399.13(a)(4)(D):

(4) The commission shall adopt, by rulemaking, all of the following...

(D) An appropriate minimum margin of procurement above the minimum procurement level necessary to comply with the renewables portfolio standard to mitigate the risk that renewable projects planned or under contract are delayed or canceled. This paragraph does not preclude an electrical corporation from voluntarily proposing a margin of procurement above the appropriate minimum margin established by the commission.

### ***C. Lessons Learned & Trends***

In its 2013 RPS Plan, SDG&E identified a number of trends and lessons learned that it has observed over the past few years. SDG&E anticipates that a subset of that list remains relevant, and has added several new topics to the discussion below. The following sections discuss how these issues impacts RPS procurement, and illustrate how SDG&E accounts for these factors in its RPS plan and procurement activities.

#### **i. Lessons Learned**

##### *a. TOD Gaming*

As described in SDG&E's 2013 RPS Plan, developers can and have used SDG&E's TOD factors to minimize the cost of their bid by providing a generation profile that places more generation in the off-peak hours than is realistic.<sup>43</sup> While this bidding strategy results in a favorable valuation for the particular generator, it creates an unfavorable result for the utility's ratepayers when the contract ultimately generates more in peak times, thereby raising the cost of this contract. It also creates an unfavorable result on a system-wide basis as the hours in which over-generation is focused are the peak hours, which can increase the incidence of negative pricing. In response to this observation, SDG&E modified its PPA to include a maximum limit on generation during each TOD period, which the Commission approved as a part of SDG&E's 2013 RPS Plan. SDG&E will continue to evaluate ways to enhance its procurement process to minimize gaming, including potential modifications to its TOD factors.

##### *b. Peak Shifting*

As a result of the success of the RPS program, a significant amount of solar and wind energy has been added to the grid and there is much more planned to come online before 2020. These renewable resources are very low variable cost resources that (at high penetration levels) will cause significant reductions in marginal prices in periods when they operate. Substantial amounts of rooftop solar are also being added by customers behind the meter. A large amount of variable resource penetration during any single time during the day may result in significant decreases in marginal energy prices and even significant ramping events. As a result of

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<sup>43</sup> SDG&E 2013 RPS Plan, p. 37.

increased renewable generation in Southern California, the peak load net of variable energy resources has shifted and will continue to shift as the California resource portfolio evolves. As market conditions develop it is important that SDG&E's TOD factors and time periods, which will be used for analysis and contracting purposes, reflect the most up-to-date information in order to provide ratepayers with the greatest value. SDG&E updated its TOD periods in the 2013 RPS Plan, as well as the TOD factors based on the market conditions, to reflect the shift in timing and magnitude of energy and capacity and will continue to do so as market conditions change. The TOD factors included in the PPA attached hereto as Attachment 6 have been updated in accordance with the direction provided by D.14-11-042.<sup>44</sup>

*c. Capacity Value*

SDG&E's 2013 RPS Plan incorporated a new method for calculating capacity value by using an updated benchmark.<sup>45</sup> SDG&E seeks to rely on data that has been published and vetted by key stakeholders, and will update its calculations as the assumption sources are updated.

*d. Curtailment Rights & Load Following Ability*

The Federal Energy Regulatory Commission ("FERC") issued Order No. 764 ("FERC 764") on June 22, 2012, in an effort to "adopt reforms that would remove barriers to the integration of variable energy resources and provide for related just and reasonable rates."<sup>46</sup> In response to FERC 764, the CAISO updated its open access transmission tariff, which was conditionally approved by the FERC on December 19, 2013. As part of this tariff update, the cap on negative pricing was increased. Negative pricing refers to the price paid to the CAISO to take power when that power is not necessary. SDG&E is required to pay the CAISO if the facilities from which it purchases generate power during negative pricing periods. The likelihood of incurring these charges is greatly increased with respect to renewable facilities which typically do not follow load. Prior to the CAISO tariff revision, SDG&E's exposure was

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<sup>44</sup> D.14-11-042, *mimeo*, p. 27.

<sup>45</sup> SDG&E 2013 RPS Plan, p. 38.

<sup>46</sup> California Independent System Operator Corporation Docket No. ER13-2452-000 Tariff Revisions to Comply with Order No. 764, p. 2.



capped at \$30/MWh plus the hourly price of the contract, the new tariff revision has increased this level of exposure exponentially by instituting a new cap of \$150/MWh.<sup>47</sup>

In order to manage excess generation, minimize the incidence of negative pricing, and maintain grid reliability, the CAISO, the Participating Transmission Owner or distribution operator, or the Buyer can instruct a generator to curtail (take its power off of the grid). SDG&E's existing contracts have varying levels of economic curtailment rights, which refers to a curtailment order in response to price signals (such as negative pricing events). Although negative pricing occurrences are not new, the frequency of these events has increased as more renewable generation has come online. In fact, SDG&E has seen several instances of negative pricing (for example, on May 3, 4, 10 and 11) since the CAISO implemented its new tariff revisions on May 1, 2014, and has acted to minimize ratepayer exposure to negative pricing payments. These instances have followed the same sequence of events: (a) SDG&E economically bids energy from a facility into the market, (b) a negative pricing event occurs, (c) the CAISO instructs the facility that was economically bid by SDG&E to dispatch down (curtail), and (d) the facility responds to the extent possible. These actions protected ratepayers by reducing the negative pricing payments made to the CAISO, but SDG&E's ability to curtail its current portfolio is limited by the fact that many facilities do not have the ability to respond immediately to a curtailment order, as well as the fact that SDG&E's ability to economically curtail is limited to 5% of a facility's annual deliveries. By making some adjustments to the pro forma PPA, these limitations can be removed going forward.

In D.14-11-042, the Commission approved SDG&E's proposal that its pro forma PPA be revised to allow for unlimited economic curtailment rights, and also that it include a requirement that the generator install the automated dispatch system ("ADS"), which is the software that receives the curtailment order, and the application programming interface ("API"), which is the software necessary to respond to the curtailment order. Requiring this software will ensure that responses to economic curtailment orders are immediate, which will bolster grid management efforts. The PPA is attached hereto as Appendix 6. The revised PPA allows for payment to the generator for the economically curtailed generation, within the parameters established by D.14-11-042.

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<sup>47</sup> Order Conditionally Accepting Tariff Revisions, 145 FERC ¶ 61,254, p. 3.

The benefits to this change are threefold. First, this will assist the CAISO in complying with the North American Electric Reliability Corporation (“NERC”) reliability standards. Second, this increased ability to manage excess generation could help reduce the incidence of negative pricing events on the CAISO system as a whole, which provides a general benefit to all ratepayers in the state. And third, by allowing unlimited curtailment, SDG&E will better be able to manage the incidence of negative pricing payments made to the CAISO, which is beneficial to SDG&E’s ratepayers. Anything less than unlimited economic curtailment rights will leave customers exposed to both the PPA price plus the negative pricing risk in scenarios where there is excess power on the grid and SDG&E is required to schedule the resource. SDG&E is also working to revise the curtailment provision in its existing contracts when approached by facilities regarding other contract modifications.

*e. Distributed Generation Deliverability*

The CAISO conducts an annual assessment methodology for determining and allocating RA deliverability to DG resources at locations that do not require any yet-to-be-approved network transmission upgrades. The assessment is coordinated with the CAISO’s interconnection procedures and the CAISO’s transmission planning process. The initiative is in support of California’s goal of 12,000 MWs of DG by 2020.<sup>48</sup>

The CAISO performed the 2013-2014 Distributed Generation Deliverability (“DGD”) assessment to determine MW quantities of Potential DGD at specific nodes of the CAISO Controlled Grid for assigning deliverability status to DG Facilities. The 2013-2014 DG deliverability assessment results indicate that a total of 2,178.46 MWs of Potential DGD is available at locations on the CAISO grid for assignment of deliverability status to DG resources connected or requesting interconnection below those locations.

There were 32 locations studied for Potential DGD in the SDG&E service territory. A total of 134.61 MWs of Potential DGD is available for assignment of deliverability status to DG resources at 13 of these 32 locations. There is no Potential DGD available at the remaining 19 nodes either because: (i) no DG was designated at these nodes in the base portfolio utilized in the

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<sup>48</sup> *See* <http://www.caiso.com/informed/Pages/StakeholderProcesses/DeliverabilityforDistributedGeneration.aspx>.

ISO's annual transmission planning process and there were no energy-only interconnection requests in a WDAT/Rule 21 queue; and/or (ii) deliverability constraints were identified. DG resources interconnected, or seeking interconnection, to the Distribution System of an IOU Participating Transmission Owner may apply to the applicable IOU Participating Transmission Owner to be eligible to receive a Deliverability Status assignment in the current DG Deliverability Assessment cycle.

The study model used by the CAISO for the DGD assessment incorporates the most recent CAISO generation interconnection deliverability assessment base case, and is a snapshot in time. It does not necessarily reflect the most current state of distribution-level RPS procurement in SDG&E's distribution service territory. SDG&E observes that there are several locations in the San Diego area where potential DG resources have been contracted for in the Re-MAT and RAM programs, but which were not reflected in the CAISO's assessment. However, the CAISO's assessment is performed annually; therefore these locations may be studied in the CAISO's next DGD assessment. SDG&E plans continued monitoring of this annual assessment and will make existing and potential distribution-level resources aware of the need to apply for a potential assignment of deliverability.

## **ii. Trends**

### *a. Improvement of Project Success Rates*

As the market for renewable energy has matured, SDG&E has observed a positive trend in the success rate of the projects in its current RPS portfolio. In the 2013 RPS Plan, SDG&E estimated that the average success rate for contracts in effect at that time was 75%. In this year's version of the plan, SDG&E estimates that the success rate for contracts currently in effect will be approximately 90% on average. As explained above, SDG&E reviews project success rates on a monthly basis to incorporate the most recent information and will continue this practice.

### *b. Expansion of RA Products*

A recent trend is an increasing interest in the RA program and the products it encompasses. The RA program is currently the subject of Commission rulemaking proceedings R.11-10-023 Phase 3 and R.14-02-001. For the 2014 RA compliance year, rulemaking R.11-10-023 Phase 2 implemented a new RA attribute, flexible RA capacity, on an interim optional basis.

Now R.11-10-023 Phase 3 will fully invoke flexible RA into the obligations of the California RA program beginning with RA compliance year 2015. These flexible RA changes are intended to assist with increased energy ramping needs driven by the integration of growing levels of renewable energy onto the grid combined with the retirement of Once-Through Cooling (“OTC”) units.

Renewable facilities are typically intermittent, and therefore would not be capable of providing flexible RA capacity, but would continue to provide system and local RA as appropriate. Since this is the first RA compliance year with mandatory flexible RA requirements for LSEs, the impact that flexible RA capacity will have on the market value of system and local RA is unknown at this time. It is possible that the market may value flexible RA capacity at the current RA market price, in which case the value of system and local RA may decrease, impacting the value of RA received by renewable facilities. However, it is also possible that the market value of the full bundle (*i.e.* system, local, and flexible) may collectively increase above the current price, increasing the value of one or more of these attributes. For implementation in future RA compliance years, R.14-02-001 is contemplating RA program changes addressing: (i) two to three year forward RA obligations; (ii) a CAISO-administered forward capacity market; and (iii) a 4-10 year mid-term RA planning horizon. SDG&E is monitoring these proceedings to determine what impact this will have on its procurement practices.

*c. Multiple RPS Contract Versions Across Programs*

SDG&E has noted that as the volume of mandated programs has increased, so have the number of contract versions that must be managed. At this time there are three distinct PPAs for RPS products, all with separate approval processes: the RPS pro-forma PPA (attached hereto as Appendix 6), the RAM PPA, and the Re-MAT PPA. And once SB 1122 is completed there will likely be a fourth RPS PPA. As the Commission has acknowledged, it is logical that the TOD factors used in each PPA be consistent, to the extent possible.<sup>49</sup> Accordingly, in accordance with D.14-11-042, SDG&E intends to use the TOD factors approved in this plan in all other PPAs for RPS products executed in 2014, with updates where appropriate.

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<sup>49</sup> D.14-11-042, *mimeo*, p. 24.

### III. PROJECT DEVELOPMENT STATUS UPDATE

As described further in Section II, SDG&E regularly evaluates project development status to assess each project's ability to begin deliveries in a timely manner. SDG&E's portfolio of renewable energy resources currently under contract but not yet delivering (either pre-construction or in construction) are in various stages of development. It is anticipated that projects will enter commercial operation consistently from 2014 to 2015. Projects under development generally require numerous permitting approvals, generator interconnection, financing, and completion of construction before they can achieve commercial operation. Each of the above issues adds significant risk to the development of a project and can directly impact the success or failure of a project. SDG&E's experience is that achieving all of these milestones represents a significant challenge for developers.

SDG&E has contracted with 27 projects in the pre-construction phase, 5 projects that are currently under construction and 43 projects that are post-construction. Generally, projects in the pre-construction phase are most at risk of failure. However, projects under construction may also encounter issues that could affect their ability to achieve commercial operation, such as successful litigation against the project. In general, projects that have achieved commercial operation have a high probability of meeting their contractual obligations; however, project failure or resource fluctuations (*i.e.*, a bad wind year) can create challenges. Although a developer's experience may improve the likelihood of a project achieving commercial operation, it does not ensure that a project will be successful. Sections IV and V of this plan discuss the various delays and risks that could impact projects in various stages of development, and Appendix 1 provides the most recent information on SDG&E's developing projects from SDG&E's May 16, 2014 Procurement Review Group ("PRG") meeting.

Renewable project developers continue to face a challenging environment. SDG&E observed an increase in the difficulty experienced by developers in securing financing after 2008 when the U.S. economy entered a deep recession. In addition, as more projects were proposed in desert regions, permitting approvals took longer than developers expected due to increased scrutiny of environmental issues and permitting agency coordination efforts. Today, many smaller projects are experiencing local agency permitting delays as individuals and community groups challenge projects. These challenges can result in increased costs to the developer and

significant project delays that can jeopardize project viability and potentially lead to project failure. Finally, the time required to study and construct generator interconnection upgrades continues to take years to complete and can significantly increase project costs.

#### ***A. Impact of Project Development Status***

As a practical matter, until a project actually begins commercial operation, it bears significant development risk. SDG&E currently expects that a majority of the projects in its portfolio will meet their commercial operation dates either on schedule or within the prescribed cure period. However, SDG&E does have a significant number of primarily smaller projects that are experiencing development issues that could affect their ability to meet commercial operation. SDG&E bases its forecasting, and therefore its RNS calculation, on its individual project assessments, as is described in more detail in Section II. It also relies on the lessons it has learned and trends it has observed as a result of the RPS procurement process, as discussed in more detail in Section II. The above factors contribute to SDG&E's monthly project assessments of the likelihood of each project's success. For example, a project that has been experiencing permitting issues would receive a probability weighting reduction to account for this risk until the issue is resolved. The result of these cumulative assessments is reflected in the RNS, which SDG&E will use to inform its procurement activities over the next two compliance periods and past 2020. The RNS as of May, 2014 is provided in Appendix 2.

### **IV. POTENTIAL COMPLIANCE DELAYS**

The market for renewable energy is dynamic; multiple factors can impact project development and SDG&E's attainment of its RPS program goals. The following discussion covers the major issues affecting both renewable project developers and SDG&E. It begins with the transmission, permitting, and financing hurdles faced during project development, and continues through some of the challenges experienced as a project matures – *e.g.*, viability, debt equivalence, accounting issues, and regulatory uncertainty.

#### ***A. Transmission and Permitting***

##### ***i. Interconnection Facility Delays***

The timely approval, permitting, and completion of interconnection facilities are crucial to the successful implementation of SDG&E's renewable portfolio. With the completion of the

DREW Switchyard and the interconnection of four renewable projects to the Imperial Valley (“IV”) Substation, the key transmission facilities that can still impact SDG&E’s renewable portfolio are the ECO Substation project and two new collector switchyards north of the IV Substation. These collector switchyards consist of a “Public Policy” project approved by the CAISO where IID was selected to construct and own the facilities, and the other collector switchyard will initially interconnect the CSolar West project and ultimately a new 230 kV line from the Imperial Irrigation District (“IID”) to IV Substation. If development of these facilities is delayed or blocked, the ability to implement SDG&E’s renewable portfolio may be adversely impacted.

Existing transmission constraints between IV and the San Diego load center have been largely resolved with the construction of the Sunrise Powerlink project. However, ongoing requests to interconnect new generation – principally new generation – in the San Diego and IV areas,<sup>50</sup> the anticipated retirement of coastal gas-fired power plants using ocean water for cooling, and the permanent retirement of the San Onofre Nuclear Generating Station (“SONGS”) has lead the CAISO to approve a new 230 kV Sycamore Canyon-Penasquitos transmission line. This new line will support the ability of renewable resources to obtain Full Capacity Deliverability Status (“FCDS”); thereby enhancing the likelihood that new renewable resources can be counted towards LSEs’ RA requirements. The CAISO Board-approved 2012-2013 transmission plan lists the 230 kV Sycamore Canyon-Penasquitos line with a 2017 in-service date. The CAISO conducted a competitive solicitation for developers to offer proposals to construct, own and maintain this new line. SDG&E submitted a proposal to this solicitation and was selected by the CAISO. Subsequent to its selection, SDG&E submitted an application to the CPUC for a Certificate of Public Convenience and Necessity (“CPCN”) to build the new line. SDG&E believes it can obtain a CPCN and other required permits, build the project, and place the new line in-service by 2017. Any delays in securing the necessary authorizations and permits may cause uncertainty for renewable developers whose project economics rely on the deliverability that the 230 kV Sycamore Canyon-Penasquitos project supports.

The ECO Substation project (which includes the new Boulevard East Substation and new 138 kV Boulevard East-ECO transmission line) has been permitted, began construction on May

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<sup>50</sup> 2012-2013 ISO Transmission Plan, p. 34.

13, 2013, and will be completed in December of 2014. Additionally, SDG&E, IID and generation developers are focused on building the interconnection and network facilities necessary to interconnect and deliver the output of renewable energy projects in the Imperial Valley to the transmission system, including construction by IID and CSolar of the new collector switchyards north of the IV Substation.

Analysis conducted by the CAISO for the CAISO's 2013-2014 transmission plan found that:

“[T]he deliverability of future renewable generation from the Imperial Valley area may be significantly reduced primarily due to changes in flow patterns resulting from the retirement of the San Onofre Nuclear Generating Station. Despite the impacts being heavily offset by other reinforcements proposed in this transmission plan, only 1000 MW of the 1715 MW of Imperial zone renewable generation portfolio amounts can be made deliverable without additional actions.”<sup>51</sup> And more specifically, the CAISO found that “[w]ith SONGS retired no additional renewable generation can be made deliverable in the Imperial zone until considering the reliability mitigations being proposed in this transmission plan. Adding the flow control device would result in accommodating 800 MW of Imperial zone renewable generation. Adding the Delaney-Colorado River 500 kV project would increase the deliverable amount to about 1,000 MW.”<sup>52</sup>

The analysis conducted for the CAISO's 2013-2014 transmission plan focused on the year 2023. The extent to which the retirement of SONGS will affect the deliverability of Imperial Valley renewable generation between now and year 2023 will depend upon (i) how quickly the CAISO Board-approved mitigation solutions – such as the Imperial Valley flow control device – can be permitted and built; and (ii) the results of the CAISO's ongoing analysis of other potential transmission upgrades (such as the proposed 500 kV Delaney-Colorado River transmission line). Delays in implementing these transmission solutions could limit the deliverability of existing and planned renewable resources in the Imperial Valley and thereby compromise the economic viability of those resources.

## **ii. Interconnection Study Process**

The CAISO's process for determining required upgrades for renewable projects can cause delay and expense. SDG&E protects ratepayers by establishing transmission upgrade cost limits and including conditions precedent in the PPA whereby if the upgrade costs are higher

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<sup>51</sup> 2013-2014 ISO Transmission Plan, p. 2.

<sup>52</sup> *Id.* at p. 202.



than the thresholds established in the PPA, the contract can be terminated. In the past, developers have been required to wait years for study results and in some cases have been faced with extremely high upgrade costs that render their projects unviable.

Recent changes in the CAISO's approach for identifying network upgrades that provide interconnecting renewable generators with FCDS appear to be reducing transmission funding hurdles for new generators that are in interconnection cluster 5 and later clusters. The CAISO's transmission planning process now identifies ratepayer-funded transmission upgrades that support a specific 33% RPS portfolio. For generators that are not part of the specific 33% RPS portfolio, the CAISO's interconnection studies will identify Delivery Network Upgrades that are needed to support the generator's request for FCDS. However, these generators now have the option to choose not to fund construction of these upgrades and, instead, rely on deliverability that may be available because other generators fail to develop as expected. Nevertheless, renewable generators that sought interconnection prior to cluster 5 are still subject to financing hurdles tied to the requirement to advance construction funds for Delivery Network Upgrades. Generator funding obligations continue to pose a challenge to renewable resource development.

### **iii. Jurisdictional Agency Permitting Delays**

Uncertainty surrounding the timely issuance of key permits associated with lead agency review continues to create risks for projects under development. The permitting timeline can vary greatly based on a multitude of factors including project location, environmental issues, lead/other agency resources, and public participation. First, this uncertainty may lead to scheduling challenges and corresponding problems with project elements such as site control, financing, permitting, engineering, procurement including supplier and construction ("EPC") contracts. Second, costs to mitigate environmental issues or respond to public concerns can lead to higher than expected costs for developers to complete a project.

### ***B. Project Finance, Tax Equity Financing and Government Incentives***

Obtaining financing is key to the successful development of renewable projects. Two areas of financing are of primary importance: (i) project financing relied upon to construct the project; and (ii) tax equity financing relied upon to monetize tax benefits such as the Production ("PTC") or Investment Tax Credits ("ITC"). Financial institutions traditionally provide project financing, the cost and availability of which is a function of the overall health of the financial

system. Tax equity financing is also traditionally provided by banks or large corporations. In order to secure financing, renewable projects generally must: (i) complete permitting; (ii) have a long-term fixed price PPA from a credit-worthy off-taker; and (iii) have a bankable (or proven) technology. The financial markets have proven fickle, thus non-traditional investors are also key to the success of the renewable energy industry. Non-traditional investors include institutional investors reached by projects issuing a security, and utilities and other corporations with tax appetite as tax equity investors.

The American Recovery and Reinvestment Act of 2009 was successful in increasing the economic viability of projects through enabling the PTC and ITC. The PTC (which expired at the end of 2013) and ITC (currently set to expire at the end of 2016) represent about 33% of the economic value of renewable projects and without them, the relative competitiveness of renewable energy relative to fossil fuels, will be severely impacted. The expiration of the PTC and looming expiration of the ITC continues to reshape the project development and financing landscape for future projects. Remaining RPS needs are being partially fulfilled through programs such as RAM and FIT, creating further uncertainty for utility scale project development.

### ***C. Solar Panel Risk and Project Viability***

SDG&E may be subject to industry and technology risks when selecting solar power projects to meet its RPS goals. For example, the industry is undergoing significant consolidation and attrition of market participants. Numerous manufacturers are experiencing severe financial difficulties or have declared bankruptcy in response to intense competition and the significant declines in market prices. The risk to SDG&E is that the viability of some low-cost projects may depend on specific manufacturers that might cease operations, forcing the developer to seek other suppliers. Or, more significantly, the price of panels may increase before the purchase is final and greatly reduce the viability of the project. More industry shakeout is anticipated but prices are expected to stabilize, or increase, once the excess supply is absorbed by the market.

SDG&E also faces technology risk related to solar photovoltaic (“PV”) technology. Final technology choices are made by project developers; SDG&E attempts to manage this technology risk through diversification of the solar technologies and companies included in its portfolio. For example, PV panel materials and manufacturing processes vary significantly.

There are proven technologies with long operational and performance histories, and also newer technologies that have not yet been proven over the typical 20-year contract term. The risk to SDG&E is that a solar facility may fail to perform as intended due to panel failure or degradation, causing it to fall short of the minimum power delivery requirements. In such a case the developer is subject to penalties, but if the failure is too great, the developer may simply abandon the project. Filing claims under solar panel warranties might be complicated further if the manufacturer is located overseas or is out of business. Such a catastrophic project failure with limited ability to cure through warranty claims could cause SDG&E to experience a significant short-term deficit in its RPS procurement. This risk is compounded if significant quantities of SDG&E's PV installations use the same technology from the same company. As noted above, SDG&E attempts to manage this risk by diversifying the solar technologies and companies included in its portfolio.

#### ***D. Debt Equivalence and Accounting***

Two additional issues may challenge SDG&E's ability to achieve its RPS goals. The first involves debt equivalence. As SDG&E executes an increasing number of PPAs, the cumulative debt equivalence of all these agreements may greatly affect SDG&E's credit profile and, consequently, its financial standing. Rating agencies include long-term fixed financial obligations, such as power purchase agreements, in their credit risk analysis. These obligations are treated as additional debt during their financial ratio assessment. Standard and Poor's ("S&P") views the following three ratios, Funds From Operations ("FFO") to Debt, FFO to Interest Expense, and Debt to Capitalization, as the critical components of a utility's credit profile. Debt equivalence negatively impacts all three ratios. Unless mitigated, a PPA would negatively impact SDG&E's credit profile by degrading credit ratios.

The second issue relates to Accounting Standards Codification ("ASC") 810 Consolidation, which includes the subject of Consolidation of Variable Interest Entities. Application of ASC 810 as it pertains to Consolidation of Variable Interest Entities ("VIEs") could also impact SDG&E's ability to sign new contracts. As part of SDG&E's overall internal review and approval process for new PPAs, SDG&E conducts a review of whether each PPA will be subject to consolidation under ASC 810. Under ASC 810, no renewable PPA has been deemed subject to such consolidation, however, ASC 810 requires SDG&E to perform an

evergreen assessment for those contracts which are considered VIEs. For this reason, SDG&E believes that it is required to assess quarterly each contract or category of contracts to ensure continued compliance with ASC 810, to determine whether or not SDG&E must consolidate a Seller's financial information with SDG&E's own quarterly financial reports to the Securities and Exchange Commission. The accounting rules associated with ASC 810 can change and thus wind, solar, geothermal and bio-gas renewable Sellers could be impacted.

Application of ASC 810 could hinder SDG&E's ability to achieve its RPS goals, and add further costs and risk to execution of new renewable contracts. If SDG&E determines that consolidation is required, a Seller must open its books to SDG&E and submit financial information, on a quarterly and monthly basis, as specified in SDG&E's contract language for the duration of any agreement.

All PPAs are affected by either debt equivalence or ASC 810 requirements. The Commission is well aware of the negative impact of debt equivalence on SDG&E's credit profile. AB 57 requires that the Commission adopt procurement plans that, among other objectives, enhance the creditworthiness of the utility. ASC 810 will affect SDG&E's reported financial data and may have a negative impact on SDG&E's balance sheet and/or credit profile. ASC 810 could impact SDG&E's capital structure on a consolidated basis and cause it to be misaligned with its authorized capital structure. To the extent SDG&E must seek to mitigate the impacts of debt equivalence and ASC 810, it will do so through a separate cost of capital filing.

#### ***E. Regulatory Factors Affecting Procurement***

The Commission is in the process of implementing changes to the RPS program required by SB 2 (1X). As a result, full program details are not yet final, which creates regulatory uncertainty. However, it is important to note that SDG&E currently expects to meet its near-term RPS program goals with procurement already under contract, as explained in Sections I and II above, and as such the RPS procurement initiatives pending before the Commission will likely have a greater impact on RPS procurement undertaken to meet future need. Several key RPS procurement issues are scheduled to be addressed this year; as set forth in the *Third Amended Scoping Memo and Ruling*, issued January 13, 2014 in R.11-05-005, these issues will be addressed as follows: compliance and enforcement (Q1 2014); the compliance spreadsheet (Q2 2014); RPS procurement expenditure limitations (Q2 2014); and LCBF reform (Q3 2014).

In accordance with the Phase 3 Scoping Memo in R.11-10-023, Energy Division Staff is also currently developing a probabilistic reliability model to replace the current methodology used to calculate the Effective Load Carrying Capability (“ELCC”) and Qualifying Capacity (“QC”) of wind and solar resources. It is anticipated that modeling results will be vetted in late 2014 and early 2015, and adopted in June 2015 as part of the proceeding to determine local capacity requirements for the 2016 RA compliance year, and the results of this revision will be incorporated into the LCBF calculation. The final results of these initiatives are unknown at this time; consequently, SDG&E cannot predict the impact these issues will have on its future procurement activities.

The first two issues listed above are particularly interrelated as the compliance spreadsheet and associated required documents will feed into the compliance review process. On September 29, 2013, the Commission issued a ruling requesting comment regarding certain aspects of the compliance and enforcement process, including the reporting process, waiver and reduction request processes, and penalties. The Commission subsequently issued a Final Decision regarding enforcement rules on December 4, 2014. The Commission also issued a proposal requesting informal comments on Staff’s proposed RPS Compliance Report spreadsheet and new reporting documents related to the new RPS portfolio content categories (“PCCs”) on February 12, 2014. The final spreadsheet format and list of reporting documents has not yet been determined. The results of the CEC and Commission review and verification of SDG&E’s Compliance Period 1 procurement and associated documentation will provide greater certainty regarding the PCCs of contracts in SDG&E’s portfolio and will thereby inform SDG&E’s procurement activities going forward.

It is anticipated that the final decision regarding procurement expenditure limitations will implement a cap on expenditures by IOUs to meet RPS goals. Greater detail regarding the actual limitation for SDG&E, how it will relate to the procurement dollars spent and contracts signed as of the date of the final decision, and how the expenditure cap will interact with the other requirements of the RPS program will assist SDG&E in planning its future procurement activities.

In D.14-11-042, the Commission established new rules related to the RPS procurement process. It is too soon to comment on potential constraints that may be placed on RPS

procurement as the result of the new rules, but SDG&E will consider the impact of these changes when planning for future procurement. D.14-11-042 also makes mention of a rulemaking set for “early 2015”<sup>53</sup> regarding the Commission’s new authority under AB 327, which allows the Commission the discretion to raise the RPS target above the existing goal of 33% by 2020. The Commission’s implementation of this new authority will impact the RPS program as a whole; SDG&E looks forward to actively participating in the stakeholder process.

Finally, the pending nature of LCBF reform also creates uncertainty. Clarity surrounding any alterations to this calculation and/or the factors used in bid evaluation will help SDG&E understand and plan for any impacts. In addition, the Commission’s new probabilistic reliability model may significantly alter the expected QC of new and existing wind and solar resources and thereby impact the Net Qualifying Capacity (“NCQ”) of a resource for RA compliance purposes. This in turn may materially alter the NCQ value assigned to renewable projects as a part of the LCBF evaluation. SDG&E continues to monitor this process and will incorporate the new methodology into its LCBF evaluation when final.

#### ***F. Impact of Potential Delays***

SDG&E bases its forecasting, and therefore its RNS calculation, on its individual project assessments, as described in more detail in Section II. It also considers lessons learned and trends it has observed as a result of the RPS procurement process, as discussed in more detail in Section II. The above factors contribute to SDG&E’s monthly assessment of the likelihood of each project’s success. For example, a project that has been experiencing difficulty in obtaining a key permit would receive a probability weighting reduction to account for this risk until the issue is resolved. While the impacts of the regulatory proceedings mentioned above cannot be known until the final decisions are issued, SDG&E is monitoring these issues and will reflect their outcomes accordingly, when appropriate. The result of these cumulative assessments is reflected in the RNS, which SDG&E will then use to inform its procurement activities over the next two compliance periods and past 2020. The RNS as of May 2014 is provided in Appendix 2.

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<sup>53</sup> D.14-11-042, *mimeo*, p. 5.

## V. RISK ASSESSMENT

SDG&E periodically evaluates the risk that delivering projects will underperform. In SDG&E's experience, developers are inherently motivated to achieve the COD for their facilities and maintain successful operations due to several factors: (i) the significant investment required to achieve COD; (ii) the timely payments made for energy delivered once COD is reached; and (iii) the penalties incurred if the project does not meet contractual requirements to supply at least the minimum amount of energy contemplated. As explained above under Section II, SDG&E anticipates meeting its CP2 targets with procurement already under contract, and estimates a project success rate of approximately 90% for the contracts currently in effect. These two factors have mitigated the risk to SDG&E's portfolio. However, risks are still present, and over the past decade, SDG&E has observed some dynamic factors that may affect power production from delivering projects:

- Resource Availability, Lower than Expected Generation, and Variable Generation: Renewable resources depend on natural sources of energy which are variable, and can be impacted by various factors. For example, a bad wind year can greatly impact a wind facility's performance and cause lower than expected generation, impacting SDG&E's ability to meet its RPS goals. Another factor that could also impact generation, and therefore SDG&E's ability to meet its RPS goals, is the occurrence of unexpected mechanical failures. This could cause the facility to be partially or fully unavailable until the issue can be resolved.
- Regulatory Changes: The expiration of subsidies, such as the Public Goods Charge or the Production Tax Credit lowers the revenue stream for RPS developers and could lead to reduced production if the project has difficulty in supporting this lower revenue stream.
- Economic Environment: The interest rates and flexibility of financing arrangements entered into by developers can impact a project's success. Long term project financing arrangements with unfavorable terms can lead to project failure or reduced production if the project has difficulty in supporting the financing cost requirements.
- Evolving Technology: Facilities with older generation technology that is no longer supported by the manufacturer can experience project failure or reduced production.

This problem is arising now for older RPS projects, and could repeat itself over the next 20 years as the projects being contracted for today begin to age.

- Issues with Third Party Mandatory Systems: Recently the CAISO and WREGIS systems have experienced some technical issues, and as a result, some of SDG&E's pre-paid RECs have not been received when due. Working with CAISO, WREGIS, and the affected counterparties may lead to dispute(s) with the affected counterparties.

SDG&E's current assessment is that projects in its portfolio are at a low risk of non-performance, but notes that this assessment is based on the above risk factors remaining relatively stable. As noted herein, SDG&E bases its forecasting, and therefore its RNS calculation, on its individual project assessments, lessons learned and trends it has observed as a result of the RPS procurement process. The above factors contribute to SDG&E's monthly project assessments of the likelihood of each project's success. For example, the probability weighting for a project that has begun experiencing technical difficulties due to an aging system and has been unable to receive assistance from a manufacturer that no longer exists, would receive a probability weighting reduction to account for its reduced generation until the issue is resolved. The result of these cumulative assessments is reflected in the RNS, which SDG&E will then use to inform its procurement activities over the next two compliance periods and past 2020. The RNS as of May, 2014 is provided in Appendix 2.

## **VI. QUANTITATIVE INFORMATION**

The analysis attached hereto in Appendix 2 shows SDG&E's 2010 deficit, and the Commissions' prescribed Residual Net Short ("RNS") calculation with supporting probability weighting calculations by project as of May 2014. SDG&E has identified that the RNS calculations do not take the 36 month shelf life of RECs into consideration when calculating the IOUs compliance position. SDG&E intends to monitor the vintage and remaining life of RECs in order to maximize their value to the portfolio by retiring them at the most opportune time, this is discussed in more detail in Section II.



## VII. MINIMUM MARGIN OF OVER-PROCUREMENT

SDG&E's RPS Risk Adjusted Net Short Calculation, as shown in Appendix 2, provides a "Minimum Margin of Procurement" that is intended to account for foreseeable project failures or delays. This calculation also includes an additional VMOP, which is intended to ensure that SDG&E achieves its RPS requirements despite unforeseeable risks. Since both the RPS targets and RPS deliveries fluctuate constantly, it is nearly impossible to meet RPS targets with the exact number of MWhs required. SDG&E's VMOP is designed to ensure that it achieves its RPS goals with a "buffer" to account for unforeseen changes to either the RPS targets or deliveries. Because it is more difficult to predict retail sales and project performance in CP2 and CP3, SDG&E's VMOP is higher in those years. SDG&E's RNS calculation, including its VMOP, for each compliance period is described below.

### *A. Compliance Period 1*

SDG&E's Compliance Period 1 RNS is based on the following formula:

$$\text{RPS Risk-adjusted Net Short} = (\text{Bundled Retail Sales Forecast} \times \text{RPS Procurement Quantity Requirement} + \text{Voluntary Minimum Margin of Procurement}) - (\text{Online Generation} + \text{Risk-adjusted Forecast Generation} + \text{Pre-approved Generic Generation})$$

Where:

- a. Bundled Retail Sales Forecast = the forecast developed in accordance with Section II(A)(ii)(a) of SDG&E's 2014 RPS Plan
- b. RPS Procurement Quantity Requirement = Compliance Period 1 RPS percentage target plus the deficit that SDG&E is required to carry forward from the prior RPS regime as discussed in Section II(A)(ii)(g) of SDG&E's 2014 RPS Plan.
- c. Voluntary Minimum Margin of Procurement = up to the current anticipated net long position for CP1
- d. Online Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have achieved commercial operation, as discussed in Section II(A)(i)(a) of SDG&E's 2014 RPS Plan

- e. Risk-adjusted Forecast Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have not yet achieved commercial operation, as discussed in Section II(A)(i)(b) of SDG&E's 2014 RPS Plan
- f. Pre-approved Generic Generation = unsubscribed volumes that SDG&E is required to procure under CPUC mandated procurement programs such as the Renewable Auction Mechanism and the Feed-in-Tariff

***B. Compliance Period 2***

SDG&E's Compliance Period 2 RNS is based on the following formula:

RPS Risk-adjusted Net Short = (Bundled Retail Sales Forecast x RPS Procurement Quantity Requirement+ Voluntary Minimum Margin of Procurement) – (Online Generation + Risk-adjusted Forecast Generation + Pre-approved Generic Generation)

Where:

- a. Bundled Retail Sales Forecast = the forecast developed in accordance with Section II(A)(ii)(a) SDG&E's 2014 RPS Plan
- b. RPS Procurement Quantity Requirement = Compliance Period 2 RPS percentage target
- c. Voluntary Minimum Margin of Procurement = up to the current anticipated net long position for CP2 plus any unsubscribed CTTS procurement if applicable
- d. Online Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have achieved commercial operation, as discussed in Section II(A)(i)(a) of SDG&E's 2014 RPS Plan
- e. Risk-adjusted Forecast Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have not yet achieved commercial operation, as discussed in Section II(A)(i)(b) of SDG&E's 2014 RPS Plan
- f. Pre-approved Generic Generation = unsubscribed volumes that SDG&E is required to procure under CPUC mandated procurement programs such as the Renewable Auction Mechanism and the Feed-in-Tariff

### ***C. Compliance Period 3***

SDG&E's Compliance Period 3 RNS is based on the following formula:

RPS Risk-adjusted Net Short = (Bundled Retail Sales Forecast x RPS Procurement Quantity Requirement+ Voluntary Minimum Margin of Procurement) – (Online Generation + Risk-adjusted Forecast Generation + Pre-approved Generic Generation)

Where:

- a. Bundled Retail Sales Forecast = the forecast developed in accordance with Section II(A)(ii)(a) SDG&E's 2014 RPS Plan
- b. RPS Procurement Quantity Requirement = Compliance Period 3 RPS percentage target
- c. Voluntary Minimum Margin of Procurement = up to the current anticipated net long position for CP3 plus any unsubscribed CTTS procurement if applicable
- d. Online Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have achieved commercial operation, as discussed in Section II(A)(i)(a) of SDG&E's 2014 RPS Plan
- e. Risk-adjusted Forecast Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have not yet achieved commercial operation, as discussed in Section II(A)(i)(b) of SDG&E's 2014 RPS Plan
- f. Pre-approved Generic Generation = unsubscribed volumes that SDG&E is required to procure under CPUC mandated procurement programs such as the Renewable Auction Mechanism and the Feed-in-Tariff

### **VIII. BID SOLICITATION PROTOCOL, INCLUDING LEAST-COST, BEST -FIT**

Attached hereto in Appendices 6-8 are SDG&E's proposed protocols for a RFP for RPS sales and a RPS Sales Model PPA. Note that the RPS Sales Model PPA currently contemplates the sale of a Category 1 product; SDG&E will modify this agreement as necessary to accommodate the sale of Category 2 or Category 3 products. Although SDG&E does not intend to issue a solicitation for RPS purchases in 2014, it has also attached a RPS Model PPA and a

RPS REC Agreement. Submitting the updated RPS Model PPA is important so that it does not become stale, and so that SDG&E can use the most current version of this contract for any renewable procurement that occurs through the preferred resources solicitation associated with SDG&E's LCR.<sup>54</sup> Many of the changes SDG&E made to this PPA result from lessons learned discussed in Section C(i) above. Per D.14-11-042, SDG&E will request Commission approval via a Tier 1 AL if it determines that changes to these documents are necessary.<sup>55</sup>

- Appendix 6: 2014 RPS Model PPA (RPS PPA)
- Appendix 7: 2014 RPS REC Agreement (RPS REC PPA)
- Appendix 8: 2014 RPS Sale (RFP Document)
- Appendix 8.A: 2014 RPS Sales Model PPA (RPS Sales PPA)

## **IX. CONSIDERATION OF PRICE ADJUSTMENT MECHANISMS**

SDG&E acknowledges that contracts with online dates occurring more than 24 months after the contract execution date can pose additional risk to ratepayers. SDG&E has incorporated price adjustment mechanisms in some of its current contracts that are intended to alleviate some of these risks, including the following:

- Price adjustment for delay in Guaranteed Commercial Operation Date (“GCOD”): A lower price for a late GCOD provides additional incentive for developers to come online as early as possible. However, this structure can create financing challenges if financing parties are not comfortable with the potentially lower price. It is also difficult to quantify an appropriate price adjustment amount and can lead to drawn out negotiations.
- Capped transmission upgrade costs: Placing a cap on the amount of transmission upgrade costs, which are ultimately borne by ratepayers, that a project can incur is an effective way to limit ratepayer exposure to such costs. This type of cap is especially important for projects with CODs more than 24 months after the contract execution date because it is more likely that transmission upgrade cost estimates could change for these projects. The cap is set as a condition precedent to SDG&E's obligations under the PPA.

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<sup>54</sup> SDG&E will use the 2013 version of the RPS Model PPA as a starting point for the preferred resources solicitation if the 2014 version is not approved by the time SDG&E issues the solicitation.

<sup>55</sup> D.14-11-042, *mimeo*, p. 22.

If estimated costs exceed the cap, SDG&E has the right not to move forward with the PPA.

- Price adjustment for higher than expected transmission upgrade costs: Another mechanism that SDG&E has successfully incorporated into past contracts is a mechanism whereby the seller agrees to a price reduction to offset higher than anticipated transmission upgrade costs. Under this mechanism, the contract price would be reduced on a dollars per megawatt-hour basis commensurate with the cost of transmission upgrades above an agreed upon cap. The price adjustment mechanism would include an upper limit on transmission upgrade costs, above which SDG&E can terminate the contract. This mechanism is similar to the cap described immediately above except, rather than giving SDG&E the right not to move forward with the PPA, it gives the developer the choice of whether to go forward at a reduced price equal to the amount of transmission costs above the cap, or the developer may choose not to go forward with the PPA.
- Price adjustment for failure to achieve full capacity deliverability status: If a project is not deemed fully deliverable by CAISO at the time of COD, then the PPA price is reduced by either (1) a negotiated price reduction specific to the project; or (2) the application of “energy only” TOD factors in place of “FCDS” factors until such time as the project is deemed fully deliverable.

## **X. COST QUANTIFICATION**

The tables attached hereto in Appendix 3 provide an annual summary of both actual and forecasted RPS procurement costs and generation, by technology type, as of May, 2014.

## **XI. EXPIRING CONTRACTS**

The table attached hereto in Appendix 4 lists the contracts in SDG&E’s portfolio that will be expiring in the next 10 years.

## **XII. IMPERIAL VALLEY**

### ***A. Participation in 2013 RPS RFO by Imperial Valley Projects***

In response to its 2013 RPS RFO, SDG&E received 141 bids from 27 counterparties, with the majority of projects coming online in 2020. Of the 141 bids, 80 were conforming, and

of this 80, 18 were located in the IID territory. The following table represents the breakdown by technology and capacity:

<b>Technology</b>	<b>Capacity (MW)</b>
Solar PV <sup>56</sup>	985
Solar Thermal	59.7
Geothermal	57

SDG&E shortlisted two projects on a contingent basis as a result of its 2013 solicitation, neither of which is located in the Imperial Valley (“IV”).

SDG&E currently has 15 contracts in the Imperial Valley/IID territory, that when completed will provide an estimated 3,753 GWh per year. As of May 2014, four of these projects have reached commercial operations, and the generation from these projects is anticipated to be approximately 1,800 GWh per year. The remainder of the projects are in various stages of construction.

### **XIII. IMPORTANT CHANGES TO 2013 RPS PLAN**

Important changes made to SDG&E’s 2013 RPS Plan are detailed in Appendix 5.

### **XIV. OTHER RPS PLANNING CONSIDERATIONS AND ISSUES**

SDG&E has no additional considerations and issues to discuss at this time, but reserves the right to add to this section in subsequent versions of its RPS Plan.

### **XV. SAFETY CONSIDERATIONS**

SDG&E is committed to providing safe, reliable and environmentally sound electric service for its customers. As discussed herein, SDG&E’s RPS Plan contemplates procurement of RPS-eligible generation through both PPAs and UOG. SDG&E’s emphasis on safety is reflected in (i) the terms and conditions contained in the pro forma PPAs used in its various procurement programs; and (ii) the safety procedures that all contractors working on UOG facilities are required by SDG&E to follow.

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<sup>56</sup> Several projects submitted multiple bids for the purpose of proposing different project capacities and different project term lengths.

### ***A. RPS Power Purchase Agreements***

SDG&E's current procurement programs and the safety-related contractual provisions included in the contract for each program are detailed below. Although the precise wording varies slightly among PPAs related to different programs, each PPA follows the same logic by first defining prudent business practices as those which, given the information available at the time the decision was made, could reasonably be expected to accomplish the desired result consistent with good business practices, reliability and safety. This definition is then referenced throughout the contract. By executing any of the following referenced PPAs, a counterparty agrees to incorporate safety considerations into its decision making process and operate accordingly.

#### **i. PPA Provisions - Utility Scale RFOs**

- Section 1.1: "Good Industry Practice" means those practices, methods and acts that would be implemented and followed by prudent operators of electric transmission facilities (with respect to Buyer) or prudent operators of electric generation facilities similar to the Project (with respect to Seller) in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety, and shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers' warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and applicable Law. Good Industry Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the region.
- Section 3.1(f)(ii): [For Baseload, Peaking, Dispatchable Product: Annual Capacity Testing. Thereafter, at least once per Contract Year within the first quarter of each Contract Year, upon no less than 14 days prior Notice to

Buyer, Seller shall schedule and complete a Capacity Test. In addition, Buyer shall have the right to require a retest of the Capacity Test at any time upon five (5) days prior written Notice to Seller if Buyer reasonably believes that the actual Contract Capacity has varied materially from the results of the most recent tests. Seller shall have the right to run a retest of the Capacity Test at any time upon two (2) days prior written Notice to Buyer (or any shorter period reasonably acceptable to Buyer consistent with Good Industry Practices).]

- Section 3.5(a): General Operation. Seller shall comply with all applicable requirements of Law, the CAISO, NERC and WECC relating to the Project (including those related to safety, construction, ownership and/or operation of the Project).
- Section 3.5(b): CAISO and WECC Standards. Each Party shall perform all generation, scheduling and transmission services in compliance with all applicable (i) operating policies, criteria, rules, guidelines, tariffs and protocols of the CAISO, (ii) WECC scheduling practices and (iii) Good Industry Practices.
- Section 3.5(c): Reliability Standard. Seller agrees to abide by all (i) NERC, WECC and CAISO reliability requirements, including all such reliability requirements for generator owners and generator operators, and, if applicable, CPUC General Order No.167, “Enforcement of Maintenance and Operation Standards for Electrical Generating Facilities,” and (ii) all applicable requirements regarding interconnection of the Project, including the requirements of the interconnected Transmission Provider. Seller shall enter into and comply with the WECC Reliability Management System (Generator) Agreement, or successor agreement, as of the Commercial Operation Date and throughout the Delivery Term.
- Section 3.6(a)(i): Testing and Calibration. Seller shall perform or cause to be performed, at its expense, annual testing and calibration of the electric meters in accordance with Good Industry Practice and the CAISO Tariff. Seller shall give Buyer reasonable advance notice of any inspection, testing or calibration



of the electric meters. Buyer shall have the right to have a representative or designee present at such inspection, test or calibration of the electric meters. Buyer shall have the right to require, at Buyer's expense, except as required below, a test of any of the electric meters not more often than two (2) times every twelve (12) months.

- Section 3.7(a): Planned Outages. Seller shall schedule Planned Outages for the Project in accordance with Good Industry Practices and with the prior written consent of Buyer, which consent may not be unreasonably withheld or conditioned. The Parties acknowledge that in all circumstances, Good Industry Practices shall dictate when Planned Outages should occur. Seller shall notify Buyer of its proposed Planned Outage schedule for the Project for the following calendar year by submitting a written Planned Outage schedule no later than October 1st of each year during the Delivery Term. The Planned Outage schedule is subject to Buyer's approval, which approval may not be unreasonably withheld or conditioned. Buyer shall promptly respond with its approval or with reasonable modifications to the Planned Outage schedule and Seller shall use its best efforts in accordance with Good Industry Practices to accommodate Buyer's requested modifications. Notwithstanding the submission of the Planned Outage schedule described above, Seller shall also submit a completed Outage Notification Form to Buyer no later than fourteen (14) days prior to each Planned Outage and all appropriate outage information or requests to the CAISO in accordance with the CAISO Tariff. Seller shall contact Buyer with any requested changes to the Planned Outage schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next scheduled Planned Outage consistent with Good Industry Practices. Seller shall not change its Planned Outage schedule without Buyer's approval, not to be unreasonably withheld or conditioned. Seller shall use its best efforts in accordance with Good Industry Practices not to schedule Planned Outages during the months of July, August, September and October. At Buyer's request, Seller shall use commercially reasonable efforts to reschedule Planned Outage so that it may deliver Product during

CAISO declared or threatened emergency periods. Seller shall not substitute Energy from any other source for the output of the Project during a Planned Outage.

- Appendix F, Form of Quarterly Progress Report, Section 9.0: Safety and Health Reports
  - 9.1 Please list all accidents from the previous calendar quarter:
  - 9.2 Any work stoppage from the previous calendar quarter:
  - 9.3 Work stoppage impact on construction of the Project:

**ii. PPA Provisions – RAM Program<sup>57</sup>**

- Section 1.1: “Good Industry Practice” means those practices, methods and acts that would be implemented and followed by prudent operators of electric transmission facilities (with respect to Buyer) or prudent operators of electric generation facilities similar to the Project (with respect to Seller) in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety, and shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and applicable Law. Good Industry Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the region.

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<sup>57</sup> SDG&E filed RAM AL 2580-E on February 28, 2014. Included in this AL were proposed modifications to section 3.5(a) of SDG&E’s RAM PPA to further include safety as an element of the general operation of the project. In addition, as part of the RAM PPA’s semiannual progress reporting from Seller to Buyer, SDG&E proposes that Seller’s include a safety and health report listing all accidents, any resulting work stoppages, and work stoppage impact on construction of the project. These changes have become effective.

- Section 3.5(a): General Operation. Seller shall comply with all applicable requirements of Law, the CAISO, NERC and WECC relating to the Project (including those related to safety, construction, ownership and/or operation of the Project).
- Section 3.5(b): CAISO and WECC Standards. Each Party shall perform all generation, scheduling and transmission services in compliance with all applicable (i) operating policies, criteria, rules, guidelines, tariffs and protocols of the CAISO, (ii) WECC scheduling practices and (iii) Good Industry Practices.
- Section 3.5(c): Reliability Standard. Seller agrees to abide by all (i) NERC, WECC and CAISO reliability requirements, including all such reliability requirements for generator owners and generator operators, and, if applicable, CPUC General Order No.167, “Enforcement of Maintenance and Operation Standards for Electrical Generating Facilities,” and (ii) all applicable requirements regarding interconnection of the Project, including the requirements of the interconnected Transmission Provider.
- Section 3.6(a)(i): Testing and Calibration. Seller shall perform or cause to be performed, at its expense, annual testing and calibration of the electric meters in accordance with Good Industry Practice and the CAISO Tariff. Seller shall give Buyer reasonable advance notice of any inspection, testing or calibration of the electric meters. Buyer shall have the right to have a representative or designee present at such inspection, test or calibration of the electric meters. Buyer shall have the right to require, at Buyer’s expense, except as required below, a test of any of the electric meters not more often than two (2) times every twelve (12) months.
- Section 3.7(a): Planned Outages. Seller shall schedule Planned Outages for the Project in accordance with Good Industry Practices and with the prior written consent of Buyer, which consent may not be unreasonably withheld or conditioned. The Parties acknowledge that in all circumstances, Good Industry Practices shall dictate when Planned Outages should occur. Seller shall notify Buyer of its proposed Planned Outage schedule for the Project for

the following calendar year by submitting a written Planned Outage schedule no later than October 1st of each year during the Delivery Term. The Planned Outage schedule is subject to Buyer's approval, which approval may not be unreasonably withheld or conditioned. Buyer shall promptly respond with its approval or with reasonable modifications to the Planned Outage schedule and Seller shall use its best efforts in accordance with Good Industry Practices to accommodate Buyer's requested modifications. Notwithstanding the submission of the Planned Outage schedule described above, Seller shall also submit a completed Outage Notification Form to Buyer no later than fourteen (14) days prior to each Planned Outage and all appropriate outage information or requests to the CAISO in accordance with the CAISO Tariff. Seller shall contact Buyer with any requested changes to the Planned Outage schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next scheduled Planned Outage consistent with Good Industry Practices. Seller shall not change its Planned Outage schedule without Buyer's approval, not to be unreasonably withheld or conditioned. Seller shall use its best efforts in accordance with Good Industry Practices not to schedule Planned Outages during the months of July, August, September and October. At Buyer's request, Seller shall use commercially reasonable efforts to reschedule Planned Outage so that it may deliver Product during CAISO declared or threatened emergency periods. Seller shall not substitute Energy from any other source for the output of the Project during a Planned Outage.

**iii. PPA Provisions – CRE and WATER FiT Programs<sup>58</sup>**

- Section 5.4: The Generating Facility shall be operated with all of Producer's Protective Functions in service and in accordance with Prudent Electrical Practices whenever the Generating Facility is operated in parallel with SDG&E's Distribution System. Any deviation from these requirements may occur only when the Parties have agreed to such deviations in writing.

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<sup>58</sup> SDG&E's CRE and WATER FiT programs terminated July 24, 2013.

- Appendix F, Item 32: “Operate,” “Operating” or “Operation” means to provide (or the provision of) all the operation, engineering, purchasing, repair, supervision, training, inspection, testing, protection, use, management, improvement, replacement, refurbishment, retirement, and maintenance activities associated with operating the Generating Facility in accordance with Prudent Electrical Practices.
- Appendix F, Item 41: “Prudent Electrical Practices” means those practices, methods and acts that would be implemented and followed by prudent operators of electric energy generating facilities in the Western United States, similar to the Generating Facility, during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety.
  - Prudent Electrical Practices shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the ISO and applicable laws.
  - Prudent Electrical Practices shall also include taking reasonable steps to ensure that:
    - Equipment, materials, resources, and supplies, including spare parts inventories, are available to meet the Generating Facility’s needs;
    - Sufficient operating personnel are available at all times and are adequately experienced and trained and licensed as necessary to operate the Generating Facility properly and efficiently, and are capable of responding to reasonably foreseeable emergency conditions at the Generating Facility and emergencies whether caused by events on or off the Site;

- Preventive, routine, and non-routine maintenance and repairs are performed on a basis that ensures reliable, long term and safe operation of the Generating Facility, and are performed by knowledgeable, trained, and experienced personnel utilizing proper equipment and tools;
- Appropriate monitoring and testing are performed to ensure equipment is functioning as designed;
- Equipment is not operated in a reckless manner, in violation of manufacturer's guidelines or in a manner unsafe to workers, the general public, or SDG&E's electric system or contrary to environmental laws, permits or regulations or without regard to defined limitations such as, flood conditions, safety inspection requirements, operating voltage, current, volt ampere reactive (VAR) loading, frequency, rotational speed, polarity, synchronization, and control system limits; and
- Equipment and components designed and manufactured to meet or exceed the standard of durability that is generally used for electric energy generating facilities operating in the Western United States and will function properly over the full range of ambient temperature and weather conditions reasonably expected to occur at the Site and under both normal and emergency conditions.

**iv. PPA Provisions – Re-MAT FiT Program<sup>59</sup>**

- Section 6.4: Standard of Care. Seller shall: (a) maintain and operate the Facility and Interconnection Facilities, except facilities installed by Buyer, in conformance with all Laws and in accordance with Prudent Electrical Practices; (b) obtain any governmental authorizations and permits required for the construction and operation thereof; and (c) generate, schedule and perform transmission services in compliance with all applicable operating policies,

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<sup>59</sup> SDG&E's Re-MAT FiT Program began November 1, 2013.

criteria, rules, guidelines and tariffs and Prudent Electrical Practices. Seller shall reimburse Buyer for any and all losses, damages, claims, penalties, or liability Buyer incurs as a result of Seller's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of the Facility throughout the Term of this Agreement.

- Section 6.5.2: Access Rights. Buyer, its authorized agents, employees and inspectors may, on reasonable advance notice under the circumstances, visit the Project during normal business hours for purposes reasonably connected with this Agreement or the exercise of any and all rights secured to Buyer by Law, its tariff schedules, and rules on file with the CPUC. Buyer, its authorized agents, employees and inspectors must (a) at all times adhere to all safety and security procedures as may be required by Seller; and (b) not interfere with the operation of the Project. Buyer shall make reasonable efforts to coordinate its emergency activities with the Safety and Security Departments, if any, of the Project operator. Seller shall keep Buyer advised of current procedures for contacting the Project operator's Safety and Security Departments.
- Appendix A: "Demonstrated Contract Capacity" means the Facility's total rated electric alternating current energy generating capacity which will equal the [lesser of (a) the sum of the Inverter Block Unit Capacity of all Inverter Block Units in the Facility and (b) the continuous output power rating at the expected operating power factor of the step-up transformer that connects the Facility to the Transmission/Distribution Owner's system[for solar photovoltaic technology]] [the total of the manufacturer's nameplate ratings of all installed Wind Turbines, consistent with Prudent Electrical Practices and accepted industry standards, as indicated on the nameplates physically attached to the individual Wind Turbine generators[for wind technology]] [sum of the Metered Amounts for the Demonstration Hour[all other technologies]], as determined in accordance with Appendix M.
- Appendix A: "Inverter Block Unit Capacity" means, with respect to each Inverter Block Unit, the total rated electric alternating current energy

generating capacity of such Inverter Block Unit, determined as the lesser of:  
(a) The manufacturer's output rating of the Current Inverter included in such Inverter Block Unit, consistent with Prudent Electrical Practices and accepted industry standards, as indicated on the nameplate physically attached to such Current Inverter; (b) The sum of the manufacturer's nameplate ratings of all Photovoltaic Modules included in such Inverter Block Unit, consistent with Prudent Electrical Practices and accepted industry standards, as indicated on the nameplates physically attached to such individual Photovoltaic Modules;

- Appendix A: "Prudent Electrical Practices" means those practices, methods and acts that would be implemented and followed by prudent operators of electric energy generating facilities in the Western United States, similar to the Facility, during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety. Prudent Electrical Practices shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers' warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and Laws. Prudent Electrical Practices also includes taking reasonable steps to ensure that:
  - (a) Equipment, materials, resources, and supplies, including spare parts inventories, are available to meet the Facility's needs;
  - (b) Sufficient operating personnel are available at all times and are adequately experienced and trained and licensed as necessary to operate the Facility properly and efficiently, and are capable of responding to reasonably foreseeable emergency conditions at the Facility and Emergencies whether caused by events on or off the Site;
  - (c) Preventive, routine, and non-routine maintenance and repairs are performed on a basis that ensures reliable, long term and safe operation of the Facility, and are performed by knowledgeable,



trained, and experienced personnel utilizing proper equipment and tools;

- (d) Appropriate monitoring and testing are performed to ensure equipment is functioning as designed;
- (e) Equipment is not operated in a reckless manner, in violation of manufacturer's guidelines or in a manner unsafe to workers, the general public, or the Transmission/Distribution Owner's electric system or contrary to environmental laws, permits or regulations or without regard to defined limitations such as, flood conditions, safety inspection requirements, operating voltage, current, volt ampere reactive (VAR) loading, frequency, rotational speed, polarity, synchronization, and control system limits; and
- (f) Equipment and components are designed and manufactured to meet or exceed the standard of durability that is generally used for electric energy generating facilities operating in the Western United States and will function properly over the full range of ambient temperature and weather conditions reasonably expected to occur at the Site and under both normal and emergency conditions.

### ***B. Renewable Utility-Owned Generation Projects***

SDG&E requires all contractors working on UOG facilities to observe the following safety-related procedures:

#### **i. Safety Requirements**

- The Contractor shall establish, implement, and maintain a complete site-specific Safety Program, which includes pre-employment and random drug testing to prevent accidents, losses, or damage to personnel, equipment, and structures. The Contractor shall submit a written copy of this program to SDG&E for approval. The Program shall include a full time, on-site Safety Manager at the start of the Project and a sufficient, qualified, support staff for the duration of on-site work. This program shall follow the applicable laws, ordinances, regulations and standards for such programs and shall include:

code of safe practices, fire protection plan, spill prevention plan, emergency situations response plan and procedures, and hazardous material control and training. The plan shall be coordinated with SDG&E's Program Manager and local authorities as required.

- The Safety Program shall include sections addressing Site environmental protection and a Personal Protective Equipment Program. As a minimum, the Site Safety Plan shall require the following Personnel Protection Equipment (PPE) to be properly worn by all personnel on site unless inside an office building/trailer.
- Upon request, the Contractor shall submit to SDG&E for review the OSHA 200 log for the previous three (3) years for each site Subcontractor prior to Subcontract award.
- Safety and Health Orientation
  - Each new employee (including subcontractors and vendors) shall receive a thorough safety and health orientation, which gives the employee the basic information about the Contractor's Safety Program, Federal and/or State OSHA (the most stringent in any case) and other applicable safety rules and regulations. If necessary, the Contractor shall provide additional safety instructions during the scope of the normal daily activities for the performance of hazardous or unfamiliar tasks. Attendance to the orientation shall be required and appropriate records shall be maintained on file in the Contractor's office. Such records shall be available for review by SDG&E and authorized State or Federal agency personnel.
- Supervisor's Safety Orientation
  - The Contractor shall familiarize all supervisory personnel with the Contractor's safety and health responsibilities by conducting a safety and health orientation with each supervisor upon promotion or assignment. Orientation records shall be maintained on file in the Contractor's office. Supervisors shall be trained in CPR and First Aid.

- Weekly Toolbox and Daily Safety Meetings
  - The Contractor shall conduct weekly toolbox meetings, open to SDG&E's Representatives, to provide all on-site employees with up-to-date safety and health information. Employee attendance shall be mandatory and attendance records shall be maintained on file in the Contractor's office. Such records shall be made available for review upon request by SDG&E. Daily task safety analysis for each planned activity shall be performed to help the employees prepare for the hazards associated with each assigned task.
  
- General Safety Requirements:
  - Barricades: The Contractor shall erect and maintain all barricades used to protect personnel from hazardous work operations as required by Federal or State OSHA.
  - Safety Signs: The Contractor shall post any signs or posters that may be needed to advise employees of unsafe areas or conditions as required by Federal or State OSHA.
  - Scaffolds: The Contractor shall erect all scaffolds in conformance with Federal or State OSHA standards and maintain a method of communication that daily scaffolding erection inspection has been performed and that the scaffolding is ready for use.
  - Floor and Roof Openings: The Contractor shall barricade or cover all floor and roof openings, to protect employees from falls as required by Federal or State OSHA.
  - Lock Out and Tag Out: The Contractor shall provide an approved procedure for lock out and tag out, including all lock tags, of all applicable equipment.
  - The Contractor shall designate to SDG&E in writing a qualified safety representative who shall administer the Contractor's Site Safety Plan. All vendor supplied service organizations shall each be required to implement a safety program appropriate for the Work being performed

and in compliance with the Contractor's Site Safety Plan. The Contractor shall be responsible for all subcontractor compliance with the Site Safety Plan

- Loss Prevention
  - Implementation of an approved Safety Program
  - Provision of a safe workplace for all employees
  - Implementation of a fire prevention program in accordance with NFPA 241: Standard for Safeguarding Construction, Alteration, and Demolition Operations
  - Prevention of equipment operation unless the equipment is safe to operate, all protective equipment is in place, and the operators are properly trained and licensed or certified for the particular equipment being operated
  - Control to ensure that hazards are not introduced unless protective equipment is in service, and appropriate notice and documentation has been provided
  - Implementation of regular safety meetings and training
  - Adherence to all Federal or State OSHA and other applicable safety requirements
  
- Non-compliance with Requirements
  - SDG&E's Program Manager or assigned representative shall have the right but not the obligation to monitor the safety performance of the personnel working on the Site, and shall have the authority to stop any activities on the Site deemed to be noncompliant with established safe work practices until such noncompliance is corrected. In no way shall SDG&E assume responsibility for Site safety. Site safety is solely the responsibility of the Contractor. All of the Contractor's employees shall be required to comply with safety obligations as established in the Agreement. The Contractor shall advise its employees that any employee who jeopardizes his or her safety and health, or the safety of

others, shall be subjected to disciplinary action, including immediate removal from the site.

- Occupational Health
  - The Contractor shall take all reasonable steps and precautions to protect the health of their employees and other site personnel. The Contractor shall conduct occupational health monitoring and/or sampling as required by Federal or State OSHA to determine the levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of employee sampling results shall be provided to SDG&E upon request.
  
- Fire Protection and Prevention
  - The Contractor shall provide fire extinguishers that are adequate for potential fire hazards present during construction, and shall provide instruction in the proper use of such equipment to all employees. All extinguishers must be inspected at least annually and have a tag attached indicating compliance. Only carbon dioxide (CO<sub>2</sub>) fire extinguishers shall be used within proximity of the inverters, transformers, switchgear, and communications enclosures to avoid damage to this equipment.
  - The Contractor shall insure the material it proposes to use at the site conforms to appropriate standards for flame-resistance or fireproof characteristics or is adequately protected from fire danger. Specific materials in this category include coatings, plastic-covering materials, construction lumber, scaffold plans, paper, boxes and crating materials. Flammables such as fuels and solvents must be stored in appropriate containers. Fire blankets shall be used to protect personnel and permanent Project equipment/installations when necessary.
  
- Crane Safety and Material Handling

- The Contractor shall comply with all rules, regulations and standards associated with crane safety and material handling. No equipment or machinery, intended for material or personnel handling, shall be allowed on-site without having written proof of a current inspection, insurance, and crane operator certification. All equipment inspection reports shall be renewed prior to expiration. All crane equipment shall have an inspection checklist signed-off by the operator at the beginning of each shift to ensure that any crane used is in safe operating condition. Equipment must have functioning horns of sufficient volume to provide warnings when required.

## **ii. Safety Inspections and Reporting**

- Inspections
  - The Contractor shall conduct weekly safety inspections of all work areas and operations in accordance with the Contractor's Safety Program. The Contractor shall cooperate with any general safety inspections conducted by SDG&E.
  - The Contractor shall maintain an inspection program for review of safety compliance for the Contractor's equipment, including power tools, electrical cords, rigging equipment, safety equipment, etc.
- Accident and Incident Reporting
  - The Contractor shall analyze any accident or incident (including "near misses") and provide an independent report of the cause and results of the accident or incident to SDG&E. SDG&E's Program Manager shall be notified immediately. Preliminary reports shall be submitted within twenty-four (24) hours of occurrence, and final reports within one week of occurrence. The Contractor shall make any improvement possible to the safety program to prevent future occurrence of a similar incident.

- Contractor shall immediately notify Owner of any governmental agency (OSHA, Fire Dept., Health Dept., etc.) complaint and/or inspection of the Site.
- Record Keeping
  - The Contractor shall maintain all records required by federal and state agencies, which pertain to work related injuries or illness.
- Security
  - The Contractor shall be responsible for providing site security as necessary during construction.



**APPENDIX 1**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**PROJECT DEVELOPMENT STATUS UPDATE**



SDG&E filed its most recent Project Development Status Report with the Commission on April 1, 2014. The following excerpts from SDG&E's May 16, 2014 PRG meeting provide the most updated information on the developing projects in SDG&E's portfolio.

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**APPENDIX 2**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**QUANTITATIVE INFORMATION**

## **Impact of Potential Deficit From Prior Compliance Regime:**

<b>RPS Procurement and Targets (MWh)</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Bundled Retail Sales</b>	15,043,865	15,811,591	16,001,516	16,846,888
<b>Total RPS Eligible Procurement</b>	549,856	677,852	825,302	899,520
<b>Annual Procurement Target (APT)</b>	296,073	446,511	604,627	764,642
<b>Incremental Procurement Target (IPT)</b>	N/A	150,439	158,116	160,015
<b>Preliminary Procurement Surplus/(Deficit)</b>	253,783	231,341	220,675	134,878

<b>2010 Actual Procurement Percentage</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Surplus Procurement Bank Balance as of Prior Year</b>	0	253,783	485,124	705,798
<b>Application of Banked Surplus Procurement to Current Year Deficit</b>				
<b>Adjusted Current Year Annual Surplus Procurement</b>	253,783	231,341	220,675	134,878
<b>Cumulative Surplus/(Deficit) Procurement Bank Balance</b>	253,783	485,124	705,798	840,677

<b>RPS Procurement and Targets (MWh)</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Bundled Retail Sales</b>	17,056,023	17,409,884	16,993,872	16,282,682
<b>Total RPS Eligible Procurement</b>	880,777	1,047,428	1,784,333	1,939,451
<b>Annual Procurement Target (APT)</b>	933,111	1,103,671	1,277,770	3,256,536
<b>Incremental Procurement Target (IPT)</b>	168,469	170,560	174,099	1,978,766
<b>Preliminary Procurement Surplus/(Deficit)</b>	(52,334)	(56,243)	506,563	(1,317,085)

<b>2010 Actual Procurement Percentage</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Surplus Procurement Bank Balance as of Prior Year</b>	840,677	788,342	732,099	1,238,662
<b>Application of Banked Surplus Procurement to Current Year Deficit</b>	(52,334)	(56,243)		(1,317,085)
<b>Adjusted Current Year Annual Surplus Procurement</b>	0	0	506,563	0
<b>Cumulative Surplus/(Deficit) Procurement Bank Balance</b>	788,342	732,099	1,238,662	(78,423)

**SDG&E Renewable Net Short for RPS Procurement - May 2014:**

The tables below provide the data behind SDG&E's RPS Risk Adjusted Net Short Calculation as of May, 2014 and includes the outputs required by the *Administrative Law Judge's Ruling on Renewable Net Short*, dated May 21, 2014. A discussion of this analysis is provided in Section II.

Variable	Calculation	Item	2011-2013 CPI	2014-2016 CP2	2017-2020 CP3
		Forecast Year			
<b>Annual RPS Requirement</b>					
A		Bundled Retail Sales Forecast (LTPP)	49,040		
B		RPS Procurement Quantity Requirement %	20.0%	23.3%	30.0%
C	A * B	Gross RPS Procurement Quantity Requirement (GWh)	9,886		
D		Voluntary Margin of Over-procurement	684		
E	C + D	Net RPS Procurement Need (GWh)	10,569		
<b>RPS-Eligible Procurement</b>					
Fa		Risk-Adjusted RECs from Online Generation	11,217		
Faa		Forecast Failure Rate for Online Generation (%) <sup>(1)</sup>	0%		
Fb		Risk-Adjusted RECs from RPS Facilities in Development	50		
Fbb		Forecast Failure Rate for RPS Facilities in Development (%) <sup>(1)</sup>	0%		
Fc		Pre-Approved Generic Generation <sup>(2)</sup>	0	369	1,526
Fd		Executed REC Sales	(698)	(1,440)	0
F	Fa + Fb + Fc + Fd	Total RPS Eligible Procurement (GWh)	10,569	18,499	27,039
F0		Category 0 RECs	6,933		
F1		Category 1 RECs	3,394		
F2		Category 2 RECs	0		
F3		Category 3 RECs	242		
<b>Gross RPS Position (Physical Net Short)</b>					
Ga	F - E	Annual Gross RPS Position (GWh)	0		
Gb	Ga / A	Annual Gross RPS Position (%) <sup>(3)</sup>	0%		
<b>Application of Bank</b>					
Ha	H - Hc (from previous year)	Existing Banked RECs above the PQR	0		
Hb		RECs above the PQR added to Bank	0		
Hc		Non-bankable RECs above the PQR	684		
H	Ha + Hb + Hc	Gross Balance of RECs above PQR <sup>(4)</sup>	684		
Ia		Planned Application of RECs above the PQR towards RPS Compliance	0		
Ib		Planned Sales of RECs above the PQR <sup>(5)</sup>	0		
J	H + Ia + Ib	Net Balance of RECs above PQR	684		
J0		Category 0 RECs <sup>(6)</sup>	0		
J1		Category 1 RECs <sup>(6)</sup>	0		
J2		Category 2 RECs <sup>(6)</sup>	0		
<b>Expiring Contracts</b>					
K		RECs from Expiring RPS Contracts	2,166	128	280
<b>Net RPS Position (Optimized Net Short)</b>					
La	Ga + Ia - Ib - Hc	Annual Net RPS Position after Bank Optimization (GWh)	(684)		
Lb	(Ga + Ia - Ib - Hc) / A	Annual Net RPS Position after Bank Optimization (%)	-1.4%		

<sup>1</sup> Delivery failure rate is the probability weighted deviation below expected forecast generation, and is based upon but not limited to probability assessments of project failure, project capacity reduction, operational failure after project success, project curtailment due to transmission constraints, etc...

<sup>2</sup> Pre-Approved Generic Generation includes mandated programs ie. RAM, ReMAT FIT, and Connected to the Sun

<sup>3</sup> The numerator of Annual Gross RPS Position % should be the Annual Gross RPS Position (GWh). The RNS ruling uses row F as the numerator.

<sup>4</sup> Please refer to Section II(A)(iii) of the RPS Plan.

<sup>5</sup> The Gross Balance of RECs above PQR should include non-bankable RECs above PQR. The formula has been updated to reflect this addition.

<sup>6</sup> SDG&E has not yet retired all RECs for CPI compliance and can therefore not break out the RECs above PQR into categories at this time.

Variable	Calculation	Item	Deficit from RPS prior year	2011 Actuals	2012 Actuals	2013 Actuals
		Forecast Year				
<b>Annual RPS Requirement</b>						
A		Bundled Retail Sales Forecast (LTPP)		16,249	16,627	16,164
B		RPS Procurement Quantity Requirement %		20.0%	20.0%	20.0%
C	A * B	Gross RPS Procurement Quantity Requirement (GWh)	78	3,327	3,325	3,233
D		Voluntary Margin of Over-procurement		53	52	579
E	C + D	Net RPS Procurement Need (GWh)		3,380	3,377	3,812
<b>RPS-Eligible Procurement</b>						
Fa		Risk-Adjusted RECs from Online Generation		3,380	3,377	4,460
Faa		Forecast Failure Rate for Online Generation (%) <sup>(1)</sup>		0%	0%	0%
Fb		Risk-Adjusted RECs from RPS Facilities in Development		0	0	50
Fbb		Forecast Failure Rate for RPS Facilities in Development (%) <sup>(1)</sup>		0%	0%	0%
Fc		Pre-Approved Generic RECs <sup>(2)</sup>		0	0	0
Fd		Executed REC Sales		0	0	(698)
F	Fa + Fb + Fc + Fd	Total RPS Eligible Procurement (GWh)		3,380	3,377	3,812
F0		Category 0 RECs		2,476	1,983	2,474
F1		Category 1 RECs		904	1,153	1,337
F2		Category 2 RECs		0	0	0
F3		Category 3 RECs		0	242	0
<b>Gross RPS Position (Physical Net Short)</b>						
Ga	F - E	Annual Gross RPS Position (GWh)		0	0	0
Gb	Ga / A	Annual Gross RPS Position (%) <sup>(9)</sup>		0.0%	0.0%	0.0%
<b>Application of Bank</b>						
Ha	H - Hc (from previous year)	Existing Banked RECs above the PQR		0	0	0
Hb		RECs above the PQR added to Bank		0	0	0
Hc		Non-bankable RECs above the PQR		53	52	579
H	Ha + Hb + Hc	Gross Balance of RECs above PQR <sup>(4)</sup>		53	52	579
Ia		Planned Application of RECs above the PQR towards RPS Compliance		0	0	0
Ib		Planned Sales of RECs above the PQR <sup>(5)</sup>		0	0	0
J	H + Ia + Ib	Net Balance of RECs above PQR		53	52	579
J0		Category 0 RECs <sup>(6)</sup>				
J1		Category 1 RECs <sup>(6)</sup>				
J2		Category 2 RECs <sup>(6)</sup>				
<b>Expiring Contracts</b>						
K		RECs from Expiring RPS Contracts		961	595	610
<b>Net RPS Position (Optimized Net Short)</b>						
La	Ga + Ia - Ib - Hc	Annual Net RPS Position after Bank Optimization (GWh)		(53)	(52)	(579)
Lb	(Ga + Ia - Ib - Hc) / A	Annual Net RPS Position after Bank Optimization (%)		-0.3%	-0.3%	-3.6%

Variable	Calculation	Item	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast
		Forecast Year	1	2	3	4	5	6	7
<b>Annual RPS Requirement</b>									
A		Bundled Retail Sales Forecast (LTPP)					16,748	16,997	17,078
B		RPS Procurement Quantity Requirement %	21.7%	23.3%	25.0%	27.0%	29.0%	31.0%	33.0%
C	A * B	Gross RPS Procurement Quantity Requirement (GWh)					4,857	5,269	5,636
D		Voluntary Margin of Over-procurement					2,013	1,478	929
E	C + D	Net RPS Procurement Need (GWh)					6,870	6,748	6,565
<b>RPS-Eligible Procurement</b>									
Fa		Risk-Adjusted RECs from Online Generation					4,679	4,565	4,390
Faa		Forecast Failure Rate for Online Generation (%) <sup>(1)</sup>					9%	10%	10%
Fb		Risk-Adjusted RECs from RPS Facilities in Development					1,798	1,790	1,782
Fbb		Forecast Failure Rate for RPS Facilities in Development (%) <sup>(1)</sup>					16%	16%	16%
Fc		Pre-Approved Generic RECs <sup>(2)</sup>	0	68	301	348	393	393	393
Fd		Executed REC Sales	(665)	(615)	(160)	0	0	0	0
F	Fa + Fb + Fc + Fd	Total RPS Eligible Procurement (GWh)	5,627	5,927	6,945	6,857	6,870	6,748	6,565
F0		Category 0 RECs					2,022	1,921	1,760
F1		Category 1 RECs					4,848	4,826	4,805
F2		Category 2 RECs					0	0	0
F3		Category 3 RECs					0	0	0
<b>Gross RPS Position (Physical Net Short)</b>									
Ga	F - E	Annual Gross RPS Position (GWh)					0	0	0
Gb	Ga / A	Annual Gross RPS Position (%) <sup>(3)</sup>					0.0%	0.0%	0.0%
<b>Application of Bank</b>									
Ha	H - Hc (from previous year)	Existing Banked RECs above the PQR					9,295	11,307	12,786
Hb		RECs above the PQR added to Bank					2,013	1,478	929
Hc		Non-bankable RECs above the PQR					0	0	0
H	Ha + Hb + Hc	Gross Balance of RECs above PQR <sup>(4)</sup>					11,307	12,786	13,715
Ia		Planned Application of RECs above the PQR towards RPS Compliance					0	0	0
Ib		Planned Sales of RECs above the PQR <sup>(5)</sup>					0	0	0
J	H + Ia + Ib	Net Balance of RECs above PQR					11,307	12,786	13,715
J0		Category 0 RECs <sup>(6)</sup>							
J1		Category 1 RECs <sup>(6)</sup>							
J2		Category 2 RECs <sup>(6)</sup>							
<b>Expiring Contracts</b>									
K		RECs from Expiring RPS Contracts	128	0	0	7	113	160	0
<b>Net RPS Position (Optimized Net Short)</b>									
La	Ga + Ia - Ib - Hc	Annual Net RPS Position after Bank Optimization (GWh)					0	0	0
Lb	(Ga + Ia - Ib - Hc) / A	Annual Net RPS Position after Bank Optimization (%)					0.0%	0.0%	0.0%



Variable	Calculation	Item	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast
		Forecast Year	8	9	10	11	12	13	14
<b>Annual RPS Requirement</b>									
A		Bundled Retail Sales Forecast (LTPP)	17,078	17,146	17,172	17,195	17,384	17,576	17,769
B		RPS Procurement Quantity Requirement %	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
C	A * B	Gross RPS Procurement Quantity Requirement (GWh)	5,636	5,658	5,667	5,674	5,737	5,800	5,864
D		Voluntary Margin of Over-procurement	912	873	776	465	38		
E	C + D	Net RPS Procurement Need (GWh)	6,548	6,531	6,443	6,139	5,775	5,800	5,864
<b>RPS-Eligible Procurement</b>									
Fa		Risk-Adjusted RECs from Online Generation	4,380	4,371	4,291	3,995	3,638	3,438	3,427
Faa		Forecast Failure Rate for Online Generation (%) <sup>(1)</sup>	10%	10%	10%	11%	12%	12%	12%
Fb		Risk-Adjusted RECs from RPS Facilities in Development	1,774	1,767	1,759	1,751	1,744	1,707	1,700
Fbb		Forecast Failure Rate for RPS Facilities in Development (%) <sup>(1)</sup>	16%	16%	16%	16%	16%	16%	16%
Fc		Pre-Approved Generic RECs <sup>(2)</sup>	393	393	393	393	393	393	393
Fd		Executed REC Sales	0	0	0	0	0	0	0
F	Fa + Fb + Fc + Fd	Total RPS Eligible Procurement (GWh)	6,548	6,531	6,443	6,139	5,775	5,538	5,519
F0		Category 0 RECs	1,758	1,756	1,684	1,408	1,065	898	896
F1		Category 1 RECs	4,790	4,774	4,759	4,731	4,709	4,640	4,623
F2		Category 2 RECs	0	0	0	0	0	0	0
F3		Category 3 RECs	0	0	0	0	0	0	0
<b>Gross RPS Position (Physical Net Short)</b>									
Ga	F - E	Annual Gross RPS Position (GWh)	0	0	0	0	0	(262)	(345)
Gb	Ga / A	Annual Gross RPS Position (%) <sup>(3)</sup>	0.0%	0.0%	0.0%	0.0%	0.0%	-1.5%	-1.9%
<b>Application of Bank</b>									
Ha	H - Hc (from previous year)	Existing Banked RECs above the PQR	13,715	14,627	15,499	16,276	16,740	16,778	16,778
Hb		RECs above the PQR added to Bank	912	873	776	465	38	0	0
Hc		Non-bankable RECs above the PQR	0	0	0	0	0	0	0
H	Ha + Hb + Hc	Gross Balance of RECs above PQR <sup>(4)</sup>	14,627	15,499	16,276	16,740	16,778	16,778	16,778
Ia		Planned Application of RECs above the PQR towards RPS Compliance	0	0	0	0	0	(262)	(345)
Ib		Planned Sales of RECs above the PQR <sup>(5)</sup>	0	0	0	0	0	0	0
J	H + Ia + Ib	Net Balance of RECs above PQR	14,627	15,499	16,276	16,740	16,778	16,516	16,433
J0		Category 0 RECs <sup>(6)</sup>							
J1		Category 1 RECs <sup>(6)</sup>							
J2		Category 2 RECs <sup>(6)</sup>							
<b>Expiring Contracts</b>									
K		RECs from Expiring RPS Contracts	0	71	302	278	194	2	0
<b>Net RPS Position (Optimized Net Short)</b>									
La	Ga + Ia - Ib - Hc	Annual Net RPS Position after Bank Optimization (GWh)	0	0	0	0	0	(524)	(689)
Lb	(Ga + Ia - Ib - Hc) / A	Annual Net RPS Position after Bank Optimization (%)	0.0%	0.0%	0.0%	0.0%	0.0%	-3.0%	-3.9%

Variable	Calculation	Item	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	2033 Forecast
		Forecast Year	15	16	17	18	19	20
<b>Annual RPS Requirement</b>								
A		Bundled Retail Sales Forecast (LTPP)	17,964	18,162	18,362	18,564	18,768	18,974
B		RPS Procurement Quantity Requirement %	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
C	A * B	Gross RPS Procurement Quantity Requirement (GWh)	5,928	5,993	6,059	6,126	6,193	6,262
D		Voluntary Margin of Over-procurement						
E	C + D	Net RPS Procurement Need (GWh)	5,928	5,993	6,059	6,126	6,193	6,262
<b>RPS-Eligible Procurement</b>								
Fa		Risk-Adjusted RECs from Online Generation	3,418	3,409	3,401	3,375	3,067	2,100
Faa		Forecast Failure Rate for Online Generation (%) <sup>(1)</sup>	12%	12%	12%	13%	11%	0%
Fb		Risk-Adjusted RECs from RPS Facilities in Development	1,692	1,685	1,677	1,670	1,663	1,655
Fbb		Forecast Failure Rate for RPS Facilities in Development (%) <sup>(1)</sup>	16%	16%	16%	16%	16%	16%
Fc		Pre-Approved Generic RECs <sup>(2)</sup>	393	393	383	383	383	383
Fd		Executed REC Sales	0	0	0	0	0	0
F	Fa + Fb + Fc + Fd	Total RPS Eligible Procurement (GWh)	5,503	5,487	5,461	5,428	5,113	4,138
F0		Category 0 RECs	895	893	891	873	701	347
F1		Category 1 RECs	4,608	4,594	4,570	4,556	4,412	3,792
F2		Category 2 RECs	0	0	0	0	0	0
F3		Category 3 RECs	0	0	0	0	0	0
<b>Gross RPS Position (Physical Net Short)</b>								
Ga	F - E	Annual Gross RPS Position (GWh)	(425)	(507)	(598)	(698)	(1,080)	(2,123)
Gb	Ga / A	Annual Gross RPS Position (%) <sup>(3)</sup>	-2.4%	-2.8%	-3.3%	-3.8%	-5.8%	-11.2%
<b>Application of Bank</b>								
Ha	H - Hc (from previous year)	Existing Banked RECs above the PQR	16,778	16,778	16,778	16,778	16,778	16,778
Hb		RECs above the PQR added to Bank	0	0	0	0	0	0
Hc		Non-bankable RECs above the PQR	0	0	0	0	0	1
H	Ha + Hb + Hc	Gross Balance of RECs above PQR <sup>(4)</sup>	16,778	16,778	16,778	16,778	16,778	16,779
Ia		Planned Application of RECs above the PQR towards RPS Compliance	(425)	(507)	(598)	(698)	(1,080)	(2,123)
Ib		Planned Sales of RECs above the PQR <sup>(5)</sup>	0	0	0	0	0	1
J	H + Ia + Ib	Net Balance of RECs above PQR	16,352	16,271	16,179	16,080	15,697	14,656
J0		Category 0 RECs <sup>(6)</sup>						
J1		Category 1 RECs <sup>(6)</sup>						
J2		Category 2 RECs <sup>(6)</sup>						
<b>Expiring Contracts</b>								
K		RECs from Expiring RPS Contracts	0	10	0	11	482	1694
<b>Net RPS Position (Optimized Net Short)</b>								
La	Ga + Ia - Ib - Hc	Annual Net RPS Position after Bank Optimization (GWh)	(851)	(1,014)	(1,197)	(1,395)	(2,161)	(4,249)
Lb	(Ga + Ia - Ib - Hc) / A	Annual Net RPS Position after Bank Optimization (%)	-4.7%	-5.6%	-6.5%	-7.5%	-11.5%	-22.4%

**Probability-Weighted Deliveries, Contracts Presently Developing - May 2014:**

	Name	CP2 Probability	CP3 Probability	Technology	Location	Date Signed	Term (yrs)	Start	Stop	Capacity (MW)	2014	2015	2016
1	Centinela			Solar PV	Calexico, CA	5/10/2010	20	4/1/2010	3/31/2034	125			
2	Centinela 2			Solar PV	Calexico, CA	7/29/2010	20	4/1/2010	8/31/2034	45			
3	Solargen2			Solar PV	Imperial Valley, CA	6/24/2011	25	5/1/2009	2/28/2039	150			
4	ESJ			Wind	Mexico	4/6/2011	20	7/1/2011	12/31/2033	156			
5	SDG&E SEP (UOG)			Solar PV	Various in SD County	7/11/2008	30	5/18/2011	12/31/2029	10			
6	Soitec TDS			Solar PV	Boulevard, CA	5/17/2011	25	5/16/2011	12/30/2035	45			
7	Soitec Rugged			Solar PV	Boulevard, CA	5/17/2011	25	7/1/1987	12/30/2035	80			
8	Tenaska West			Solar PV	Imperial Valley, CA	9/20/1928	25	4/13/1994	12/30/2035	140			
9	Soitec Desert Green			Solar PV	Borrego Springs, CA	3/31/2011	25	11/1/1988	2/27/2034	5			
10	Soitec Eastland			Solar PV	Boulevard, CA	3/31/2011	25	12/15/1985	12/30/2035	20			
11	Soitec Westland			Solar PV	Boulevard, CA	3/31/2011	25	5/20/2003	12/30/2035	5			
12	Gestamp Calipatria			Solar PV	Calipatria, CA	12/13/2012	20	5/20/2003	3/31/2035	20			
13	Regenerate Seville			Solar PV	El Centro, CA	12/13/2012	20	1/1/2003	3/31/2035	20			
14	Rugraw Lassen Lodge Hydro			Small Hydro	Lassen, CA	10/23/2013	20	3/30/2004	12/14/2035	5			
15	San Gorgonio Westwinds II (RAM)			Wind	Palm Springs, CA	4/16/2013	10	10/1/2007	1/31/2025	11			
16	Maricopa West Solar PV (RAM)			Solar PV	Maricopa, CA	4/16/2013	15	3/8/2007	9/29/2034	20			
17	AES Tehachapi Wind (RAM)			Wind	Tehachapi, CA	10/23/2013	20	4/30/2010	11/13/2035	6			
18	SunEdison Brownfield (RAM)			Solar PV	Belmont, CA	10/23/2013	20	1/1/2008	11/27/2035	5			
19	SunEdison Victorville (RAM)			Solar PV	Victorville, CA	10/23/2013	20	1/1/2008	12/14/2035	10			
20	Con Dios Solar 33 - CRE (FIT)			Solar PV	Valley Center, CA	11/2/2012	20	12/31/2004	6/1/2033	1			
21	Fresh Air Energy Buckman Springs PV 1 (FIT)			Solar PV	Pine Valley, CA	5/22/2013	20	12/15/2003	3/31/2034	2			
22	Fresh Air Energy Buckman Springs PV 2 (FIT)			Solar PV	Pine Valley, CA	5/22/2013	20	12/15/2003	3/31/2034	2			
23	Fresh Air Energy Viejas Blvd PV 1 (FIT)			Solar PV	Descanso, CA	5/22/2013	20	6/28/2004	3/31/2034	2			
24	ECOS Energy Calico Ranch Solar Project (FIT)			Solar PV	Julian, CA	6/7/2013	20	12/29/2008	8/18/2034	1			
25	Fresh Air Energy II (Viejas Blvd PV 2) (FIT)			Solar PV	Descanso, CA	7/23/2013	20	10/16/2009	3/31/2034	2			
26	Axio Power Holding SunEdison Cameron (FIT)			Solar PV	San Diego County, CA	1/9/2014	20	2/1/2011	11/29/2035	2			
27	OCI Solar Lakeside (FIT)			Solar PV	Lakeside, CA	3/28/2014	20	1/23/2007	8/31/2035	2			
28	NLP Granger A82 (FIT)			Solar PV	Valley Center, CA	4/3/2014	20	5/4/2009	12/30/2035	3			

	Name	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
1	Centinela																	
2	Centinela 2																	
3	Solargen2																	
4	ESJ																	
5	SDG&E SEP (UOG)																	
6	Soitec TDS																	
7	Soitec Rugged																	
8	Tenaska West																	
9	Soitec Desert Green																	
10	Soitec Eastland																	
11	Soitec Westland																	
12	Gestamp Calipatria																	
13	Regenerate Seville																	
14	Rugraw Lassen Lodge Hydro																	
15	San Geronio Westwinds II (RAM)																	
16	Maricopa West Solar PV (RAM)																	
17	AES Tehachapi Wind (RAM)																	
18	SunEdison Brownfield (RAM)																	
19	SunEdison Victorville (RAM)																	
20	Con Dios Solar 33 - CRE (FIT)																	
21	Fresh Air Energy Buckman Springs PV 1 (FIT)																	
22	Fresh Air Energy Buckman Springs PV 2 (FIT)																	
23	Fresh Air Energy Viejas Blvd PV 1 (FIT)																	
24	ECOS Energy Calico Ranch Solar Project (FIT)																	
25	Fresh Air Energy II (Viejas Blvd PV 2) (FIT)																	
26	Axio Power Holding SunEdison Cameron (FIT)																	
27	OCI Solar Lakeside (FIT)																	
28	NLP Granger A82 (FIT)																	

**Probability-Weighted Deliveries, Contracts Presently Delivering - May 2014:**

	Name	CP2 Probability	CP3 Probability	Technology	Location	Date Signed	Term (yrs)	Start	Stop	Capacity (MW)	2014	2015	2016
1	Shell			Wind	Near Palm Springs, CA	9/10/09	1.75	4/1/10	12/31/11	104.4			
2	Shell			Wind	Near Palm Springs, CA	9/10/09	1.75	4/1/10	12/31/11	104.4			
3	Otay Landfill I			Biogas	Chula Vista, CA	5/1/09	10	5/1/09	4/30/19	1.5			
4	Otay Landfill II			Biogas	Chula Vista, CA	2/22/11	20	7/1/11	6/30/31	1.5			
5	San Marcos Landfill			Biogas	San Marcos, CA	11/20/09	20	5/18/11	5/17/31	1.5			
6	Sycamore Landfill			Biogas	Santee, CA	11/20/09	20	5/16/11	5/15/31	1.5			
7	Badger Filtration Plant			Conduit Hydro	Rancho Santa Fe, CA	2/28/85	30	7/1/87	6/30/17	1.5			
8	Bear Valley Hydro			Conduit Hydro	Escondido, CA	9/20/28	Evergreen	4/13/94	Evergreen	1.5			
9	Olivenhain Municipal			Conduit Hydro	Olivenhain, CA	9/16/87	Evergreen	11/1/88	10/30/13	0.45			
10	San Francisco Peak Hydro Plant			Conduit Hydro	Oceanside, CA	8/29/85	Evergreen	12/15/85	Evergreen	0.35			
11	MM San Diego - Miramar			Biogas	San Diego, CA	10/31/02	10	5/20/03	5/19/13	3			
12	MM San Diego - North City			Biogas	San Diego, CA	10/31/02	10	5/20/03	4/30/13	1			
13	GRS - Coyote Canyon			Biogas	Irvine, CA	10/31/02	10	1/1/03	12/31/12	6.057			
14	GRS - Sycamore			Biogas	Santee, CA	10/31/02	10	3/30/04	3/30/14	2.5			
15	MM Prima Deshecha			Biogas	San Juan Capistrano, CA	9/6/05	15	10/1/07	9/30/22	6.1			
16	Otay Landfill 3			Biogas	Chula Vista, CA	8/31/05	10	3/8/07	3/7/17	3.75			
17	Blue Lake Power			Biomass	Blue Lake, CA	6/9/08	10	4/30/10	4/29/25	11			
18	City of San Diego MWD			Biogas	San Diego, CA	12/22/06	5	1/1/08	12/31/14	5			
19	Covanta Delano			Biomass	Delano, CA	12/21/06	10	1/1/08	12/31/17	49			
20	Kumeyaay			Wind	Boulevard, CA	5/31/04	20	3/21/06	12/31/25	50			
21	Oasis Power Partners			Wind	Mojave, CA	10/30/02	15	12/31/04	12/30/19	60			
22	Iberdrola Mt Wind			Wind	Riverside County, CA	11/1/02	16	12/15/03	12/31/18	22.8			
23	Iberdrola PWest			Wind	Riverside County, CA	11/1/02	16	12/15/03	12/31/18	2.1			
24	WTE Acquisition (FPL)			Wind	Palm Springs, CA	10/31/02	15	6/28/04	12/31/18	16.5			
25	Glacier Wind 1			Wind	Ethridge, MT	5/16/08	15	12/29/08	12/29/23	106.5			
26	Glacier Wind 2			Wind	Ethridge, MT	5/23/08	15	10/16/09	10/16/24	103.5			
27	Coram			Wind	Tehachapi, CA	7/15/10	15	2/1/11	1/31/26	7.5			
28	SDCWA - Rancho Penasquitos			Conduit Hydro	San Diego, CA	7/17/19	10	1/23/07	1/22/17	4.5			
29	SDG&E Sustainable			Solar PV	Various in SD County	5/30/10	30	5/4/09	5/4/39	1.865			
30	Calpine - Geysers ('10)			Geothermal	Sonoma & Lake County, CA	2/26/10	4.833	3/1/10	12/31/14	25			

	Name	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
1	Shell																		
2	Shell																		
3	Otay Landfill I																		
4	Otay Landfill II																		
5	San Marcos Landfill																		
6	Sycamore Landfill																		
7	Badger Filtration Plant																		
8	Bear Valley Hydro																		
9	Olivenhain Municipal																		
10	San Francisco Peak Hydro Plant																		
11	MM San Diego - Miramar																		
12	MM San Diego - North City																		
13	GRS - Coyote Canyon																		
14	GRS - Sycamore																		
15	MM Prima Deshecha																		
16	Otay Landfill 3																		
17	Blue Lake Power																		
18	City of San Diego MWD																		
19	Covanta Delano																		
20	Kumeyaay																		
21	Oasis Power Partners																		
22	Iberdrola Mt Wind																		
23	Iberdrola PWest																		
24	WTE Acquisition (FPL)																		
25	Glacier Wind 1																		
26	Glacier Wind 2																		
27	Coram																		
28	SDCWA - Rancho Penasquitos																		
29	SDG&E Sustainable																		
30	Calpine - Geysers ('10)																		

	Name	CP2 Probability	CP3 Probability	Technology	Location	Date Signed	Term (yrs)	Start	Stop	Capacity (MW)	2014	2015	2016
31	Silicon Valley			Geothermal	Santa Clara, CA	6/30/11	1	7/1/11	6/31/2012	40			
32	Calpine - Geysers ('11)			Geothermal	Sonoma & Lake County, CA	9/22/11	0.25	10/1/11	12/31/11	11.5			
33	Edison			Geothermal	Various	9/22/11	2.3	10/1/11	12/31/13	193			
34	Mesa			Wind	Riverside County, CA	11/2/11	0	4/9/12	12/31/13	30			
35	Pacific Wind			Wind	Tehachapi, CA	10/12/05	20	8/16/13	8/30/32	140			
36	Edison 2			Geothermal	Various, CA	3/23/12	0.3	9/1/12	12/31/12	103			
37	Cabazon			Wind	Near Palm Springs, CA	1/0/00	2	1/1/12	12/31/13	40.9			
38	Whitewater			Wind	Near Palm Springs, CA	1/0/00	2	1/1/12	12/31/13	61.5			
39	Manzana			Wind	Tehachapi, CA	2/14/12	20	12/31/12	6/30/32	100			
40	Pattern Ocotillo Express			Wind	Imperial Valley, CA	2/1/11	20	12/27/12	12/15/33	265.29			
41	NRG Borrego			Solar PV	Borrego Springs, CA	1/25/11	25	2/12/13	2/11/38	26			
42	Campo Verde			Solar PV	Imperial Valley	11/10/06	20	10/22/13	10/21/33	139			
43	Tenaska South			Solar PV	Calexico, CA	11/10/10	25	11/1/13	10/31/33	130			
44	Arlington Valley Solar			Solar PV	Hassayampa, AZ	6/3/11	25	11/5/13	12/19/38	127			
45	Rim Rock			Wind	Kevin, MT	5/5/09	20	10/15/13	9/30/32	189			
46	Catalina Solar			Solar PV	Kern County, CA	6/3/11	25	11/27/13	6/30/38	109.4			
47	Sol Orchard 20			Solar PV	San Diego County, CA	4/11/11	25	12/31/13	12/30/37	2			
48	Sol Orchard 21			Solar PV	San Diego County, CA	4/11/11	25	12/31/13	12/30/37	5			
49	Sol Orchard 22			Solar PV	San Diego County, CA	4/11/11	25	12/31/13	12/30/37	2.5			
50	Sol Orchard 23			Solar PV	San Diego County, CA	4/11/11	25	12/31/13	12/30/37	5			
51	Silver Ridge Imperial Valley Solar			Solar PV	Imperial Valley, CA	2/10/12	25	3/4/13	3/3/33	200			
52	SunEdison Cascade			Solar PV	Sun Fair, CA	11/7/12	20	12/31/13	11/29/34	18.5			
53	MM San Diego - Miramar (RAM)			Biogas	San Diego, CA	10/31/02	10	5/20/13	5/19/23	4.5			
54	Oak Creek Wind Power (RAM)			Wind	Mojave, CA	4/16/13	10	2/1/14	1/31/24	3.5			
55	Otay Landfill V - CRE (FIT)			Biogas	San Diego, CA	12/27/11	20	6/23/13	6/26/33	1.5			
56	Otay Landfill VI - CRE (FIT)			Biogas	San Diego, CA	12/27/11	20	6/23/13	6/26/33	1.5			
57	Olivenhain Municipal Water District (FIT)			Conduit Hydro	Encinitas, CA	7/23/13	20	10/31/13	10/30/33	0.45			
58	Sycamore Energy 2 (FIT)			Biogas	Santee, CA	3/7/14	10	3/30/14	3/29/24	2.25			
59	Sierra Pacific Industries			RECS - Biomass	Various, CA	3/30/12	1	1/1/12	12/31/12	N/A			
60	Finerty Group			RECS - Digester Gas	Various, CA	12/18/12	1	1/1/12	12/31/12	N/A			
61	Covanta Delano Option to Terminate			Biomass	Delano, CA	12/21/06	10	1/1/15	12/31/17	49			

	Name	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
31	Silicon Valley																	
32	Calpine - Geysers (11)																	
33	Edison																	
34	Mesa																	
35	Pacific Wind																	
36	Edison 2																	
37	Cabazon																	
38	Whitewater																	
39	Manzana																	
40	Pattern Ocotillo Express																	
41	NRG Borrego																	
42	Campo Verde																	
43	Tenaska South																	
44	Arlington Valley Solar																	
45	Rim Rock																	
46	Catalina Solar																	
47	Sol Orchard 20																	
48	Sol Orchard 21																	
49	Sol Orchard 22																	
50	Sol Orchard 23																	
51	Silver Ridge Imperial Valley Solar																	
52	SunEdison Cascade																	
53	MM San Diego - Miramar (RAM)																	
54	Oak Creek Wind Power (RAM)																	
55	Otay Landfill V - CRE (FIT)																	
56	Otay Landfill VI - CRE (FIT)																	
57	Olivenhain Municipal Water District (FIT)																	
58	Sycamore Energy 2 (FIT)																	
59	Sierra Pacific Industries																	
60	Finerty Group																	
61	Covanta Delano Option to Terminate																	





**APPENDIX 3**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**COST QUANTIFICATION TABLE**

Cost Quantification Table 1 (Actual Costs, \$)		Actual RPS-Eligible Procurement and Generation Costs				
1	Technology Type	2003	2004	2005	2006	2007
2	Biogas	\$6,201,139	\$8,541,291	\$8,915,866	\$8,087,169	\$6,685,347
3	Biomass	\$18,888,387	\$18,693,045	\$17,205,462	\$16,965,465	\$12,237,997
4	Geothermal	\$0	\$0	\$0	\$0	\$0
5	Small Hydro	\$0	\$0	\$0	\$0	\$994,116
6	Solar PV	\$0	\$0	\$0	\$0	\$0
7	Solar Thermal	\$0	\$0	\$0	\$0	\$0
8	Wind	\$22,750	\$5,980,963	\$14,097,259	\$19,779,696	\$22,968,510
9	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0
10	UOG Solar	\$0	\$0	\$0	\$0	\$0
11	Unbundled RECs	\$0	\$0	\$0	\$0	\$0
12	<b>Total CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 2 through 11]	<b>\$25,112,276</b>	<b>\$33,215,299</b>	<b>\$40,218,587</b>	<b>\$44,832,330</b>	<b>\$42,885,970</b>
13	Bundled Retail Sales (kWh)	<b>15,043,865,000</b>	<b>15,811,591,000</b>	<b>16,001,516,000</b>	<b>16,846,888,000</b>	<b>17,056,023,000</b>
14	<b>Incremental Rate Impact</b>	<b>0.17 ¢/kWh</b>	<b>0.21 ¢/kWh</b>	<b>0.25 ¢/kWh</b>	<b>0.27 ¢/kWh</b>	<b>0.25 ¢/kWh</b>

Cost Quantification Table 1 (Actual Costs, \$)		Actual RPS-Eligible Procurement and Generation Costs					
1	Technology Type	2008	2009	2010	2011	2012	2013
2	Biogas	\$9,388,536	\$10,067,817	\$11,383,663	\$10,699,119	\$14,617,844	\$12,129,398
3	Biomass	\$22,995,311	\$24,605,914	\$27,430,655	\$27,275,365	\$32,657,191	\$31,230,915
4	Geothermal	\$0	\$0	\$14,679,414	\$29,437,292	\$79,862,485	\$37,624,186
5	Small Hydro	\$1,210,445	\$1,035,376	\$1,036,066	\$776,149	\$939,153	\$925,400
6	Solar PV	\$0	\$0	\$0	\$8,411,735	\$109,954	\$81,573,950
7	Solar Thermal	\$0	\$0	\$0	\$0	\$0	\$0
8	Wind	\$22,131,340	\$60,255,477	\$54,744,756	\$66,266,623	\$62,458,819	\$109,123,860
9	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0
10	UOG Solar	\$0	\$0	\$0	\$0	\$0	\$0
11	Unbundled RECs	\$0	\$0	\$0	\$0	\$280,500	\$0
12	<b>Total CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 2 through 11]	<b>\$55,725,632</b>	<b>\$95,964,584</b>	<b>\$109,274,554</b>	<b>\$142,866,283</b>	<b>\$256,244,815</b>	<b>\$272,607,710</b>
13	Bundled Retail Sales (kWh)	<b>17,409,884,000</b>	<b>16,993,872,000</b>	<b>16,282,682,000</b>	<b>16,249,031,000</b>	<b>16,626,720,539</b>	<b>16,164,015,264</b>
14	<b>Incremental Rate Impact</b>	<b>0.32 ¢/kWh</b>	<b>0.56 ¢/kWh</b>	<b>0.67 ¢/kWh</b>	<b>0.88 ¢/kWh</b>	<b>1.54 ¢/kWh</b>	<b>1.69 ¢/kWh</b>

Cost Quantification Table 2 (Forecast Costs, \$)		Forecasted Future Expenditures on RPS-Eligible Procurement and Generation Costs						
1	Executed But Not CPUC-Approved RPS-Eligible Contracts	2014	2015	2016	2017	2018	2019	2020
2	Biogas	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Biomass	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Geothermal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Solar PV	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Solar Thermal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Wind	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	UOG Solar	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Unbundled RECs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	<b>Total Executed But Not CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 2 through 11]	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	Bundled Retail Sales (kWh)					16,748,077,637	16,996,953,974	17,077,664,239
14	<b>Incremental Rate Impact</b>					<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>
15	<b>CPUC-Approved RPS-Eligible Contracts (Incl. RAM/FIT/PV Contracts)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
16	Biogas	\$12,357,414	\$15,958,546	\$18,961,283	\$18,990,247	\$17,793,028	\$18,224,063	\$17,828,168
17	Biomass	\$18,134,412	\$3,200,707	\$8,605,633	\$10,611,578	\$10,611,578	\$10,611,578	\$10,611,578
18	Geothermal	\$5,175,471	\$0	\$0	\$0	\$0	\$0	\$0
19	Small Hydro	\$1,189,485	\$4,662,817	\$7,317,638	\$6,657,377	\$6,502,412	\$6,502,412	\$6,502,412
20	Solar PV	\$336,197,722	\$366,596,558	\$444,639,744	\$487,070,689	\$483,893,564	\$480,739,529	\$477,608,280
21	Solar Thermal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
22	Wind	\$187,032,043	\$242,547,987	\$253,126,317	\$256,692,441	\$256,692,441	\$251,008,942	\$243,354,634
23	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0
24	UOG Solar	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25	Unbundled RECs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26	<b>Total CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 16 through 25]	<b>\$560,086,547</b>	<b>\$632,966,616</b>	<b>\$732,650,615</b>	<b>\$780,022,333</b>	<b>\$775,493,024</b>	<b>\$767,086,525</b>	<b>\$755,905,072</b>
27	Bundled Retail Sales (kWh)					16,748,077,637	16,996,953,974	17,077,664,239
28	<b>Incremental Rate Impact</b>					<b>3.85 ¢/kWh</b>	<b>3.73 ¢/kWh</b>	<b>3.60 ¢/kWh</b>
29	<b>Total Incremental Rate Impact</b> [Row 14 + 28; Rounding can cause Row 29 to differ slightly from the sum of Row 14 and 28]					<b>3.85 ¢/kWh</b>	<b>3.73 ¢/kWh</b>	<b>3.60 ¢/kWh</b>

Cost Quantification Table 2 (continued) (Forecast Costs, \$)		Forecasted Future Expenditures on RPS-Eligible Procurement and Generation Costs						
1	<b>Executed But Not CPUC-Approved RPS-Eligible Contracts</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
2	Biogas	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Biomass	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Geothermal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Solar PV	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Solar Thermal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Wind	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	UOG Solar	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Unbundled RECs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	<b>Total Executed But Not CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 2 through 11]	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
13	Bundled Retail Sales (kWh)	17,077,664,239	17,145,666,083	17,172,123,440	17,195,211,713	17,384,359,042	17,575,586,991	17,768,918,448
14	<b>Incremental Rate Impact</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>
15	<b>CPUC-Approved RPS-Eligible Contracts (Incl. RAM/FIT/PV Contracts)</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
16	Biogas	\$17,828,168	\$17,828,168	\$13,945,896	\$12,749,946	\$12,749,946	\$12,749,946	\$12,749,946
17	Biomass	\$10,611,578	\$10,611,578	\$10,611,578	\$10,611,578	\$6,480,661	\$6,480,661	\$6,480,661
18	Geothermal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19	Small Hydro	\$6,502,412	\$6,502,412	\$6,502,412	\$6,502,412	\$6,502,412	\$6,502,412	\$6,502,412
20	Solar PV	\$475,228,472	\$472,860,664	\$470,505,052	\$468,161,644	\$465,830,164	\$463,510,570	\$461,202,805
21	Solar Thermal	\$0	\$0	\$0	\$0	\$0	\$0	\$0
22	Wind	\$243,354,739	\$243,354,844	\$243,354,949	\$237,601,024	\$237,142,877	\$232,239,123	\$232,239,228
23	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0
24	UOG Solar	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25	Unbundled RECs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26	<b>Total CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 16 through 25]	<b>\$753,525,369</b>	<b>\$751,157,667</b>	<b>\$744,919,888</b>	<b>\$735,626,605</b>	<b>\$728,706,061</b>	<b>\$721,482,713</b>	<b>\$719,175,053</b>
27	Bundled Retail Sales (kWh)	17,077,664,239	17,145,666,083	17,172,123,440	17,195,211,713	17,384,359,042	17,575,586,991	17,768,918,448
28	<b>Incremental Rate Impact</b>	<b>4.41 ¢/kWh</b>	<b>4.38 ¢/kWh</b>	<b>4.34 ¢/kWh</b>	<b>4.28 ¢/kWh</b>	<b>4.19 ¢/kWh</b>	<b>4.11 ¢/kWh</b>	<b>4.05 ¢/kWh</b>
29	<b>Total Incremental Rate Impact</b> [Row 14 + 28; Rounding can cause Row 29 to differ slightly from the sum of Row 14 and 28]	<b>4.41 ¢/kWh</b>	<b>4.38 ¢/kWh</b>	<b>4.34 ¢/kWh</b>	<b>4.28 ¢/kWh</b>	<b>4.19 ¢/kWh</b>	<b>4.11 ¢/kWh</b>	<b>4.05 ¢/kWh</b>

Cost Quantification Table 2 (continued) (Forecast Costs, \$)		Forecasted Future Expenditures on RPS-Eligible Procurement and Generation Costs					
1	Executed But Not CPUC-Approved RPS-Eligible Contracts	2028	2029	2030	2031	2032	2033
2	Biogas	\$0	\$0	\$0	\$0	\$0	\$0
3	Biomass	\$0	\$0	\$0	\$0	\$0	\$0
4	Geothermal	\$0	\$0	\$0	\$0	\$0	\$0
5	Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0
6	Solar PV	\$0	\$0	\$0	\$0	\$0	\$0
7	Solar Thermal	\$0	\$0	\$0	\$0	\$0	\$0
8	Wind	\$0	\$0	\$0	\$0	\$0	\$0
9	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0
10	UOG Solar	\$0	\$0	\$0	\$0	\$0	\$0
11	Unbundled RECs	\$0	\$0	\$0	\$0	\$0	\$0
12	<b>Total Executed But Not CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 2 through 11]	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
13	Bundled Retail Sales (kWh)	17,964,376,551	18,161,984,693	18,361,766,525	18,563,745,957	18,767,947,162	18,974,394,581
14	<b>Incremental Rate Impact</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>	<b>0.00 ¢/kWh</b>
15	CPUC-Approved RPS-Eligible Contracts (Incl. RAM/FIT/PV Contracts)	2028	2029	2030	2031	2032	2033
16	Biogas	\$12,749,946	\$12,749,946	\$12,749,946	\$10,909,259	\$10,909,259	\$10,909,259
17	Biomass	\$6,480,661	\$6,480,661	\$6,480,661	\$6,480,661	\$6,480,661	\$6,480,661
18	Geothermal	\$0	\$0	\$0	\$0	\$0	\$0
19	Small Hydro	\$6,502,412	\$6,502,412	\$6,502,412	\$6,502,412	\$6,502,412	\$6,502,412
20	Solar PV	\$458,906,737	\$456,622,611	\$454,398,345	\$452,134,424	\$450,029,872	\$447,936,619
21	Solar Thermal	\$0	\$0	\$0	\$0	\$0	\$0
22	Wind	\$232,239,334	\$232,239,439	\$232,239,544	\$232,239,649	\$232,239,754	\$203,822,319
23	UOG Small Hydro	\$0	\$0	\$0	\$0	\$0	\$0
24	UOG Solar	\$0	\$0	\$0	\$0	\$0	\$0
25	Unbundled RECs	\$0	\$0	\$0	\$0	\$0	\$0
26	<b>Total CPUC-Approved RPS-Eligible Procurement and Generation Cost</b> [Sum of Rows 16 through 25]	<b>\$716,879,090</b>	<b>\$714,595,069</b>	<b>\$712,370,908</b>	<b>\$708,266,406</b>	<b>\$706,161,959</b>	<b>\$675,651,271</b>
27	Bundled Retail Sales (kWh)	17,964,376,551	18,161,984,693	18,361,766,525	18,563,745,957	18,767,947,162	18,974,394,581
28	<b>Incremental Rate Impact</b>	<b>3.99 ¢/kWh</b>	<b>3.93 ¢/kWh</b>	<b>3.88 ¢/kWh</b>	<b>3.82 ¢/kWh</b>	<b>3.76 ¢/kWh</b>	<b>3.56 ¢/kWh</b>
29	<b>Total Incremental Rate Impact</b> [Row 14 + 28; Rounding can cause Row 29 to differ slightly from the sum of Row 14 and 28]	<b>3.99 ¢/kWh</b>	<b>3.93 ¢/kWh</b>	<b>3.88 ¢/kWh</b>	<b>3.82 ¢/kWh</b>	<b>3.76 ¢/kWh</b>	<b>3.56 ¢/kWh</b>

Cost Quantification Table 3 (Actual Generation, MWh)		Actual RPS-Eligible Procurement and Generation (MWh)				
1	Technology Type	2003	2004	2005	2006	2007
2	Biogas	200,123	212,475	218,223	201,138	171,650
3	Biomass	341,718	337,466	298,945	284,031	217,967
4	Geothermal	0	0	0	0	0
5	Small Hydro	7,465	13,134	11,700	11,584	21,302
6	Solar PV	0	0	0	0	0
7	Solar Thermal	0	0	0	0	0
8	Wind	550	114,778	296,434	402,768	469,859
9	UOG Small Hydro	0	0	0	0	0
10	UOG Solar	0	0	0	0	0
11	Unbundled RECs	0	0	0	0	0
12	<b>Total CPUC-Approved RPS-Eligible Procurement and Generation</b> [Sum of Rows 2 through 11]	549,856	677,852	825,302	899,520	880,777

Cost Quantification Table 3 (Actual Generation, MWh)		Actual RPS-Eligible Procurement and Generation (MWh)					
1	Technology Type	2008	2009	2010	2011	2012	2013
2	Biogas	208,235	205,021	210,067	215,822	226,425	141,991
3	Biomass	318,941	341,361	339,899	353,605	375,122	244,357
4	Geothermal	0	0	183,000	782,976	950,703	349,781
5	Small Hydro	30,883	24,439	22,367	16,866	20,562	19,997
6	Solar PV	0	809	1,577	2,364	3,264	617,665
7	Solar Thermal	0	0	0	0	0	
8	Wind	489,368	1,212,703	1,182,541	2,008,572	1,559,613	2,438,729
9	UOG Small Hydro	0	0	0	0	0	
10	UOG Solar	0	0	0	0	0	
11	Unbundled RECs	0	0	0	0	0	
12	<b>Total CPUC-Approved RPS-Eligible Procurement and Generation</b> [Sum of Rows 2 through 11]	1,047,428	1,784,333	1,939,451	3,380,205	3,135,689	3,812,520

Cost Quantification Table 4 (Forecast Generation, MWh)		Forecasted Future RPS-Deliveries (MWh)						
1	Executed But Not CPUC-Approved RPS-Eligible Contracts	2014	2015	2016	2017	2018	2019	2020
2	Biogas	0	0	0	0	0	0	0
3	Biomass	0	0	0	0	0	0	0
4	Geothermal	0	0	0	0	0	0	0
5	Small Hydro	0	0	0	0	0	0	0
6	Solar PV	0	0	0	0	0	0	0
7	Solar Thermal	0	0	0	0	0	0	0
8	Wind	0	0	0	0	0	0	0
9	UOG Small Hydro	0	0	0	0	0	0	0
10	UOG Solar	0	0	0	0	0	0	0
11	Unbundled RECs	0	0	0	0	0	0	0
12	<b>Total Executed But Not CPUC-Approved RPS-Eligible Deliveries</b> [Sum of Rows 2 through 11]	0	0	0	0	0	0	0
15	<b>CPUC-Approved RPS-Eligible Contracts (Incl. RAM/FIT/PV Contracts)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
16	Biogas	144,024	178,121	223,621	220,578	205,715	220,436	216,494
17	Biomass	257,404	1,939	83,839	112,639	112,639	112,639	112,639
18	Geothermal	8,383						
19	Small Hydro	22,121	57,822	93,250	79,529	76,966	76,966	76,966
20	Solar PV	2,545,224	2,899,045	3,598,960	3,937,449	3,911,749	3,886,242	3,860,925
21	Solar Thermal	0	0	0	0	0	0	0
22	Wind	2,681,947	3,247,316	3,406,711	3,457,911	3,457,911	3,344,488	3,188,912
23	UOG Small Hydro	0	0	0	0	0	0	0
24	UOG Solar	0	0	0	0	0	0	0
25	Unbundled RECs	0	0	0	0	0	0	0
26	<b>Total CPUC-Approved RPS-Eligible Deliveries</b> [Sum of Rows 16 through 25]	5,659,103	6,384,243	7,406,381	7,808,106	7,764,980	7,640,771	7,455,936

<b>Cost Quantification Table 4 (continued) (Forecast Generation, MWh)</b>		<b>Forecasted Future RPS-Deliveries (MWh)</b>						
1	<b>Executed But Not CPUC-Approved RPS-Eligible Contracts</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
	2	Biogas	0	0	0	0	0	0
3	Biomass	0	0	0	0	0	0	0
4	Geothermal	0	0	0	0	0	0	0
5	Small Hydro	0	0	0	0	0	0	0
6	Solar PV	0	0	0	0	0	0	0
7	Solar Thermal	0	0	0	0	0	0	0
8	Wind	0	0	0	0	0	0	0
9	UOG Small Hydro	0	0	0	0	0	0	0
10	UOG Solar	0	0	0	0	0	0	0
11	Unbundled RECs	0	0	0	0	0	0	0
12	<b>Total Executed But Not CPUC-Approved RPS-Eligible Deliveries</b> [Sum of Rows 2 through 11]	0	0	0	0	0	0	0
15	<b>CPUC-Approved RPS-Eligible Contracts (Incl. RAM/FIT/PV Contracts)</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
16	Biogas	216,494	216,494	145,740	132,337	132,337	132,337	132,337
17	Biomass	112,639	112,639	112,639	112,639	71,330	71,330	71,330
18	Geothermal	0	0	0	0	0	0	0
19	Small Hydro	76,966	76,966	76,966	76,966	76,966	76,966	76,966
20	Solar PV	3,842,118	3,823,408	3,804,796	3,786,284	3,767,867	3,749,546	3,731,321
21	Solar Thermal	0	0	0	0	0	0	0
22	Wind	3,188,913	3,188,914	3,188,915	2,914,915	2,908,116	2,849,995	2,849,996
23	UOG Small Hydro	0	0	0	0	0	0	0
24	UOG Solar	0	0	0	0	0	0	0
25	Unbundled RECs	0	0	0	0	0	0	0
26	<b>Total CPUC-Approved RPS-Eligible Deliveries</b> [Sum of Rows 16 through 25]	7,437,130	7,418,421	7,329,056	7,023,141	6,956,616	6,880,174	6,861,950



<b>Cost Quantification Table 4 (continued) (Forecast Generation, MWh)</b>		<b>Forecasted Future RPS-Deliveries (MWh)</b>					
1	<b>Executed But Not CPUC-Approved RPS-Eligible Contracts</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>
	2	Biogas	0	0	0	0	0
3	Biomass	0	0	0	0	0	0
4	Geothermal	0	0	0	0	0	0
5	Small Hydro	0	0	0	0	0	0
6	Solar PV	0	0	0	0	0	0
7	Solar Thermal	0	0	0	0	0	0
8	Wind	0	0	0	0	0	0
9	UOG Small Hydro	0	0	0	0	0	0
10	UOG Solar	0	0	0	0	0	0
11	Unbundled RECs	0	0	0	0	0	0
12	<b>Total Executed But Not CPUC-Approved RPS-Eligible Deliveries</b> [Sum of Rows 2 through 11]	0	0	0	0	0	0
15	<b>CPUC-Approved RPS-Eligible Contracts (Incl. RAM/FIT/PV Contracts)</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>
16	Biogas	132,337	132,337	132,337	115,814	115,814	115,814
17	Biomass	71,330	71,330	71,330	71,330	71,330	71,330
18	Geothermal	0	0	0	0	0	0
19	Small Hydro	76,966	76,966	76,966	76,966	76,966	76,966
20	Solar PV	3,713,190	3,695,155	3,677,566	3,659,696	3,642,995	3,626,386
21	Solar Thermal	0	0	0	0	0	0
22	Wind	2,849,997	2,849,998	2,849,999	2,850,000	2,850,001	2,204,002
23	UOG Small Hydro	0	0	0	0	0	0
24	UOG Solar	0	0	0	0	0	0
25	Unbundled RECs	0	0	0	0	0	0
26	<b>Total CPUC-Approved RPS-Eligible Deliveries</b> [Sum of Rows 16 through 25]	6,843,820	6,825,786	6,808,198	6,773,806	6,757,106	6,094,498



**APPENDIX 4**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**EXPIRING CONTRACTS**

SDG&E Contracts Expiring in the Next 10 Years					
Facility Name	Technology	MW	Location	Contract Expiration Year	Expected Annual Generation (GWh)
City of San Diego - Pt Loma	Digester Gas	4.8	San Diego, CA	12/31/2014	22,000
Calpine - Geysers	Geothermal	25.0	Sonoma & Lake County, CA	12/31/2014	212,430
Noble America Energy Solutions II	Various	N/A - Sale	Various	12/31/2015	(200,000)
Exelon II	Various	N/A - Sale	Various	12/31/2015	(300,000)
Pilot Power Group	Various	N/A - Sale	Various	12/31/2016	(105,000)
Exelon I	Various	N/A - Sale	Various	12/31/2016	(200,000)
SDCWA - Rancho Penasquitos	Conduit Hydro	4.5	San Diego, CA	1/22/2017	20,000
Otay Landfill (Otay 3)	BioGas	3.8	Chula Vista, CA	3/7/2017	24,000
Badger Filtration Plant	Conduit Hydro	1.5	Rancho Santa Fe, CA	6/30/2017	2,121
Covanta Delano	Bio-mass	49.0	Delano, CA	12/31/2017	364,854
Iberdrola Renewables	Wind	24.9	Riverside County, CA	12/14/2018	89,431
Otay Landfill (Otay 1) - FIT	BioGas	1.5	Chula Vista, CA	4/30/2019	11,826
FPL/WTE Acquisition (Nextera Power Marketing FPL)	Wind	16.5	Palm Springs, CA	6/27/2019	23,954
Oasis Power Partners	Wind	60.0	Mojave, CA	12/30/2019	178,704
MM Prima Deshecha	BioGas	6.1	San Juan Capistrano, CA	9/30/2022	46,984
MM San Diego - Miramar	BioGas	4.5	San Diego, CA	5/19/2023	28,400
Glacier Wind Energy I (NaturEner)	Wind	106.5	Ethridge, MT	12/28/2023	325,000



**APPENDIX 5**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**IMPORTANT PLAN CHANGES 2013 PLAN TO 2014 PLAN**

**IMPORTANT CHANGES BETWEEN 2013 RPS PROCUREMENT PLAN  
AND 2014 RPS PROCUREMENT PLAN**

ELEMENT	2013 RPS PLAN	2014 RPS PLAN	EXPLANATION / JUSTIFICATION	LOCATION OF CHANGES WITHIN THE 2014 PLAN
Structure of Plan	Document incorporated new required sections, and was organized in compliance with the structure outlined by the Commission.	Document is organized in compliance with the structure outlined by the Commission.	SDG&E followed the structure outlined by the Commission in <i>Assigned Commissioner's Ruling Identifying Issues and Schedule of Review for 2014 Renewables Portfolio Standard Procurement Plans</i> , ("the ACR") filed March 26, 2014.	2014 RPS Plan
Assessment of RPS Portfolio Supplies & Demand	Based on status of portfolio and RPS obligations as of June 2013. Added discussion of how RPS program is used to determine optimal mix, and explained impacts of RPS requirements, proceedings, legislation, and policies.	Based on status of portfolio and RPS obligations as of May 2014.	This section was updated to reflect the current risks and issues that impact procurement decisions. In particular, the following sections were adjusted. Impact of Retail Sales Fluctuations was updated to clarify that SDG&E uses its own internal forecast for years 1-5 and the CEC forecast thereafter, Impact of Key Transmission Upgrades was generalized to point out that SDG&E continues to monitor whether transmission upgrades as the DREW substation have been completed, Impact of Rim Rock was modified to reflect that the project has reached COD, Impact of Mandated Procurement Programs was updated to include SDG&E's RAM VI to be issued by June 30, 2015, Impact of <i>connected.....to the sun</i> was updated to incorporate a discussion of all mandated RPS programs including SB 43, Impact of Local Capacity Resource Needs was updated to add discussion of SDG&E's recent LCR authorization, Impact of Energy Storage was added to discuss the new storage requirements, and Determination of the Compliance Needs was updated to reflect current needs assessment. And per D.14-11-042, added a statement that SDG&E will seek Commission approval for contracts other than those resulting from authorized programs such as RAM or Re-MAT for the 2014 RPS RFO cycle.	2014 RPS Plan
Portfolio Optimization	Added to discuss optimization objectives, strategy, metrics,	Based on strategy as of May 2014.	Moved to Assessment (Section II) per ACR, and reorganized subsections to match language in	2014 RPS Plan

Strategy	risks, activities, transactions, and the likely impact on ratepayers, shareholders, and market. Based on strategy as of June 2013.		ACR (optimization of cost, value, and risk). Modified the sales analysis discussion to explain that SDG&E will incorporate current industry best practices into its contract start date strategy, and to leave open the possibility that SDG&E will consider additional factors, such as present and future rate impacts, when determine whether to bank or sell excess RECs. Updated the status of the SB1122 and RAM programs, and per D.14-11-042, added that the PPA was modified to require that any material project changes must be approved by SDG&E.	
Lessons Learned & Trends	Added to discuss lessons learned, and trends observed over past year, and impacts to RPS procurement. Based on lessons learned and trends as of June 2013.	Based on lessons learned and trends as of May 2014.	Moved to Assessment (Section II) per ACR, and reorganized subsections to match language in ACR (lessons learned, and trends). Added discussion of unlimited economic curtailment rights to explain the importance of this addition in light of the CAISO tariff changes (resulting from FERC order 764) which increased the exposure of energy purchasers (such as SDG&E) to negative pricing, added discussion of DG deliverability to note that SDG&E will continue to monitor the CAISO's annual Distributed Generation Deliverability study and will make existing and potential distribution-level resources aware of the need to apply for a potential assignment of deliverability, and added discussion of multiple PPAs across RPS procurement programs to point out that the TOD factors in all should match to the extent possible and SDG&E will use the TOD factors filed in this plan for all renewable PPAs executed in 2014 with updates as appropriate. And per D.14-11-042, noted that TODs were updated to 2014 values for use in the LCBF calculation and PPA,	2014 RPS Plan
Potential Compliance Delays	Based on potential issues as of June 2013.	Based on potential issues as of May 2014.	Changed discussion of BLM permitting issues to be more general to reflect current observation that this issue is no longer specific to that agency, added discussion of compliance spreadsheet and related documents which will impact reporting requirements going forward, and added discussion of Commission recalculation of NQC which will	2014 RPS Plan

			affect the LCBF calculation when complete. SDG&E also updated its discussion of procurement reform and enforcement, and added a reference to the Commission’s new authority under AB 327.	
Quantitative Information	Based on portfolio status as of June 2013, expanded to include 20-year horizon. Updated 2010 deficit calculation to reflect final amount.	Based on portfolio status as of May 2014. Removed tornado charts.	Updated per the Commission’s <i>Administrative Law Judge on Renewable Net Short</i> , issued May 21, 2014. As explained in the text of the plan, CP1 is complete and SDG&E’s most recent draft compliance report will show that it complied with the CP1 mandates; additionally, SDG&E anticipates meeting its CP2 goals with procurement already under contract – the sensitivities shown in the 2013 RPS Plan tornado charts are now outdated and unnecessary and were therefore deleted.	Appendix 2 – Quantitative Information
Bid Solicitation Protocol including Least-Cost, Best-Fit	Listed RFO-related attachments.	Lists RFO-related attachments.	Added that SDG&E will request Commission approval via a Tier 1 Advice Letter, per D.14-11-042, for any change made to the RFO documents after they are approved.	2014 RPS Plan
Minimum Margin of Over-Procurement	Discussed SDG&E’s VMOP calculation. Added discussion of <i>connected.....to the sun</i> program.	Discusses SDG&E’s VMOP calculation.	Removed discussion of <i>connected.....to the sun</i> program as this type of program is now mandated by SB 43.	2014 RPS Plan
Consideration of Price Adjustment Mechanisms	Based on contracting practices as of June 2013. Added explanation of price adjustment mechanism whereby a counterparty agrees to a price reduction to offset higher than anticipated transmission upgrade costs.	Based on contracting practices as of May 2014.	Added explanation regarding price adjustment if a project is not deemed fully deliverable by CAISO.	2014 RPS Plan
Safety Considerations	Added list of safety-related contractual provisions based on pro-forma contracts as of August 2013.	One update from 2013 Plan.	Safety-related contractual provisions have not changed except for the RAM PPA. SDG&E filed an AL on February 28, 2014 requesting changes to the RAM contract, one of which was the addition of the word “safety” to provision 3.5.a, and this change is now in effect.	2014 RPS Plan
RPS Model PPA	Included in 2013 RPS Plan.	Updated to conform to CAISO revised intra-hour scheduling	Updated forecasting program from the Participating Intermittent Resource Program to the	Appendix 6 – 2014 RPS Model PPA

		practices, and mitigate increased exposure to negative pricing, both as a result of FERC 764.	Variable Energy Resource program, removed economic curtailment cap, added Deemed Bundled Green Energy to denote the amount of energy that could have been generated but for a curtailment order and that will be paid for by SDG&E, added description of Production Tax Credit to explain how a facility will be reimbursed for this if economically curtailed, updated dispatch down period to distinguish between system and economic curtailment, added requirement that facility have the automated dispatch system and application programming interface so that it can respond to a curtailment order, clarified that when a dispatch down order goes into effect the facility is responsible for all imbalance energy charges, and added Exhibit H so that a facility can provide its ramp rate and added language to body of PPA to explain that this ramp rate will be followed if facility is ordered to curtail. And modified the PPA to require that any material project changes be approved by SDG&E, per D.14-11-042.	
TOD Factors and Time Periods	Updated based on current forward market conditions prior to RPS RFO issuance in December 2013.	Revised to 2014 values.	SDG&E reserves the right to update the TOD factors and time periods prior to the issuance of any RPS solicitation.	Appendix 6 – 2014 RPS Model PPA
RPS Sales (RFP Document)	Included in 2013 RPS Plan. SDG&E reserved the right to hold or not hold an RFP pending its portfolio performance results over the course of 2013.	Included in 2014 RPS Plan. SDG&E reserves the right to hold or not hold an RFP pending its portfolio performance results over the coming months.	To provide an RFP document should SDG&E find a need to issue an RFP.	Appendix 8 – 2014 RPS Sale (RFP Document)
RPS Sales Model PPA	Not included.	Included in 2014 RPS Plan. SDG&E reserves the right to hold or not hold an RFP pending its portfolio performance results over the coming months.	To provide a contract should SDG&E find a need to issue an RFP or conduct bilateral transactions.	Appendix 8.A – 2014 RPS Sales Model PPA





**APPENDIX 6**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**2014 RPS MODEL POWER PURCHASE AGREEMENT (“PPA”)**

*[Form of PPA for As-Available, Baseload, Peaking or Dispatchable Product]*

[Standard contract terms and conditions that “may not be modified” per CPUC D.04-06-014 and subsequent decisions are shown in red shaded text and standard contract terms and conditions that may be modified per CPUC D.04-06-014 and subsequent decisions are shown in green shaded text.]

**POWER PURCHASE AGREEMENT**

**Between**

**SAN DIEGO GAS & ELECTRIC COMPANY**  
(as “Buyer”)

and

---

(as “Seller”)

**POWER PURCHASE AGREEMENT**

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**COVER SHEET**

This Power Purchase Agreement is made as of the following date: [\_\_\_\_\_]. This Power Purchase Agreement and all exhibits, schedules, appendices, and any written supplements hereto, any designated collateral, credit support or margin agreement or similar arrangement between the Parties as well as all written and signed amendments and modifications thereto shall be a part of, and shall be referred to as, the "Agreement." The Parties to this Agreement (hereinafter individually a "Party" and collectively the "Parties") are the following:

**Name:** \_\_\_\_\_ ("Seller")  
**All Notices:**  
Street: \_\_\_\_\_  
City: \_\_\_\_\_ Zip: \_\_\_\_\_  
Attn: Contract Administration  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
Duns: \_\_\_\_\_  
Federal Tax ID Number: \_\_\_\_\_

**Invoices:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

**Scheduling:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

**Payments:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

**Wire Transfer:**  
BNK: \_\_\_\_\_  
ABA: \_\_\_\_\_  
ACCT: \_\_\_\_\_  
Confirmation: \_\_\_\_\_  
FAX: \_\_\_\_\_

**Credit and Collections:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_

**Name:** San Diego Gas & Electric Company ("Buyer")  
**All Notices:**  
Street: 8315 Century Park Court  
City: San Diego, CA Zip: 92123  
Attn: Electric & Fuel Procurement - Contract Administration  
Phone: (858) 636-5536  
Facsimile: (858) 650-6190  
Duns: 006911457  
Federal Tax ID Number: 95-1184800

**Invoices:**  
San Diego Gas & Electric Company  
8315 Century Park Ct.  
San Diego, California 92123-1593  
Attn: Electric & Fuel Procurement – Invoicing and Reporting  
Phone: (858) 650-6187  
Facsimile: (858) 650-6190

**Scheduling:**  
San Diego Gas & Electric Company  
8315 Century Park Ct.  
San Diego, California 92123-1593  
Attn: Transaction Scheduling Manager  
Phone: (858) 650-6160  
Facsimile: (858) 650-6191

**Payments:**  
San Diego Gas & Electric Company  
PO Box 25110  
Santa Ana, CA 92799-5110  
Attn: Mail Payments  
Phone: (619) 696-4521  
Facsimile: (619) 696-4899

**Wire Transfer:**  
BNK: Union Bank of California  
for: San Diego Gas & Electric Company  
ABA: Routing # 122000496  
ACCT: #4430000352  
Confirmation: SDG&E, Major Markets  
FAX:(213) 244-8316

**Credit and Collections:**  
San Diego Gas & Electric Company, Major Markets  
555 W. Fifth Street, ML 18A3  
Los Angeles, CA 90013-1011  
Attn.: Major Markets, Credit and Collections

Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

With additional Notices of an Event of Default or  
Potential Event of Default to:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

Manager  
Fax No.: (213) 244-8316  
Phone: (213) 244-4343

With additional Notices of an Event of Default or  
Potential Event of Default to:

San Diego Gas & Electric Company  
8330 Century Park Ct.  
San Diego, California 92123  
Attn: General Counsel  
Phone: (858) 650-6141  
Facsimile: (858) 650-6106

## GENERAL TERMS AND CONDITIONS

### ARTICLE ONE: GENERAL DEFINITIONS

1.1 General. The following terms shall have the following meaning for purposes of this Agreement.

“[AAA][JAMS]” means [the American Arbitration Association] [JAMS, Inc.].

“Affiliate” means, with respect to any person, any other person (other than an individual) that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, such person. For this purpose, “control” means the direct or indirect ownership of fifty percent (50%) or more of the outstanding capital stock or other equity interests having ordinary voting power.

“Agreement” has the meaning set forth in the preamble to the Cover Sheet.

“Arbitration” has the meaning set forth in Section 12.3.

***[For As-Available Product only:*** “As-Available” means a Product for which, subject to the terms of this Agreement, Seller is excused from selling and delivering the Product to Buyer, and Seller shall not be liable to Buyer for any damages determined pursuant to Section 3.1(h) of the Agreement, in the event that Seller fails to deliver the Product to Buyer for any of the following reasons:

- (a) if the Project is unavailable as a result of a Forced Outage and such Forced Outage is not the result of Seller’s negligence or willful misconduct;
- (b) Force Majeure;
- (c) by the Buyer’s failure to perform;
- (d) by a Planned Outage of the Project;
- (e) a reduction in output as ordered under Dispatch Down Periods; or
- (f) [the unavailability of landfill gas which was not anticipated as of the Execution Date, 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 Project 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 Project’s 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



Execution Date, 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 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.] OR [insufficient solar power for the Project to generate energy as determined by the best solar standards utilized by other solar producers or purchasers in the vicinity of the Project.]

**[For Dispatchable Product only:** “Availability Adjustment Factor” has the meaning set forth in Section 4.1(b).]

“Availability Incentive Payments” shall mean Availability Incentive Payments as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

**[For Dispatchable Product only:** “Availability Notice” has the meaning set forth in Section 3.3([f/g]).]

“Availability Standards” shall mean Availability Standards as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

“Bankrupt” means with respect to any entity, such entity that (a) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy, insolvency, reorganization or similar Law, (b) has any such petition filed or commenced against it which remains unstayed or undismissed for a period of sixty (60) days, (c) makes an assignment or any general arrangement for the benefit of creditors, (d) otherwise becomes bankrupt or insolvent (however evidenced), (e) has a liquidator, administrator, receiver, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets, or (f) is generally unable to pay its debts as they fall due.

**[For Baseload Product only:** “Baseload” means a Unit Firm Product for which the delivery levels are uniform twenty-four (24) hours per day, seven (7) days per week.]

“Bundled Green Energy” means Energy, Green Attributes, and any other Product, the quantity of which is measured based on the amount of Delivered Energy, in each case, that is produced by or associated with the Project. The quantity of Bundled Green Energy shall be equal to the lesser of the quantity of (i) **[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program:** Contract Energy] **[When SDG&E is SC for the Project and Project is in the VER Forecasting Program:** Delivered Energy] (ii) Green Attributes that are delivered to Buyer, and (iii) any other Product that is delivered to Buyer, the quantity of which is measured based on the amount of Delivered Energy. For example, if the quantity of Renewable Energy Credits that are delivered to Buyer is less than the quantity of the **[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program:** Contract Energy] **[When SDG&E is SC for the Project and Project is in**

***the VER Forecasting Program:*** Delivered Energy], then the quantity of Bundled Green Energy shall be equal to the quantity of Renewable Energy Credits that are delivered to Buyer.

“Business Day” means any day except a Saturday, Sunday, or a Federal Reserve Bank holiday and shall be between the hours of 8:00 a.m. and 5:00 p.m. local time for the relevant Party’s principal place of business where the relevant Party, in each instance unless otherwise specified, shall be the Party from whom the Notice, payment or delivery is being sent and by whom the Notice or payment or delivery is to be received.

“Buyer” has the meaning set forth on the Cover Sheet.

“CAISO” means the California Independent System Operator Corporation or any successor entity performing similar functions.

***[When SDG&E is the SC for the Project:*** “CAISO Charges Invoice” has the meaning set forth in Section 3.3([a/b])(iv).]

“CAISO Grid” means the system of transmission lines and associated facilities of the Participating Transmission Owners that have been placed under the CAISO’s operational control.

“CAISO Tariff” means the CAISO Operating Agreement and Tariff, including the rules, protocols, procedures and standards attached thereto, as the same may be amended or modified from time-to-time and approved by FERC.

“California Renewables Portfolio Standard” means the Renewables Portfolio Standard of California under California Senate Bills 1078 and 107, as codified in California Public Utilities Code Sections 387, 390.1, and Article 16 (commencing with Section 399.11) of Chapter 2.3 of Part 1 of Division 1, as such provisions are amended or supplemented from time to time.

“Capacity Attributes” means any current or future defined characteristic, certificate, tag, credit, or ancillary service attribute, whether general in nature or specific as to the location or any other attribute of the Project intended to value any aspect of the capacity of the Project to produce Energy or ancillary services, including but not limited to any accounting construct so that the Contract Capacity of the Project may be counted toward a Resource Adequacy obligation or similar measure in respect to the capacity of the Project to generate Energy by the CPUC, the CAISO, the FERC, or any other entity vested with the authority under federal or state Law, to require Buyer to procure, or to procure at Buyer’s expense, Resource Adequacy or other similar products.

***[For Dispatchable Product only:*** “Capacity Price” has the meaning set forth in Section 4.1(a).]

***[For Baseload, Peaking, or Dispatchable Product only:*** “Capacity Test” shall be the complete capacity testing procedure for the Project that is reasonably acceptable to Buyer that Seller shall develop no later than thirty (30) days prior to the initial capacity testing of the Project prior to the Commercial Operation Date. The capacity testing procedure shall describe in detail the testing standard(s) to be used for the technology of the Project, the conditions under which

testing shall take place, the average summer ambient conditions to which the results will be corrected, and the testing procedures. The same capacity testing procedure shall be applied to all subsequent Capacity Tests.]

“CEC” means the California Energy Commission or its successor agency.

“CEC Certification and Verification” means that the CEC has certified (or, with respect to periods before the Project has been constructed, that the CEC has pre-certified) that the Project is an ERR for purposes of the California Renewables Portfolio Standard and that all Energy produced by the Project qualifies as generation from an ERR for purposes of the Agreement.

“Claims” has the meaning set forth in Section 11.2(a).

“Commercial Operation” means that (a) the Project is operating and able to produce and deliver the Product to Buyer pursuant to the terms of this Agreement; (b) Seller shall have satisfied the requirements set forth in the Commercial Operation Certificate in the form attached as Exhibit E; (c) Seller shall have delivered a true, correct, and complete Commercial Operation Certificate from Seller, the Renewable Generation Equipment Supplier, the EPC Contractor, and a Licensed Professional Engineer; (d) Seller shall have delivered to Buyer the Delivery Term Security required under Article 8; (e) Seller has received all local, state and federal Governmental Approvals and other approvals as may be required by Law for the construction, operation and maintenance of the Project, including approvals, if any, required under the California Environmental Quality Act for the Project and related interconnection facilities; ***[For Baseload, Peaking, Dispatchable Product only:*** and (f) Seller shall have successfully completed the initial Capacity Test and delivered to Buyer a true, correct, and complete report documenting the results of Seller’s initial Capacity Test as required under Section 3.1(f)].

“Commercial Operation Date” means the date on which Seller achieves Commercial Operation for the Project.

“Conditions Precedent” has the meaning set forth in Section 2.3.

“Construction Period Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(ii)/(iii)] to secure performance of its obligations hereunder.

“Contract Capacity” has the meaning set forth in Section 3.1(f).

***[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program:*** “Contract Energy” means the lower of Delivered Energy or Scheduled Energy for any given period in each case net of all Electrical Losses.]

“Contract Quantity” has the meaning set forth in Section 3.1(e).

“Contract Year” means a period of twelve (12) consecutive months (except in the case of the first Contract Year which may be longer) with the first Contract Year commencing on the Commercial Operation Date and each subsequent Contract Year commencing on the anniversary of the first day of the month following the Commercial Operation Date.

“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 such Terminated Transaction.

“Cover Sheet” means the document that precedes Article 1: General Definitions to this Agreement.

“CP Satisfaction Date” shall mean the date on which all of the Conditions Precedent have been satisfied (or waived in writing by the Party described in Section 2.4).

“CPUC” or “Commission or successor entity” means the California Public Utilities Commission, or successor entity.

“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

(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 *et seq.*), Decision 03-06-071, or other applicable Law.

CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable. ***[For Agreements for the purchase and sale of TRECS only, use STC REC-3 instead of the foregoing]***

***[For Agreements with Delivery Terms greater than two years:*** “CPUC Approval Date” shall mean the date on which the Conditions Precedent set forth in Section 2.3(a) have been satisfied (or waived in writing by the beneficiary Party described in Section 2.4).]

***[For Agreements with Delivery Terms greater than two years:*** “CPUC Approval Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)(i) to secure performance of its obligations hereunder.]

“Credit Rating” means, with respect to any entity, the rating then assigned to such entity’s unsecured, senior long-term debt obligations (not supported by third party credit enhancements) by S&P or Moody’s.

“Daily Delay Damages” means an amount equal to (a) the Construction Period Security amount required hereunder, divided by (b) the number of days in the Project Cure Period.

“Day-Ahead Forecast” has the meaning set forth in Section 3.3([d/e]).

**[For As-Available and Baseload Products only:** “Deemed Bundled Green Energy” means the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer by reason of Economic Dispatch Down. The quantity of Bundled Green Energy shall be equal to **[For As-Available Products:** (a) the Deemed Delivery Forecast of Energy corresponding to the applicable Economic Dispatch Down periods, whether or not Seller is participating in the VER Forecasting Program during such events, less the amount of Delivered Energy delivered to the Delivery Point during such periods, or (b) if there is no such Deemed Delivery Forecast available during the applicable Economic Dispatch Down periods or if the Bundled Green Energy amount has historically not been determined based on clause (i) of the definition of Bundled Green Energy, the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer during the Economic Dispatch Down periods as determined by Buyer in a commercially reasonable manner; *provided that*, if the applicable amount calculated pursuant to (a) above is negative, the Deemed Bundled Green Energy shall be zero (0).] **[For Baseload Products:** the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer during the applicable Economic Dispatch Down periods, as determined by Buyer in a commercially reasonable manner.

**[For As-Available only:** “Deemed Delivery Forecast” means the forecast of the Energy to be produced by the Project prepared by the CAISO or its agent in accordance with the VER Forecasting Program and communicated to the Scheduling Coordinator, which forecast is the last such forecast prepared by the CAISO that does not reflect curtailed production as a result of Economic Dispatch Down periods. As of the Execution Date, such Deemed Delivery Forecast is the CAISO forecast generated through its Resource Specific VER Forecast Usage Report].

**[Dispatchable Product only:** “Default Availability Factor” means, for any period, the amount determined according to the following formula:

$$\text{Default Availability Factor} = (\text{PH} - (\text{EDH} - \text{EEDH})) / \text{PH}$$

Where:

*PH* is the number of period hours;

*EDH* is the number of equivalent derate hours calculated as the sum, for each derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the initial Contract Capacity (as of the Commercial Operation Date) divided by the initial Contract Capacity. For the purposes of this calculation, a derate includes all outages for any reason, including without limitation, Forced Outages, Force Majeure events, Dispatch Down Periods, Planned Outages, Buyer’s failure to perform, and other times when any portion of the Contract Capacity is not available and when the Delivered Energy of the Project is less than the amount of Energy dispatched by Buyer; and

*EEDH* is the number of equivalent excused derate hours solely due to either Force Majeure events, Dispatch Down Periods or Buyer's failure to perform (and for no other reason), calculated as the sum, for each excused derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the initial Contract Capacity, divided by the initial Contract Capacity.]

"Defaulting Party" means the Party that is subject to an Event of Default.

"Default Rate" means for any date, the lesser of (a) the per annum rate of interest equal to the prime lending rate as may from time to time be published in *The Wall Street Journal* under "Money Rates" on such day (or if not published on such day on the most recent preceding day on which published), plus two percent (2%) and (b) the maximum rate permitted by applicable Law.

"Delivered Energy" means all Energy produced from the Project and delivered to Buyer at the Delivery Point as measured in MWh at the CAISO revenue meter of the Project based on a power factor of precisely one (1) and net of all Electrical Losses.

"Delivery Point" means the point at which Buyer receives Seller's Product, as set forth in Section 3.1(d).

"Delivery Term" has the meaning set forth in Section 3.1(c).

"Delivery Term Security" shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(iii)/(iv)] to secure performance of its obligations hereunder.

"Development Period Security" shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(i)/(ii)] to secure performance of its obligations hereunder.

"Disclosing Party" has the meaning set forth in Section 13.1(a).

"Disclosure Order" has the meaning set forth in Section 13.1(a).

"Dispatch Down Period" means the period of curtailment of delivery of Product from the Project resulting from System Dispatch Down [***For all Products other than Dispatchable Product:*** or Economic Dispatch Down].

"Dispatch Notice" means the operating instruction, and any subsequent updates given either by Buyer to Seller or by the CAISO to Seller, directing Seller to operate the Project at a specified megawatt output for the period of time set forth in such order.

***[For Dispatchable Product only:*** "Dispatchable" means a Unit Firm Product for which Seller makes available capacity for Buyer to Schedule and dispatch up or down at Buyer's option in accordance with Section 3.3([g/h]).]

"Distribution Upgrades" has the meaning set forth in the CAISO Tariff.

“DUNS” means the Data Universal Numbering System, which is a unique nine character identification number provided by Dun and Bradstreet.

“Early Termination Date” has the meaning set forth in Section 5.2.

**[For all Products other than Dispatchable Product:** “Economic Dispatch Down” means curtailment of delivery of Product from the Project that is the result of economic curtailment where Buyer (as the Scheduling Coordinator) or a third party Scheduling Coordinator (in accordance with Buyer’s directions) either submits a self-schedule with a binding Product quantity or an economic bid in the applicable CAISO market or fails to submit any such schedule or bid, in either case, that when implemented by the CAISO results in an otherwise available Product quantity not being scheduled or awarded in such CAISO market and such curtailment is not concurrently the result of a Planned Outage, Forced Outage, Force Majeure and/or a System Dispatch Down.

“Electrical Losses” means all electrical losses associated with the transmission of Product to the Delivery Point, including if applicable, but not limited to, any transmission or transformation losses between the CAISO revenue meter and the Delivery Point.

“Electrical Interconnection Upgrades” means the facilities to which Seller shall be able to interconnect and deliver Energy from the Project to and at the Delivery Point and Buyer shall be able to transmit Energy from the Delivery Point and the facilities that protect the Participating Transmission Owner’s, Transmission Provider’s, or distribution operator’s, as applicable, electric system (or other systems to which such electric systems are connected, including the CAISO Grid) and the Participating Transmission Owner’s, Transmission Provider’s, or distribution operator’s, as applicable, customers from faults occurring at the Project, including, but not limited to, all network, distribution, connection, transformation, switching, metering, communications, control, and safety equipment, as such equipment may be required pursuant to Good Industry Practices or in accordance with the Participating Transmission Owner’s, Transmission Provider’s, or distribution operator’s, as applicable, facility connection requirements. If the Project interconnects to the CAISO Grid, such Electrical Interconnection Upgrades include all Network Upgrades, Distribution Upgrades, and Interconnection Facilities that are determined to be necessary by the CAISO or Participating Transmission Owner, as applicable, to physically and electrically interconnect the Project to the Participating Transmission Owner’s electric system so as to allow Seller to deliver Energy from the Project to the Delivery Point and Buyer to be able to transmit Energy from the Delivery Point.

“Eligible Renewable Energy Resource” or “ERR” has the meaning set forth in California Public Utilities Code Section 399.11, *et seq.*, as amended or supplemented from time to time.

“Energy” means electric energy measured in MWh and net of Station Service (unless otherwise specified).

“Energy Price” has the meaning set forth in Section 4.[1/2](a).

“EPC Contract” means the Seller’s engineering, procurement and construction contract with the EPC Contractor.

“EPC Contractor” means an engineering, procurement, and construction contractor, selected by Seller, with substantial experience in the engineering, procurement, and construction of power plants of the same type of facility as Seller’s.

“Equitable Defenses” means any bankruptcy, insolvency, reorganization or other Laws affecting creditors’ rights generally and, with regard to equitable remedies, the discretion of the court before which proceedings may be pending to obtain same.

***[For Dispatchable Product only:*** “Equivalent Availability Factor” or “EAF” has the meaning set forth in Section 4.1(b).]

“Event of Default” has the meaning set forth in Section 5.1.

“Execution Date” means the date hereof as set forth in the preamble of the Cover Sheet.

“Executive(s)” has the meaning set forth in Section 12.2(a).

“FERC” means the Federal Energy Regulatory Commission or any successor government agency.

“Force Majeure” means any event or circumstance which wholly or partly prevents or delays the performance of any material obligation arising under this Agreement but only to the extent (1) such event is not within the reasonable control, directly or indirectly, of the Party seeking to have its performance obligation(s) excused thereby, (2) the Party seeking to have its performance obligation(s) excused thereby has taken all reasonable precautions and measures in order to prevent or avoid such event or mitigate the effect of such event on such Party’s ability to perform its obligations under this Agreement and which by the exercise of due diligence such Party could not reasonably have been expected to avoid and which by the exercise of due diligence it has been unable to overcome, and (3) such event is not the direct or indirect result of the fault or negligence of the Party seeking to have its performance obligations excused thereby.

(a) Subject to the foregoing, events that could qualify as Force Majeure include, but are not limited to the following:

(i) acts of God, flooding, lightning, landslide, earthquake, fire, drought, explosion, epidemic, quarantine, storm, hurricane, tornado, volcano, other natural disaster or unusual or extreme adverse weather-related events;

(ii) war (declared or undeclared), riot or similar civil disturbance, acts of the public enemy (including acts of terrorism), sabotage, blockade, insurrection, revolution, expropriation or confiscation; or

(iii) except as set forth in subpart (b)(vii) below, strikes, work stoppage or other labor disputes (in which case the affected Party shall have no obligation to settle the strike or labor dispute on terms it deems unreasonable).

(b) Force Majeure shall not be based on:



(i) Buyer's inability economically to use or resell the Product purchased hereunder;

(ii) Seller's ability to sell the Product at a price greater than the price set forth in this Agreement;

(iii) Seller's inability to obtain Governmental Approvals or other approvals of any type for the construction, operation, or maintenance of the Project;

(iv) a lack of wind, sun or other fuel source of an inherently intermittent nature;

(v) Seller's inability to obtain sufficient labor, equipment, materials, or other resources to build or operate the Project, except to the extent Seller's inability to obtain sufficient labor, equipment, materials, or other resources is caused by an event of Force Majeure of the specific type described in any of subsections (a)(i) through (a)(iii) above;

(vi) Seller's failure to obtain financing or other funds, including funds authorized by a state or the federal government or agencies thereof to supplement the payments made by Buyer pursuant to this Agreement;

(vii) a strike, work stoppage or labor dispute limited only to any one or more of Seller, Seller's Affiliates, the EPC Contractor or subcontractors thereof or any other third party employed by Seller to work on the Project; or

(viii) any equipment failure except if such equipment failure is caused solely by an event of Force Majeure of the specific type described in any of subsections (a)(i) through (a)(iii) above.

"Force Majeure Extension Period" has the meaning set forth in Section 3.9(c)(ii).

"Forced Outage" means any unplanned reduction or suspension of production of Product from the Project or unavailability of the Project in whole or in part that is not a Planned Outage or a willful withholding of Product when the Project is otherwise capable of delivering Product under Good Industry Practices.

"GAAP" has the meaning set forth in Section 13.4.

"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 this Agreement for the remaining Delivery Term, determined in a commercially reasonable manner, subject to Section 5.2 hereof. 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 this Agreement and include the value, if any, of Capacity Attributes, and Green Attributes.

“Good Industry Practice” means those practices, methods and acts that would be implemented and followed by prudent operators of electric transmission facilities (with respect to Buyer) or prudent operators of electric generation facilities similar to the Project (with respect to Seller) in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety, and shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and applicable Law. Good Industry Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the region.

“Governmental Approval” means all authorizations, consents, approvals, waivers, exceptions, variances, filings, permits, orders, licenses, exemptions and declarations of or with any governmental entity and, with respect to the Seller, shall include those siting and operating permits and licenses, and any of the foregoing under any applicable environmental Law, that are required for the construction, use, and operation of the Project.

“Governmental Authority” means any federal, state, local or municipal government, governmental department, commission, board, bureau, agency, or instrumentality, or any judicial, regulatory or administrative body, having jurisdiction as to the matter in question.

“Governmental Charges” has the meaning set forth in Section 9.2.

“Green Attributes” means, subject to the limitations in the final sentence of this definition, 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), 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>1</sup> and (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

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<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.

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 Policy Act of 1992 and any present or future federal, state, or local Law, regulation or bill, and international or foreign emissions trading program. Green Tags are 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 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 and for all electric generation using biomethane as fuel, Seller shall transfer to Buyer sufficient Green Attributes of biomethane production and capture to ensure that there are zero net emissions associated with the production of electricity from the Project using the biomethane.

"Guaranteed Commercial Operation Date" or "GCOD" means [insert date], as may be extended pursuant to Section 3.9(c)(ii).

"Guaranteed Energy Production" has the meaning set forth in Section 3.1(e).

"Guarantor" means, with respect to Seller, any person that (a) does not already have any material credit exposure to Buyer under any other agreements, guarantees, or other arrangements at the time its Guaranty is issued, (b) is an Affiliate of Seller, or other third party reasonably acceptable to Buyer, (c) has a Credit Rating of [\_\_\_\_\_] or better from S&P or a Credit Rating of [\_\_\_\_\_] or better from Moody's, (d) has a tangible net worth of at least [\_\_\_\_\_], (e) is incorporated or organized in a jurisdiction of the United States and is in good standing in such jurisdiction, and (f) executes and delivers a Guaranty for the benefit of Buyer substantially in the form attached hereto as Exhibit D. ***[SDG&E will consider accepting a Guaranty based on the Project, the amount of Performance Assurance, and the identity of the Seller and Guarantor]***

"Guaranty" means a guaranty from a Guarantor provided for the benefit of Buyer substantially in the form attached hereto as Exhibit D. ***[SDG&E will consider accepting a Guaranty based on the Project, the amount of Performance Assurance, and the identity of the Seller and Guarantor]***

"Imbalance Energy" means the amount of Energy, in any given settlement period, by which the amount of Delivered Energy deviates from the amount of Scheduled Energy.

"Initial Negotiation End Date" has the meaning set forth in Section 12.2(a).

"Interconnection Facilities" has the meaning set forth in the CAISO Tariff.

“Interest Amount” means, with respect to an Interest Period, the amount of interest derived from the product of (a) the sum of (i) the principal amount of Performance Assurance in the form of cash held by Buyer during that Interest Period, and (ii) the sum of all accrued and unpaid Interest Amounts accumulated prior to such Interest Period; multiplied by (b) the Interest Rate in effect on the first day of the Interest Period; multiplied by (c) the number of days in that Interest Period; divided by (d) 360.

“Interest Payment Date” means the date on which cash held as Performance Assurance is returned pursuant to the terms of this Agreement.

“Interest Period” means the monthly period beginning on the first day of each month and ending on the last day of each month or the shorter period during which Performance Assurance in the form of cash is held by Buyer.

“Interest Rate” means for any date the rate per annum equal to the Commercial Paper (non-financial, 3 months) rate as published the prior month in the Federal Reserve Statistical Release, H.15. Should publication of the interest rate on Commercial Paper (non-financial, 3 months) be discontinued, then the interest rate on commercial paper, which most closely approximates the discontinued rate, published the prior month in the Federal Reserve Statistical Release, H.15, or its successor publication.

“[Large/Small] Generator Interconnection Agreement” has the meaning set forth in the CAISO Tariff.

“Law” means any statute, law, treaty, rule, regulation, ordinance, code, Governmental Approval, enactment, injunction, order, writ, decision, authorization, judgment, decree or other legal or regulatory determination or restriction by a court or Governmental Authority of competent jurisdiction, including any of the foregoing that are enacted, amended, or issued after the Execution Date, and which become effective prior to the end of the Delivery Term; or any binding interpretation of the foregoing by a Governmental Authority.

“Letter(s) of Credit” means one or more irrevocable, standby letters of credit issued by a U.S. commercial bank or a foreign bank with a U.S. branch with such bank having a Credit Rating of at least [A-] with an outlook designation of “stable” from S&P or [A3] with an outlook designation of “stable” from Moody’s, in substantially the form as contained in Exhibit C to this Agreement.

“Licensed Professional Engineer” means a person acceptable to Buyer in its reasonable judgment who (a) is licensed to practice engineering in California, (b) has training and experience in the power industry specific to the technology of the Project, (c) has no economic relationship, association, or nexus with Seller or Buyer, other than to meet the obligations of Seller pursuant to this Agreement, (d) is not a representative of a consultant, engineer, contractor, designer or other individual involved in the development of the Project or of a manufacturer or supplier of any equipment installed at the Project, and (e) is licensed in an appropriate engineering discipline for the required certification being made.

“Losses” means with respect to any Party, an amount equal to the present value of the economic loss to it, if any (exclusive of Costs), resulting from a Terminated Transaction for the

remaining term of this Agreement, 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 this Agreement and include the value, if any, of Capacity Attributes, and Green Attributes.

“Manager” has the meaning set forth in Section 12.2(a).

“Milestones” has the meaning set forth in Section 3.9(b)(i).

**[For Dispatchable Product only:** “Monthly Capacity Payment” has the meaning set forth in Section 4.1(b).]

“Monthly Energy Payment” has the meaning set forth in Section 4.[1/2]([b/c]).

**[For Dispatchable Product only:** “Monthly Shaping Factor” has the meaning set forth in Section 4.1(b).]

“Moody’s” means Moody’s Investor Services, Inc., or its successor.

“MWh” means megawatt-hour.

“Negative Imbalance Energy” has the meaning set forth in Section 4.[2/3].

“NERC” means the North American Electric Reliability Corporation or a successor organization that is responsible for establishing reliability criteria and protocols.

“NERC Holiday” means any of the following holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Three of these days, Memorial Day, Labor Day, and Thanksgiving Day, occur on the same day each year. Memorial Day is the last Monday in May; Labor Day is the first Monday in September; and Thanksgiving Day is the fourth (4<sup>th</sup>) Thursday in November. New Year’s Day, Independence Day, and Christmas Day occur on the same date each year, but in the event any of these holidays occur on a Sunday, the “NERC Holiday” is celebrated on the Monday immediately following that Sunday; and if any of these holidays occur on a Saturday, the “NERC Holiday” remains on that Saturday.

“Network Upgrades” has the meaning set forth in the CAISO Tariff.

“Non-Availability Charges” shall mean Non-Availability Charges as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

“Non-Defaulting Party” has the meaning set forth in Section 5.2.

“Notice” shall, unless otherwise specified in the Agreement, mean written communications by a Party to be delivered by hand delivery, United States mail, overnight courier service, facsimile or electronic messaging (e-mail).

“Notice to Proceed” or “NTP” means the notice provided by Seller to the EPC Contractor following execution of the EPC Contract between Seller and such EPC Contractor and satisfaction of all conditions precedent to performance of such contract, by which Seller authorizes such EPC Contractor to commence and complete full performance of the work under the EPC Contract without any delay or waiting periods.

“Outage Notification Form” means the completed document from Seller notifying Buyer of an outage of the Project substantially in the form attached hereto as Exhibit G. Buyer reserves the right to reasonably revise or change the form upon Notice to Seller.

***[For intermittent As-Available Product:*** “Participating Intermittent Resource” shall have the meaning set forth in the CAISO Tariff.]

“Participating Transmission Owner” or “Participating TO” means an entity that (a) owns, operates and maintains transmission lines and associated facilities and/or has entitlements to use certain transmission lines and associated facilities and (b) has transferred to the CAISO operational control of such facilities and/or entitlements to be made part of the CAISO Grid. As of the Execution Date, the Participating Transmission Owner is ***[San Diego Gas & Electric Company]***.

“Party” or “Parties” means the Buyer or Seller individually, or to both collectively.

***[For Peaking Product only:*** “Peaking” means a Unit-Firm Product for which Energy must be delivered during hours ending 1200-1900 (11:00 am to 7:00 pm) on Monday-Friday, excluding NERC Holidays, for the months July through October and during hours ending 1400-2100 (1:00 pm to 9:00 pm) on Monday-Friday, excluding NERC Holidays, for the months November and December.] ***[Note: Buyer will consider other firm products such as 6x16:*** “6x16 Block” means a Unit-Firm Product for which Energy must be delivered during hours ending 0700-2200 (6:00 am to 10:00 pm) on Monday-Saturday throughout the Delivery Term.]

“Performance Assurance” means collateral provided by Seller to Buyer to secure Seller’s obligations hereunder and includes ***[For Agreements with Delivery Terms greater than two years:*** CPUC Approval Security,] Development Period Security, Construction Period Security, and Delivery Term Security.

***[For As-Available, Baseload, Peaking Product:*** “Performance Measurement Period” has the meaning set forth in Section 3.1(e).]

“Planned Outage” means any planned reduction or suspension of the electrical output from the Project or unavailability of the Project in whole or in part as a result of the inspection, maintenance, or repair of equipment that is scheduled in accordance with Section 3.7(a).

“PNode” has the meaning set forth in the CAISO Tariff.

“Positive Imbalance Energy” has the meaning set forth in Section 4.[2/3].

“Product” has the meaning set forth in Section 3.1(a).

***[For Projects receiving PTCs:*** “Production Tax Credit” or “PTC” means the tax credit for electricity produced from certain renewable generation resources described in Section 45 of the Internal Revenue Code of 1986, as it may be amended from time to time./

“Project” means all of the *[insert technology]* electric generating units, the Site at which the generating facility is located, the utility interconnection facilities up to the point of change in ownership to the applicable utility’s facilities, and the other assets, tangible and intangible, that compose the generation facility as more particularly described on Exhibit A.

“Project Cure Period” has the meaning set forth in Section 3.9(c)(i).

“Quarterly Progress Report” means the report similar in form and content attached hereto as Exhibit F, as may be modified from time to time to meet applicable CPUC requirements.

“Recording” has the meaning set forth in Section 13.6.

“Reductions” has the meaning set forth in Section 3.2(c).

“Referral Date” has the meaning set forth in Section 12.2(a).

“Remedial Action Plan” has the meaning provided in Section 3.9(b)(ii).

“Renewable Energy Credit” has the meaning set forth in California Public Utilities Code Section 399.12(h) and CPUC Decision 08-08-028, as each may be amended from time to time or as further defined or supplemented by Law.

“Renewable Generation Equipment Supplier” means the supplier of the [electric generating [wind] [gas] [steam] turbine(s)] [solar electric generating equipment] for the Project, selected by Seller.

“Replacement Price” means the price (in dollars per megawatt hour) at which Buyer, acting in a commercially reasonable manner, purchases for delivery at the Delivery Point (or any other reasonably equivalent delivery point for Buyer) a replacement for any Product (including its associated Green Attributes) that was not Scheduled and delivered by Seller, plus (a) costs (calculated in dollars per megawatt hour) reasonably incurred by Buyer in purchasing such replacement Product and (b) additional transmission charges (calculated in dollars per megawatt hour), if any, reasonably incurred by Buyer for such replacement Product, or absent a purchase, the market price at the Delivery Point (or any other reasonably equivalent delivery point for Buyer) for such replacement Product for the hours impacted by such failure to Schedule or deliver such Product as determined by Buyer in a commercially reasonable manner. The Replacement Price also shall include all CAISO and other charges and penalties calculated in dollars per megawatt hour with respect to the deviation from the Scheduled supply resulting from Seller’s failure to Schedule or deliver; provided, however, in no event shall such price include any ratcheted demand or similar charges, nor shall Buyer be required to utilize or change its



utilization of its owned or controlled assets or market positions to minimize Seller's liability. For the purposes of this definition, Buyer shall be considered to have purchased replacement Product to the extent Buyer shall have entered into one or more arrangements in a commercially reasonable manner whereby Buyer repurchases its obligation to sell and deliver the Product to another party. If for any reason a Replacement Price is unavailable when Seller fails to deliver or Schedule Product, then the Replacement Price for the hours when a Replacement Price is unavailable shall be the last available Replacement Price together with any charges and penalties allocated to Buyer during such time.

“Resource Adequacy” means the procurement obligation of load serving entities, including Buyer, as such obligations are described in CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-04-040, 06-06-064, 06-07-031, 07-06-029, 08-06-031, 09-06-028, 10-06-036, 11-06-022, 12-06-025, 13-06-024, and subsequent CPUC decisions addressing Resource Adequacy issues, as those obligations may be altered from time to time in the CPUC Resource Adequacy Rulemakings (R.) 04-04-003 and (R.) 05-12-013 or by any successor proceeding, and all other Resource Adequacy obligations established by any other entity, including the CAISO.

“Sales Price” means the price (in dollars per megawatt hour) at which Seller, acting in a commercially reasonable manner, resells any Product not Scheduled and received by Buyer, deducting from such proceeds any (a) costs (calculated in dollars per megawatt hour) reasonably incurred by Seller in reselling such Product including all costs charged by CAISO to Schedule and deliver the Product into the CAISO System, and (b) additional transmission charges (calculated in dollars per megawatt hour), if any, reasonably incurred by Seller in Scheduling and delivering such Product to the third party purchasers, or absent a sale despite commercially reasonable efforts to resell the Product, zero. The Sales Price shall also be reduced by all CAISO and other costs, charges and penalties with respect to the deviation from the Scheduled supply, in each case, resulting from Buyer's failure to take Product and calculated in dollars per megawatt hour; provided, however, in no event shall such price include any ratcheted demand or similar charges, nor shall Seller be required to utilize or change its utilization of its owned or controlled assets, including contractual assets, or market positions to minimize Buyer's liability. The Sales Price may be less than zero.

“S&P” means the Standard & Poor's Rating Group (a division of McGraw-Hill, Inc.) or its successor.

“Schedule” means the actions of Seller, Buyer and/or their designated representatives, or Scheduling Coordinators, including each Party's Transmission Providers, if applicable, of notifying, requesting and confirming to each other and the CAISO the quantity and type of Product to be delivered on any given day or days at a specified Delivery Point.

“Scheduling Coordinator” or “SC” means an entity certified by the CAISO as qualifying as a Scheduling Coordinator pursuant to the CAISO Tariff, for the purposes of undertaking the functions specified in “Responsibilities of a Scheduling Coordinator,” of the CAISO Tariff, as amended from time-to-time.

“Scheduled Energy” means the Energy that clears under the applicable CAISO market based on the final Schedule developed in accordance with this Agreement, the operating



procedures developed by the Parties pursuant to Section 3.10, and the applicable CAISO Tariff, protocols and Scheduling practices.

“SEC” means the U.S. Securities and Exchange Commission.

“Seller” shall have the meaning set forth on the Cover Sheet.

“Settlement Amount” means, with respect to the Non-Defaulting Party, the Losses or Gains, and Costs, expressed in U.S. Dollars, which such Party incurs as a result of the liquidation of a Terminated Transaction pursuant to Sections 5.2 and 5.3.

“Site” shall mean the location of the Project as described in Exhibit A.

“Station Service” means the electric energy produced by the Project that is used within the Project to power the lights, motors, control systems and other auxiliary electrical loads that are necessary for operation of the Project.

“System Dispatch Down” means curtailment of delivery of Product from the Project resulting from (a) curtailment ordered by the CAISO (whether directly or through the Scheduling Coordinator or the Participating Transmission Owner), for any reason, including, but not limited to, any system emergency as defined in the CAISO Tariff (“System Emergency”), any warning of an anticipated System Emergency, or any warning of an imminent condition or situation which could jeopardize the CAISO’s or Participating Transmission Owner’s electric system integrity or the integrity of other systems to which the CAISO or Participating Transmission Owner is connected, any warning, forecast, or anticipated overgeneration conditions, including a request from CAISO to manage over-generation conditions; (b) curtailment ordered by the Participating Transmission Owner or distribution operator (if interconnected to distribution or sub-transmission system) for reasons including, but not limited to, (i) any situation that affects normal function of the electric system including, but not limited to, any abnormal condition that requires action to prevent circumstances such as equipment damage, loss of load, or abnormal voltage conditions, (ii) any warning, forecast or anticipation of conditions or situations that jeopardize the Participating Transmission Owner’s electric system integrity or the integrity of other systems to which the Participating Transmission Owner is connected; (c) curtailment ordered by the Participating Transmission Owner or distribution operator (if interconnected to distribution or sub-transmission system) as a result of scheduled or unscheduled maintenance or construction on the Participating Transmission Owner’s transmission facilities or distribution operator’s facilities (if interconnected to distribution or sub-transmission system) that prevents the delivery or receipt of Delivered Energy to or at the Delivery Point, (d) curtailment in accordance with Seller’s obligations under its interconnection agreement with the Participating Transmission Owner or distribution operator, ***[If the Project is located outside of the CAISO: or*** (e) curtailment ordered by the Transmission Provider provided, that Seller has contracted for firm transmission with such Transmission Provider for the Product to be delivered to the Delivery Point and such curtailment is due to “force majeure” or “uncontrollable force” or a similar term as defined under the Transmission Provider’s tariff; ***[For Dispatchable Product only: or ([e/f] curtailment ordered by Buyer pursuant to a Dispatch Notice.] [For all Products other than Dispatchable: provided, however, that System Dispatch Down shall not include Economic Dispatch Down].***

“Terminated Transaction” means the termination of this Agreement in accordance with Section 5.2 of this Agreement.

“Termination Payment” has the meaning set forth in Section 5.2.

*[For TOD Pricing Only:* “TOD Factors” has the meaning set forth in Section 4.[1/2](b).]

*[For TOD Pricing Only:* “TOD Delivery Cap” has the meaning set forth in Section 4.[1/2](a).]

*[For TOD Pricing Only:* “TOD Period” has the meaning set forth in Section 4.[1/2](b).]

“Transmission Provider” means any entity or entities transmitting or transporting the Product on behalf of Seller or Buyer to or from the Delivery Point.

*[For Baseload, Peaking, or Dispatchable Product only:* “Unit Firm” means, with respect to a Product, that the Product is intended to be supplied from the Project, and subject to the terms of this Agreement, Seller is excused from selling and delivering the Product to Buyer, and Seller shall not be liable to Buyer for any damages determined pursuant to Section 3.1(h) of the Agreement, in the event that Seller fails to deliver the Product to Buyer for any of the following reason:

- (a) if the Project is unavailable as a result of a Forced Outage and such Forced Outage is not the result of Seller’s negligence or willful misconduct;
- (b) Force Majeure;
- (c) by the Buyer’s failure to perform;
- (d) by a Planned Outage of the Project; or
- (e) a reduction in output as ordered under Dispatch Down Periods.

The following products shall be considered “Unit Firm” products: Peaking, Baseload, and Dispatchable.]

*[For an intermittent As-Available Product only:* “VER Forecasting Program” means the rules, protocols, procedures and standards for Participating Intermittent Resources under the CAISO’s Eligible Intermittent Resource Protocol, as may be amended from time to time, as set forth in the CAISO Tariff.]

“WECC” means the Western Electricity Coordinating Council or successor agency.

“WREGIS” means the Western Renewable Energy Generating Information System or any successor renewable energy tracking program.

1.2 Interpretation. The following rules of interpretation shall apply:

(a) The term “month” shall mean a calendar month unless otherwise indicated, and a “day” shall be a 24-hour period beginning at 12:00:01 a.m. Pacific Prevailing Time and ending at 12:00:00 midnight Pacific Prevailing Time; provided that a “day” may be 23 or 25 hours on those days on which daylight savings time begins and ends.

(b) Unless otherwise specified herein, all references herein to any agreement or other document of any description shall be construed to give effect to amendments, supplements, modifications or any superseding agreement or document as then exist at the applicable time to which such construction applies.

(c) Capitalized terms used in this Agreement, including the appendices hereto, shall have the meaning set forth in Article 1, unless otherwise specified.

(d) Unless otherwise specified herein, references in the singular shall include references in the plural and vice versa, pronouns having masculine or feminine gender will be deemed to include the other, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organizations or other entities (whether or not having a separate legal personality). Other grammatical forms of defined words or phrases have corresponding meanings.

(e) The term “including” when used in this Agreement shall be by way of example only and shall not be considered in any way to be in limitation.

(f) References to a particular article, section, subsection, paragraph, subparagraph, appendix or attachment shall, unless specified otherwise, be a reference to that article, section, subsection, paragraph, subparagraph, appendix or attachment in or to this Agreement.

(g) Any reference in this Agreement to any natural person, Governmental Authority, corporation, partnership or other legal entity includes its permitted successors and assigns or to any natural person, Governmental Authority, corporation, partnership or other legal entity succeeding to its functions.

(h) All references to dollars are to U.S. dollars.

## **ARTICLE TWO: EFFECTIVENESS OF AGREEMENT; CONDITIONS PRECEDENT**

2.1 Effectiveness of Agreement Prior to CP Satisfaction Date. Commencing on the Execution Date until the CP Satisfaction Date, this Agreement shall be in full force and effect, enforceable and binding only to the extent required to give full effect to, and enforce, the rights and obligations of the Parties under this Article 2, including, as it relates to Article 2, the rights and obligations under Articles 1, 5, 7, 8, 9, 10, 11, 12, and 13.

2.2 Obligations of the Parties. The Parties shall cooperate with each other to cause the Conditions Precedent to be satisfied as soon as reasonably practical.

(a) Seller’s Obligations. Prior to the CP Satisfaction Date, Seller shall (i) use commercially reasonable efforts to pursue satisfaction of the Conditions Precedent set forth in

Sections [\_\_\_\_], (ii) diligently pursue development of the Project in accordance with Section 3.9, (iii) comply with Section 3.9(b) in achieving the applicable Milestones that have due dates occurring prior to the CP Satisfaction Date, reporting completion of such Milestones, and delivering Remedial Action Plans in respect of missed Milestones as more fully described therein, (iv) deliver the Quarterly Progress Report in accordance with Section 3.9(a), and (v) otherwise comply with its obligations, covenants, representations, and warranties under Articles 7-13. ***[For Agreements with Delivery Terms greater than two years:*** Upon an Event of Default of Seller prior to the CPUC Approval Date, Buyer may terminate this Agreement in which case Seller shall owe Buyer liquidated damages in the amount of the CPUC Approval Security.] Upon an Event of Default of Seller ***[For Agreements with Delivery Terms greater than two years:*** on or after the CPUC Approval Date but] prior to the CP Satisfaction Date, Buyer may terminate this Agreement in which case Seller shall owe Buyer liquidated damages in the amount of the Development Period Security. Buyer may retain such Performance Assurances to pay such liquidated damages. Each Party agrees and acknowledges that (a) the actual damages that Buyer would incur due to an Event of Default of Seller prior to the CP Satisfaction Date would be difficult or impossible to predict with certainty, (b) the liquidated damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the liquidated damages set forth in this section are the exclusive remedy for an Event of Default of Seller prior to the CP Satisfaction Date.

(b) Buyer's Obligations. Prior to the CP Satisfaction Date, Buyer shall (i) use commercially reasonable efforts to pursue satisfaction of the Conditions Precedent set forth in Sections 2.3(a), and (ii) otherwise comply with its obligations, covenants, representations, and warranties under Articles 7-13. ***[For Agreements with Delivery Terms greater than two years:*** Upon an Event of Default of Buyer prior to the CPUC Approval Date, Seller may terminate this Agreement in which case Buyer shall owe Seller liquidated damages in the amount of the CPUC Approval Security.] Upon an Event of Default of Buyer ***[For Agreements with Delivery Terms greater than two years:*** on or after the CPUC Approval Date but] prior to the CP Satisfaction Date, Seller may terminate this Agreement in which case Buyer shall owe Seller liquidated damages in the amount of the Development Period Security. Each Party agrees and acknowledges that (a) the actual damages that Seller would incur due to an Event of Default of Buyer prior to the CP Satisfaction Date would be difficult or impossible to predict with certainty, (b) the liquidated damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the liquidated damages set forth in this section are the exclusive remedy for an Event of Default of Buyer prior to the CP Satisfaction Date.

2.3 Conditions Precedent. Subject to Section 2.1, the effectiveness of the remainder of this Agreement is conditioned upon the satisfaction (or waiver by the Party described in Section 2.4) of all of the following conditions precedent ("Conditions Precedent") by the deadline dates set forth below for each Condition Precedent without extension for Force Majeure or any other reason:

(a) CPUC Approval. No later than [\_\_\_\_\_], Buyer shall have obtained CPUC Approval. Prior to this deadline, should the CPUC issue an order approving this Agreement but with conditions or modifications that materially alter the commercial aspects of this Agreement, the Parties agree to use good faith efforts to renegotiate this Agreement and file the amended agreement with the CPUC seeking CPUC Approval therefor. If, no later than the

earlier of (i) sixty (60) days after such order or (ii) the deadline date above, no agreement is reached, either Party may terminate this Agreement upon delivery of Notice to the other Party.

(b) Electrical Interconnection. No later than [\_\_\_\_\_], Seller shall have entered into a [Large/Small] Generator Interconnection Agreement providing for the construction of the Electrical Interconnection Upgrades necessary to maintain the “[Full Capacity] [Energy Only] Deliverability Status” (as defined in the CAISO Tariff) of the Project and setting forth:

(i) an estimated in-service interconnection date for the “Participating TO’s Interconnection Facilities,” the “Network Upgrades,” and the “Distribution Upgrades” (as each term is defined in the CAISO Tariff) of no later than [\_\_\_\_\_] months after Seller provides the Participating Transmission Owner with the appropriate security and written authorization to proceed under its [Large/Small] Generator Interconnection Agreement for the Project,

(ii) a refundable cost for “Network Upgrades” (as defined in the CAISO Tariff) that Seller would be obligated to pay and would be entitled to reimbursement from the CAISO, a Participating Transmission Owner, or any other affected transmission provider as provided thereunder not exceeding \$[\_\_\_\_\_], and [*Note: Seller may propose additional provisions whereby Seller can satisfy this Condition Precedent by buying down the Network Upgrade costs that exceed the foregoing cost cap in a manner that is mutually acceptable to the Parties.*]

(iii) a nonrefundable cost that Seller would be obligated to pay thereunder not exceeding \$[\_\_\_\_\_] (or such greater amount as Seller may approve, in its sole discretion).

(c) [*Others, Major Governmental Approvals, Financing, etc.*]

#### 2.4 Failure to Meet All Conditions Precedent.

(a) Beneficiary Party.

(i) Both of the Parties are the beneficiaries of the Conditions Precedent set forth in Sections 2.3(a), 2.3(b)(i)-(ii) [*Others*], and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, both of the Parties must waive (in their sole discretion) non-satisfaction by the deadline date therefor.

(ii) Buyer shall be the sole beneficiary of the Conditions Precedent set forth in Sections [*List*], and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, Buyer alone must waive (in its sole discretion) non-satisfaction by the deadline date therefor.

(iii) Seller shall be the sole beneficiary of the Conditions Precedent set forth in Sections 2.3(b)(iii) [*Others*], and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, Seller alone must waive (in its sole discretion) non-satisfaction by the deadline date therefor.

(b) Termination. If any of the Conditions Precedent is not satisfied or waived in writing by the beneficiary Parties thereto on or before the date that is fifteen (15) days after the applicable deadline date therefor, then this Agreement shall automatically terminate with no further obligation to either Party (other than as set forth in Sections 2.4(b)(i)-(ii) below and any other payment obligations which are accrued and payable at the time of termination).

(i) Upon a termination of this Agreement for any reason under Section 2.4 other than as described in Section 2.4(b)(ii) below, Seller shall forfeit to Buyer an amount equal to the Performance Assurance then required to be delivered to Buyer hereunder. Buyer may retain such Performance Assurance to pay such amount.

(ii) Upon a termination of this Agreement under this Section 2.4 as a result of the failure of the Conditions Precedent set forth in Sections 2.3(a) to be satisfied (or waived by both Parties) or as a result of the failure of the Conditions Precedent set forth in Sections 2.3(b)(i)-(ii) to be satisfied or waived by Buyer, Buyer shall return to Seller the Performance Assurances then held by Buyer.

2.5 Effectiveness of Agreement on and after CP Satisfaction Date. This Agreement shall be in full force and effect, enforceable and binding in all respects as of the CP Satisfaction Date until the conclusion of the Delivery Term or earlier termination pursuant to the terms of this Agreement; provided however, that this Agreement shall remain in effect until (i) the Parties have fulfilled all obligations under this Agreement, including payment in full of amounts due for the Product delivered prior to the end of the Delivery Term, the Settlement Amount, indemnification payments or other damages (whether directly or indirectly such as through set-off or netting) and (ii) the undrawn portion of the [*For Agreements with Delivery Terms greater than two years:* CPUC Approval Security,] Development Period Security, Construction Period Security, or Delivery Term Security, as applicable, is released and/or returned as applicable (if any is due). All indemnity rights shall survive the termination or expiration of this Agreement for the longer of twelve (12) months or the expiration of the statute of limitations period of the claim underlying the indemnity obligation.

### ARTICLE THREE: OBLIGATIONS AND DELIVERIES

#### 3.1 Transaction.

(a) Product. The “Product” to be delivered and sold by Seller and received and purchased by Buyer under this Agreement is [*Seller to select:* As-Available, Baseload, Peaking, or Dispatchable] Energy, Capacity Attributes, Green Attributes, and other ancillary products, services or attributes similar to the foregoing which are or can be produced by or associated with the Project (net of Station Service) in accordance with the terms hereof.

(b) Transaction. Unless specifically excused by the terms of this Agreement during the Delivery Term, Seller shall sell and deliver, or cause to be delivered, and Buyer shall purchase and receive, or cause to be received, the Product at the Delivery Point, and Buyer shall pay Seller for the Product in accordance with the terms hereof. In no event shall Seller have the right to procure any element of the Product from sources other than the Project for sale or

delivery to Buyer under this Agreement *[If the Project is located outside of the CAISO: except with respect to Imbalance Energy from the Transmission Provider]*.

(c) **Delivery Term.** The Parties agree that the period of Product delivery is [\_\_\_\_\_] Contract Years. As used herein, “Delivery Term” shall mean the period of Contract Years specified above beginning on the Commercial Operation Date and continuing until the end of the last Contract Year unless terminated earlier as provided by the terms of this Agreement.

(d) **Delivery Point.** The Delivery Point shall be [the point of interconnection of the Project to the CAISO Grid] *[Seller may specify another delivery point; for a Project located outside the CAISO Grid, the Delivery Point should be a CAISO Scheduling Point as defined by the CAISO]* and for financial settlement purposes under the applicable CAISO market, the PNode corresponding to such point.

(e) ***[For Baseload, Peaking, As-Available Product: Contract Quantity and Guaranteed Energy Production.*** The quantity of Bundled Green Energy that Seller expects to be able to deliver to Buyer during each Contract Year is [\_\_\_\_\_] MWh (“Contract Quantity”). Throughout the Delivery Term, Seller shall be required to deliver to Buyer no less than the Guaranteed Energy Production (as defined below) in any [twelve (12)] [twenty-four (24)] consecutive calendar month period during the Delivery Term (“Performance Measurement Period”). “Guaranteed Energy Production” means an amount of Bundled Green Energy, as measured in MWh, equal to [two times] [\_\_\_\_\_] % of the Contract Quantity. Notwithstanding the excuses to performance set forth in the definition of the Product type (as such Product type is specified in Section 3.1(a)), Seller shall be excused from achieving the Guaranteed Energy Production during any Performance Measurement Period only to the extent of any Force Majeure events, Buyer’s failure to perform, or Dispatch Down Periods. For purposes of determining whether Seller has achieved the Guaranteed Energy Production, Seller shall be deemed to have delivered to Buyer an amount of Bundled Green Energy that it could reasonably have delivered to Buyer but was prevented from delivering to Buyer by reason of any Force Majeure events, Buyer’s failure to perform, or Dispatch Down Periods.] ***[For Dispatchable Product: Contract Quantity.*** The quantity of Bundled Green Energy that Seller expects to be able to deliver to Buyer during each Contract Year is [\_\_\_\_\_] MWh (“Contract Quantity”).]

(f) **Contract Capacity.** The “Contract Capacity” is the full generation capacity of the Project net of all Station Service which shall be *[For As-Available Product: no less than [\_\_\_\_\_] MW and no greater than [\_\_\_\_\_] MW] [For Baseload, Peaking, or Dispatchable Product only: an amount determined periodically pursuant to a Capacity Test as set forth below]*. Throughout the Delivery Term, Seller shall sell and Schedule all Product associated with the Contract Capacity of the Project solely to Buyer, except in the case of an Event of Default of Buyer *[If the Project is located outside of the CAISO: or the sale of Imbalance Energy to the Transmission Provider]*. *[For Dispatchable Product: Throughout the Delivery Term, Seller shall make the Contract Capacity available solely to Buyer at all times, except in the case of an Event of Default of Buyer [If the Project is located outside of the CAISO: or the sale of Imbalance Energy to the Transmission Provider].]*

(i) ***[For Baseload, Peaking, Dispatchable Product: Initial Capacity Testing***. Upon no less than fourteen (14) days prior Notice to Buyer, Seller shall schedule and complete a Capacity Test prior to the Commercial Operation Date for the Project. Such initial Capacity Test shall establish the Contract Capacity for the Project for the first Contract Year.]

(ii) ***[For Baseload, Peaking, Dispatchable Product: Annual Capacity Testing***. Thereafter, at least once per Contract Year within the first quarter of each Contract Year, upon no less than 14 days prior Notice to Buyer, Seller shall schedule and complete a Capacity Test. In addition, Buyer shall have the right to require a retest of the Capacity Test at any time upon five (5) days prior written Notice to Seller if Buyer reasonably believes that the actual Contract Capacity has varied materially from the results of the most recent tests. Seller shall have the right to run a retest of the Capacity Test at any time upon two (2) days prior written Notice to Buyer (or any shorter period reasonably acceptable to Buyer consistent with Good Industry Practices).]

(iii) ***[For Baseload, Peaking, Dispatchable Product: Witness at Capacity Tests***. Buyer shall have the right to send one or more representative(s) to witness all Capacity Tests.]

(iv) ***[For Baseload, Peaking, Dispatchable Product: Capacity Test Reporting***. No later than fourteen (14) days following any Capacity Test, Seller shall submit a testing report detailing results and findings of the test. The report shall include meter readings and plant log sheets verifying the operating conditions and output of the Project. The Contract Capacity determined pursuant to a Capacity Test shall become the new Contract Capacity at the beginning of the day following the completion of the test for all purposes under this Agreement.]

(v) ***[For Baseload, Peaking, Dispatchable Product: Capacity Test Costs and Payments***. Buyer shall pay the [Monthly Energy Payment] in respect of the Product produced during the initial Capacity Test prior to the Commercial Operation Date and each annually scheduled Capacity Test thereafter. In addition, Buyer shall pay the [Monthly Energy Payment] in respect of the Product produced during any other Buyer requested test unless the results of such test demonstrate that the actual Contract Capacity has varied by more than two percent (2%) from the results of the most recent tests, in which case Buyer shall pay the lesser of the [Monthly Energy Payment] in respect of the Product produced during such test and the applicable CAISO real-time hourly average energy price. In addition, Buyer shall pay the lesser of the [Monthly Energy Payment] in respect of the Product produced during any Seller requested test and the applicable CAISO real-time hourly average energy price]. Buyer is responsible for all costs, expenses and fees payable or reimbursable to its representative(s) witnessing Capacity Testing. All other costs of any Capacity Tests shall be borne by Seller.]

(g) ***[Project***. All Product provided by Seller pursuant to this Agreement shall be supplied from the Project only ***[If the Project is located outside of the CAISO: except with respect to Imbalance Energy from the Transmission Provider]***. Other than maintenance in accordance with Good Industry Practices, Seller shall not make any alteration or modification to the Project which results in a change to the Contract Capacity of the Project or any other material changes to the Project without Buyer's prior written consent. The Project is further described in Exhibit A.



(h) Performance Excuses.

(i) Seller Excuses. The performance of Seller to Schedule, deliver, and sell the Product shall be excused only for the reasons set forth in the definition of *[Seller to select: “As-Available” or “Unit Firm”]*. If Seller fails to Schedule, deliver, or sell all or part of the Product, and such failure is not excused as described above, then Seller shall pay Buyer, on the date payment would otherwise be due in respect of the month in which the failure occurred an amount for such Product deficiency equal to the positive difference, if any, obtained by subtracting (A) the product of the Energy Price *[For TOD Pricing Only: times the weighted average TOD Factor for such period of Product deficiency]* times the Product deficiency, from (B) the product of the Replacement Price times the Product deficiency. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

(ii) Buyer Excuses. The performance of Buyer to Schedule, receive, and pay for the Product shall be excused only (A) during periods of Force Majeure, (B) by Seller’s failure to perform or (C) during Dispatch Down Periods *[For all Products other than Dispatchable Product: (except that Buyer shall not be excused from paying for the Product as required under Section 3.4 during periods of Economic Dispatch Down)]*. If Buyer fails to Schedule, receive, or purchase all or part of the Product and such failure is not excused as described above, then Buyer shall pay Seller, on the date payment would otherwise be due in respect of the month in which the failure occurred an amount for such Product deficiency equal to the positive difference, if any, obtained by subtracting (Y) the product of the Sales Price times the Product deficiency from (Z) the product of the Energy Price *[For TOD Pricing Only: times the weighted average TOD Factor for such period of Product deficiency]* times the Product deficiency. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

(i) 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. *For all electric generation using biomethane as fuel, neither Buyer nor Seller may make a marketing, regulatory, or retail claim that asserts that a procurement contract to which that entity was a party resulted, or will result, in greenhouse gas reductions related to the destruction of methane if the capture and destruction is required by Law. If the capture and destruction of the biomethane is not required by Law, neither Buyer nor Seller may make a marketing, regulatory, or retail claim that asserts that a procurement contract to which that entity was a party resulted, or will result, in greenhouse gas reductions related to the destruction of methane, unless the environmental attributes associated with the capture and destruction of the biomethane pursuant to that contract are transferred to Buyer and retired on behalf of the retail customers consuming the electricity associated with the use of that biomethane, or unless Seller’s procurement contract with the source of biomethane prohibits the source of biomethane from separately marketing the environmental attributes associated with the capture and destruction of the biomethane sold pursuant to that contract, and such attributes have been retired.*

(j) Resource Adequacy. During the Delivery Term, Seller grants, pledges, assigns and otherwise commits to Buyer all of the Project's Contract Capacity, including Capacity Attributes, from the Project for Buyer to use in meeting its Resource Adequacy or successor program requirements, as the CPUC, CAISO or other regional entity may prescribe. Seller understands that the CPUC is currently in the process of developing requirements for Resource Adequacy and these requirements and the implementation thereof have not been finalized. Seller agrees that it shall take all commercially reasonable actions and execute any and all documents or instruments reasonably necessary to enable Buyer to use all of the Contract Capacity, including Capacity Attributes, to be committed by Seller to Buyer pursuant to this Agreement for the Resource Adequacy requirements of Buyer. Seller agrees that the Project is subject to the terms of the Availability Standards.

(k) WREGIS. Prior to the initial delivery of Energy to Buyer, Seller shall register the Project in WREGIS, execute a CAISO Qualified Reporting Entity Service Agreement to allow CAISO, on the Seller's behalf, to upload generation information directly into WREGIS, and take all other actions necessary to ensure that the Green Attributes produced from the Project in an amount equal to the amount of Delivered Energy are issued and tracked for purposes of satisfying the requirements of the California Renewable Portfolio Standard and transferred to Buyer, including payment of all fees required to register the facility in WREGIS, issue WREGIS certificates, and transfer such certificates to Buyer. Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in WREGIS will be taken prior to the first delivery under the Agreement.

(l) Prevailing Wage. To the extent applicable, Seller shall comply with the prevailing wage requirements of California Public Utilities Code Section 399.13, subdivision (h).

### 3.2 Transmission.

(a) Seller's Transmission Service Obligations. During the Delivery Term, Seller shall arrange and be responsible for transmission service for delivery of the Product to and at the Delivery Point and bear all risks and costs associated with such transmission service, including, but not limited to, all Transmission Provider costs and charges, electric transmission losses, and any transmission outages or curtailment, except as provided otherwise in this Agreement in respect of Dispatch Down Periods. ***[For Projects located outside of CAISO:*** Seller shall obtain and maintain during the Delivery Term firm transmission service to deliver the Product from the Site to the Delivery Point from all intermediary Transmission Providers between the Site and the Delivery Point. At Buyer's request, Seller shall provide to Buyer a copy of all firm transmission service agreements and any amendments thereto.] Seller shall fulfill all contractual, metering and applicable interconnection requirements, including those set forth in Participating Transmission Owner's applicable tariffs, the CAISO Tariff and implementing CAISO standards and requirements, including, but not limited to, executing applicable interconnection agreements, Participating Generator Agreement and Meter Service Agreement so as to be able to deliver Energy to the CAISO Grid. Seller shall arrange for any interconnection agreement with the CAISO and such interconnection agreement is separate and not a part of this Agreement.

(b) Buyer's Transmission Service Obligations. During the Delivery Term, Buyer shall arrange and be responsible for transmission service for delivery of the Product from the Delivery Point and bear all risks and costs associated with such transmission service, including, but not limited to, all Transmission Provider costs and charges, electric transmission losses, and any transmission outages or curtailment, except as provided otherwise in this Agreement in respect of Dispatch Down Periods.

(c) Congestion Charges. Seller shall be responsible for all costs of congestion for transmission of the Product up to and at the Delivery Point. Buyer shall be responsible for all costs of congestion for transmission of the Product from the Delivery Point. To the extent that Seller is reimbursed for or receives any refunds, credits, or benefits from the CAISO for congestion charges or losses in respect of transmission of the Product from the Delivery Point, whether due to differences between the locational marginal pricing at the Delivery Point and Buyer's load aggregation point or any other point downstream of the Delivery Point, congestion revenue rights associated with any transmission path downstream of the Delivery Point, or any other hedging instruments associated with the transmission of the Product from the Delivery Point (collectively, any such refunds, credits or benefits are referred to as "Reductions"), then, at Buyer's option, either (i) Seller shall transfer any such Reductions and their related rights to Buyer; or (ii) Buyer shall reduce payments due to Seller under this Agreement in amounts equal to the Reductions and Seller shall retain the Reductions.

### 3.3 Scheduling.

(a) ***[For As-Available intermittent Product only: VER Forecasting Program Requirements.*** Seller shall cause the Project to become a Participating Intermittent Resource including executing all necessary documents to become a Participating Intermittent Resource. Seller shall be responsible for all CAISO forecasting fees and related charges associated with the Project becoming a Participating Intermittent Resource and participating in the VER Forecasting Program. Seller and Buyer shall comply with the VER Forecasting Program, and all additional protocols issued by the CAISO relating to Participating Intermittent Resources, including the VER Forecasting Program, for the Delivery Term. Seller shall provide Buyer with a copy of the notice from the CAISO certifying the Project as a Participating Intermittent Resource prior to the Commercial Operation Date. In the event that the VER Forecasting Program or the CAISO Tariff and/or any protocols relating thereto are changed, amended, modified replaced or terminated, Seller and Buyer agree to comply with such revisions and, to the extent practical, to implement such revisions in a manner that maintains the relative economic positions of the parties as of the date of this Agreement.]

(b) Scheduling Coordinator.

***[When Seller is SC for the Project, include the following two paragraphs:***

(i) Seller as Scheduling Coordinator for the Project. During the Delivery Term, Seller shall be its own Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with its Transmission Provider to Schedule and deliver the Product to the Delivery Point and Buyer shall be its own Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with its Transmission Provider to Schedule and receive the Product at the Delivery Point. Throughout

the Delivery Term, Buyer and Seller shall submit inter-SC trades for scheduling all Product from the Project at the Delivery Point (including Energy, Integrated Forward Market Load Uplift Obligations in respect of self-scheduled Energy, and other Product from time to time contemplated under the CAISO Tariff to be subject to inter-SC trades), based on a final Schedule developed in compliance with this Agreement. During the Delivery Term, each Party or each Party's SC shall conduct all Scheduling in accordance with the operating procedures developed by the Parties pursuant to Section 3.10 and in full compliance with the applicable CAISO Tariff, protocols and Scheduling practices for Product on a day-ahead, hour-ahead, or real time basis, as determined by Buyer. ***[For As-Available intermittent Product only:*** Whenever the VER Forecasting Program is applicable, Seller shall submit Schedules and any updates to such Schedules to the CAISO based on the most current forecast of Delivered Energy consistent with the VER Forecasting Program.] In all cases, ***[For all Products other than Dispatchable:*** consistent with its Economic Dispatch Down curtailment rights,] Buyer may direct the Scheduling Coordinator to submit, and Seller shall cause the Scheduling Coordinator to submit in accordance with such Buyer's directions, a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO. It is the intent of the Parties that neither Party be subject to a double payment or a double charge for Product from the Project through this Agreement and CAISO settlement process and that the more detailed Scheduling and operating procedures developed pursuant to Section 3.10 complement the CAISO settlement process to produce a final economic result between them that is consistent with the fundamental transaction of this Agreement.

(ii) CAISO Costs and Revenues. Seller shall be responsible for CAISO costs (including penalties and other charges) and shall be entitled to all CAISO revenues (including credits and other payments) as the Scheduling Coordinator for the Project, in each case, associated with Imbalance Energy, including all CAISO charges or penalties incurred as a consequence of the Project not being available, the Seller not notifying the CAISO and Buyer of outages in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7), any other failure by Seller to abide by the CAISO Tariff, and any other deviations between Delivered Energy and Scheduled Energy that are attributable to Seller, the Project, or any event, circumstance, act, or incident occurring prior to or at the Delivery Point, including without limitation uninstructed deviation penalties. The Parties agree that any Availability Incentive Payments are for the benefit of the Seller and for Seller's account and that any Non-Availability Charges or other CAISO charges associated with the Project not providing sufficient Resource Adequacy capacity are the responsibility of the Seller and for Seller's account. In addition, if during the Delivery Term, the CAISO implements or has implemented any sanction or penalty related to scheduling, outage reporting, or generator operation, the cost of the sanctions or penalties shall be the Seller's responsibility. Buyer shall be entitled to all credits, payments, or revenues from the CAISO in respect of the Product Scheduled or delivered from the Project, including revenues associated with CAISO dispatches, inter-SC trade credits, and bid cost recovery.

***[When SDG&E is SC for the Project, include the following seven paragraphs:***

(iii) Buyer as Scheduling Coordinator for the Project. [During the Delivery Term] [Upon initial synchronization of the Project to the CAISO Grid], Buyer shall be the Scheduling Coordinator or designate a qualified third party to provide Scheduling

Coordinator services with the CAISO for the Project for both the delivery and the receipt of the Product at the Delivery Point. At least thirty (30) days prior to the [Commercial Operation Date of the Project] [initial synchronization of the Project to the CAISO Grid], Seller shall take all actions and execute and deliver to Buyer and the CAISO all documents necessary to authorize or designate Buyer as Seller's Scheduling Coordinator for the Project effective as of [the beginning of the Delivery Term] [initial synchronization of the Project to the CAISO Grid]. [During the Delivery Term] [On and after initial synchronization of the Project to the CAISO Grid], Seller shall not authorize or designate any other party to act as Seller's Scheduling Coordinator, nor shall Seller perform for its own benefit the duties of Scheduling Coordinator, and Seller shall not revoke Buyer's authorization to act as Seller's Scheduling Coordinator unless agreed to by Buyer. Buyer (as Seller's SC) shall submit Schedules to the CAISO based on the final Schedule developed in accordance with this Agreement, the operating procedures developed by the Parties pursuant to Section 3.10, and the applicable CAISO Tariff, protocols and Scheduling practices for Product on a day-ahead, hour-ahead, or real time basis, as determined by Buyer. ***[For As-Available intermittent Product only:*** Buyer (as Seller's SC) shall submit Schedules and any updates to such Schedules to the CAISO based on the most current forecast of Delivered Energy consistent with the VER Forecasting Program whenever the VER Forecasting Program is applicable, and consistent with Buyers' best estimate based on the information reasonably available to Buyer including Buyer's forecast whenever the VER Forecasting Program is not available.] In all cases, ***[For all Products other than Dispatchable:*** consistent with its Economic Dispatch Down curtailment rights,] Buyer (as the Scheduling Coordinator) may, or may direct the third party Scheduling Coordinator to, submit a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO.

(iv) Notices. Buyer (as Seller's SC) shall provide Seller with access to a web based system through which Seller shall submit to Buyer and the CAISO all notices and updates required under the CAISO Tariff regarding the Project's status, including, but not limited to, all outage requests, forced outages, forced outage reports, clearance requests, or must offer waiver forms. In accordance with Section 3.7 and this Section 3.2, Seller will cooperate with Buyer to provide such notices and updates. If the web based system is not available, Seller shall promptly submit such information to Buyer and the CAISO (in order of preference) telephonically, by electronic mail, or facsimile transmission to the personnel designated to receive such information.

(v) CAISO Costs and Revenues. Except as otherwise set forth below, ***[For all Products other than Dispatchable Product:*** in Section 3.4(c)(ii),] and elsewhere in this Agreement, Buyer (as Seller's SC) shall be responsible for CAISO costs (including penalties, ***[For As-Available Product VER Forecasting Program Participants only:*** Negative Imbalance Energy costs or revenues,] and other charges) and shall be entitled to all CAISO revenues (including credits, ***[For As-Available Product VER Forecasting Program Participants only:*** Positive Imbalance Energy revenues or costs,] and other payments) as the Scheduling Coordinator for the Project, including revenues associated with CAISO dispatches, bid cost recovery, inter-SC trade credits, or other credits in respect of the Product Scheduled or delivered from the Project. ***[For As-Available Product VER Forecasting Program Participants only:*** Seller shall be responsible for all CAISO charges or penalties net of credits and payments (including without limitation all Imbalance Energy costs), in each case, resulting from the Seller not notifying the CAISO and Buyer (as Seller's SC) of outages or other unavailability of Project

capacity in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7) or any other failure by Seller to abide by the CAISO Tariff.] ***[For all Products other than As-Available Product VER Forecasting Program Participants:*** Seller shall be responsible for all CAISO charges or penalties net of credits and payments, in each case, resulting from the Project not being available, the Seller not notifying the CAISO and Buyer (as Seller's SC) of outages in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7), any other failure by Seller to abide by the CAISO Tariff, and deviations between Delivered Energy and Scheduled Energy that are attributable to Seller, the Project, or any event, circumstance, act, or incident occurring prior to or at the Delivery Point, including without limitation uninstructed deviation penalties.] The Parties agree that any Availability Incentive Payments are for the benefit of the Seller and for Seller's account and that any Non-Availability Charges or other CAISO charges associated with the Project not providing sufficient Resource Adequacy capacity are the responsibility of the Seller and for Seller's account. In addition, if during the Delivery Term, the CAISO implements or has implemented any sanction or penalty related to scheduling, outage reporting, or generator operation, and any such sanctions or penalties are imposed upon the Project or to Buyer as Scheduling Coordinator due to the actions or inactions of Seller, the cost of the sanctions or penalties shall be the Seller's responsibility.

(vi) CAISO Settlements. Buyer (as Seller's SC) shall be responsible for all settlement functions with the CAISO related to the Project. Buyer shall render a separate invoice to Seller for any CAISO charges or penalties ("CAISO Charges Invoice") for which Seller is responsible under this Agreement. CAISO Charges Invoices shall be rendered after settlement information becomes available from the CAISO that identifies any CAISO charges. Notwithstanding the foregoing, Seller acknowledges that the CAISO will issue additional invoices reflecting CAISO adjustments to such CAISO charges. Seller shall pay the amount of CAISO Charges Invoices within ten Business Days of Seller's receipt of the CAISO Charges Invoice. If Seller fails to pay such CAISO Charges Invoice within that period, Buyer may net or offset any amounts owing to it for these CAISO Charges Invoices against any future amounts it may owe to Seller under this Agreement. The obligations under this section with respect to payment of CAISO Charges Invoices shall survive the expiration or termination of this Agreement.

(vii) Dispute Costs. Buyer (as Seller's SC) may be required to dispute CAISO settlements in respect of the Project. Seller agrees to pay Buyer's costs and expenses (including reasonable attorneys' fees, including reasonably allocated costs of in-house counsel of the Buyer) associated with its involvement with such CAISO disputes.

(viii) Terminating Buyer's Designation as Scheduling Coordinator. At least thirty (30) days prior to expiration of this Agreement or as soon as reasonably practicable upon an earlier termination of this Agreement, the Parties will take all actions necessary to terminate the designation of Buyer as Scheduling Coordinator for the Project as of 11:59 p.m. on such expiration date.

(ix) Master File and Resource Data Template. Seller shall provide the data to the CAISO (and to Buyer) that is required for the CAISO's Master File and Resource Data Template (or successor data systems) for this Project consistent with this Agreement. Neither Party shall change such data without the other Party's prior written consent.]

(c) Annual Delivery Schedules. No later than forty-five (45) days before (A) the first day of the first Contract Year of the Delivery Term and (B) the beginning of each calendar year for every subsequent Contract Year during the Delivery Term, Seller shall provide a non-binding forecast of each month's average-day expected Delivered Energy, by hour, for the following calendar year.

(d) Monthly Delivery Schedules. Ten (10) Business Days before the beginning of each month during the Delivery Term, Seller shall provide a non-binding forecast of each day's average expected Delivered Energy, by hour, for the following month ("Monthly Delivery Forecast").

(e) Daily Delivery Schedules. By 5:30 AM Pacific Prevailing Time on the Business Day immediately preceding the date of delivery, Seller shall ***[When Seller is SC for the Project: cause its Scheduling Coordinator to]*** provide Buyer with a ***[For As-Available intermittent Product only: non-binding forecast of the Project's available capacity (or if the VER Forecasting Program is not available for any reason, the expected Delivered Energy)]*** ***[For all Products other than As-Available intermittent: binding forecast of the expected Delivered Energy]*** for each hour of the immediately succeeding day ("Day-Ahead Forecast") ***[For all Products other than As-Available intermittent: [When Seller is SC for the Project: concurrent with delivery to the CAISO] [When SDGE is SC for the Project: and Buyer shall submit a Schedule to the CAISO consistent with such Day-Ahead Forecast], it being understood that, [For all Products other than Dispatchable: consistent with its Economic Dispatch Down curtailment rights,] Buyer (as the Scheduling Coordinator) may, or may direct the third party Scheduling Coordinator to, submit a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO]. A Day-Ahead Forecast provided in a day prior to any non-Business Day(s) shall include Schedules for the immediate day, each succeeding non-Business Day and the next Business Day. Each Day-Ahead Forecast shall clearly identify, for each hour, Seller's best estimate of [For As-Available intermittent Product only: the Project's available capacity (or if the VER Forecasting Program is not available for any reason, the expected Delivered Energy)] [For all Products other than As-Available intermittent: the expected Delivered Energy]. Seller may not change such Schedule past the deadlines provided in this section except in the event of a Forced Outage or Schedule change imposed by Buyer or the CAISO, in which case Seller shall promptly provide Buyer with a copy of any and all updates to such Schedule indicating changes from the then-current Schedule. These notices and changes to the Schedules shall be sent to Buyer's on-duty Scheduling Coordinator. If Seller fails to provide Buyer with a Day-Ahead Forecast as required herein, then for such unscheduled delivery period only Buyer shall rely on the delivery Schedule provided in the Monthly Delivery Forecast or Buyer's best estimate based on information reasonably available to Buyer and Seller shall be liable for Scheduling and delivery based on such Monthly Delivery Forecast or Buyer's best estimate.***

(f) Real Time Delivery Schedules. Notwithstanding anything to the contrary herein, in the event Seller makes a change to its Schedule on the actual date of delivery for any reason including Forced Outages (other than a scheduling change imposed by Buyer or CAISO) which results in a change to its deliveries (whether in part or in whole), Seller shall notify Buyer immediately by calling Buyer's on-duty Scheduling Coordinator. Seller shall notify Buyer and the CAISO of Forced Outages in accordance with Section 3.7. Seller shall keep Buyer informed

of any developments that will affect either the duration of the outage or the availability of the Project during or after the end of the outage.

(g) ***[For Dispatchable Product Only: Availability Notices.*** During the Delivery Term, no later than two (2) Business Days before each Schedule day for the day-ahead market in accordance with WECC scheduling practices, Seller shall provide Buyer with an hourly Schedule of the capacity that the Project is expected to have available for each hour of such Schedule day (the “Availability Notice”). Seller will notify Buyer immediately if the available capacity of the Project may change after Buyer’s receipt of an Availability Notice. Seller shall accommodate Buyer’s reasonable requests for changes in the time of delivery of Availability Notices. Seller shall provide Availability Notices using the form developed by the Parties under Section 3.10 by (in order of preference) electronic mail, facsimile transmission or, telephonically to Buyer personnel designated to receive such communications.]

(h) ***[For Dispatchable Product Only: Dispatch Notices.*** Buyer or the CAISO will have the right to dispatch the Project, seven days per week and 24 hours per day (including holidays), by providing Dispatch Notices and updated Dispatch Notices to Seller electronically, subject to the requirements and limitations set forth in this Agreement, including the system requirements under Section 3.4(b) and the Project operating restrictions set forth in Exhibit H. Each Dispatch Notice will be effective unless and until Buyer modifies such Dispatch Notice by providing Seller with an updated Dispatch Notice. In addition to any other requirements set forth or referred to in this Agreement, all Dispatch Notices and updated Dispatch Notices will be made in accordance with the timelines as specified in the CAISO Tariff.]

### 3.4 Dispatch Notices.

(a) **General.** Seller shall reduce delivery amounts as directed by the CAISO, the Participating Transmission Owner, Buyer, or a Transmission Provider during any Dispatch Down Period.

(b) **System Requirements.** Seller shall acquire, install, and maintain such facilities, communications links and other equipment, and implement such protocols and practices, as necessary (i) for Seller to respond and follow instructions, including an electronic signal conveying real time instructions, to operate the Project as directed by the Buyer and/or the CAISO, including to implement a System Dispatch Down or an Economic Dispatch Down in accordance with the then-current methodology used to transmit such instructions as it may change from time to time, and (ii) for Buyer and/or the CAISO to control the quantity of Product generated by the Project in order to implement a System Dispatch Down or an Economic Dispatch Down, in each case, in accordance with the then-current methodology used to transmit such instructions as it may change from time to time. As of the Execution Date, the systems required to comply with clause (i) include at a minimum the CAISO’s Automatic Dispatch System (as described in the CAISO website) and the systems required to comply with clause (ii) include at a minimum the CAISO’S Application Programming Interfaces (as described in the CAISO website). If at any time during the Delivery Term Seller’s facilities, communications links or other equipment, protocols or practices are not in compliance with then-current methodologies, Seller shall take all commercially reasonable steps necessary to become compliant as soon as possible. Seller shall be liable pursuant to Section ***[For all Products other***



**than Dispatchable Product: 3.4(c)(ii)] [For Dispatchable Product: 3.3(b)[(ii)/(iii)]** for failure to comply with an order directing a Dispatch Down Period, during the time that Seller's facilities, communications links or other equipment, protocols or practices are not in compliance with then-current methodologies. For the avoidance of doubt, an order directing a Dispatch Down Period via such systems and facilities shall have the same force and effect on Seller as any other form of communication. If an electronic submittal is not possible, Buyer and/or the CAISO may provide Dispatch Notices by (in order or preference) electronic mail, telephonically, or facsimile transmission to Seller's personnel designated to receive such communications, as provided by Seller in writing and Seller shall maintain communications systems necessary to permit such transmittal of Dispatch Notices.

(c) **[For all Products other than Dispatchable Product: Economic Dispatch Down. [For Projects where SDG&E purchases Test Energy:** Before or after the Commercial Operation Date,] each of Buyer and the CAISO has the right to order Seller to curtail deliveries of Energy from the Project to the Delivery Point Project for Economic Dispatch Down purposes, seven days per week and 24 hours per day (including holidays), by providing Dispatch Notices and updated Dispatch Notices to Seller electronically via the communications systems described in Section 3.4(b), subject to the requirements and limitations set forth in this Agreement, including the Project operating restrictions set forth in Exhibit H. Each Dispatch Notice will be effective unless and until Buyer (or the CAISO) modifies such Dispatch Notice by providing Seller with an updated Dispatch Notice. In addition to any other requirements set forth or referred to in this Agreement, all Dispatch Notices and updated Dispatch Notices will be made in accordance with the timelines as specified in the CAISO Tariff.]

(i) **[Buyer Payments. [For Projects where SDG&E purchases Test Energy:** On and after the Commercial Operation Date], Buyer shall pay Seller, on the date payment would otherwise be due in respect of the month in which any such Economic Dispatch Down occurred an amount equal to the positive difference, if any, of (Y) the product of the Energy Price, times **[For TOD Pricing Only:** the weighted average TOD Factor for such period of Economic Dispatch Down, times] the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down **[For Projects receiving PTCs:** plus the product of the after tax value of any lost PTC benefits (in dollars per megawatt hour) that Seller has not been able to mitigate after use of reasonable efforts, times the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down], minus (Z) the product of the positive value of the Sales Price, if received, times the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down. Seller agrees to reduce the Project's Delivered Energy as set forth in a Dispatch Notice that meets the requirements of Economic Dispatch Down.]

(ii) **[Failure to Comply.** If Seller fails to comply with a Dispatch Notice that is in compliance with this Agreement, then, for the amount of Delivered Energy that the Project delivered to the Delivery Point in contradiction of the Dispatch Notice, Seller shall pay Buyer an amount equal to the sum of (A) + (B) + (C), where: (A) is the amount, if any, paid to Seller by Buyer for such Delivered Energy (for example, the Contract Price adjusted by TOD Factors), and (B) is all Imbalance Energy costs or charges (excluding any revenues or credits), and (C) is any penalties or other charges resulting from Seller's failure to comply with the Dispatch Notice.]

### 3.5 Standards of Care.

(a) General Operation. Seller shall comply with all applicable requirements of Law, the CAISO, NERC and WECC relating to the Project (including those related to safety, construction, ownership and/or operation of the Project).

(b) CAISO and WECC Standards. Each Party shall perform all generation, scheduling and transmission services in compliance with all applicable (i) operating policies, criteria, rules, guidelines, tariffs and protocols of the CAISO, (ii) WECC scheduling practices and (iii) Good Industry Practices.

(c) Reliability Standard. Seller agrees to abide by all (i) NERC, WECC and CAISO reliability requirements, including all such reliability requirements for generator owners and generator operators, and, if applicable, CPUC General Order No.167, "Enforcement of Maintenance and Operation Standards for Electrical Generating Facilities," and (ii) all applicable requirements regarding interconnection of the Project, including the requirements of the interconnected Transmission Provider. Seller shall enter into and comply with the WECC Reliability Management System (Generator) Agreement, or successor agreement, as of the Commercial Operation Date and throughout the Delivery Term.

### 3.6 Metering.

(a) CAISO Revenue Meter. All output from the Project per the terms of this Agreement must be delivered through a single CAISO revenue meter and that meter must be dedicated exclusively to the Project described herein. All Product purchased under this Agreement must be measured by the Project's CAISO revenue meter to be eligible for payment under this Agreement. Seller shall bear all costs relating to all metering equipment reasonably necessary to accommodate the Project. In addition, Seller hereby agrees to provide all meter data to Buyer in a form acceptable to Buyer, and consents to Buyer obtaining from the CAISO the CAISO meter data applicable to the Project and all inspection, testing and calibration data and reports. Seller shall grant Buyer the right to retrieve the meter reads from the CAISO meter reporting website and/or directly from the CAISO meter(s) at the Project site. If the CAISO makes any adjustment to any CAISO meter data for a given time period, Seller agrees that it shall submit revised monthly invoices, pursuant to Section 6.2, covering the entire applicable time period in order to conform fully such adjustments to the meter data. Seller shall submit any such revised invoice no later than thirty (30) days from the date on which the CAISO provides to Seller such binding adjustment to the meter data.

(i) Testing and Calibration. Seller shall perform or cause to be performed, at its expense, annual testing and calibration of the electric meters in accordance with Good Industry Practice and the CAISO Tariff. Seller shall give Buyer reasonable advance notice of any inspection, testing or calibration of the electric meters. Buyer shall have the right to have a representative or designee present at such inspection, test or calibration of the electric meters. Buyer shall have the right to require, at Buyer's expense, except as required below, a test of any of the electric meters not more often than two (2) times every twelve (12) months.

(ii) Inaccurate Meters. If any of the electric meters is deemed to be inaccurate under the Meter Service Agreement, deliveries shall be measured by reference to Seller's check-meters, if any are installed and registering accurately, or the meter readings for the period of inaccuracy shall be adjusted as far as can be reasonably ascertained by Seller from the best available data, subject to review and approval by Buyer. If the period of the inaccuracy cannot be ascertained reasonably, any such adjustment shall be for a period equal to one-half of the time elapsed since the preceding test by applying the percentage of inaccuracy so found. Seller shall promptly cause such electric meters to be corrected and, where such inaccuracy was determined pursuant to a test required by Buyer, Seller shall bear the expense of any such test.

(iii) Delivered MWh Adjustments. In the event that, due to correction for inaccurate electric meters deemed to be inaccurate under the Meter Service Agreement, the Delivered Energy is increased or decreased, the revised Delivered Energy shall be used for purposes of calculating payments. If any of such amounts for any period have already been calculated using the previous amount of Delivered Energy, they shall be recalculated using the revised amount of Delivered Energy. If the recalculation changes the amount payable for the period in question, revised payments shall be made by Buyer or Seller, as applicable, in accordance with Section 6.2.

(b) Real Time Telemetry. Seller shall install, activate and maintain metering, communication and telemetry equipment for the Project in a centralized system to which Buyer shall have real time access. Seller shall link its system to Buyer via an approved Buyer communication network, utilizing existing industry standard network protocol, as reasonably approved by Buyer. Seller shall correct any problems with such equipment as soon as practicable.

(c) ***[The following section is for As-Available Intermittent Products only]*** Meteorological Station. Seller, at its own expense, shall install and maintain such stand-alone meteorological stations at the Project as may be required under the VER Forecasting Program and the CAISO Tariff to monitor and report weather data to both the CAISO and Buyer's weather station data collection system. Each station shall be equipped with instruments and equipment that meet the specifications of the VER Forecasting Program and shall measure, collect, record, format, and communicate the data required under the VER Forecasting Program. Seller shall submit to Buyer for review and approval, which shall not be unreasonably withheld, its technical specifications for the meteorological station along with a site plan showing the location of the station within the Project. Seller shall correct any problems with such equipment as soon as practicable.

### 3.7 Outage Notification.

(a) Planned Outages. Seller shall schedule Planned Outages for the Project in accordance with Good Industry Practices and with the prior written consent of Buyer, which consent may not be unreasonably withheld or conditioned. The Parties acknowledge that in all circumstances, Good Industry Practices shall dictate when Planned Outages should occur. Seller shall notify Buyer of its proposed Planned Outage schedule for the Project for the following calendar year by submitting a written Planned Outage schedule no later than October 1<sup>st</sup> of each year during the Delivery Term. The Planned Outage schedule is subject to Buyer's approval,

which approval may not be unreasonably withheld or conditioned. Buyer shall promptly respond with its approval or with reasonable modifications to the Planned Outage schedule and Seller shall use its best efforts in accordance with Good Industry Practices to accommodate Buyer's requested modifications. Notwithstanding the submission of the Planned Outage schedule described above, Seller shall also submit a completed Outage Notification Form to Buyer no later than fourteen (14) days prior to each Planned Outage and all appropriate outage information or requests to the CAISO in accordance with the CAISO Tariff. Seller shall contact Buyer with any requested changes to the Planned Outage schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next scheduled Planned Outage consistent with Good Industry Practices. Seller shall not change its Planned Outage schedule without Buyer's approval, not to be unreasonably withheld or conditioned. Seller shall use its best efforts in accordance with Good Industry Practices not to schedule Planned Outages during the months of July, August, September and October. At Buyer's request, Seller shall use commercially reasonable efforts to reschedule Planned Outage so that it may deliver Product during CAISO declared or threatened emergency periods. Seller shall not substitute Energy from any other source for the output of the Project during a Planned Outage.

(b) Forced Outages. Within *[When Seller is the SC for the Project: Within two hours of any Forced Outage,]* *[When SDG&E is the SC for the Project: Within one-half of the notification time prescribed under the CAISO Tariff for Forced Outages,]* Seller shall submit a completed Outage Notification Form to the Buyer in accordance with the instructions shown on the form and shall submit outage information to the CAISO in accordance with the CAISO Tariff *[When SDG&E is the SC for the Project: and Section 3.3(b)(ii) above]*. Seller shall not substitute Energy from any other source for the output of the Project during a Forced Outage.

(c) Coordination with CAISO. Seller shall be responsible *[When SDG&E is SC for the Project: in accordance with Section 3.3(b)(ii)]* for all outage coordination communications with the CAISO. Buyer shall cooperate with Seller in arranging and coordinating all Project outages with the CAISO.

### 3.8 Operations Logs and Access Rights.

(a) Operations Logs. Seller shall maintain a complete and accurate log of all material operations and maintenance information on a daily basis. Such log shall include, but not be limited to, information on power production, fuel consumption, efficiency, availability, maintenance performed, outages, results of inspections, manufacturer recommended services, replacements, electrical characteristics of the generators, control settings or adjustments of equipment and protective devices. Seller shall maintain this information for at least two (2) years and shall provide this information electronically to Buyer within one day of Buyer's request.

(b) Access Rights. Buyer, its authorized agents, employees and inspectors shall have the right of ingress to and egress from the Project during normal business hours upon reasonable advance Notice and for any purposes reasonably connected with this Agreement.

### 3.9 New Generation Facility.

(a) Project Development. Seller, at no cost to Buyer, shall:

(i) Design and construct the Project.

(ii) Perform all studies, pay all fees, obtain all necessary approvals and execute all necessary agreements with the CAISO and the Participating Transmission Owner for the Electrical Interconnection Upgrades to Schedule and deliver the Product from the Project [*For Projects Providing Resource Adequacy*: under “Full Capacity Deliverability Status” (as defined in the CAISO Tariff)]. Following satisfaction or waiver of the Conditions Precedent set forth in Section 2.3(b), Seller shall not request from the CAISO or the Participating Transmission Owner any changes to its plan of interconnection that are inconsistent with the plan of interconnection that was evaluated in connection with the satisfaction or waiver of the Conditions Precedent in Section 2.3(b) without Buyer’s prior written consent.

(iii) Acquire all Governmental Approvals and other approvals necessary for the construction, operation, and maintenance of the Project.

(iv) Complete all environmental impact studies necessary for the construction, operation, and maintenance of the Project, including all environmental analysis required under the California Environmental Quality Act for the Project and related interconnection facilities.

(v) At Buyer’s request, provide to Buyer Seller’s electrical specifications and design drawings pertaining to the Project.

(vi) Within fifteen (15) days after the close of each calendar quarter following the Execution Date until the Commercial Operation Date, provide to Buyer a Quarterly Progress Report and agree to regularly scheduled meetings between representatives of Buyer and Seller to review such reports and discuss Seller’s construction progress. The Quarterly Progress Report shall identify the Milestones and indicate whether Seller has met or is on target to meet such Milestones.

(vii) Provide access to Buyer, its authorized agents, employees and inspectors for purpose of inspecting the Project’s construction site or on-site Seller data and information pertaining to the Project during normal business hours upon reasonable advance Notice.

(viii) At Buyer’s request, provide information to Buyer relating to Seller’s or Seller’s contractor’s use, during Project construction, of “Women-Owned Businesses” or “Minority-Owned Businesses” or “Disabled Veteran Business Enterprises” as defined in CPUC General Order 156, and the number of new employees hired by Seller or Seller’s contractors and the number of women, minority, and disabled veterans trained or hired by Seller or Seller’s contractor’s as contemplated under Cal. Public Utilities Code §910(a)(8), as each such group of entities and individuals may be amended from time to time or further defined, supplemented, or superseded by applicable Law or replaced with similar designations or certifications. [*Include other covenants related to “women-owned business” or “minority-owned business” as may be applicable to the Seller’s RFO bid.*]

(b) Construction Milestones.

(i) The Parties agree time is of the essence in regards to this Agreement. As such, the Parties also agree certain milestones for the construction of the Project as set forth in the Milestone schedule attached hereto as Exhibit B (“Milestones”) must be achieved in a timely fashion or Buyer will suffer damages.

(ii) Within seven (7) days after completion of each Milestone, Seller shall provide Buyer with Notice along with accompanying documentation (including reasonably redacted copies of applicable agreements, Governmental Approvals, and certificates) to reasonably demonstrate the achievement of such Milestone. If Seller misses the deadline date for three (3) or more Milestones or misses the deadline date for any one Milestone by more than ninety (90) days, Seller shall submit to Buyer, within ten (10) Business Days of such missed Milestone completion date, a remedial action plan (“Remedial Action Plan”) that describes in detail a reasonable course of action and plan (including accelerating the work, for example, by using additional shifts, overtime, additional crews or resequencing of the work, as applicable) to achieve the missed Milestones and all subsequent Milestones no later than the end of the Project Cure Period; provided, that delivery of any Remedial Action Plan shall not relieve Seller of its obligation to meet any subsequent Milestones and the Guaranteed Commercial Operation Date.

(c) Daily Delay Damages.

(i) COD. Seller shall cause the Project to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date; provided, however, that the Commercial Operation Date shall not occur more than one hundred eighty (180) days prior to the Guaranteed Commercial Operation Date. If the Commercial Operation Date occurs after the Guaranteed Commercial Operation Date, Seller shall pay to Buyer liquidated damages equal to Daily Delay Damages for each day or portion of a day that the Commercial Operation Date occurs after the Guaranteed Commercial Operation Date for up to a total of [\_\_\_\_\_] days (“Project Cure Period”). In addition, Seller shall submit a Remedial Action Plan within ten (10) days after the Guaranteed Commercial Operation Date if the Project has not then achieved the Commercial Operation Date. Each Party agrees and acknowledges that (a) the actual damages that Buyer would incur due to a delay in achieving the Commercial Operation Date on or before the Guaranteed Commercial Operation Date would be difficult or impossible to predict with certainty, (b) the Daily Delay Damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the Daily Delay Damages set forth in this section are the exclusive remedy for Seller’s delay in achieving the Commercial Operation Date for the length of the Project Cure Period but shall not otherwise act to limit any of Buyer’s rights or remedies arising from any other Event of Default by Seller, including, without limitation, the failure by Seller to achieve the Commercial Operation Date altogether.

(ii) Extensions. The Guaranteed Commercial Operation Date and the deadline dates for Milestone numbers [\_\_\_\_\_] as set forth in Exhibit B shall be extended on a day for day basis for up to ninety (90) calendar days in the aggregate (“Force Majeure Extension Period”) without imposition of any Daily Delay Damages to the extent Seller is actually and demonstrably delayed in its critical path to achieving the Commercial Operation Date by the Guaranteed Commercial Operation Date as a result of Force Majeure; provided,

however, any such delay in excess of this period shall be subject to Daily Delay Damages pursuant to Section 3.9(c)(i).

3.10 Operating Procedures. No later than forty-five (45) days before the Commercial Operation Date, and from time to time as reasonably determined necessary by the Parties, the Parties shall meet to address how each Party will perform its respective obligations under this Agreement, including, but not limited to: (1) the method of day-to-day communications; (2) key personnel lists for each Party; (3) procedures for Forced Outage and Planned Outage reporting; (4) procedures for delivery forecasting; (5) procedures for record keeping; (6) Scheduling procedures; and (7) invoicing and payment procedures; provided, that the failure to agree on these operating procedures will not relieve the Parties of their respective obligations under this Agreement, and any failure to agree shall be resolved in accordance with the dispute resolution procedures in Article 12.

**ARTICLE FOUR: COMPENSATION; MONTHLY PAYMENTS**

4.1 *[For Dispatchable Product Only: Capacity Payment.*

(a) Capacity Price.

<b>Contract Year</b>	<b>Capacity Price (\$/KW)</b>
1	

(b) Monthly Capacity Payment. For each month, Buyer shall pay Seller for the Product the amount calculated as follows (“Monthly Capacity Payment”):

$$MCP = CC \times CP \times SF \times AAF$$

Where:

*MCP* is the Monthly Capacity Payment expressed in Dollars for such month of the Delivery Term.

*CC* is the Contract Capacity, expressed in kW, rounded to the nearest 100 kW.

*CP* is the Capacity Price expressed in Dollars per kW-year, for the applicable month.

*SF* is the Monthly Shaping Factor for the applicable month, as set forth in the following table:

Month	Monthly Shaping Factor (%)
January	6.7
February	5.0
March	5.0
April	5.8
May	6.3
June	8.3
July	15.8
August	17.5
September	11.7
October	5.8
November	5.8
December	6.3

*AAF* is the Availability Adjustment Factor for each month, expressed as a three-place decimal and determined as follows:

- (a) If the Equivalent Availability Factor (“EAF”) for the month is less than or equal to 0.980, then the AAF equals EAF / 0.98.
- (b) If the EAF for the month is greater than 0.980 but less than 0.990, then the AAF equals 1.0.
- (c) If the EAF for the month is greater than or equal to 0.990, then the AAF equals EAF / 0.99.

EAF is the Equivalent Availability Factor for each month determined as follows:

$$EAF = (PH - (EDH - EEDH)) / PH$$

Where:

*PH* is the number of period hours;

*EDH* is the number of equivalent derate hours calculated as the sum, for each derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the Contract Capacity divided by the Contract Capacity for the month. For the purposes of this calculation, a derate includes all outages for any reason, including without limitation, Forced Outages, Force Majeure events, Dispatch Down Periods, Planned Outages, Buyer’s failure to perform, and other times when any



portion of the Contract Capacity is not available and when the Delivered Energy of the Project is less than the amount of Energy dispatched by Buyer; and

*EEDH* is the number of equivalent excused derate hours solely due to either Dispatch Down Periods or Buyer’s failure to perform (and for no other reason), calculated as the sum, for each excused derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the Contract Capacity, divided by the Contract Capacity for the month.

4.2 Energy Payment.

(a) Energy Price. The price for the Bundled Green Energy that is delivered to Buyer in each Contract Year shall be as follows (“Energy Price”):

<b>Contract Year</b>	<b>Energy Price (\$/MWh)</b>

provided, however, that:

(i) if Seller delivers Bundled Green Energy in the aggregate for any hour in excess of one hundred ten percent (110%) of the product of the Contract Capacity times one hour, then the Energy Price for such excess Bundled Green Energy in such hour shall be reduced to zero dollars (\$0);

(ii) if Seller delivers Bundled Green Energy in the aggregate for any Contract Year during the Delivery Term in excess of one hundred fifteen percent (115%) of the annual Contract Quantity, then the Energy Price for such excess Bundled Green Energy for the remainder of that Contract Year shall be reduced to seventy five percent (75%) of the applicable Energy Price (except for any hour in which the Energy Price is reduced by clause (i) above);

(iii) if Seller delivers Bundled Green Energy in the aggregate for any TOD Period during the Delivery Term in excess of one hundred fifteen percent (115%) of the TOD Delivery Cap listed in the table below for that TOD Period (“TOD Delivery Cap”), then the Energy Price for such excess Bundled Green Energy in such TOD Period shall be reduced to seventy five percent (75%) of the applicable Energy Price (except for any hour in which the Energy Price is reduced by clause (i) or (ii) above):

TOD Period	TOD Delivery Cap
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Winter On-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Winter Semi-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Winter Off-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Summer On-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Summer Semi-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Summer Off-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]

(b) ***[For TOD Pricing Only: TOD Factors and TOD Periods.*** In accordance with all other terms of this Article 4, the Energy Price shall be adjusted by the following Time of

Delivery Factors (“TOD Factors”) for each of the specified Time of Delivery Periods (“TOD Periods”) in which Energy is delivered:]

**[For Projects Providing Local Resource Adequacy:**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	1.347
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	0.726
Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	0.717
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	3.077
Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	1.048
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	0.937

**[For Projects Providing System Resource Adequacy:**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	1.097
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	0.847
Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	0.833
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	2.436

Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	0.907
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	0.978

**[For Projects Providing Resource Adequacy in Imperial Valley:**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	1.302
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	0.791
Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	0.781
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	2.517
Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	1.019
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	0.977

**[For Projects Not Providing Resource Adequacy:**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	1.206
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	0.930

Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	0.915
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	1.330
Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	0.959
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	1.062

(c) Monthly Energy Payment. For each month, Buyer shall pay Seller for the Product an amount equal to the sum for each hour in the month of the product of the Energy Price [*For TOD Pricing Only:* times the TOD Factor for the applicable TOD Period] times the Bundled Green Energy in each hour (“Monthly Energy Payment”).

$$\text{Monthly Energy Payment} = \sum \text{Energy Price} \times [\textit{For TOD Pricing Only: TOD Factor} \times] \text{Bundled Green Energy}$$

4.3 Imbalance Energy. Seller shall use commercially reasonable efforts to deliver Energy in accordance with the Scheduled Energy. Buyer and Seller recognize that from time to time the amount of Delivered Energy will deviate from the amount of Scheduled Energy. When Delivered Energy minus Scheduled Energy is a positive amount, it shall be considered “Positive Imbalance Energy;” when Delivered Energy minus Scheduled Energy is a negative amount, the absolute (i.e., positive) value of that amount shall be considered the “Negative Imbalance Energy.” [*When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program:* Seller shall be responsible for settlement of Imbalance Energy with the CAISO and all fees, liabilities, assessments, or similar charges assessed by the CAISO in connection with Imbalance Energy.] Buyer and Seller shall cooperate to minimize charges and imbalances associated with Imbalance Energy to the extent possible. Seller shall promptly notify Buyer as soon as possible of any material imbalance that is occurring or has occurred. [*When SDG&E is SC for the Project and Project is in the VER Forecasting Program:* Buyer shall receive all Green Attributes for the Positive Imbalance Energy in all settlement intervals.]

*[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program, include the following two paragraphs:*

(a) Positive Imbalance Energy (Over Deliveries). In the event that Delivered Energy for any CAISO settlement interval is equal to or greater than Scheduled Energy for such CAISO settlement interval, Buyer shall have no payment obligation in respect of the Positive Imbalance Energy. Buyer shall receive all Green Attributes for the Positive Imbalance Energy in such CAISO settlement interval regardless as to whether it was sold into the CAISO. Seller shall

be entitled to all payments or credits from the CAISO to Seller's SC and Seller shall make all payments to the CAISO in respect of the Positive Imbalance Energy.

(b) Negative Imbalance Energy (Under Deliveries). In the event that Delivered Energy for any CAISO settlement interval is less than Scheduled Energy for such CAISO settlement interval, Buyer shall have no payment obligation in respect of the Negative Imbalance Energy. Seller shall make all payments to the CAISO and Seller shall be entitled to all payments or credits from the CAISO to Seller's SC in respect of the Negative Imbalance Energy required under the CAISO Tariff.]

4.4 Additional Compensation. To the extent not otherwise provided for in this Agreement, in the event that Seller is compensated by a third party for any Product produced by the Project, including, but not limited to, compensation for Resource Adequacy or Green Attributes, Seller shall remit all such compensation directly to Buyer; provided that for avoidance of doubt, nothing herein precludes Seller from retaining credits related to transmission upgrades funded by Seller.

4.5 Energy Sales Prior to Commercial Operation Date. *[Seller may propose provisions for the sale to Buyer of energy prior to the Commercial Operation Date at a negotiated percentage of the Monthly Energy Payment]*

#### ARTICLE FIVE: EVENTS OF DEFAULT; FORCE MAJEURE

5.1 Events of Default. An "Event of Default" shall mean,

(a) with respect to a Party that is subject to the Event of Default the occurrence of any of the following:

(i) the failure by such Party to make, when due, any payment required pursuant to this Agreement and such failure is not remedied within five (5) Business Days after Notice thereof;

(ii) 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, and such default is not remedied within thirty (30) days after Notice thereof;

(iii) the failure by such Party 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 Schedule, deliver, or receive the Product, the exclusive remedy for which is provided in Section 3.1(h)) and such failure is not remedied within thirty (30) days after Notice thereof;

(iv) such Party becomes Bankrupt;

(v) such Party assigns this Agreement or any of its rights hereunder other than in compliance with Section 13.2; or

(vi) 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 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.

(b) with respect to Seller as the Defaulting Party, the occurrence of any of the following:

(i) if at any time, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement Energy that was not generated by the Project *[If the Project is located outside of the CAISO: other than Imbalance Energy from the Transmission Provider];*

(ii) the failure by Seller to achieve the Commercial Operation Date no later than the end of the Project Cure Period;

(iii) *[For Baseload, Peaking, Dispatchable Product: the Contract Capacity at the Commercial Operation Date* or at any other time pursuant to a Capacity Test *is less than [ ] MW and such default is not remedied within thirty (30) days after Notice thereof;]*

(iv) *[For Baseload, Peaking, As-Available Product: the failure by Seller to achieve the Guaranteed Energy Production requirement during any Performance Measurement Period as set forth in Section 3.1(e) of this Agreement] [For Dispatchable Product: the Default Availability Factor of the Project is less than [ ] percent for any rolling twelve (12) consecutive calendar month period];*

(v) the failure by Seller to deliver a Remedial Action Plan that reasonably demonstrates in detail how Seller will achieve the Commercial Operation Date within the Project Cure Period, if such failure is not remedied within ten (10) days after Notice;

(vi) failure by Seller to satisfy the collateral requirements pursuant to Sections 8.3 or 8.4 of this Agreement;

(vii) with respect to any Guaranty provided for the benefit of Buyer, the failure by Seller to provide for the benefit of Buyer either (1) cash, (2) a replacement Guaranty from a different Guarantor meeting the criteria set forth in the definition of Guarantor, or (3) a replacement Letter of Credit from an issuer meeting the criteria set forth in the definition of Letter of Credit, in each case, in the amount required hereunder within five (5) Business Days after Seller receives Notice of the occurrence of any of the following events:

(A) if any representation or warranty made by the Guarantor in connection with this Agreement is false or misleading in any material respect when made or when deemed made or repeated, and such default is not remedied within thirty (30) days after Notice thereof;

(B) the failure of the Guarantor to make any payment required or to perform any other material covenant or obligation in any Guaranty;

(C) the Guarantor becomes Bankrupt;

(D) the Guarantor shall fail to meet the criteria for an acceptable Guarantor as set forth in the definition of Guarantor;

(E) the failure of the Guaranty to be in full force and effect (other than in accordance with its terms) prior to the indefeasible satisfaction of all obligations of Seller hereunder; or

(F) the Guarantor shall repudiate, disaffirm, disclaim, or reject, in whole or in part, or challenge the validity of any Guaranty; or

(viii) with respect to any outstanding Letter of Credit provided for the benefit of Buyer that is not then required under this Agreement to be canceled or returned, the failure by Seller to provide for the benefit of Buyer either (1) cash, or (2) a substitute Letter of Credit from a different issuer meeting the criteria set forth in the definition of Letter of Credit, in each case, in the amount required hereunder within five (5) Business Days after Seller receives Notice of the occurrence of any of the following events:

(A) the issuer of the outstanding Letter of Credit shall fail to maintain a Credit Rating of at least "A-" by S&P or "A3" by Moody's;

(B) the issuer of such Letter of Credit becomes Bankrupt;

(C) the issuer of the outstanding Letter of Credit shall fail to comply with or perform its obligations under such Letter of Credit and such failure shall be continuing after the lapse of any applicable grace period permitted under such Letter of Credit;

(D) the issuer of the outstanding Letter of Credit shall fail to honor a properly documented request to draw on such Letter of Credit;

(E) the issuer of the outstanding Letter of Credit shall disaffirm, disclaim, repudiate or reject, in whole or in part, or challenge the validity of, such Letter of Credit;

(F) such Letter of Credit fails or ceases to be in full force and effect at any time; or

(G) Seller shall fail to renew or cause the renewal of each outstanding Letter of Credit on a timely basis as provided in the relevant Letter of Credit and as provided in accordance with this Agreement, and in no event less than sixty (60) days prior to the expiration of the outstanding Letter of Credit.



**5.2 Remedies; Declaration of Early Termination Date.** 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 (a) to send Notice, designating a day, no earlier than the day such Notice is deemed to be received and no later than twenty (20) days after such Notice is deemed to be received, as an early termination date of this Agreement (“Early Termination Date”) that terminates this Agreement and ends the Delivery Term effective as of the Early Termination Date, to accelerate all amounts owing between the Parties, and to collect liquidated damages calculated in accordance with Section 5.3 below (“Termination Payment”); (b) to withhold any payments due to the Defaulting Party under this Agreement; (c) to suspend performance; and (d) to exercise any other right or remedy available at law or in equity, including specific performance or injunctive relief, except to the extent such remedies are expressly limited under this Agreement.

**5.3 Termination Payment.** The Termination Payment for a Terminated Transaction shall be the aggregate of all Settlement Amounts plus any or all other amounts due to the Non-Defaulting Party netted into a single amount. Except in the case of a termination of this Agreement by the Non-Defaulting Party solely as a result of an Event of Default by the Defaulting Party under Section 5.1(a)(iv) [Bankruptcy], 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. The Non-Defaulting Party shall calculate, in a commercially reasonable manner, a Settlement Amount for the 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 vendors and other sources of market information. The Settlement Amount shall not include consequential, incidental, punitive, exemplary, indirect or business interruption damages; provided, however, that any lost Capacity Attributes and Green Attributes shall be deemed direct damages covered by this Agreement. Without prejudice to the Non-Defaulting Party’s duty to mitigate, the Non-Defaulting Party shall not have to enter into replacement transactions to establish a Settlement Amount. Each Party agrees and acknowledges that (a) the actual damages that the Non-Defaulting Party would incur in connection with a Terminated Transaction would be difficult or impossible to predict with certainty, (b) the Termination Payment described in this section is a reasonable and appropriate approximation of such damages, and (c) the Termination Payment described in this section is the exclusive remedy of the Non-Defaulting Party in connection with a Terminated Transaction but shall not otherwise act to limit any of the Non-Defaulting Party’s rights or remedies if the Non-Defaulting Party does not elect a Terminated Transaction as its remedy for an Event of Default by the Defaulting Party.

**5.4 Notice of Payment of Termination Payment.** As soon as practicable after a Terminated Transaction, 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 ten (10) Business Days after such Notice is effective.

5.5 Disputes With Respect to Termination Payment. If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Termination Payment, in whole or in part, the Defaulting Party shall, within five (5) Business Days of receipt of the Non-Defaulting Party's calculation of the Termination Payment, provide to the Non-Defaulting Party a detailed written explanation of the basis for such dispute. Disputes regarding the Termination Payment shall be determined in accordance with Article 12.

5.6 Rights And Remedies Are Cumulative. Except where liquidated damages are provided as the exclusive remedy, the rights and remedies of a Party pursuant to this Article 5 shall be cumulative and in addition to the rights of the Parties otherwise provided in this Agreement.

5.7 Mitigation. Any Non-Defaulting Party shall be obligated to mitigate its Costs, losses and damages resulting from any Event of Default of the other Party under this Agreement.

5.8 Force Majeure. To the extent either Party is prevented by Force Majeure from carrying out, in whole or part, its obligations under this Agreement and such Party gives Notice and details of the Force Majeure to the other Party as detailed below, then, the Party impacted by Force Majeure shall be excused from the performance of its obligations to the extent impacted. Within forty-eight (48) hours of commencement of an event of Force Majeure, the non-performing Party shall provide the other Party with oral notice of the event of Force Majeure, and within two (2) weeks of the commencement of an event of Force Majeure the non-performing Party shall provide the other Party with Notice in the form of a letter describing in detail the particulars of the occurrence giving rise to the Force Majeure claim. Seller shall not substitute Product from any other source for the output of the Project during an outage resulting from Force Majeure. The suspension of performance due to a claim of Force Majeure must be of no greater scope and of no longer duration than is required by the Force Majeure. Buyer shall not be required to make any payments for any Product that Seller fails to Schedule, deliver or provide as a result of Force Majeure during the term of a Force Majeure. This Agreement may be terminated by the non-claiming Party with no further obligation to the Force-Majeure-claiming Party if a Force Majeure event prevents the performance of a material portion of the obligations of the Force-Majeure-claiming Party hereunder and such Force Majeure event is not resolved within eight (8) months after the commencement of such Force Majeure event. In addition to the foregoing, prior to the Commercial Operation Date, this Agreement may be terminated by Buyer with no further obligation to Seller if one or more Force Majeure events prevents Seller from achieving the Commercial Operation Date by the end of the Force Majeure Extension Period; provided, however, that Buyer shall not have the right under this section to terminate this Agreement until the expiration of the Project Cure Period if Seller is paying delay liquidated damages to Buyer as required under Section 3.9(c)(i) during such Project Cure Period (it being acknowledged, that Seller may elect to pay Daily Delay Damages during periods of Force Majeure up to the expiration of any remaining unclaimed portion of the Project Cure Period in lieu of claiming Force Majeure relief hereunder).

## **ARTICLE SIX: PAYMENT**

6.1 Billing and Payment. On or about the tenth (10<sup>th</sup>) day of each month beginning with the second month of the first Contract Year and every month thereafter, and continuing

through and including the first month following the end of the Delivery Term, Seller shall provide to Buyer (a) records of metered data, including CAISO metering and transaction data sufficient to document and verify the generation of Product by the Project for any CAISO settlement time interval during the preceding months, (b) access to any records, including invoices or settlement data from CAISO, necessary to verify the invoice; and (c) an invoice, in a format reasonably specified by Buyer, covering the services provided in the preceding month determined in accordance with Article 4 (which may include preceding months), with all component charges and unit prices identified and all calculations used to arrive at invoiced amounts described in reasonable detail. Buyer shall pay the undisputed amount of such invoices on or before thirty (30) days after receipt of the invoice. If either the invoice date or payment date is not a Business Day, then such invoice or payment shall be provided on the next following Business Day. Each Party will make payments by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by the other Party. Any undisputed amounts not paid by the due date will be deemed delinquent and will accrue interest at the Default Rate, such interest to be calculated from and including the due date to but excluding the date the delinquent amount is paid in full. Invoices may be sent by facsimile or e-mail.

6.2 Disputes and Adjustments of Invoices. A Party may, in good faith, dispute the correctness of any invoice or any adjustment to an invoice, rendered under this Agreement or adjust any invoice for any arithmetic or computational error within twelve (12) months of the date the invoice, or adjustment to an invoice, was rendered. In the event an invoice or portion thereof, or any other claim or adjustment arising hereunder, is disputed, payment of the undisputed portion of the invoice shall be required to be made when due. Any invoice dispute or invoice adjustment shall be in writing and shall state the basis for the dispute or adjustment. Payment of the disputed amount shall not be required until the dispute is resolved. Upon resolution of the dispute, any required payment shall be made within two (2) Business Days of such resolution along with interest accrued at the Default Rate from and including the original due date to but excluding the date paid. Inadvertent overpayments shall be returned upon request or deducted by the Party receiving such overpayment from subsequent payments, with interest accrued at the Interest Rate from and including the date of such overpayment to but excluding the date repaid or deducted by the Party receiving such overpayment. Any dispute with respect to an invoice is waived if the other Party is not notified in accordance with this Section 6.2 within twelve (12) months after the invoice is rendered or subsequently adjusted, except to the extent any misinformation was from a third party not Affiliated with any Party and such third party corrects its information after the twelve-month period. If an invoice is not rendered within twelve (12) months after the close of the month during which performance occurred, the right to payment for such performance is waived.

6.3 Netting of Payments. The Parties hereby agree that they shall discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts owed by each Party to the other Party for the purchase and sale of Product during the monthly billing period under this Agreement, including any related damages calculated pursuant to Section 3.1(h), interest, and payments or credits, shall be netted so that only the excess amount remaining due shall be paid by the Party who owes it.

## ARTICLE SEVEN: LIMITATIONS

7.1 Limitation of Remedies, Liability and Damages. EXCEPT AS SET FORTH HEREIN, THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY AND ALL IMPLIED WARRANTIES ARE DISCLAIMED. THE PARTIES CONFIRM THAT THE EXPRESS REMEDIES AND MEASURES OF DAMAGES PROVIDED IN THIS AGREEMENT SATISFY THE ESSENTIAL PURPOSES HEREOF. FOR BREACH OF ANY PROVISION FOR WHICH AN EXPRESS REMEDY OR MEASURE OF DAMAGES IS PROVIDED, SUCH EXPRESS REMEDY OR MEASURE OF DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY, THE OBLIGOR'S LIABILITY SHALL BE LIMITED AS SET FORTH IN SUCH PROVISION AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED, UNLESS THE PROVISION IN QUESTION PROVIDES THAT THE EXPRESS REMEDIES ARE IN ADDITION TO OTHER REMEDIES THAT MAY BE AVAILABLE. EXCEPT FOR A PARTY'S INDEMNITY OBLIGATION IN RESPECT OF THIRD PARTY CLAIMS OR AS OTHERWISE EXPRESSLY HEREIN PROVIDED, NEITHER PARTY SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT, UNDER ANY INDEMNITY PROVISION OR OTHERWISE. UNLESS EXPRESSLY HEREIN PROVIDED, AND SUBJECT TO THE PROVISIONS OF SECTION 11.2 (INDEMNITIES), IT IS THE INTENT OF THE PARTIES THAT THE LIMITATIONS HEREIN IMPOSED ON REMEDIES AND THE MEASURE OF DAMAGES BE WITHOUT REGARD TO THE CAUSE OR CAUSES RELATED THERETO, INCLUDING THE NEGLIGENCE OF ANY PARTY, WHETHER SUCH NEGLIGENCE BE SOLE, JOINT OR CONCURRENT, OR ACTIVE OR PASSIVE. TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, THE PARTIES ACKNOWLEDGE THAT THE DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE, OR OTHERWISE OBTAINING AN ADEQUATE REMEDY IS INCONVENIENT AND THE DAMAGES CALCULATED HEREUNDER CONSTITUTE A REASONABLE APPROXIMATION OF THE HARM OR LOSS.

## ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS

8.1 Buyer Financial Information. If requested by Seller, Buyer shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Buyer's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Buyer'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 Buyer diligently pursues the preparation, certification and delivery of the statements. Buyer shall be deemed to have satisfied such delivery requirement if the applicable report is publicly available.

8.2 Seller Financial Information. Seller shall provide the following financial information:

(a) If requested by Buyer, Seller shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Seller's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Seller'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 Seller diligently pursues the preparation, certification and delivery of the statements.

(b) *[If a Guaranty may be provided:* If a Guaranty is provided and if requested by Buyer, Seller shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Guarantor's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Guarantor's quarterly report containing unaudited consolidated financial statements for such fiscal quarter certified by an officer of Guarantor. 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 Guarantor diligently pursues the preparation, certification and delivery of the statements. Seller shall be deemed to have satisfied such delivery requirement if the applicable report is publicly available.]

8.3 Grant of Security Interest/Remedies. To secure its obligations under this Agreement and to the extent Seller delivers Performance Assurance hereunder, Seller hereby grants to Buyer a present and continuing first priority security interest in, and lien on (and right of setoff against), and assignment of, all cash collateral and cash equivalent collateral and any and all proceeds resulting therefrom or the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of, Buyer, and each Party agrees to take such action as the other Party reasonably requires in order to perfect the Buyer's first-priority security interest in, and lien on (and right of setoff against), such collateral and any and all proceeds resulting therefrom or from the liquidation thereof. Upon or any time after the occurrence and during the continuation of an Event of Default by Seller or an Early Termination Date as a result thereof, Buyer may do any one or more of the following: (i) exercise any of the rights and remedies of a secured party with respect to all Performance Assurance, including any such rights and remedies under Law then in effect; (ii) exercise its rights of setoff against such collateral and any and all proceeds resulting therefrom or from the liquidation thereof; (iii) draw on any outstanding Letter of Credit issued for its benefit; and (iv) liquidate all or any portion of any Performance Assurance then held by or for the benefit of Buyer free from any claim or right of any nature whatsoever of Seller, including any equity or right of purchase or redemption by Seller. Buyer shall apply the proceeds of the collateral realized upon the exercise of any such rights or remedies to reduce the Seller's obligations under the Agreement (Seller remaining liable for any amounts owing to Buyer after such application), subject to Buyer's obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

#### 8.4 Performance Assurance.

(a) ***[For Agreements with Delivery Terms greater than two years: CPUC Approval Security,] Development Period Security, Construction Period Security, Delivery Term Security.*** To secure its obligations under this Agreement Seller agrees to deliver to Buyer and maintain in full force and effect for the period set forth below, the following Performance Assurance:

(i) ***[For Agreements with Delivery Terms greater than two years: CPUC Approval Security,*** in the amount of [\_\_\_\_\_] in the form of cash or a Letter of Credit [or a Guaranty] from the Execution Date of this Agreement until the return date specified in Section 8.4(b)(i) below;]

(ii) Development Period Security in the amount of [\_\_\_\_\_] in the form of cash or a Letter of Credit [or a Guaranty] from ***[For Agreements with Delivery Terms greater than two years: the CPUC Approval Date] [For all other Agreements: the Execution Date of this Agreement]*** until the return date specified in Section 8.4(b)[(i)/(ii)] below;

(iii) Construction Period Security in the amount of [\_\_\_\_\_] in the form of cash or a Letter of Credit [or a Guaranty] from the CP Satisfaction Date until the return date specified in Section 8.4(b)[(ii)/(iii)] below; and

(iv) Delivery Term Security in the amount of [\_\_\_\_\_] in the form of cash or a Letter of Credit [or a Guaranty] from the commencement of the Delivery Term until the return date specified in Section 8.4(b)[(iii)/(iv)] below.

Except as set forth in Section 2.2 as it pertains to ***[For Agreements with Delivery Terms greater than two years: the CPUC Approval Security and] the Development Period Security,*** any such Performance Assurance shall not be deemed a limitation of damages.

(b) Return of Performance Assurance.

(i) ***[For Agreements with Delivery Terms greater than two years:*** Buyer shall promptly return to Seller the unused portion of the CPUC Approval Security after the earlier of (A) the date on which Seller has delivered the Development Period Security or the Construction Period Security, as applicable, and (B) termination of the Agreement under Section 2.4(b)(ii).

(ii) Buyer shall promptly return to Seller the unused portion of the Development Period Security after the earlier of (A) the date on which Seller has delivered the Construction Period Security, and (B) termination of the Agreement under Section 2.4(b)(ii).

(iii) Buyer shall promptly return to Seller the unused portion of the Construction Period Security after the earlier of (A) the date on which Seller has delivered the Delivery Term Security, and (B) the date that all payment obligations of the Seller arising under this Agreement, including compensation for penalties, Termination Payment, indemnification payments or other damages are paid in full (whether directly or indirectly such as through set-off or netting) after an Early Termination Date.



(iv) Buyer shall promptly return to Seller the unused portion of the Delivery Term Security after the following have occurred: (A) the Delivery Term has expired or terminated early; and (B) all payment obligations of the Seller arising under this Agreement, including compensation for penalties, Termination Payment, indemnification payments or other damages are paid in full (whether directly or indirectly such as through set-off or netting).

8.5 Interest on Cash. If Seller provides Performance Assurance in the form of cash, Buyer shall pay interest on such cash held as [*For Agreements with Delivery Terms greater than two years:* CPUC Approval Security,] Development Period Security, Construction Period Security, or Delivery Term Security, as applicable, at the Interest Rate. On or before each Interest Payment Date, Buyer shall transfer the sum of all accrued and unpaid Interest Amounts due to Seller for such security in the form of cash by wire transfer to the bank account specified under “Wire Transfer” in the Cover Sheet.

8.6 Costs of Letter of Credit. If Seller provides Performance Assurance in the form of a Letter of Credit, in all cases, the reasonable costs and expenses of (including but not limited to the reasonable costs, expenses, and attorneys’ fees, including reasonably allocated costs of in-house counsel of the Buyer) establishing, renewing, substituting, canceling, increasing and reducing the amount of (as the case may be) one or more Letters of Credit shall be borne by the Seller.

#### **ARTICLE NINE: GOVERNMENTAL CHARGES**

9.1 Cooperation. Each Party shall use reasonable efforts to implement the provisions of and to administer this Agreement in accordance with the intent of the Parties to minimize all taxes, so long as neither Party is materially adversely affected by such efforts.

9.2 Governmental Charges. Seller shall pay or cause to be paid all taxes imposed by any governmental authority (“Governmental Charges”) on or with respect to the Product or the transaction under this Agreement arising prior to and at the Delivery Point, including, but not limited to, ad valorem taxes and other taxes attributable to the Project, land, land rights or interests in land for the Project. Buyer shall pay or cause to be paid all Governmental Charges on or with respect to the Product or the transaction under this Agreement from the Delivery Point. In the event Seller is required by Law or regulation to remit or pay Governmental Charges which are Buyer’s responsibility hereunder, Buyer shall promptly reimburse Seller for such Governmental Charges. If Buyer is required by Law or regulation to remit or pay Governmental Charges which are Seller’s responsibility hereunder, Buyer may deduct such amounts from payments to Seller with respect to payments under the Agreement; if Buyer elects not to deduct such amounts from Seller’s payments, Seller shall promptly reimburse Buyer for such amounts upon request. Nothing shall obligate or cause a Party to pay or be liable to pay any Governmental Charges for which it is exempt under the Law.

#### **ARTICLE TEN: REPRESENTATIONS AND WARRANTIES; COVENANTS**

10.1 General Representations and Warranties. On the Execution Date and the CP Satisfaction Date, each Party represents and warrants to the other Party that:

(a) it is duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation;

(b) it has all Governmental Approvals necessary for it to perform its obligations under this Agreement, except for as of the Execution Date (i) CPUC Approval in the case of Buyer, and (ii) all Governmental Approvals necessary to construct, operate and maintain the Project and related interconnection facilities in the case of Seller;

(c) the execution, delivery and performance of this Agreement is within its powers, have been duly authorized by all necessary action and do not violate any of the terms and conditions in its governing documents, any contracts to which it is a party or any applicable Law;

(d) this Agreement and each other document executed and delivered in accordance with this Agreement constitutes a legally valid and binding obligation enforceable against it in accordance with its terms, subject to any Equitable Defenses;

(e) it is not Bankrupt and there are no proceedings pending or being contemplated by it or, to its knowledge, threatened against it which would result in it being or becoming Bankrupt;

(f) except as may be set forth in its reports filed with the SEC, there is not pending or, to its knowledge, threatened against it or any of its Affiliates any legal proceedings that could materially adversely affect its ability to perform its obligations under this Agreement;

(g) no Event of Default with respect to it has occurred and is continuing and no such event or circumstance would occur as a result of its entering into or performing its obligations under this Agreement;

(h) it is acting for its own account, has made its own independent decision to enter into this Agreement and as to whether this Agreement is appropriate or proper for it based upon its own judgment, is not relying upon the advice or recommendations of the other Party in so doing, and is capable of assessing the merits of and understanding, and understands and accepts, the terms, conditions and risks of this Agreement; and

(i) it has entered into this Agreement in connection with the conduct of its business and it has the capacity or the ability to make or take delivery of the Product as provided in this Agreement.

## 10.2 Seller Representations and Warranties.

(a) 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 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.

(b) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the 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 CPUC Decision 08-08-028, and as may be modified by subsequent decision of the CPUC 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.

(c) *[Include other appropriate representations, warranties, and covenants to satisfy the California RPS content category requirements.]*

### 10.3 Covenants.

(a) General Covenants. Each Party covenants that throughout the Delivery Term:

(i) it shall continue to be duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation;

(ii) it shall maintain (or obtain from time to time as required, including through renewal, as applicable) all Governmental Approvals necessary for it to legally perform its obligations under this Agreement;

(iii) it shall perform its obligations under this Agreement in a manner that does not violate any of the terms and conditions in its governing documents, any contracts to which it is a party or any applicable Law; and

(iv) it shall not dispute its status as a “forward contract merchant” within the meaning of the United States Bankruptcy Code.

#### (b) Seller Covenants.

(i) Seller covenants throughout the Delivery Term that it, or its permitted successors or assigns, shall maintain ownership of a fee, easement, long-term leasehold interest, or other similar asset ownership interest in the Project.

(ii) Seller covenants throughout the Delivery Term that it shall maintain market based rate authority from FERC to sell Product to Buyer under the terms of this Agreement.

(iii) If at any time during the Delivery Term, Seller’s representations and warranties set forth in Section 10.2 become materially false or misleading, Seller covenants that it shall provide prompt Notice to Buyer describing such default along with a description of its efforts to cure such default.

(iv) *[Include other appropriate representations, warranties, and covenants to satisfy the California RPS content category requirements.]*

(v) *[Include other appropriate covenants regarding the use of contractors that may be diverse business enterprises.]*

## **ARTICLE ELEVEN: TITLE, RISK OF LOSS, INDEMNITIES**

11.1 Title and Risk of Loss. Title to and risk of loss related to the Product shall transfer from Seller to Buyer at the Delivery Point. Seller warrants that it will deliver to Buyer the Product free and clear of all liens, security interests, claims and encumbrances or any interest therein or thereto by any person arising prior to or at the Delivery Point.

### 11.2 Indemnities.

(a) Indemnity by Seller. Seller shall release, indemnify, defend, and hold harmless Buyer, its Affiliates, and its and their directors, officers, employees, agents, and representatives against and from any and all actions, suits, losses, costs, damages, injuries, liabilities, claims, demands, penalties and interest, including reasonable costs and attorneys' fees ("Claims") resulting from, or arising out of or in any way connected with (i) any event, circumstance, act, or incident relating to the Product delivered under this Agreement up to and at the Delivery Point, (ii) Seller's development, permitting, construction, ownership, operation and/or maintenance of the Project, (iii) the failure by Seller or the failure of the Project to comply with applicable Law, including without limitation the CAISO Tariff, (iv) any Governmental Charges for which Seller is responsible hereunder, or (v) any liens, security interests, encumbrances, or other adverse claims against the Product delivered hereunder made by, under, or through Seller, in all cases including, without limitation, any Claim for or on account of injury, bodily or otherwise, to or death of persons, or for damage to or destruction of property belonging to Buyer, Seller, or others, excepting only such Claim to the extent caused by the willful misconduct or gross negligence of Buyer, its Affiliates, and its and their directors, officers, employees, agents, and representatives.

(b) Indemnity by Buyer. Buyer shall release, indemnify, defend, and hold harmless Seller, its Affiliates, and its and their directors, officers, employees, agents, and representatives against and from any and all Claims resulting from, or arising out of or in any way connected with (i) any event, circumstance, act, or incident relating to the Product received by Buyer under this Agreement after the Delivery Point, (ii) the failure by Buyer to comply with applicable Law, including without limitation the CAISO Tariff, or (iii) any Governmental Charges for which Buyer is responsible hereunder, in all cases including, without limitation, any Claim for or on account of injury, bodily or otherwise, to or death of persons, or for damage to or destruction of property belonging to Buyer, Seller, or others, excepting only such Claim to the extent caused by the willful misconduct or gross negligence of Seller, its Affiliates, and its and their directors, officers, employees, agents, and representatives.

## **ARTICLE TWELVE: DISPUTE RESOLUTION**

12.1 Intent of the Parties. Except as provided in the next sentence, the sole procedure to resolve any claim arising out of or relating to this Agreement or any related agreement is the

dispute resolution procedure set forth in this Article 12. Either Party may seek a preliminary injunction or other provisional judicial remedy if such action is necessary to prevent irreparable harm or preserve the status quo, in which case both Parties nonetheless will continue to pursue resolution of the dispute by means of the dispute resolution procedure set forth in this Article 12.

## 12.2 Management Negotiations.

(a) The Parties will attempt in good faith to resolve any controversy or claim arising out of or relating to this Agreement or any related agreements by prompt negotiations between each Party's authorized representative designated in writing as a representative of the Party (each a "Manager"). Either Manager may, by Notice to the other Party, request a meeting to initiate negotiations to be held within ten (10) Business Days of the other Party's receipt of such request, at a mutually agreed time and place (either in person or telephonically). If the matter is not resolved within fifteen (15) Business Days of their first meeting ("Initial Negotiation End Date"), the Managers shall refer the matter to the designated senior officers of their respective companies that have authority to settle the dispute ("Executive(s)"). Within five (5) Business Days of the Initial Negotiation End Date ("Referral Date"), each Party shall provide one another Notice confirming the referral and identifying the name and title of the Executive who will represent the Party.

(b) Within five (5) Business Days of the Referral Date, the Executives shall establish a mutually acceptable location and date, which date shall not be greater than thirty (30) days from the Referral Date, to meet. After the initial meeting date, the Executives shall meet, as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute.

(c) All communication and writing exchanged between the Parties in connection with these negotiations shall be confidential and shall not be used or referred to in any subsequent binding adjudicatory process between the Parties.

(d) If the matter is not resolved within forty-five (45) days of the Referral Date, or if the Party receiving the Notice to meet, pursuant to Section 12.2(a) above, refuses or does not meet within the ten (10) Business Day period specified in Section 12.2(a) above, either Party may initiate arbitration of the controversy or claim by providing Notice of a demand for binding arbitration at any time thereafter.

12.3 Arbitration. Any dispute that cannot be resolved by management negotiations as set forth in Section 12.2 above shall be resolved through binding arbitration by a retired judge or justice from the [AAA][JAMS] panel conducted in San Diego, California, administered by and in accordance with [AAA's Commercial Arbitration Rules] [JAMS [Comprehensive]][Streamlined] Arbitration Rules and Procedures] ("Arbitration").

(a) Any arbitrator shall have no affiliation with, financial or other interest in, or prior employment with either Party and shall be knowledgeable in the field of the dispute. The Parties shall cooperate with one another in selecting the arbitrator within sixty (60) days after Notice of the demand for arbitration. If, notwithstanding their good faith efforts, the Parties are unable to agree upon a mutually-acceptable arbitrator, the arbitrator shall be appointed as

provided for in [AAA's Commercial Arbitration Rules] [JAMS [Comprehensive][Streamlined] Arbitration Rules and Procedures].

(b) At the request of a Party, the arbitrator shall have the discretion to order depositions of witnesses to the extent the arbitrator deems such discovery relevant and appropriate. Depositions shall be limited to a maximum of three (3) per Party and shall be held within thirty (30) days of the making of a request. Additional depositions may be scheduled only with the permission of the arbitrator, and for good cause shown. Each deposition shall be limited to a maximum of six (6) hours duration unless otherwise permitted by the arbitrator for good cause shown. All objections are reserved for the Arbitration hearing except for objections based on privilege and proprietary and confidential information. The arbitrator shall also have discretion to order the Parties to exchange relevant documents. The arbitrator shall also have discretion to order the Parties to answer interrogatories, upon good cause shown.

(c) The arbitrator shall have no authority to award punitive or exemplary damages or any other damages other than direct and actual damages and the other remedies contemplated by this Agreement.

(d) The arbitrator shall prepare in writing and provide to the Parties an award including factual findings and the reasons on which their decision is based.

(e) The arbitrator's award shall be made within nine (9) months of the filing of the notice of intention to arbitrate (demand) and the arbitrator shall agree to comply with this schedule before accepting appointment. However, this time limit may be extended by agreement of the Parties or by the arbitrator, if necessary.

(f) Judgment on the award may be entered in any court having jurisdiction.

(g) The prevailing Party in this dispute resolution process is entitled to recover its costs. Until such award is made, however, the Parties shall share equally in paying the costs of the Arbitration.

(h) The arbitrator shall have the authority to grant dispositive motions prior to the commencement of or following the completion of discovery if the arbitrator concludes that there is no material issue of fact pending before the arbitrator.

(i) The existence, content, and results of any Arbitration hereunder is confidential information that is subject to the provisions of Section 13.1.

## ARTICLE THIRTEEN: MISCELLANEOUS

### 13.1 Confidentiality.

(a) **General.** 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 Affiliates and its and their officers, directors, 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 13.1(b) of this Agreement; (v) in order to comply with any applicable Law, regulation, or any exchange, control area or CAISO 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 13.1(a) (“Disclosure Order”) each Party shall, to the extent practicable, use reasonable efforts to 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.

(b) RPS Confidentiality. Notwithstanding Section 13.1(a) of this Agreement, at any time on or after the date on which the Buyer makes its filing seeking CPUC Approval for this Agreement, either Party shall be permitted to disclose the following terms with respect to this Agreement: Party names, resource type, Delivery Term, Project location, Contract Capacity, anticipated Commercial Operation Date, Contract Quantity, and Delivery Point.

(c) Publicity. Except as otherwise agreed to in this Section 13.1 above, no announcement, publicity, advertising, press release, promotional or marketing materials regarding the arrangement contemplated under this Agreement, including the existence hereof, shall be made by either Party without the prior written approval of the other Party which approval shall not be unreasonably withheld or delayed.

13.2 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. For purposes hereof, the transfer of more than fifty percent (50%) of the equity ownership or voting interest of Seller (or any parent entity holding directly or indirectly at least fifty percent (50%) of the equity ownership or voting interest of Seller if such interest constitutes more than twenty percent (20%) of the fair market value of the assets of such parent entity) to a person that is not an Affiliate of Seller shall also constitute an assignment of this Agreement requiring Buyer’s prior written consent. Notwithstanding the foregoing, either Party may, without the consent of the other 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. In connection with any financing or refinancing of the Project by Seller, Buyer shall in good faith negotiate and agree upon a consent to collateral assignment of this Agreement in a form that is commercially reasonable and customary in the industry.

13.3 Audit. Each Party has the right, at its sole expense and during normal working hours, to examine the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made pursuant to this Agreement including amounts of Delivered Energy or Scheduled Energy. If any such examination reveals any inaccuracy in any statement, the necessary adjustments in such statement and the payments thereof will be made promptly and shall bear interest calculated at the Default Rate from the date

the overpayment or underpayment was made until paid; provided, however, that no adjustment for any statement or payment will be made unless objection to the accuracy thereof was made prior to the lapse of twelve (12) months from the rendition thereof, and thereafter any objection shall be deemed waived except to the extent any misinformation was from a third party not Affiliated with any Party and such third party corrects its information after such twelve-month period. In addition, Buyer shall have the right, at its sole expense and during normal working hours, to examine the records of Seller to the extent reasonably necessary to verify Seller's compliance with its representations and warranties set forth in Section 10.2.

13.4 Sarbanes-Oxley and SEC Requirements. The Parties acknowledge that accounting principles generally accepted in the United States of America ("GAAP") and SEC rules require Buyer and its independent auditor to evaluate whether Buyer must consolidate Seller's financial information (but not financial information of Seller's constituent members unless deemed to be included in the entity under GAAP). Buyer may require access to information concerning Seller's organizational structure, including its debt/capital structure, as well as to personnel of Seller to determine if consolidated financial reporting is required. If Buyer and its independent auditor determine at any time that the Buyer must consolidate the Seller's financial statements to comply with GAAP and/or SEC rules regarding consolidated financial reporting, then:

(a) Buyer shall require from Seller and Seller agrees to provide to Buyer the following during the Term of this Agreement:

(i) Unaudited financial statements of the Seller prepared in accordance with GAAP as of the end of the quarterly period. The financial statements should include quarter to date and year to date information and are to be provided within fifteen (15) calendar days of the end of the applicable reporting period (or the Business Day thereafter);

(ii) Unaudited financial schedules of the Seller, as deemed necessary for Buyer to prepare its consolidated financial statements and related footnotes to the financial statements in accordance with GAAP as of the end of the quarterly period. The financial schedules should include quarter to date and year to date information underlying the financial statements and footnotes to the financial statements and are to be provided within fifteen (15) calendar days of the end of the applicable reporting period (or the Business Day thereafter);

(iii) Access to Seller's accounting and other records, and accounting and management personnel as reasonably determined by both Buyer and Seller so that (A) Buyer's independent auditor or its internal auditors may conduct financial audits (in accordance with the standards of the Public Company Accounting Oversight Board (United States)) as well as internal control audits (in accordance with Section 404 of the Sarbanes-Oxley Act of 2002) and (B) Buyer can be provided analytical information, as needed, to enable Buyer to meet its SEC filing requirements, including but not limited to those under Item 2 on Form 10-Q, and Item 7 on Form 10-K, "Management's Discussion and Analysis of Financial Condition and Results of Operations;"

(iv) Upon the request of Buyer, such certifications by a duly authorized representative(s) of Seller as may be reasonably requested by Buyer (which certifications shall

presumptively be reasonable if the certifications are substantially identical to those required by Buyer or its parent of business units of Buyer or its parent); and

(v) As reasonably requested by Buyer, such information or schedules, similar to the items noted in clauses (i)-(iv) above, to enable Buyer to prepare consolidated financial statements and schedules as may be required for Buyer to obtain financing or to prepare other reports as required by regulatory bodies, such as the SEC, for periods other than as of the end of the monthly, quarterly or year to date periods then ended.

(b) If Buyer (i) in its sole discretion determines that the financial statements of the Seller would be considered material to the Buyer or its parent company's financial statements, financial condition, or internal controls over financial reporting, and (ii) reasonably determines Seller's internal controls over financial reporting are not operating effectively or have resulted in a control deficiency, Buyer shall provide Notice to Seller. Upon receipt of such Notice, Seller will have thirty (30) days to remediate any deficiency in Seller's internal controls over financial reporting identified by the Buyer, which Buyer and Buyer's independent auditor deem to be necessary to ensure Seller's internal controls over financial reporting are adequate, during or as a result of the audits permitted under Section 13.4(a)(iii) or any other provision of this Agreement.

(c) As soon as possible, but in no event later than two (2) Business Days following any occurrence that would affect Seller in any material way, Seller shall provide to Buyer a Notice describing such occurrence in sufficient detail to permit the Buyer to file a report on SEC Form 8-K. Such occurrences include all reportable events on the then current Form 8-K that applies to Buyer and its parent company at such time, including but not limited to a material acquisition or disposition of assets, a material direct financial obligation or off-balance sheet financing arrangement, material litigation, and the execution or termination of a material contract.

(d) Any information provided to Buyer shall be treated as confidential except that it may be disclosed in connection with the preparation, review, certification and publication of Buyer's financial statements.

(e) Seller shall notify Buyer at any time during the term of this Agreement of any services provided or proposed to be provided to Seller by Buyer's independent auditor. Seller, and any of Seller's Affiliates, are prohibited from engaging Buyer's independent auditor for any services or in any consulting agreement without the express written consent of partner in charge of Buyer's independent audit.

13.5 Entire Agreement. This Agreement, together with the Cover Sheet and each and every appendix, attachment, amendment, schedule and any written supplements hereto, if any, between the Parties constitutes the entire agreement between the Parties.

13.6 Recording. Unless a Party expressly objects to a Recording (defined below) at the beginning of a telephone conversation, each Party consents to the creation of a tape or electronic recording ("Recording") of all telephone conversations between the Parties to this Agreement, and that any such Recordings will be retained in confidence, secured from improper access, and

may be submitted in evidence in any proceeding or action relating to this Agreement. Each Party waives any further notice of such monitoring or recording, and agrees to notify its officers and employees of such monitoring or recording and to obtain any necessary consent of such officers and employees.

13.7 Forward Contract. The Parties acknowledge and agree that this Agreement constitutes a “forward contract” within the meaning of the United States Bankruptcy Code.

13.8 Governing Law. THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED 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.

13.9 Attorneys’ Fees. In any proceeding brought to enforce this Agreement or because of the breach by any Party of any covenant or condition herein contained, the prevailing Party shall be entitled to reasonable attorneys’ fees (including reasonably allocated fees of in-house counsel) in addition to court costs and any and all other costs recoverable in said action.

13.10 General. This Agreement shall be considered for all purposes as prepared through the joint efforts of the Parties and shall not be construed against one Party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof. Except to the extent provided for herein, no amendment or modification to this Agreement shall be enforceable unless reduced to writing and executed by both Parties. This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound to this Agreement). Waiver by a Party of any default by the other Party shall not be construed as a waiver of any other default. The headings used herein are for convenience and reference purposes only. This Agreement shall be binding on each Party’s successors and permitted assigns.

13.11 Severability. If any provision in this Agreement is determined to be invalid, void or unenforceable by any court having jurisdiction, such determination shall not invalidate, void, or make unenforceable any other provision, agreement or covenant of this Agreement and the Parties shall use their best efforts to modify this Agreement to give effect to the original intention of the Parties.

13.12 Counterparts. This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall be deemed one and the same Agreement. Delivery of an executed counterpart of this Agreement by fax will be deemed as effective as delivery of an originally executed counterpart. Any Party delivering an executed counterpart of this Agreement by facsimile will also deliver an originally executed counterpart, but the failure of any Party to deliver an originally executed counterpart of this Agreement will not affect the validity or effectiveness of this Agreement.



13.13 Notices. Whenever this Agreement requires or permits delivery of a “Notice” (or requires a Party to “notify”), the Party with such right or obligation shall provide a written communication delivered personally, by a nationally recognized overnight courier, mailed by registered or certified mail (return receipt requested), or by facsimile or e-mail (if facsimile numbers or e-mail addresses are identified on the Cover Sheet or by subsequent Notice) to the receiving Party at the addresses identified on the Cover Sheet (or at such other addresses as such receiving Party shall identify by like Notice to the other Party); provided, however, that notices of Outages or other Scheduling or dispatch information or requests, shall be provided in accordance with the terms set forth in the relevant section of this Agreement. Invoices may be sent by facsimile or e-mail (if facsimile numbers or e-mail addresses are identified on the Cover Sheet or by subsequent Notice). A Notice delivered in accordance herewith shall be deemed received (i) on the date of delivery, if hand delivered, (ii) two Business Days after the date of sending, if sent by a nationally recognized overnight courier, or at such earlier time as is confirmed by the receiving Party, (iii) three Business Days after the date of mailing, if mailed by registered or certified mail, return receipt requested, or at such earlier time as is confirmed by the receiving Party, and (iv) on the Business Day on which such Notice was transmitted by facsimile transmission or e-mail (where permitted); provided, however, that a Notice delivered in accordance with this Section but received on any day other than a Business Day or after 5:00 p.m. in the place of receipt will be deemed received on the next Business Day. Each Party shall provide Notice to the other Party of the persons authorized to nominate and/or agree to a Schedule or Dispatch Order for the delivery or acceptance of the Product or make other Notices on behalf of such Party and specify the scope of their individual authority and responsibilities, and may change its designation of such persons from time to time in its sole discretion by providing Notice.

13.14 Mobile Sierra. Notwithstanding any provision of this Agreement, neither Party shall seek, nor shall they support any third party in seeking, to prospectively or retroactively revise the rates, terms or conditions of service of this Agreement through application or complaint to FERC pursuant to the provisions of Section 205, 206 or 306 of the Federal Power Act, or any other provisions of the Federal Power Act, absent prior written agreement of the Parties. Further, absent the prior agreement in writing by both Parties, the standard of review for changes to the rates, terms or conditions of service of this Agreement proposed by a Party, a non-Party or the FERC acting *sua sponte* shall be the “public interest” application of the “just and reasonable” standard of review set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 US 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 US 348 (1956) and clarified by *Morgan Stanley Capital Group Inc. v. Pub. Util. Dist. No. 1 of Snohomish County*, 128 S. Ct. 2733 (2008).

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed as of the date first above written.

[ \_\_\_\_\_ ]  
a [ \_\_\_\_\_ ]

SAN DIEGO GAS & ELECTRIC COMPANY  
a California corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**Exhibit A**

**PROJECT DESCRIPTION INCLUDING DESCRIPTION OF SITE**

PROJECT DESCRIPTION

Project name \_\_\_\_\_

Project Site name: \_\_\_\_\_

Project physical address: \_\_\_\_\_

Total number of electric generating units at the Project (committed and not committed to Buyer) \_\_\_\_\_

Technology Type: \_\_\_\_\_

Substation:

The term "Site" as defined in the Agreement means the following parcel description upon which the Project is located:

Latitude and Longitude of Project: \_\_\_\_\_.

The nameplate capacity of the Project is \_\_\_\_\_.

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

[INSERT MAP]

## Exhibit B

### MILESTONE SCHEDULE

	<i>Date</i>	<i>Project Name</i>
1.		Obtains control of all lands and rights-of-way comprising the Site.
2.		Files a CEC Pre-Certification and Verification application.
3.		Receives a completed [Phase I Interconnection Study Report] [interconnection feasibility study] and CAISO Deliverability Assessment Study Report.
4.		Receives a completed [Phase II Interconnection Study Report] [interconnection system impact study] and CAISO Deliverability Assessment Study report
5.		Files CEQA/NEPA application with appropriate agency(ies).
6.		Executes interconnection agreement and/or transmission agreement and receive FERC approval.
7.		Receives CEQA/NEPA approval/permit
8.		Executes a supply contract.
9.		Executes an Engineering, Procurement and Construction (“EPC”) contract.
10.		Delivers full NTP under EPC contract and begins construction of the Project.
11.		Executes Meter Service Agreement and Participating Generator Agreement.
12.		Achieves initial operation.
13.		Demonstrates the Contract Capacity.
14.		Receives all Governmental Approvals necessary to achieve COD.
15.		Receives CEC Certification and Verification.
16.	GCOD	Commercial Operation Date.

**Exhibit C**

**FORM OF LETTER OF CREDIT**

[DATE]

To: San Diego Gas & Electric Company  
555 W. Fifth Street  
Mail Code: ML 18A3  
Los Angeles, CA 90013

Re: Our Irrevocable Standby Letter of Credit No. \_\_\_\_\_  
In the Amount of US \_\_\_\_\_

Ladies and Gentlemen:

We hereby open our irrevocable standby Letter of Credit Number \_\_\_\_\_ in favor of [name of Beneficiary] (“Beneficiary”), by order and for account of [name of Applicant] (“Applicant”), [address of Applicant], available at sight upon demand at our counters, at [location] for an amount of US\$ \_\_\_\_\_ [amount spelled out and xx/100 U.S. Dollars] against presentation one of the following documents:

1- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: “[name of Applicant] (“Applicant”) is in default under the Power Purchase Agreement between Beneficiary and Applicant dated \_\_\_\_\_ or under any transaction contemplated thereby (whether by failure to perform or pay any obligation thereunder or by occurrence of a “default”, “event of default” or similar term as defined in such agreement, any other agreement between Beneficiary and Applicant, or otherwise). The amount due to Beneficiary is U.S. \$ \_\_\_\_\_.”

or

2- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: “[name of Applicant] (“Applicant”) has forfeited all or part of its ***[For Agreements with Delivery Terms greater than two years: CPUC Approval Security or]*** Development Period Security as set forth and defined in the Power Purchase Agreement between Beneficiary and Applicant dated \_\_\_\_\_. The amount due to Beneficiary, whether or not a default has occurred, is U.S. \$ \_\_\_\_\_.”

or

3- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: “as of the close of business on [insert date, which is less than 60 days prior to the expiration date of the Letter of Credit] you have provided

written notice to us indicating your election not to permit extension of this Letter of Credit beyond its current expiry date. The amount due to Beneficiary, whether or not a default has occurred, is U.S. \$\_\_\_\_\_.”

Special Conditions:

- All costs and banking charges pertaining to this Letter of Credit are for the account of Applicant.
- Partial and multiple drawings are permitted.
- Fax of Document 1 or 2 or 3 above is acceptable. Notwithstanding anything to the contrary herein, any drawing hereunder may be requested by transmitting the requisite documents as described above to us by facsimile at \_\_\_\_\_ or such other number as specified from time to time by us. The facsimile transmittal shall be deemed delivered when received. It is understood that drawings made by facsimile transmittal are deemed to be the operative instrument without the need of originally signed documents.

This Letter of Credit expires on \_\_\_\_\_ at our counters.

We hereby engage with Beneficiary that upon presentation of a document as specified under and in compliance with the terms of this Letter of Credit, this Letter of Credit will be duly honored in the amount stated in Document 1, 2, or 3 above. If a document is so presented by 1:00 pm on any New York banking day, we will honor the same in full in immediately available New York funds on that day and, if so presented after 1:00 pm on a New York banking day, we will honor the same in full in immediately available New York funds by noon on the following New York banking day.

It is a condition of this Letter of Credit that it shall be deemed automatically extended without an amendment for a one year period beginning on the present expiry date hereof and upon each anniversary of such date, unless at least ninety (90) days prior to any such expiry date we have sent you written notice by regular and registered mail or courier service that we elect not to permit this Letter of Credit to be so extended beyond, and will expire on its then current expiry date. No presentation made under this Letter of Credit after such expiry date will be honored.

We agree that if this Letter of Credit would otherwise expire during, or within 30 days after, an interruption of our business caused by an act of god, riot, civil commotion, insurrection, act of terrorism, war or any other cause beyond our control or by any strike or lockout, then this Letter of Credit shall expire on the 30th day following the day on which we resume our business after the cause of such interruption has been removed or eliminated and any drawing on this Letter of Credit which could properly have been made but for such interruption shall be permitted during such extended period.

This Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (2007 Revision) International Chamber of Commerce, Publication No. 600 (“UCP”), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to Articles 14(b) and 36 of the UCP, in which case the terms of this Letter of Credit shall

govern. Matters not covered by the UCP shall be governed and construed in accordance with the laws of the State of California.

[Name of Bank]

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Authorized Signature(s)

**Exhibit D**

**FORM OF GUARANTY**

***GUARANTY***

In consideration of San Diego Gas & Electric Company (“Company”) entering into a power purchase agreement with [NAME OF COUNTERPARTY] (hereinafter referred to as “Applicant”), [NAME OF GUARANTOR], a [TYPE OF LEGAL ENTITY i.e. California corporation], (hereinafter referred to as “Guarantor”) agrees with Company as follows:

1. The term “Obligations” shall mean all obligations, liabilities and indebtedness of any kind whatsoever arising in connection with \_\_\_\_\_ or arising in connection with or under any security agreement or other agreement between the Company and Applicant. The amount of Obligations existing from time to time shall be calculated after giving effect to all contractual netting arrangements between Applicant and the Company.

2. Guarantor unconditionally and irrevocably guarantees to Company the full, prompt and faithful payment and performance when due of each and all of the Obligations.

3. This is a continuing guaranty relating to the Obligations. Guarantor acknowledges that there is a continuing consideration to Guarantor for this Guaranty and therefore Guarantor waives and relinquishes the right to revoke or terminate this Guaranty as provided in California Civil Code Section 2815.

4. Any of the Obligations may be amended, modified, waived, or increased (whether or not beyond any dollar limitation hereunder), further agreements may be entered into between Company and Applicant, Company may provide additional goods or services or credit to Applicant or increase or decrease the dollar value of such goods, services or credit, and further obligations (including, without limitation, the provision or pledging of security to Company for any obligation), indebtedness and liabilities may be entered into or incurred from time to time by Applicant and without further authorization from or notice to Guarantor and no such action shall terminate, release, impair, reduce, discharge, diminish or in any way affect any of the obligations of Guarantor hereunder or any security furnished by Guarantor or give Guarantor any recourse or defense against Company. Company need not inquire into the power of Applicant or the authority of its officers, directors, partners or agents acting or purporting to act in its behalf.

5. With respect to all Obligations, this is a guaranty of payment and performance and not of collection, and Guarantor waives and agrees not to assert or take advantage of:

(a) any right to require Company to proceed against Applicant or any other person or to resort to, proceed against or exhaust any security held by it at any time or to pursue any other remedy in its power before proceeding against any Guarantor;

(b) demand, presentment, protest and notice of any kind including, without limiting the generality of the foregoing, notice of nonperformance, protest, dishonor and acceptance of this Guaranty, notice under Section 9611 of the California Commercial Code, and



notice of the existence, creation or incurring of any new or additional indebtedness or obligation or of any action or non-action on the part of Applicant, Company, a guarantor under this or any other instrument, or creditor of Applicant or any other person whomsoever, in connection with any of the Obligations or any collateral for any of the Obligations or in connection with any of the Obligations; and

(c) any suretyship defenses and suretyship rights of every nature otherwise available under California law and the laws of any other state or jurisdiction, including, without limitation, all defenses and rights arising under Sections 2787 through 2855 of the California Civil Code (the “Suretyship Provisions”) and any successor provisions to those Sections. Without limiting the generality of the foregoing, Guarantor acknowledges his, her or its understanding that the Suretyship Provisions provide various partial or complete defenses to the recovery by Company from Guarantor and/or grant Guarantor rights the enforcement of which could reduce or eliminate entirely Guarantor’s liability hereunder to Company. Among the defenses and rights contained in the Suretyship Provisions are the following: (1) Section 2809 of the Civil Code, which provides, in part, that the obligation of a surety must not be either larger in amount or in other respects more burdensome than that of the principal; (2) Section 2810 of the Civil Code, which provides, in part, that a surety is not liable if for any reason other than the mere personal disability of the principal there is no liability upon the part of the principal at the time of execution of the contract, or the liability of the principal thereafter ceases; (3) Section 2819 of the Civil Code, which provides, in part, that a surety is exonerated if the creditor alters the original obligation of the principal without the consent of the surety; (4) Section 2845 of the Civil Code, which provides, in part, that a surety is exonerated to the extent that the creditor fails to proceed against the principal, or to pursue any other remedy in the creditor’s power which the surety cannot pursue and which would lighten the surety’s burden; (5) Section 2846 of the Civil Code, which provides that a surety may compel his principal to perform the obligation when due; (6) Section 2847 of the Civil Code, which provides, in part, that if a surety satisfies the principal obligation, or any part thereof, the principal is obligated to reimburse the surety for the amounts paid by the surety; (7) Section 2848 of the Civil Code, which provides, in part, that a surety, upon satisfaction of the obligation of the principal is entitled to enforce remedies which the creditor then has against the principal; (8) Section 2849 of the Civil Code, which provides, in part, that a surety is entitled to the benefit of security held by the creditor for the performance of the principal obligation held by the creditor; (9) Section 2850 of the Civil Code, which provides, in part, that whenever the property of a surety is hypothecated with property of the principal, the surety is entitled to have the property of the principal first applied to the discharge of the obligation; and (10) Section 2822 of the Civil Code, which provides, in part, for a right to have the principal designate the portion of any obligation to be satisfied by the surety in the event that the principal provides partial satisfaction of such obligation.

6. All existing and future indebtedness of Applicant to Guarantor (“Intercompany Obligations”) is subordinated to all Obligations hereby guaranteed. All of Guarantor’s right, title and interest in and to the Intercompany Obligations and rights to receive any payments of the Intercompany Obligations are hereby granted and assigned to Company as continuing security for the Obligations hereby guaranteed, and, in the event of any default in the payment of any of the Obligations when due and until the Obligations guaranteed hereby have been paid in full (a) at the Company’s request, Applicant shall forthwith pay to the Company all or any part of such Intercompany Obligations and any capital which Guarantor is entitled to withdraw until all of the

Obligations guaranteed hereby have been paid in full, and (b) Guarantor shall pay to Company immediately any payments of such Intercompany Obligations received by Guarantor.

7. Guarantor agrees to pay all attorneys' fees (including without limitation, reasonably allocated fees of in-house counsel) and all other costs and expenses which may be incurred by Company in the enforcement of this Guaranty against Guarantor.

8. This Guaranty is not assignable by Guarantor without Company's consent. This Guaranty shall inure to the benefit of Company and its successors and assigns, including the assignees of any Obligations, and bind the heirs, executors, administrators, successors and permitted (if any) assigns of Guarantor. This Guaranty is assignable by Company with respect to all or any portion of the Obligations, and when so assigned Guarantor shall be liable to the assignees under this Guaranty without in any manner affecting the liability of Guarantor hereunder with respect to any Obligations retained by Company.

9. This Guaranty shall be governed by and construed in accordance with the laws of the State of California, without reference to its choice of law provisions. Guarantor hereby irrevocably and unconditionally agrees that any legal action or proceeding against Guarantor or any of Guarantor's property with respect to this Guaranty may be brought in the courts of the State of California in the County of San Diego or the courts of the United States in the County of San Diego, as Company may elect, and by executing and delivering this Guaranty Guarantor hereby submits to and accepts with regard to any such action or proceeding for himself, herself or itself and in respect of his, her or its property, generally, irrevocably and unconditionally, the jurisdiction of the above mentioned courts. Guarantor hereby irrevocably appoints the Secretary of State of the State of California as his, her or its agent for service of process in any suit or proceeding if the Guarantor is located outside the State of California at the time of service or cannot reasonably be located by Company. The foregoing, however, shall not limit the right of Company as it may elect to bring any legal action or proceeding or to obtain execution of judgment in any other appropriate jurisdiction including but not limited to any other jurisdiction in which Guarantor or his, her or its property is located.

10. Except as provided in any other written agreement now or at any time hereafter in force between Company and Guarantor, this Guaranty shall constitute the entire agreement of Guarantor with Company with respect to the subject matter hereof and no representation, understanding, promise or condition concerning the subject matter hereof shall be binding upon Company unless expressed herein.

11. All notices, demands, requests and other communications required or permitted hereunder shall be in writing and shall be given personally, by certified or registered mail, postage prepaid, return receipt requested, or by reliable overnight courier to the address of the Company set forth below (or to such new address as Company may designate hereafter in a notice to Guarantor) in the case of a communication to the Company and to the address appearing next to Guarantor's signature on this Guaranty (or to such new address as Guarantor may designate hereafter in a notice to Company) in the case of a communication to Guarantor. Any notice served personally shall be deemed delivered upon receipt, and any notice served by certified or registered mail or by reliable overnight courier shall be deemed delivered on the date

of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier.

San Diego Gas & Electric Company  
555 W. Fifth Street  
Attn: Major Markets 18A3, Credit Manager  
Los Angeles, CA 90013  
Fax No.: (213) 244-8316

12. Until all of the Obligations guaranteed hereby have been satisfied in full, Guarantor shall have no right of subrogation or reimbursement from the Applicant which Guarantor may have as a result of any payment by Guarantor under this Guaranty, and waives any right to enforce any remedy which Company now has or may hereafter have against the Applicant as a result of such payment by Guarantor under this Guaranty and waives any right under section 2849 of the California Civil Code and any other benefit of or right to participate in any security now or hereafter held by Company.

13. All amounts payable by Guarantor hereunder shall be paid without set-off or counterclaim and without any deduction or withholding whatsoever unless and to the extent that Guarantor shall be prohibited by law from doing so, in which case Guarantor shall pay to Company such additional amount as shall be necessary to ensure that Company receives the full amount it would have received if no such deduction or withholding had been made.

14. If any portion of this Guaranty is held to be unenforceable by a court of competent jurisdiction, the remainder of this Guaranty shall remain in full force and effect.

IN WITNESS WHEREOF, the undersigned Guarantor has executed this Guaranty on [MONTH AND DAY], [YEAR].

GUARANTOR:  
[NAME OF GUARANTOR]

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name of Person Signing for  
Guarantor

---

Guarantor's Address

---

City, State, Zip

---

Guarantor's Phone No.

## Exhibit E

### COMMERCIAL OPERATION CERTIFICATE

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The undersigned, \_\_\_\_\_ (“EPC Contractor”), \_\_\_\_\_ (“Renewable Generation Equipment Supplier”), \_\_\_\_\_ (“Licensed Professional Engineer”) and [\_\_\_\_\_] (“Owner”) make the following certifications to San Diego Gas & Electric Company (“SDG&E”), dated as of \_\_\_\_\_. All capitalized terms not otherwise defined herein shall have the meaning given to them in the Power Purchase Agreement dated \_\_\_\_\_ between Owner and SDG&E (the “Agreement”).

**Renewable Generation Equipment Generation Equipment Supplier hereby certifies that:**

1. The [\_\_\_\_\_] comprising the Project have been erected and installed at the project site and have been commissioned as required under the Supply and Installation Agreement (“[\_\_\_\_\_] Supply Agreement”) dated as of \_\_\_\_\_, by and between Renewable Generation Equipment Supplier and Owner and each such [\_\_\_\_\_] has passed the performance testing required to be performed pursuant to the [\_\_\_\_\_] Supply Agreement.
2. The Warranty Period under the Warranty Agreement (“Warranty Agreement”) dated as of \_\_\_\_\_, by and between Renewable Generation Equipment Supplier and Owner has commenced.

**EPC Contractor hereby certifies that:**

All requirements necessary to achieve [Commercial Operation/Substantial Completion] as set forth in the agreement between the EPC Contractor and Owner dated \_\_\_\_\_ (“EPC Contract”) have been completed and the Project has successfully passed all performance tests at a level that demonstrates satisfaction of at least the [minimum performance guarantees].

**Owner hereby certifies that:**

1. Except for punch list items that would not materially affect the performance, reliability or safe operation of the Project, the Project has been completed in accordance with all applicable specifications and is ready for continuous commercial operation in compliance with all applicable laws and governmental approvals. The Project has successfully passed all performance tests at a level that demonstrates satisfaction of at least the [insert minimum performance guarantees], and complete test reports have been submitted to Buyer.
2. The Operation and Maintenance Agreement (O&M Agreement), by and between Owner and \_\_\_\_\_ dated as of \_\_\_\_\_ has commenced.

3. Owner has a valid leasehold or real property interest in the Project Site for a term of at least [\_\_\_] years from the Commercial Operation date.
4. The interconnection facilities have been completed in accordance with applicable specifications, tariffs, laws and governmental approvals to enable power generated by the Project to be received at the Delivery Point.
5. Owner has obtained all governmental approvals necessary for the continuous commercial operation of the Project and the Project is in compliance with all such governmental approvals and all other applicable laws.

**Licensed Professional Engineer certifies that:**

1. We have read the Agreement, the [\_\_\_\_\_] Supply Contract, and the EPC Contract and we understand the requirements for Commercial Operation under the Agreement, the specifications and performance testing requirements under the [\_\_\_\_\_] Supply Contract, and the requirements for [Commercial Operation/Substantial Completion] under the EPC Contract.
2. We have reviewed the material and data made available to us by the Owner, the Renewable Generation Equipment Supplier, and the EPC Contractor for the Project.
3. To the extent practical, we have reviewed the engineering, procurement, construction and performance testing for the Project and in the course of this review we have not discovered any material errors or omissions in the work performed to date.
4. We have reviewed the certificates of Owner, Renewable Generation Equipment Supplier, and EPC Contractor above, and find the representations provided to be correct in all material respects.
5. We have reviewed all Governmental Approvals and permits identified by the Owner as being required for the construction and operation of the Project and are of the opinion that the Project as completed is in compliance in all material respects with the environmental and technical requirements contained therein.
6. Based on our review of the aforementioned information and of information provided to us by others which we have not independently verified, we are of the opinion that, as of, Commercial Operation has occurred as defined in the Agreement.

Executed this \_\_\_ day of \_\_\_, 200\_

**RENEWABLE GENERATION EQUIPMENT  
SUPPLIER**

**[Name of [\_\_\_\_\_] Supplier]**  
a \_\_\_\_\_ corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EPC CONTRACTOR**

**[Name of EPC Contractor]**  
a \_\_\_\_\_ corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**OWNER**

**[Name of Owner]**  
a \_\_\_\_\_ limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**LICENSED PROFESSIONAL ENGINEER:**

**[Name of Licensed Professional Engineer]**  
a \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ACCEPTED BY SAN DIEGO GAS & ELECTRIC COMPANY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Exhibit F**

**FORM OF QUARTERLY PROGRESS REPORT**

**Quarterly Progress Report  
of**

[\_\_\_\_\_]

**(“Seller”)**

**provided to  
San Diego Gas & Electric Company**

[Date]



## Table of Contents

[Insert Table of Contents]

## 1.0 Instructions.

All capitalized terms used in this report shall have the meanings set forth below and any capitalized terms used in this report which are not defined below shall have the meanings ascribed thereto in the Power Purchase Agreement by and between \_\_\_\_\_ (“Seller”) and San Diego Gas & Electric Company dated \_\_\_\_\_, \_\_\_\_ (the “Agreement”).

Seller shall review the status of each significant element of the Project schedule and Seller shall identify such matters referenced in clauses (i)-(v) below as known to Seller and which in Seller’s reasonable judgment are expected to adversely affect the Project or the Project schedule, and with respect to any such matters, shall state the actions which Seller intends to take to ensure that Conditions Precedent and the Milestones will be attained by their required dates. Such matters may include, but shall not be limited to:

(i) Any material matter or issue arising in connection with a Governmental Approval, or compliance therewith, with respect to which there is an actual or threatened dispute over the interpretation of a law or regulation, actual or threatened opposition to the granting of a necessary Governmental Approval, any organized public opposition, any action or expenditure required for compliance or obtaining approval that Seller is unwilling to take or make, or in each case which could reasonably be expected to materially threaten or prevent financing of the Project, attaining any Condition or Milestone, or obtaining any contemplated agreements with other parties which are necessary for attaining any Condition or Milestone or which otherwise reasonably could be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(ii) Any development or event in the financial markets or the independent power industry, any change in taxation or accounting standards or practices or in Seller’s business or prospects which reasonably could be expected to materially threaten financing of the Project, attainment of any Condition or Milestone or materially threaten any contemplated agreements with other parties which are necessary for attaining any Condition or Milestone or could otherwise reasonably be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(iii) A change in, or discovery by Seller of, any legal or regulatory requirement which would reasonably be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(iv) Any material change in the Seller’s schedule for initiating or completing any material aspect of Project;

(v) The status of any matter or issue identified as outstanding in any prior Quarterly Report and any material change in the Seller’s proposed actions to remedy or overcome such matter or issue.

Seller shall complete, certify, and deliver this form Quarter Quarterly Progress Report to [\_\_\_\_], together with all attachments and exhibits, with [3] copies of the Report delivered to [\_\_\_\_] and [\_\_\_\_\_].

## **2.0 Executive Summary.**

### **2.1 Major activities to be performed for each aspect of the Project during the current calendar quarter.**

Please provide a brief summary of the Major<sup>2</sup> activities to be performed for each of the following aspects of the Project during the current calendar quarter:

- 2.1.1 Design
- 2.1.2 Engineering
- 2.1.3 Major Equipment procurement
- 2.1.4 Construction
- 2.1.5 Milestone report
- 2.1.6 Permitting (See Section 3.0)

### **2.2 Major activities scheduled to be performed in the previous calendar quarter but not completed as scheduled.**

Please provide a brief summary of the Major activities which were scheduled to be performed in the previous calendar quarter and their status, including those activities that were not completed as scheduled:

- 2.2.1 Design
- 2.2.2 Engineering
- 2.2.3 Major Equipment procurement
- 2.2.4 Construction
- 2.2.5 Milestone report
- 2.2.6 Permitting

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<sup>2</sup> For Purposes of this Report, “Major” shall mean any activity, event, or occurrence which may have a material adverse impact on the construction of the Facility or completion of the Project on a timely basis if such activity, event, or occurrence occurs or if such activity, event, or occurrence fails to occur as anticipated or scheduled, which material adverse impact includes, but is not limited to, Seller’s inability to achieve a Milestone Date.

**3.0 Permitting.**

The following describes each of the major Governmental Approvals required for the construction of the Project and the status of each:

**3.1 State and/or federal Governmental Approvals.**

Please describe each of the Major state and/or federal Governmental Approval (including the Permit to Construct issued by the San Diego County Air Pollution Control District) to be obtained by Seller (or EPC Contractor) and the status of each.

DESCRIPTION	STATUS

**3.2 Local and/or county Governmental Approvals.**

Please describe each of the Major local and/or county Governmental Approvals to be obtained by Seller and the status of each.

DESCRIPTION	STATUS

**3.3 Permitting activities which occurred during the previous calendar quarter.**

Please list all permitting activities which occurred during the previous calendar quarter.

**3.4 Permitting activities occurring during the current calendar quarter.**

Please list all permitting activities which are expected to occur during the current calendar quarter.

**3.5 Permitting Notices received from EPC Contractor.**

Please attach to this Quarterly Progress Report copies of any notices related to permitting activities received from EPC Contractor during the previous calendar quarter.

**4.0 Design Activities.**

**4.1 Table of design schedule to be followed by Seller and its subcontractors.**

The following table lists the design schedule to be followed by Seller and its subcontractors.

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE

**4.2 Design activities to be performed during the current calendar quarter.**

Please explain in detail the design activities which are expected to be performed during the current calendar quarter.

**4.3 Table of design activities completed during the previous calendar quarter.**

Please explain in detail the design activities which were completed during the previous calendar quarter.

**5.0 Engineering Activities.**

**5.1 Table of engineering schedule to be followed by Seller and its subcontractors.**

The following table lists the engineering schedule to be followed by Seller and its subcontractors:

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE

**5.2 Engineering activities to be performed during the current calendar quarter.**

Please explain in detail the engineering activities which are expected to be performed during the current calendar quarter.

**5.3 Engineering activities completed during the previous calendar month.**

Please explain in detail the engineering activities which were completed during the previous calendar quarter.

**5.4 Three-month look-ahead engineering schedule.**

Please provide a three-month look ahead engineering schedule.

**6.0 Major Equipment Procurement.**

**6.1 Table of major equipment to be procured by Seller and its subcontractors.**

The following table lists major equipment to be procured by Seller and its subcontractors:

EQUIPMENT DESCRIPTION	MANUFACTURER	MODEL	CONTRACTED DELIVERY DATE	ACTUAL DELIVERY DATE	PROJECTED INSTALLATION DATE	ACTUAL INSTALLATION DATE


**6.2 Major Equipment procurement activities to be performed during the current calendar quarter.**

Please explain in detail the major equipment procurement activities which are expected to be performed during the current calendar quarter.

**6.3 Major Equipment procurement activities completed during the previous calendar quarter.**

Please explain in detail the major equipment procurement activities which were completed during the previous calendar quarter.

**7.0 Construction Activities.**

**7.1 Table of construction activities to be performed by Seller and its subcontractors.**

The following tables lists construction activities to be performed by Seller and its subcontractors:

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE
Civil Progress			
Structural Progress			
[Steam] Generator Progress			
Piping Progress			
IC and Electrical Progress			
Subcontractor Progress			

**7.2 Construction activities to be performed during the current calendar quarter.**

Please explain in detail the construction activities which are expected to be performed during the current calendar quarter.

**7.3 Construction activities completed during the previous calendar quarter.**

Please explain in detail the construction activities which are expected to be performed during the previous calendar quarter.

**7.4 EPC Contractor Monthly Progress Report.**

Please attach a copy of the Monthly Progress Reports received during the previous calendar quarter from the EPC Contractor pursuant to the EPC Contract, certified by the EPC Contractor as being true and correct as of the date issued.

**7.5 Three-month look-ahead construction schedule.**

Please provide a three-month look ahead construction schedule.

**8.0 Milestones.**

**8.1 Milestone schedule.**

Please state the status and progress of each Milestone and identify any completed Milestone(s) for the previous calendar quarter.

**8.2 Remedial Action Plan (applicable if Seller fails to achieve Milestone by the Milestone Date).**

Please explain in detail each of the following aspects of Seller's remedial action plan:

8.2.1 Missed Milestone

8.2.2 Plans to achieve missed Milestone

8.2.3 Plans to achieve subsequent Milestone

8.2.4 Delays in engineering schedule

Please explain in detail any delays beyond the scheduled Milestone Dates stated in Section 5.1, any impact from the delays on the engineering schedule, and Seller's plans to remedy such impact.

8.2.5 Delays in Major Equipment procurement

Please explain in detail any delays beyond the contracted delivery date and/or the projected installation date stated in Section 6.1, any impact from the delays on Major Equipment procurement schedule, and Seller's plans to remedy such impact.

8.2.6 Delays in construction schedule



Please explain in detail any delays beyond the scheduled completion dates stated in Section 7.1, any impact from the delays on the construction schedule, and Seller's plans to remedy such impact.

**9.0 Safety and Health Reports**

**9.1 Please list all accidents from the previous calendar quarter:**

**9.2 Any work stoppage from the previous calendar quarter:**

**9.3 Work stoppage impact on construction of the Project:**

I, \_\_\_\_\_, on behalf of and as an authorized representative of, do hereby certify that any and all information contained in the attached Seller's Quarterly Progress Report is true and accurate, and reflects, to the best of my knowledge, the current status of the construction of the Project as of the date specified below.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## RPS Project Development Status Report

**Project Name**  
**Date**

Date of Latest Construction Progress Report from Counterparty:			
Project Owner/Counterparty:			
Technology:			
Capacity (MW):		Annual Energy (GWh/year):	
On-Line Date:		Term/Duration (years):	
Construction Start Date:		Point of Delivery:	
Location:			
<b>Status At-A-Glance</b>			
The below to be filled in w/ either: Completed, Acceptable, Unknown, or Concern. See Section B for a description of milestones. When the answer is "Concern" the milestone should be flagged with a notation number where additional detail is provided in Section A.			
Milestones	Status	Initial Completion Date	Projected Completion Date
Fuel/Resource Supply:			
Financing:			
Corporate Financing			
Project Financing			
Site Control (100%):			
Permitting:			
Engineering:			
Major Equipment Procurement:			
Construction:			
Startup Testing and Commissioning:			
Transmission:			
<b>Transmission - Detail</b> (see Section C)			
Dependent Transmission Upgrade(s):			
Scheduled Completion:			
Point of Interconnection:			
Early Interconnection:			
Gen-Tie Length:			
Gen-Tie Voltage:			
ISO Queue Position:			
Feasibility Study (FS):			
System Impact Study (SIS):			
Facilities Study (FAS):			
Remedial Action Plan:			
Additional Comments:			
Date of Preparation:			

Exhibit G

OUTAGE NOTIFICATION FORM

**OUTAGE NOTIFICATION FORM**

*This form may be used to comply with CAISO's outage notification requirements for both planned and forced outages. Report outages as soon as possible by submitting form via email to [TSched@SemptraUtilities.com](mailto:TSched@SemptraUtilities.com) or via fax at (858) 650-6191.*

<p>Request Type: <input type="text" value="New Scheduled Maintenance Outage"/></p> <p>Generator Name: _____ Location Code: _____ Address: _____ _____</p> <p>Contact Name: _____ Phone Number: _____ Email: _____</p> <p>Alternate Name: _____ Alternate Number: _____ Email: _____</p>	<p>Previous Notification (if applicable)</p> <table border="1" style="width: 100%;"><tr><td>Date Sent: _____ mm/dd/yyyy</td></tr><tr><td>Time Sent: _____ hh:mm</td></tr></table> <p style="text-align: center;"><small>(For times, use 24hr format)</small></p> <p>Today's Date: _____ mm/dd/yyyy Current Time: _____ hh:mm</p> <p>Outage Start Date: _____ mm/dd/yyyy Outage Start Time: _____ hh:mm</p> <p>Outage End Date: _____ mm/dd/yyyy Outage End Time: _____ hh:mm</p> <p>Outage Duration: _____ MW Available During Outage: _____ MW Unavailable During Outage: _____ RMR Unit? <input type="checkbox"/> Yes/No</p>	Date Sent: _____ mm/dd/yyyy	Time Sent: _____ hh:mm
Date Sent: _____ mm/dd/yyyy			
Time Sent: _____ hh:mm			

**System** (Select One)

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<input checked="" type="radio"/> Boiler <small>Codes 0010-1999</small>	<input type="radio"/> Generator <small>Codes 4500-4899</small>	<input type="radio"/> Regulatory, Safety, Environmental <small>Codes 9504-9720</small>
<input type="radio"/> Balance of Plant <small>Codes 3110-3999</small>	<input type="radio"/> Pollution Control Equipment <small>Codes 8000-8835</small>	<input type="radio"/> Others <small>Codes 9900-9999</small>
<input type="radio"/> Steam Turbine <small>Codes 4000-4499</small>	<input type="radio"/> External <small>Codes 9000-9040</small>	

**Cause Code Ranges / Affected Component**

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(Select One) \_\_\_\_\_ ▼

**Cause Code / Component Problem**

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(Select One) \_\_\_\_\_ ▼

**Comments**

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Exhibit H

### PROJECT OPERATING RESTRICTIONS

Operational characteristics of the Project must be equal to or greater than the resource flexibility reflected in the resource Master File, as such term is defined in the CAISO Tariff. Buyer may request that CAISO modify the Master File for the Project to reflect the findings of a CAISO audit of the Project and to ensure that the information provided by Seller is true and accurate. Seller agrees to coordinate with Buyer and any third party Scheduling Coordinator to ensure all information provided to the CAISO regarding the operational and technical constraints in the Master File for the Project are accurate and are actually based on physical characteristics of the resource. The Parties agree to make reasonable modifications to this Exhibit H to modify existing operating restrictions or add additional operating restrictions that may be necessary to address changes in the CAISO Tariff or applicable Law applicable to the Products provided from this Project.

- Nameplate capacity of the Project: \_\_\_\_ MW
- Minimum operating capacity: \_\_\_\_ MW
- Advance notification required for a Dispatch Notice: \_\_\_\_
- Ramp Rate: \_\_\_\_ MW/minute



**APPENDIX 7**

**SAN DIEGO GAS & ELECTRIC COMPANY  
2014 RPS RENEWABLE ENERGY CREDIT (“REC”) AGREEMENT**

**E EI AGREEMENT  
REC CONFIRMATION  
BETWEEN**  
[ \_\_\_\_\_ ]  
**AND**  
**SAN DIEGO GAS & ELECTRIC COMPANY**

This REC Confirmation ("Confirmation") confirms the renewable energy credit transaction ("Transaction") between [ ] ("Seller") and San Diego Gas & Electric Company ("Buyer"), each individually a "Party" and together the "Parties", effective as of [ ], 2011 (the "Confirmation Effective Date"). This Transaction is governed by the EEI Master Power Purchase & Sale Agreement effective as of 4/25/00 (attached hereto as Exhibit A with [TO BE NEGOTIATED: all elections, including credit, confidentiality, and government entity language.](the "EEI Agreement"). The EEI Agreement and this Confirmation shall be collectively referred to herein as the "Agreement." Capitalized terms used but not otherwise defined in this Confirmation have the meanings ascribed to them in the EEI Agreement or in the RPS (as defined below).

**ARTICLE 1  
COMMERCIAL TERMS**

<b>Seller:</b> _____		<b>Buyer:</b> San Diego Gas & Electric Company
<b>Contact Information:</b>	<b>Name:</b> ("Seller")	<b>Name:</b> San Diego Gas & Electric Company ("Buyer")
	<b>All Notices:</b> Attn: Contract Administration Phone: _____ Facsimile: _____ Duns: _____ Federal Tax ID Number: _____	<b>All Notices:</b> San Diego Gas & Electric Company Street: 8315 Century Park Court City: San Diego, CA Zip: 92123 Attn: Electric & Fuel Procurement Contract Administration Phone: (858) 650-6176 Facsimile: (858) 650-6190 Duns: 006911457 Federal Tax ID Number: 95-1184800
	<b>Invoices:</b> _____ _____ _____ Attn: Phone: _____ Facsimile: _____	<b>Invoices:</b> San Diego Gas & Electric Company 8315 Century Park Ct. San Diego, California 92123-1593 Attn: Energy Accounting Manager Phone: (858) 650-6177 Facsimile: (858) 650-6190
	<b>Scheduling:</b> _____ _____ _____ Attn: Phone: _____ Facsimile: _____	<b>Scheduling:</b> San Diego Gas & Electric Company 8315 Century Park Ct. San Diego, California 92123-1593 Attn: Transaction Scheduling Manager Phone: (858) 650-6160 Facsimile: (858) 650-6191

	<b>Payments:</b> _____ _____ Attn: Phone: _____ Facsimile: _____	<b>Payments:</b> San Diego Gas & Electric Company PO Box 25110 Santa Ana, CA 92799-5110 Attn: Mail Payments Phone: (619) 696-4521 Facsimile: (619) 696-4899												
	<b>Wire Transfer:</b> BNK: _____ ABA: _____ ACCT: _____ Confirmation: _____ FAX: _____	<b>Wire Transfer:</b> BNK: Union Bank of California for: San Diego Gas & Electric Company ABA: Routing # 122000496 ACCT: #4430000352 Confirmation: SDG&E, Major Markets FAX:(213) 244-8316												
	<b>Credit and Collections:</b> _____ _____ Attn: Phone: _____ Facsimile: _____  <b>Defaults:</b> With additional Notices of an Event of Default or Potential Event of Default to: _____ _____ Attn: Phone: _____ Facsimile: _____	<b>Credit and Collections:</b> San Diego Gas & Electric Company, Major Markets 555 W. Fifth Street, ML 10E3 Los Angeles, CA 90013-1011 Attn.: Major Markets, Credit and Collections Manager Fax No.: (213) 244-8316 Phone: (213) 244-4343  <b>Defaults:</b> With additional Notices of an Event of Default or Potential Event of Default to: San Diego Gas & Electric Company 8330 Century Park Ct. San Diego, California 92123 Attn: General Counsel Phone: (858) 650-6141 Facsimile: (858) 650-6106												
<b>Product:</b>	All California RPS-eligible RECs associated with the Contract Quantity and Green Attributes from the Project for the applicable Product Vintage. The obligation of Seller to deliver the Product exclusively to Buyer, for each of the applicable Product Vintage years, is as follows:  <b>Obligation: (Check One):</b> <input type="checkbox"/> Resource Contingent <input type="checkbox"/> Firm													
<b>Contract Quantity:</b>	[[ ] MWh REC per month for all months of the Vintage specified herein.] [All RECs associated with [the entire output of the Project/[__%] of the output from the project] for all months of the Vintage specified herein.] <table border="1"> <thead> <tr> <th></th> <th>mm/yy</th> <th>mm/yy</th> <th>mm/yy</th> <th>mm/yy</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td># RECs</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			mm/yy	mm/yy	mm/yy	mm/yy	Total	# RECs					
	mm/yy	mm/yy	mm/yy	mm/yy	Total									
# RECs														
<b>Contract Price:</b>	[\$[ ]/MWh REC]													

<b>Product Vintage:</b>	_____																					
<b>Project:</b>	<p><b>Name of Facility:</b>  <b>Location:</b>  <b>EIA Number:</b>  <b>CEC ID:</b>  <b>WREGIS ID:</b>  <b>Certification Date:</b>  <b>On-line Date:</b></p> <p>[For Pooled Facilities (for use only with Firm Product): All Product sold hereunder shall be from one or more of the <i>[type of generation]</i> facilities listed below:</p> <table border="1"> <tr> <td></td> <td><b>Name of Facility:</b> [   ]</td> <td><b>Name of Facility:</b> [   ]</td> </tr> <tr> <td><b>Location:</b></td> <td></td> <td></td> </tr> <tr> <td><b>EIA Number:</b></td> <td></td> <td></td> </tr> <tr> <td><b>CEC ID:</b></td> <td></td> <td></td> </tr> <tr> <td><b>WREGIS ID:</b></td> <td></td> <td></td> </tr> <tr> <td><b>Certification Date:</b></td> <td></td> <td></td> </tr> <tr> <td><b>On-line Date:</b></td> <td></td> <td></td> </tr> </table> <p>(collectively, the “Pooled Facilities”)</p> <p>The Parties acknowledge and agree that the Project consists of the Pooled Facilities and Seller is permitted to utilize the Pooled Facilities in order to satisfy its obligations hereunder.</p> <p>The Parties further acknowledge and agree that, with respect to Section 3.1(a) of this Confirmation, Product shall solely be limited to the actual Product generated and delivered by the Pooled Facilities used to satisfy the Contract Quantity, and that Buyer is not entitled to any additional Product produced by the Pooled Facilities in the Project above and beyond the Contract Quantity.</p> <p>Each of the Pooled Facilities shall have been certified by the CEC as an RPS-eligible resource and Seller shall have obtained LORS Certification for each of the Pooled Facilities.]</p>		<b>Name of Facility:</b> [   ]	<b>Name of Facility:</b> [   ]	<b>Location:</b>			<b>EIA Number:</b>			<b>CEC ID:</b>			<b>WREGIS ID:</b>			<b>Certification Date:</b>			<b>On-line Date:</b>		
	<b>Name of Facility:</b> [   ]	<b>Name of Facility:</b> [   ]																				
<b>Location:</b>																						
<b>EIA Number:</b>																						
<b>CEC ID:</b>																						
<b>WREGIS ID:</b>																						
<b>Certification Date:</b>																						
<b>On-line Date:</b>																						
<b>Renewable Energy Source:</b>	_____																					
<b>Term:</b>	The Term of this Transaction shall commence upon the Confirmation Effective Date and shall continue until the later of (i) the expiration of the Delivery Period and (ii) the satisfaction of all obligations of the Parties under this Agreement.																					
<b>Delivery Period:</b>	The Delivery Period of this Transaction shall commence on [   ], 20[   ] and shall continue until [delivery by Seller to Buyer of the Product has been completed/[   ], 20[   ]].																					
<b>Delivery Point:</b>	Buyer’s WREGIS account: SDG&E Account ID: 39																					



<b>Conditions:</b>	<p>The commencement of the Delivery Period shall be contingent upon satisfaction of the condition (the "Condition") that the Buyer obtain CPUC Approval of this Confirmation and the requested relief contained in the related advice letter filing.</p> <p>Both Parties shall take all reasonable action to satisfy this Condition.</p> <p>Either Party has the right to terminate this Agreement on notice, which will be effective five (5) Business Days after such notice is given, if the Condition has not been satisfied or waived by Buyer in its sole discretion within [ ] days after Buyer files its request for CPUC Approval and a notice of termination is given on or before the [ ] day after Buyer files the request for CPUC Approval.</p> <p>In the event of a termination under this section, neither Party shall be liable for any Termination Payment and Article 5 of the EEI Agreement shall not apply.</p>
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**ARTICLE 2  
DEFINITIONS**

"Accepted Electrical Practices" means (a) those practices, methods, applicable codes, and acts engaged in or approved by a significant portion of the electric power industry during the relevant time period, or (b) in the absence of such practices, methods, applicable codes, and acts, any of the practices, methods, and acts which, in exercise of reasonable judgment in light of the facts known at the time a decision is made, could have been expected to accomplish a desired result at reasonable cost consistent with good business practices, reliability, safety, and expedition. Acceptable Electrical Practices are not intended to be limited to the optimum practices, methods, or acts to the exclusion of other, but rather refers to a spectrum of practices, methods, and acts generally accepted, or approved by a significant portion of the electric power industry in the relevant region, during the relevant time period, as described in the immediately preceding sentence.

"CPUC" means the California Public Utilities Commission or its regulatory successor.

"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
- (b) Finds that any procurement pursuant to this Agreement is procurement of Renewable Energy Credits that 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, 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 *et seq.*), Decision 03-06-071, or other applicable law.

CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable.

"Delivered" or "Delivery" or "Deliver" means the transfer from Seller to Buyer of the Contract Quantity of the Product in accordance with the California RPS Program, including its regulations and procedures, necessary for recognition by WREGIS of the transfer to Buyer, or Seller's delivery to Buyer of a WREGIS Certificate.

“Delivery Date” means the date or dates on which the Product is Delivered pursuant to this Confirmation.

“Delivery Term” means “Delivery Period”.

“Firm” means Seller has agreed to sell and Deliver, and Buyer has agreed to buy and receive the Contract Quantity of the Product during the Delivery Period consistent with the terms of this Confirmation without excuse for non-Delivery by Seller except for Force Majeure, and as such, if Seller fails to Deliver the Product for any reason other than for Force Majeure, then Seller shall be the non-performing Party as set forth in Section 4.1 of the EEI Agreement and Buyer shall be the performing Party and shall be entitled to receive from Seller an amount determined pursuant to Section 4.1 of the EEI Agreement.

“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 (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and other pollutants;
- (2) Any avoided emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), 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>1</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 Buyer 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 Buyer’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are 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.

“LORS Certification” means certification by the CEC of an electric generation facility not located within the state of California that such facility meets California’s environmental quality laws, ordinances, regulations, and standards as set forth in the CEC’s RPS Eligibility Guidebook.

“Renewable Energy Credit” or “REC” has the meaning set forth in California Public Utilities Code Section 399.12(f) and CPUC Decision 10-03-021, as modified by CPUC Decision 11-01-025 and as may be

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<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.

amended from time to time or as further defined or supplemented by law.

“Renewable Energy Facility” means an electric generation unit or other facility or installation that produces electric energy using a Renewable Energy Source.

“Renewable Energy Source” means an energy source that is not fossil carbon-based, non-renewable or radioactive, and may include solar, wind, biomass, geothermal, landfill gas or wave, tidal and thermal ocean technologies.

“Reporting Year” means a twelve-month compliance period specified under WREGIS.

“Resource Contingent” means that Seller is obligated to Deliver the Product to the extent that the applicable Renewable Energy Source supports energy production by the applicable Renewable Energy Facility, subject to Force Majeure, curtailment ordered directly or indirectly from the CAISO, and the planned or forced outage of the Renewable Energy Facility (which is not the result of Seller’s negligence or willful misconduct), ***[Insert the following provision if SDG&E is not purchasing 100% of the output:*** and further subject to Seller’s obligation to allocate the production among all of its purchasers of Product from the Renewable Energy Facility during the Vintage [as follows: [insert].] If Seller otherwise fails to Deliver the Product, then Seller shall be the non-performing Party as set forth in Section 4.1 of the EEI Agreement and Buyer shall be the performing Party and shall be entitled to receive from Seller an amount determined pursuant to Section 4.1 of the EEI Agreement.

“RPS” means the California Renewables Portfolio Standard Program as codified at California Public Utilities Code Section 399.11 *et seq.*, and any decisions by the CPUC related thereto.

“Vintage” means the calendar year, Reporting Year or other period specified by the Parties or WREGIS in which the Product is created or first valid for use under the RPS.

“WREGIS” means the Western Renewable Energy Generation Information System or its successor organization recognized under applicable laws for the registration or recordation of Delivery, ownership or transfer of RECs.

“WREGIS Certificate” means “Certificate” as defined by WREGIS in the WREGIS Operating Rules.

“WREGIS Operating Rules” means the operating rules and requirements adopted by WREGIS.

### **ARTICLE 3 CONVEYANCE OF RENEWABLE ATTRIBUTES**

#### **3.1 Seller’s Conveyance of Contract Quantity of the Product and Green Attributes**

(a) 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.

(b) For each month of the Delivery Period, Seller shall deliver and convey the Contract Quantity of the Product and the Green Attributes pursuant to this Article 3 within five (5) Business Days after the end of the month in which the WREGIS Certificates for such Contract Quantity of the Product and the Green Attributes are created by properly transferring such WREGIS Certificates, in accordance with WREGIS Operating Rules, equivalent to Contract Quantity of the Product and the quantity of such Green Attributes, to Buyer into Buyer’s WREGIS account such that all right, title and interest in and to such WREGIS Certificates shall transfer from Seller to Buyer.

#### **3.2 WREGIS Registration**

During the Term, Seller, at its own cost and expense, shall maintain its registration of the Project with WREGIS and shall use commercially reasonable efforts to ensure that the Contract Quantity of the Product and all Green Attributes transferred to Buyer under this Confirmation count towards Buyer’s RPS requirements. The Project shall be certified by the CEC as an RPS-eligible resource and the Contract

Quantity of the Product and all Green Attributes transferred by Seller hereunder shall be designated California RPS-compliant with WREGIS. Seller shall, at its sole expense, use WREGIS as required pursuant to the WREGIS Operating Rules to effectuate the transfer of the Contract Quantity of the Product and the Green Attributes to Buyer in accordance with WREGIS reporting protocols and WREGIS Operating Rules.

### **3.3 Cooperation on Delivery; Review of Records; and Audit Rights**

(a) Upon either Party's receipt of notice from WREGIS that the transfer of any portion of the Product pursuant to this Confirmation will not be recognized, that Party will immediately so notify the other Party, providing a copy of such notice, and both Parties will cooperate in taking such actions as are necessary and commercially reasonable to cause such transfer to be recognized and the Delivery Obligation to be met. Each Party agrees to provide copies of its records to the extent reasonably necessary for WREGIS to perform the functions necessary pursuant to this Confirmation and to verify the accuracy of any fact, statement, charge or computation made pursuant hereto if requested by the other Party. If any fact, statement, charge or computation contained any inaccuracy, the necessary adjustments and any resulting payments will be made within 30 calendar days after the notification date, and the payments will bear interest at the Interest Rate from the date the overpayment or underpayment was made until paid.

(b) If Seller is not the owner or operator of the Project, Seller will cooperate with Buyer in any efforts to review the records of the original seller of such Product.

The obligations set forth in this Section shall terminate with respect to this Transaction on the later of 30 days following the last banking date under WREGIS for the Vintage of the Product Delivered, or the third anniversary of the Delivery Date.

(c) In addition to any audit rights that Buyer may have under the EEI Agreement, Seller shall, along with the initial invoice sent to Buyer by Seller under this Confirmation for any calendar year during the Term and at other times as may be requested by Buyer, provide documentation, including, but not limited to, meter data as recorded by a meter approved by the CAISO, sufficient to demonstrate that the Product has been conveyed and delivered, subject to the terms of this Confirmation, to Buyer. [**NOTE: CAISO meters may not be required for certain projects.**]

(d) Seller shall, at its own cost and expense, instruct WREGIS to provide Buyer with a WREGIS produced report of the generation activity from the Project following each month that the Project generates energy that is being used to Deliver the Product. Such information shall be limited to the amount of electric energy generated by the Project during the Term, and shall not include any information or reference to the transfer of WREGIS Certificates from Seller's account to any other entity.

## **ARTICLE 4 CPUC FILING AND APPROVAL**

Buyer shall file with the CPUC the appropriate request for CPUC Approval of this Confirmation. Buyer shall expeditiously seek CPUC Approval, including promptly responding to any requests for information related to the request for CPUC Approval. Seller shall use commercially reasonable efforts to support Buyer in obtaining CPUC Approval. Buyer has no obligation to seek rehearing or to appeal a CPUC decision which fails to approve this Confirmation or which contains findings required for CPUC Approval with conditions or modifications unacceptable to either Party.

## **ARTICLE 5 CREDIT AND COLLATERAL**

### **5.1 General Provisions**

[Both Parties agree that Sections 8.1(b) and 8.2(b) of the EEI Agreement shall not apply to this Confirmation. All implied rights relating to financial assurances arising from Section 2-609 of the Uniform Commercial Code or case law applying similar doctrines, are hereby waived. ]**[Credit terms will follow the policy outlined in Section 12 of the RFO.]**

## **5.2 Seller Collateral Requirements**

**[Credit terms will follow the policy outlined in Section 12 of the RFO.]**

# **ARTICLE 6 REPRESENTATIONS, WARRANTIES AND COVENANTS**

## **6.1 Seller's Representation, Warranties, and Covenants**

(a) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the 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.

(b) 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.

For the avoidance of doubt, the term "contract" as used in the immediately preceding paragraph means this Agreement.

(c) In addition to the foregoing, Seller warrants, represents and covenants, as of the Confirmation Effective Date and throughout the Term that:

- (i) Seller has the contractual rights to sell all right, title, and interest in the Product agreed to be delivered hereunder;
- (ii) Seller has not sold the Product to be delivered under this Confirmation to any other person or entity;
- (iii) at the time of Delivery, all rights, title, and interest in the Product to be delivered under this Confirmation are free and clear of all liens, taxes, claims, security interests, or other encumbrances of any kind whatsoever; and
- (iv) 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.

## **6.2 Seller's Representation, Warranties, and Covenants Related to the Project**

Seller warrants, represents and covenants that:

- (a) Seller will inspect, maintain, repair and operate the Project in accordance with applicable industry standards, the Project's permit requirements, and Accepted Electrical Practices; and
- (b) Seller will abide by all applicable laws in operating the Project.

**ARTICLE 7  
PAYMENT**

For purposes of Article 6 of the EEI Agreement, Seller shall invoice Buyer for the payment amount calculated as: (a) the Contract Price multiplied by (b) the Contract Quantity of the applicable Product specified herein. Buyer shall remit payment for the full amount on the thirtieth day of the calendar month following the month in which Buyer has verified the transfer and Delivery of the Product.

**ARTICLE 8  
AMENDMENTS TO EEI AGREEMENT**

**8.1 Force Majeure**

Notwithstanding Section 3.3 of the EEI Agreement to the contrary, Buyer and Seller agree that any failure by Seller to deliver the Product pursuant to this Confirmation due to any Force Majeure shall be deemed to be a failure by Seller to perform such delivery obligation if such failure continues for a period of [ninety (90) days] or more after the time such delivery was due to be made. Otherwise, the terms of Section 3.3 of the EEI Agreement shall apply to this Confirmation. Force Majeure may include the failure or disruption in Deliveries by WREGIS that is not the fault of the Party asserting the Force Majeure.”

**8.2 Governing Law/Waiver of Jury Trial/Venue**

For purposes of this Confirmation, Section 10.6, Governing Law, of the EEI Agreement is amended by replacing the Section in its entirety with the following:

**“GOVERNING LAW/WAIVER OF JURY TRIAL/VENUE. THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED 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. IN THE EVENT OF ANY LITIGATION TO ENFORCE OR INTERPRET ANY TERMS OF THIS AGREEMENT, THE PARTIES AGREE THAT SUCH ACTION WILL BE BROUGHT IN THE SUPERIOR COURT OF THE COUNTY OF SAN DIEGO, CALIFORNIA (OR, IF THE FEDERAL COURTS HAVE EXCLUSIVE JURISDICTION OVER THE SUBJECT MATTER OF THE DISPUTE, IN THE U.S. DISTRICT COURT FOR THE SOUTHERN DISTRICT OF CALIFORNIA), AND THE PARTIES HEREBY SUBMIT TO THE EXCLUSIVE JURISDICTION OF SUCH COURTS.”**

**8.3 Confidentiality** Section 10.11, Confidentiality, of the EEI Agreement is amended by deleting Section 10.11 in its entirety and inserting the following:

“10.11(a) 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 Affiliates and its and their officers, directors, 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 10.11(b) of this Agreement; (v) in order to comply with any applicable Law, regulation, or any exchange, control area or CAISO 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(a) ("Disclosure Order") each Party shall, to the extent practicable, use reasonable efforts to 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.

10.11(b) RPS Confidentiality. Notwithstanding Section 10.11(a) of this Agreement, at any time on or after the date on which the Buyer makes its filing seeking CPUC Approval of this Agreement, either Party shall be permitted to disclose the following terms with respect to this Agreement: Party names, resource type, Delivery Period, Project location, Contract Quantity, and Delivery Point."

## **ARTICLE 9 GENERAL PROVISIONS**

### **9.1 Prevailing Wage**

To the extent applicable, Seller shall comply with the prevailing wage requirements of Public Utilities Code Section 339.14, subdivision (h).

### **9.2 Facility Identification [If Project consists of Pooled Facilities]**

Within five (5) Business Days after the end of each month during the Delivery Period, Seller shall (a) identify the facility(s) from the Pooled Facility that the Product was delivered from for that month; (b) provide estimates of the quantity of Product that will be provided in the next month and the facility(s) from which it will be provided.

## **ARTICLE 10 TERMINATION**

Notwithstanding anything to the contrary in the EEI Agreement, including Section 7.1, the Parties shall determine the Termination Payment for this Transaction in accordance with Section 5 of the EEI Agreement. Furthermore, with respect to this Transaction only, the following language is to be added at the end of Section 5.2:

"If Buyer is the Non-Defaulting party and Buyer reasonably expects to incur penalties or fines from the CPUC, the California ISO or any other governmental entity for failure to meet RPS requirements due to Seller's Event of Default, then Buyer may, in good faith, estimate the amount of those penalties or fines and include this estimate in its determination of the Termination Payment, subject to accounting to Seller when those penalties or fines are finally ascertained. The rights and obligations with respect to determining and paying any Termination Payment and

any dispute resolution with respect thereto, shall survive termination of this Transaction and shall continue until after those penalties or fines are finally ascertained.”

**ARTICLE 11  
ADDITIONAL EVENTS OF DEFAULT**

It shall constitute an Event of Default as to Seller under Section 5.1 of the EEI Agreement if:

(a) Seller sells, assigns, or otherwise transfers, or commits to sell, assign, or otherwise transfer, the Product, or any portion thereof, or any benefits derived therefrom, to any party other than the Buyer; or

(b) Seller or the Project owner fails to maintain CEC Certification or LORS Certification, as applicable, for the Project from the CEC.

**ACKNOWLEDGED AND AGREED TO AS OF THE CONFIRMATION EFFECTIVE DATE:**

**By:** \_\_\_\_\_  
**Name:** \_\_\_\_\_  
**Title:** \_\_\_\_\_

**By:** \_\_\_\_\_  
**Name:** \_\_\_\_\_  
**Title:** \_\_\_\_\_



**Exhibit A**

**[attach EEI]**



**APPENDIX 8**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**2014 RPS SALE (REQUEST FOR PROPOSALS [“RFP”] DOCUMENT)**



**SAN DIEGO GAS AND ELECTRIC COMPANY**  
ELECTRIC AND GAS PROCUREMENT DEPARTMENT  
8315 CENTURY PARK COURT, CP21D  
SAN DIEGO, CA 92123

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**2014**

**REQUEST FOR PROPOSAL  
FOR THE SALE OF  
RENEWABLE ENERGY  
PRODUCTS**

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**ISSUED**  
X MONTH, 2014

**OFFERS DUE**  
X MONTH, 2014

**RFP WEBSITE**  
<http://www.sdge.com/salesRFP2014>

**EMAIL QUESTIONS/COMMENTS TO**  
[renewablerfo@semprautilities.com](mailto:renewablerfo@semprautilities.com)

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**1.0 SCOPE OF REQUEST**

As required by D.XX-XX-XXX, San Diego Gas & Electric Company (“SDG&E”) is issuing this Request for Proposal (“RFP”) seeking proposals from third parties (“Respondents”) who are interested in purchasing energy products from eligible renewable resources under contract with SDG&E (“Resources”). By responding, Respondents are bound by the terms and conditions of this RFP. Energy products are derived from Resources that meet the California Renewables Portfolio Standard (“RPS”) eligibility criteria set forth by the California Energy Commission (“CEC”) (See Section 5.0 for additional information on RPS Program Parameters). This RFP solicits bids from financial institutions, energy service providers, utilities, municipal utilities, industrial end users, wholesale power marketers, and any other entity that would have a need to purchase bundled energy or REC’s.

**Table 1 – Acceptable Product Types**

<b>Product Types:</b>	RPS Categories: Bundled (Category 1), Firmed and Shaped (Category 2), and REC (Category 3)
<b>Minimum Term:</b>	1 month
<b>Maximum Term:</b>	10 years (120 months)
<b>Delivery Window:</b>	Start no earlier than X, End no later than X+120 months <sup>1</sup>
<b>Point of Delivery:</b>	SP-15 EZ Gen Hub (Category 1) Location to be determined (Category 2), WREGIS Account (Category 3)
<b>Min Volume:</b>	50 GWh

A. Definition of Products

SDG&E is required to serve its customers in the following manner: (a) with an average of 20% of retail sales from renewable resources between January 1, 2011 and December 31, 2013, inclusive<sup>2</sup> (“Compliance Period 1”); (b) with 25% of retail sales from renewable resources by December 31, 2016, with reasonable progress made in 2014 and 2015<sup>3</sup> (“Compliance Period 2”); (c) with 33% of retail sales from renewable resources by December 31, 2020, with reasonable progress made in 2017, 2018 and 2019<sup>4</sup> (“Compliance Period 3”); and (d) with 33% of retail sales from renewable resources in each year beyond 2020<sup>5</sup> (“Post 2020 Compliance Period”).

SDG&E must meet these goals by procuring renewable resources that meet the requirements of the products outlined in Public Utilities Code 399.16(b). A summary of each product type is provided below:

**Category 1 (Public Utilities Code 399.16(b)(1)(A-B)): Bundled Products**

<sup>1</sup> Respondent to propose dates for purchase.

<sup>2</sup> Compliance towards Compliance Period 1 goals shall be measured as required by D.11-12-020, Ordering Paragraph (“OP”) 1.

<sup>3</sup> Compliance towards Compliance Period 2 goals shall be measured as required by D.11-12-020, OP 2.

<sup>4</sup> Compliance towards Compliance Period 3 goals shall be measured as required by D.11-12-020, OP 3.

<sup>5</sup> Compliance towards Post 2020 Compliance Period goals shall be measured as required by D.11-12-020, OP 4.

- Must have first point of interconnection (“POI”) with a California Balancing Authority (“CBA”); **or**
- Must have first POI with distribution facilities used to serve end users within a CBA; **or**
- Must be scheduled from the eligible renewable resource (“ERR”) into a CBA without substituting electricity from another source<sup>6</sup>; **or**
- Have an agreement to dynamically transfer electricity to a CBA.

**Category 2 (Public Utilities Code 399.16(b)(2): Firm and Shaped Products**

- Firm and shaped ERR products providing incremental electricity and scheduled into a CBA.

**Category 3 (Public Utilities Code 399.16(b)(3): Unbundled Renewable Energy Credits (“RECs”)**

- ERR products, or any fraction of the electricity generated, **including unbundled RECs**, that do not qualify under 399.16(b)(1-2).

The table below provides a high level overview of product categories being offered in this RFP. A more detailed discussion of RFP eligibility requirements is provided in Section 7.0 “Products & Eligibility Requirements.” SDG&E will also consider annual bids for less than the full compliance period (i.e. 2015 only, etc.), and bids for projects beyond Compliance Period 3.

**Table 2 – Product Types by Compliance Period**

	<b>Compliance Period 2: January 1, 2014- December 31, 2016</b>	<b>Compliance Period 3: January 1, 2017- December 31, 2020</b>	<b>Compliance Period 4: January 1, 2021 Forward</b>
<b>Category 1</b>	Volume As Bid	Volume As Bid	Volume As Bid
<b>Category 2</b>	Volume As Bid	Volume As Bid	Volume As Bid
<b>Category 3</b>	Volume As Bid	Volume As Bid	Volume As Bid

SDG&E is not selling Resource Adequacy (“RA”) with any of these Category 1 or Category 2 transactions. The final portfolio sale will be shaped as specified by the seller in the bid form. Offered resources may be:

- 1) Re-powered or existing facilities;
- 2) New facilities;

<sup>6</sup> If using another source to provide real-time ancillary services required to maintain an hourly or sub-hourly import schedule into a CBA is permitted, but only the fraction generated by the ERR will count as Category 1.

- 3) New facilities that are scheduled to come online during the years specified in this RFP; and/or
- 4) Other facilities.

B. Transaction Documents

- a) Category 1 and 2

Respondents bidding on bundled energy (“Category 1”), or firmed and shaped energy (“Category 2”) products must sign an Edison Electric Institute (“EEI”) Confirmation. Any resulting agreement shall be subject to CPUC approval. Additional respondent criteria are described in Section 7.0 “Products & Eligibility Requirements.”

- b) Unbundled REC Agreements

Respondents bidding on unbundled RECs (“Category 3”) products must sign SDG&E’s Model REC Agreement (See Section 4.0 RFP Response Instructions) to be provided to bidder upon shortlisting. Any resulting agreement shall be subject to CPUC approval. Additional eligibility requirements are described in Section 7.0 “Products & Eligibility Requirements.”

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## 2.0 RFP WEBSITE AND COMMUNICATIONS

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The RFP and all subsequent revisions and documents are available for download from the RFP Website (<http://www.sdge.com/procurement/salesRFP2014>). Potential Respondents are responsible for monitoring the RFP Website for subsequent updates, notices and postings.

The RFP website contains RFP forms and documents, RFP Schedule, and a Question and Answer forum.

All questions or other communications regarding this RFP must be submitted via email to [renewablerfo@semprautilities.com](mailto:renewablerfo@semprautilities.com) by the DEADLINE TO SUBMIT QUESTIONS as specified in Section 3.0 RFP Schedule. SDG&E will not accept questions or comments in any other form.



### 3.0 RFP SCHEDULE

The following schedule and deadlines apply to this RFP. SDG&E reserves the right to revise this schedule at any time and in SDG&E's sole discretion. Respondents are responsible for accessing the RFP Website for updated schedules and possible amendments to the RFP or the solicitation process.

N O.	ITEM	APPROX. DATE
1.	RFP Issued	DD/MM/YY
2.	Pre-Bid Conference (Webinar)	+ 10 business days after RFP issued
3.	DEADLINE TO SUBMIT QUESTIONS Question submittal cut-off date. Answers to all questions will be posted on the website no later than 3 business days following question submittal cutoff date	+14 business days after RFP issued
4.	CLOSING DATE: Offers must be emailed to and received by the RFP email inbox no later than <b>NOON</b> (Pacific Standard Time).	+ 21 business days after RFP issued
5.	SDG&E notifies the CPUC (Executive Director) that the RFP has closed.	Next business days after RFP closure
6.	SDG&E notifies winning Bidder(s).	+20 business days after Closing Date
7.	Letter due from winning Bidders indicating: a. Withdrawal from SDG&E's solicitation; OR b. Acceptance of the winning position and binding price confirmation.	+8 business days after Shortlist Notification
8.	SDG&E submits FINAL list of winning Bidders to Commission and PRG.	+10 business days after Shortlist Notification
9.	SDG&E issues appreciation notices to unsuccessful Bidders.	+20 business days after Shortlist Notification
10.	SDG&E commences with Transaction Document negotiations.	+ 30 business days after acceptance of shortlisting position
11.	SDG&E submits Tier 3 Advice Letters with agreements for Commission approval.	Up to 30 business days after contract execution

#### PRE-BID CONFERENCES

SDG&E will host one pre-bid webinar conference on X. While encouraged, participation in the pre-bid conference is NOT mandatory in order to submit an offer. Please monitor the RFP Website periodically. The venue and time will be posted as soon as arrangements are finalized.

Any party interested in attending this pre-bid conference and/or webinar should email the following information to [renewablerfo@semprautilities.com](mailto:renewablerfo@semprautilities.com). Please limit your participation to two representatives per organization.

- Company name
- Attendees' names, titles and contact information

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#### 4.0 RFP RESPONSE INSTRUCTIONS

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Respondents may submit up to 100 bids into this solicitation by submitting the forms listed below. Forms are available on the RFP Website. The failure to provide the listed information may result in the bids being deemed non-conforming and may disqualify the proposal from further consideration.

**Required Forms for Category 1 & 2 Offers:**

- 1) **Participation Summary**
- 2) **Bid Form**
- 3) **Credit Application**
- 4) **Transaction Document** – Respondents shall populate and redline the Transaction Agreement.

**Required Forms for Category 3 Offers:**

- 1) **Participation Summary**
- 2) **REC Bid Form**
- 3) **Credit Application**
- 4) **Model REC Agreement** – To be provided to bidder by SDG&E at time of shortlisting.

The Participation Summary and redlines to the Transaction Document must be in Word or Word-compatible format (not in PDF). The Pricing Form must be in Excel or Excel-compatible format (not in PDF). The Credit Application must be submitted in Word or Word-Compatible format (or in PDF).

**Submissions containing unsolicited materials, submissions in ZIP archives or other compressed formats, or submissions of individual bid documents in file formats other than the formats of the original bid forms, will be rejected. This RFP is an electronic only Solicitation; Respondents need not submit paper documents, or e-binders.**

Any party interested in submitting an offer must submit the offer via electronic mail (email) to [renewablerfo@semprautilities.com](mailto:renewablerfo@semprautilities.com), which is the RPS RFP inbox, and attach all required forms and bid materials to the email. All offers must be emailed no later than 12:00 p.m. (i.e. Noon), Pacific Standard Time, on the CLOSING DATE (see RFP Schedule). The Subject line of the email should be as follows: Bid Submission for SDG&E's 2014 Request for Proposal for sale Eligible Renewable Resources. A reply email from the RPS RFO inbox will be sent to the email address submitting the offer to confirm receipt of the offer.

If Respondents encounter technical difficulties with emailing, they should provide evidence of such difficulties (e.g. a screen shot of the error message) and email the bid again to the RPS RFP inbox by 1:00 p.m., Pacific Standard Time, on the Closing Date. If the Respondent encounters further technical difficulties with the RPS RFO inbox, they should provide evidence of such difficulties (e.g. a screen shot of the error message or a sent email notice with a time stamp before 1:00 p.m. on the Closing Date) and submit a hard copy and a CD of the bid package to SDG&E and the Independent Evaluator at the addresses below by close of business on the day following the Closing Date.

San Diego Gas & Electric Company  
Electric and Fuel Procurement Department  
Attn: 2014 Request For Proposal for  
Renewable Energy Products  
8315 Century Park Court, CP21D  
San Diego, CA 92123-1593

Independent Evaluator (IE)  
To Be Determined

All offer materials submitted in accordance with the above Response Instructions shall be subject to the confidentiality provisions of Section 11 “Confidentiality” of this RFP.

SDG&E will review and may utilize all information, if any, submitted by a Respondent that is not specifically requested as a part of any forms. During all stages of the RFP process, SDG&E reserves the right to request additional information from individual Respondents or to request any Respondent to submit supplemental materials in fulfillment of the content requirements of this RFP or to meet additional information needs. SDG&E also reserves the unilateral right to waive any technical or format requirements contained in the RFP.

ALL BIDS SHOULD BE VALID AND BINDING UPON THE RESPONDENTS ACCEPTANCE OF THE WINNING POSITION. BIDS SHALL REMAIN VALID AND BINDING UNTIL CONTRACT EXECUTION.

SDG&E WILL NOT REIMBURSE RESPONDENTS FOR THEIR EXPENSES UNDER ANY CIRCUMSTANCES, REGARDLESS OF WHETHER THE RFP PROCESS PROCEEDS TO A SUCCESSFUL CONCLUSION OR IS ABANDONED BY SDG&E IN ITS SOLE DISCRETION.

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## 5.0 RPS PROGRAM PARAMETERS

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### CALIFORNIA RPS PROGRAM

California's Renewable Portfolio Standard ("RPS") Program was adopted in 2002 and is codified at Public Utility Code sec 399.11, *et seq.*<sup>7</sup> In adopting the RPS legislation, the Legislature specifically found and declared that increasing California's reliance on renewable energy resources promotes the purpose of and may accomplish each of the following:

- Increase the diversity, reliability, public health and environmental benefits of the energy mix
- Promote stable electricity prices
- Protect public health and improve environmental quality
- Stimulate sustainable economic development and create new employment opportunities
- Reduce reliance on imported fuels
- Ameliorate air quality problems
- Improve public health by reducing the burning of fossil fuels

Current law requires Investor Owned Utilities (IOU's) to procure renewable energy in the amount of 33% of retail sales by 2020<sup>8</sup>. Unlike the prior annual RPS program, the 33% regime sets increasing targets for three multi-year Compliance Periods ("CPs"). The targets are set at 20% by the end of CP1 (2011-2013), 25% at the end of CP2 (2014-2016), and 33% by the end of CP3 (2017-2020). The CPUC issued its first decision implementing the RPS Program, D.03-06-071 on June 19, 2003. This decision established certain basic RPS Program parameters. The CPUC has subsequently issued several additional RPS-related decisions in rulemaking proceeding R.04-04-026, and successor proceedings R.06-02-012, R.06-05-027, R.08-08-009 and R.11-05-005. SDG&E will comply with all CPUC decisions governing RPS procurement. These decisions are publicly available on the CPUC's website at <http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm>.

This RFP is being conducted in compliance with relevant statutory and regulatory directives. Requirements set forth within the law and all directives shall be incorporated herein by reference. A full text of the law and the above-mentioned CPUC decisions can be downloaded from the CPUC website. Respondents are encouraged to review all RPS-related, CPUC issued directives available on the same Internet websites and are responsible for understanding and abiding by all RPS provisions.

### RPS ELIGIBILITY CRITERIA

Resources being offered in this solicitation are certifiable as an "eligible renewable resource" by the CEC. Eligibility criteria are set forth by the CEC in its [Renewable Portfolio Standard Eligibility Guidebook](#). The most recent revision to the CEC guidebook was adopted in April 30, 2013. It can be downloaded from the CEC's website at <http://www.energy.ca.gov/renewables/documents/index.html#rps>. Respondents are encouraged to review all RPS-related, CEC issued directives available on the same Internet website and are

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<sup>7</sup> See, Senate Bill (SB) 1078 (Stats. 2002 Ch. 516), as amended by SB 107, (Stats. 2006, Ch. 464).

<sup>8</sup> See, Senate Bill (SB) 2 (1x) (Simitian), stats. 2011, ch. 1

responsible for understanding and abiding by all RPS provisions. All requirements set forth within the CEC's guidebooks and all RPS-related documents shall be incorporated herein by reference.

#### **PROCUREMENT REVIEW GROUP**

The Procurement Review Group ("PRG"), a CPUC-endorsed entity, is composed of non-market participants such as ratepayers' advocacy groups, state energy and water commissions, power authorities, utility-related labor unions and other non-commercial, energy-related special interest groups. CPUC Decision D.03-06-071 established the role of the PRG. The PRG is charged with overseeing the IOU's procurement process, reviewing procedural fairness, examining overall procurement prudence and providing feedback during all stages. From RFP language development to offer evaluation to contract negotiation, IOUs brief the PRG on a periodic basis during the entire process.

Respondents are hereby notified that revealing confidential offer information to the PRG is required during PRG briefings in accordance with Section 11 ("Confidentiality"). Each Respondent must clearly identify, as part of its offer, what type of information it considers to be confidential.

#### **INDEPENDENT EVALUATOR**

The CPUC requires each IOU to use an Independent Evaluator to separately evaluate and report on the IOU's entire solicitation, evaluation, and selection process for this solicitation. This will serve as an independent review of SDG&E's implementation of the RFP process and final selections. The Independent Evaluator shall make periodic presentations regarding its findings to the IOU, and the IOU's PRG including the CPUC Energy Division staff. The intent is to preserve the independence of the Independent Evaluator by ensuring free and unfettered communication between the Independent Evaluator and the CPUC as well as an open, fair, and transparent process that the Independent Evaluator can affirm.

SDG&E is committed to ensuring an open and transparent solicitation, and to providing a fair, reasonable and competitive process.

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## 6.0 SDG&E BACKGROUND

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SDG&E provides electricity to 3.4 million consumers. It delivers the electricity through 1.4 million meters in San Diego County and an adjacent portion of southern Orange County. SDG&E also delivers natural gas through 855,000 meters in San Diego County and transports electricity and natural gas for others. The electric customer base comprises 89% residential and 11% commercial and industrial customers.

SDG&E's electric transmission network is comprised of 130 substations with 884 miles of 69-kV, 265 miles of 138-kV, 349 miles of 230-kV, and 215 miles of 500-kV transmission lines. Local ("on system") generating resources include the Encina plant (connected into SDG&E's grid at 138 kV and 230 kV), the Palomar Energy Center (connected at 230kV) and a number of combustion turbine facilities located around the service area (connected at 69 kV). Imported resources are received via the Miguel Substation as the delivery point for power flow on the Southwest Power Link, which is SDG&E's 500-kV transmission line that runs from Arizona to San Diego along the U.S./Mexico border, and via the San Onofre Nuclear Generating Station 230-kV switchyard.

The figure below shows a simplified diagram of existing SDG&E's service area, which encompasses an area of 4,100 square-miles and spans 2 counties and 25 communities.



For a map California IOU service territories please visit:

[http://www.energy.ca.gov/maps/serviceareas/electric\\_service\\_areas.html](http://www.energy.ca.gov/maps/serviceareas/electric_service_areas.html)

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## 7.0 PRODUCTS & ELIGIBILITY REQUIREMENTS

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### A. Compliance Periods.

In this RFP, SDG&E intends to offer short and medium term Category 1, 2, and 3 for the periods defined in Table 2 of the this document. Such products are defined below.

#### I. Category 1 Products

- a. Term: 10 years or less
- b. Pricing: SP-15 EZ Gen Hub day ahead index price plus premium expressed in \$/MWh
- c. Volume: To be bid in

#### II. Category 2 Products

- a. Term 10 years or less
- b. Pricing; CAISO locational price at the hub of delivery plus premium
- c. Volume to be bid in

#### III. Category 3 Products

- a. Term: 10 years or less
- b. Pricing: Bid REC price expressed in \$/MWh
- c. Volume: To be bid in

### Eligibility Requirements

1. WRIGIS Account; and
2. Credit Capability (See Section 12.0 “Credit Terms and Conditions”).



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## 8.0 EVALUATION CRITERIA AND SHORTLISTING

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All incoming Bids will be assessed for conformance. Respondents shall conform to the minimum eligibility criteria in order to be considered, please see RFP Response Instructions.

SDG&E will utilize all the information provided in the required forms and narratives to evaluate all Bids. Respondents are responsible for the accuracy of all information provided in response to this RFP.

SDG&E will periodically brief the members of the PRG during the various stages of evaluation. Upon completion of SDG&E's evaluation process, SDG&E will brief the PRG members regarding SDG&E's recommendations for its short-list. Based upon the comments and recommendations received from the PRG, SDG&E may modify the preliminary list of winning bids.

### QUANTITATIVE EVALUATION

SDG&E evaluates and ranks bids based on the pricing, volume and term information provided by the Bidders. SDG&E's analysis evaluates both quantitative and qualitative aspects of each bid to estimate its value to SDG&E's customers and its relative value in comparison to other Offers. SDG&E considers the value of selling surplus Renewable Energy as compared to the potential value of using surplus Renewable Energy to defer future RPS purchases to meet RPS compliance targets through banking. The quantitative valuation of an Offer takes into account SDG&E's RPS position and any opportunity costs associated with each transaction. A bid that minimizes overall cost to SDG&E's customers and satisfies all volumetric and timing constraints will be selected. The Offer will be accepted if it fulfills the quantitative and qualitative criteria and SDG&E decides to move forward to close a transaction.

### QUALITATIVE EVALUATION

Qualitative factors and benefits may be used to determine advancement onto the short list or evaluate tie-breakers, if any.

### ADHERENCE TO TERMS AND CONDITIONS

Respondents may not make material modification to the supplied Transaction Documents. SDG&E will review modifications of any terms and conditions proposed in the Offer and consider the materiality of these changes. Material changes will result in disqualification.

### BID CONFORMANCE EVALUATION

In addition to the elements described above, SDG&E may also reject a Bid if:

1. SDG&E uncovers evidence of market manipulation in the bid preparation and Offer process;
2. The Respondent does not provide adequate evidence it meets minimum participation criteria;
3. If there is a question as to whether or not the bids meet minimum eligibility criteria;
4. If the Respondent cannot fulfill the terms and conditions of the supplied Transaction Documents;

5. If the Respondent is unable to comply with RFP timing and other solicitation requirements; and/or
6. Respondent in SDG&E's sole judgment may not be able to provide or maintain the level of security of the transaction.

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**9.0 REJECTION OF OFFERS**

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SDG&E SHALL TREAT ALL RESPONDENTS FAIRLY AND EQUALLY AND SHALL EVALUATE ALL BIDS IN GOOD FAITH. WHILE SDG&E IS MINDFUL OF THE BENEFITS OF THIS RFP, IT MAKES NO GUARANTEE THAT A CONTRACT AWARD SHALL RESULT FROM THIS RFP EVEN AFTER A BID HAS BEEN SHORTLISTED. IN ADDITION, SDG&E NOTES THAT SHORTLISTING A BID DOES NOT CONSTITUTE SDG&E ACCEPTANCE OF ALL REDLINED CHANGES TO THE REQUIRED TRANSACTION AGREEMENT. SDG&E RESERVES THE RIGHT AT ANY TIME, AT ITS SOLE DISCRETION, TO ABANDON THIS RFP PROCESS, TO CHANGE THE BASIS FOR EVALUATION OF BIDS, TO TERMINATE FURTHER PARTICIPATION IN THIS PROCESS BY ANY PARTY, TO ACCEPT ANY BID OR TO ENTER INTO ANY DEFINITIVE AGREEMENT, TO EVALUATE THE QUALIFICATIONS OF ANY RESPONDENT OR THE TERMS AND CONDITIONS OF ANY BID, OR TO REJECT ANY OR ALL BIDS, ALL WITHOUT NOTICE AND WITHOUT ASSIGNING ANY REASONS AND WITHOUT LIABILITY OF SEMPRA ENERGY, SDG&E, OR ANY OF THEIR SUBSIDIARIES, AFFILIATES, OR REPRESENTATIVES TO ANY RESPONDENT. SDG&E SHALL HAVE NO OBLIGATION TO CONSIDER ANY BID.

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## 10.0 CONFIDENTIALITY

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EXCEPT AS STATED BELOW OR WITH THE PRIOR WRITTEN CONSENT OF SDG&E, RESPONDENTS MAY NOT DISCLOSE (OTHER THAN BY ATTENDANCE ALONE AT ANY MEETING TO WHICH MORE THAN ONE RESPONDENT IS INVITED BY SDG&E) TO ANY OTHER RESPONDENT OR POTENTIAL RESPONDENT THEIR PARTICIPATION IN THIS RFP, AND RESPONDENTS MAY NOT DISCLOSE, COLLABORATE ON, OR DISCUSS WITH ANY OTHER RESPONDENT, OFFER STRATEGIES OR THE SUBSTANCE OF OFFERS, INCLUDING WITHOUT LIMITATION THE PRICE OR ANY OTHER TERMS OR CONDITIONS OF ANY INDICATIVE OR FINAL OFFER. RESPONDENT MAY DISCLOSE THEIR PARTICIPATION IN THIS RFP, THEIR OFFER INFORMATION, AND THE NEGOTIATION PROCESS, TO THE CPUC, ITS STAFF, THE PRG AND THE IE UNDER APPROPRIATE CONFIDENTIALITY PROTECTIONS.

SDG&E WILL USE THE HIGHER OF THE SAME STANDARD OF CARE IT USES WITH RESPECT TO ITS OWN PROPRIETARY OR CONFIDENTIAL INFORMATION OR A REASONABLE STANDARD OF CARE TO PREVENT DISCLOSURE OR UNAUTHORIZED USE OF RESPONDENT'S CONFIDENTIAL AND PROPRIETARY INFORMATION THAT IS LABELED AS "PROPRIETARY AND CONFIDENTIAL" ON THE OFFER PAGE ON WHICH THE PROPRIETARY INFORMATION APPEARS ("CONFIDENTIAL INFORMATION"). RESPONDENT SHALL SUMMARIZE ELEMENTS OF THE OFFER(S) IT DEEMS CONFIDENTIAL. THE SUMMARY MUST CLEARLY IDENTIFY WHETHER OR NOT PRICE, PROJECT NAME, LOCATION, SIZE, TERM OF DELIVERY AND TECHNOLOGY TYPE (EITHER COLLECTIVELY OR INDIVIDUALLY) ARE TO BE CONSIDERED CONFIDENTIAL INFORMATION. CONFIDENTIAL INFORMATION MAY BE MADE AVAILABLE ON A "NEED TO KNOW" BASIS TO SDG&E'S DIRECTORS, OFFICERS, EMPLOYEES, CONTRACTORS, CONSULTANTS, THE INDEPENDENT EVALUATOR, AGENTS AND ADVISORS ("REPRESENTATIVES") FOR THE PURPOSE OF EVALUATING RESPONDENT'S OFFER, BUT SUCH REPRESENTATIVES SHALL BE REQUIRED TO OBSERVE THE SAME CARE WITH RESPECT TO DISCLOSURE AS SDG&E.

NOTWITHSTANDING THE FOREGOING, SDG&E MAY DISCLOSE ANY OF THE CONFIDENTIAL INFORMATION TO COMPLY WITH ANY LAW, RULE, OR REGULATION OR ANY ORDER, DECREE, SUBPOENA OR RULING OR OTHER SIMILAR PROCESS OF ANY COURT, SECURITIES EXCHANGE, CONTROL AREA OPERATOR, GOVERNMENTAL AGENCY OR GOVERNMENTAL OR REGULATORY AUTHORITY AT ANY TIME EVEN IN THE ABSENCE OF A PROTECTIVE ORDER, CONFIDENTIALITY AGREEMENT OR NON-DISCLOSURE AGREEMENT, AS THE CASE MAY BE, WITHOUT NOTIFICATION TO THE RESPONDENT AND WITHOUT LIABILITY OR ANY RESPONSIBILITY OF SDG&E TO THE RESPONDENT.

IT IS EXPRESSLY CONTEMPLATED THAT MATERIALS SUBMITTED BY A RESPONDENT IN CONNECTION WITH THIS RFP WILL BE PROVIDED TO THE CPUC, ITS STAFF, THE CEC, ITS STAFF, AND THE PRG. SDG&E WILL SEEK CONFIDENTIAL TREATMENT PURSUANT TO PUBLIC UTILITIES CODE SECTION 583 AND GENERAL

ORDER 66-C OF THE CPUC, WITH RESPECT TO ANY RESPONDENT CONFIDENTIAL INFORMATION SUBMITTED BY SDG&E TO THE CPUC FOR THE PURPOSES OF OBTAINING REGULATORY APPROVAL. SDG&E WILL ALSO SEEK CONFIDENTIALITY PROTECTION FROM THE CEC FOR RESPONDENT'S CONFIDENTIAL INFORMATION AND WILL SEEK CONFIDENTIALITY AND/OR NON-DISCLOSURE AGREEMENTS WITH THE PRG. SDG&E CANNOT, HOWEVER, ENSURE THAT THE CPUC OR CEC WILL AFFORD CONFIDENTIAL TREATMENT TO A RESPONDENT'S CONFIDENTIAL INFORMATION OR THAT CONFIDENTIALITY AGREEMENTS OR ORDERS WILL BE OBTAINED FROM AND/OR HONORED BY THE PRG, CEC, OR CPUC.

SDG&E, ITS REPRESENTATIVES, SEMPRA ENERGY, AND ANY OF THEIR SUBSIDIARIES DISCLAIM ANY AND ALL LIABILITY TO A RESPONDENT FOR DAMAGES OF ANY KIND RESULTING FROM DISCLOSURE OF ANY OF RESPONDENT'S INFORMATION.

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## 11.0 CREDIT TERMS AND CONDITIONS

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SDG&E has the unilateral right to evaluate and determine the credit-worthiness of the Respondent relative to this RFP. The Respondent is required to complete, execute and submit the RFP credit application as part of its offer. The application requests financial and other relevant information needed to demonstrate creditworthiness. Respondents may download the application from the RFP Website.

All credit support arrangements (e.g., parent guaranty, deed of trust, letter of credit) must be negotiated prior to an offer being accepted as a winning offer. The form of the security (e.g. parent guaranty, deed of trust, letter of credit) will be at SDG&E's sole discretion and will depend on various factors including Respondent's credit worthiness, product type, the volume and the term of the agreement. A model guaranty and a model letter of credit may be downloaded from the RFP Website as separate attachment to the Transaction Document.

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**12.0 CPUC APPROVAL**

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SDG&E shall submit all signed agreements to the CPUC for approval. CPUC approval that is final and non-appealable will be required as a condition precedent to the effectiveness of any contract resulting from this RFP, however, the winning bidder, in its sole discretion, may choose to take deliveries prior to such approval.



**APPENDIX 8.A**  
**SAN DIEGO GAS & ELECTRIC COMPANY**  
**2014 RPS SALES MODEL PPA (RPS SALES PPA)**



**Draft: for discussion purposes only.**  
**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

**WSPP AGREEMENT  
CONFIRMATION  
BETWEEN  
SAN DIEGO GAS & ELECTRIC COMPANY  
AND  
[INSERT NAME]**

This confirmation letter ("Confirmation") confirms the transaction ("Transaction") between **San Diego Gas & Electric Company** ("Seller" or "SDG&E" "Party B") and \_\_\_\_\_ ("Buyer" or "Party A"), each individually a "Party" and together the "Parties", effective as of \_\_\_\_\_, 2014 (the "Confirmation Effective Date"). This Transaction is governed by the WSPP Agreement effective as of May 9, 2013, along with any amendments and annexes executed between the Parties thereto (the "Master Agreement"). The Master Agreement and this Confirmation shall be collectively referred to herein as the "Agreement." Capitalized terms used but not otherwise defined in this Confirmation have the meanings ascribed to them in the Master Agreement or in the RPS (as defined below). If any term in this Confirmation conflicts with the Master Agreement, the definitions set forth in this Confirmation shall supersede.

<b>Buyer:</b>		<b>Seller:</b> San Diego Gas & Electric Company
<b>Contact Information:</b>	<b>Name:</b> (" <u>Buyer</u> ")	<b>Name:</b> San Diego Gas & Electric Company (" <u>Seller</u> ")
	<b>All Notices:</b> Attn: Phone: Facsimile: Duns: Federal Tax ID Number:	<b>All Notices:</b> San Diego Gas & Electric Company Street: 8315 Century Park Court City: San Diego, CA Zip: 92123 Attn: Electric & Fuel Procurement Contract Administration Phone: (858) 650-5536 Facsimile: (858) 650-6190 Duns: 006911457 Federal Tax ID Number: 95-1184800
	<b>Invoices:</b>	<b>Invoices:</b> San Diego Gas & Electric Company 8315 Century Park Ct. San Diego, California 92123-1593 Attn: Energy Accounting Manager Phone: (858) 650-6177 Facsimile: (858) 650-6190
	<b>Scheduling Agent:</b>	<b>Scheduling:</b> San Diego Gas & Electric Company 8315 Century Park Ct. San Diego, California 92123-1593 Attn: Transaction Scheduling Manager Phone: (858) 650-6160 Facsimile: (858) 650-6191

**Draft: for discussion purposes only.**  
**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

	<b>Payments:</b>	<b>Payments:</b> San Diego Gas & Electric Company PO Box 25110 Santa Ana, CA 92799-5110 Attn: Mail Payments Phone: (619) 696-4521 Facsimile: (619) 696-4899
	<b>Wire Transfer:</b>	<b>Wire Transfer:</b> BNK: Union Bank of California for: San Diego Gas & Electric Company ABA: Routing # 122000496 ACCT: #4430000352 Confirmation: SDG&E, Major Markets FAX:(213) 244-8316
	<b>Credit and Collections:</b>	<b>Credit and Collections:</b> San Diego Gas & Electric Company, Major Markets 555 W. Fifth Street, ML 10E3 Los Angeles, CA 90013-1011 Attn.: Major Markets, Credit and Collections Manager Fax No.: (213) 244-8316 Phone: (213) 244-4343
	<b>Defaults:</b> With additional Notices of an Event of Default or Potential Event of Default to:	<b>Defaults:</b> With additional Notices of an Event of Default or Potential Event of Default to: San Diego Gas & Electric Company 8330 Century Park Ct. San Diego, California 92123 Attn: General Counsel Phone: (858) 650-6141 Facsimile: (858) 650-6106

The Parties hereby agree that the General Terms and Conditions are incorporated herein, and to the following provisions as provided for in the General Terms and Conditions:

**ARTICLE 1  
COMMERCIAL TERMS**

**FIRM DELIVERY OBLIGATION**

<b>Seller: SAN DIEGO GAS &amp; ELECTRIC COMPANY</b>	<b>Buyer:</b>
<b>Scheduling:</b>	<u>Seller</u> Day Ahead: 858-650-6178  <u>Buyer</u> Day Ahead:  SCID: Contact information is for convenience and is subject to change by notice.

**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

<b>Product:</b>	<p>The Product is a Firm Delivery Obligation of all California Energy Commission-certified RPS Bundled Electric Energy and associated Green Attributes which meets the definition of a Category 1 Transaction in the Contract Quantity.</p> <p>During the Delivery Period, Seller shall deliver and sell, and Buyer shall purchase and receive, this Product, subject to the terms and conditions of this Confirmation. Seller shall not substitute or purchase any Green Attributes from any generating resource other than the Project for delivery hereunder.</p>
<b>Project:</b>	<p>All Product sold hereunder shall be from one or more of the facilities, each meeting the requirement of 6.1(a) and as listed in Exhibit A, as may be updated from time to time by written notice from Seller to Buyer (collectively, the "Project").</p> <p>The Parties acknowledge and agree that the Project consists of a pool of facilities physically located in California and that Seller is permitted to utilize one or more of these pooled facilities in order to satisfy its obligations hereunder.</p> <p>The Parties further acknowledge and agree that, with respect to Section 3.3(a) of this Confirmation, Product shall solely be limited to the actual Product generated and delivered by the pooled facilities used to satisfy the Contract Quantity, and that Buyer is not entitled to any additional Product produced by the pooled facilities in the Project above and beyond the Contract Quantity.</p>
<b>Contract Capacity</b>	<p>In any hour, as determined by Seller in accordance with the Scheduling Obligations section of this Confirmation</p>
<b>Contract Quantity:</b>	<p>"Contract Quantity" shall be equal to [____] MWhs per calendar month for a total of [____] MWhs in 20[XX] and [____] MWhs in 20[XX]. In the event Seller does not deliver any of the above specified quantities in a particular calendar month for any reason, except as excused by Uncontrollable Force, the Parties shall agree upon the make-up schedules for any undelivered quantities. If the Parties are unable to come to agreement on such make-up schedule, Buyer shall deliver the quantities to Seller in a reasonable manner and within a reasonable time.</p>
<b>Contract Price:</b>	<p>Index plus \$[XX.XX ] MWh</p>
<b>Term:</b>	<p>The Term of this Transaction shall commence upon the Confirmation Effective Date and shall continue until delivery by Seller to Buyer of the Contract Quantity of the Product has been completed and all other obligations of the Parties under this Agreement have been satisfied, unless terminated earlier due to failure to satisfy the Condition Subsequent or as otherwise provided in the Agreement.</p>
<b>Delivery Period:</b>	<p>The Delivery Period of this Transaction shall commence on [_____] and shall end at midnight on [_____] , unless extended for make-up deliveries as specified in the Contract Quantity Section or terminated in accordance with the terms herein.</p>
<b>Delivery Point:</b>	<p>TH_SP15_GEN-APND</p>
<b>Firm Delivery Obligation:</b>	<p>"Firm Delivery Obligation" shall have the following meaning:</p> <p>The obligation to provide the Contract Quantity is a firm obligation in that Seller shall deliver the quantity of the Product from the Project consistent with the terms of this Confirmation without excuse other than Uncontrollable Force. If a failure by Seller to deliver the quantity from the Project is not excused by Uncontrollable Force, Seller shall make up such failure in accordance with the "Contract Quantity" Section.</p>

SDG&E may insist on using the EEI master agreement depending on the credit evaluation.

<b>Scheduling Obligations:</b>	<p>Seller shall notify Purchaser of the quantity of energy to be delivered for each hour, prior to the beginning of each month and such quantity may be adjusted by Seller with notice to Purchaser at least twenty-four (24) hours prior to the Tariff's deadline to submit ISTs on a day-ahead basis in the IST-APN Integrated Forward Market, which amount shall be the "Designated Contract Capacity". For each hour of each day in the Delivery Period, Seller shall schedule to the Purchaser the Designated Contract Capacity, if any, as an IST-APN in the Integrated Forward Market at the Delivery Point on a day-ahead basis in accordance with the Tariff.</p> <p>In the event all of the scheduled quantity of the Product is not delivered after the IST has been scheduled between the Buyer and Seller, Buyer shall pay Seller the price paid to Buyer from the CAISO applicable to each hour times the IST quantity in that hour that exceeds the Product quantity actually delivered in that hour.</p>
<b>Scheduling Period:</b>	<p>In accordance with this Confirmation, Seller shall schedule and deliver to Purchaser the CAISO Energy in the Designated Contract Capacity amount, if any, for each hour during the Delivery Period.</p>
<b>Condition Subsequent:</b>	<p>The commencement of delivery of the California RPS-Eligible Electric Energy in accordance with Section 3.1 below shall begin on the first day of the Delivery Period.</p> <p>The commencement of delivery of the Green Attributes in accordance with Section 3.3 below shall be contingent upon the Seller obtaining or waiving approval by the CPUC of this Confirmation. Either Party has the right to terminate this Confirmation upon notice in accordance with Section 12 of the WSPP Agreement, which will be effective five (5) Business Days after such notice is given, if: (i) the CPUC does not issue a final and non-appealable order approving this Agreement or the requested relief contained in the related advice letter filing, both in their entirety, (ii) the CPUC issues a final and non-appealable order which contains conditions or modifications unacceptable to either Party, or (iii) the final and non-appealable approval by the CPUC has not been obtained by Seller, on or before [INSERT DEADLINE DATE].</p> <p>The date on which approval of the CPUC of this Confirmation has been obtained or waived, by Seller, in its sole discretion, shall hereinafter be the "Condition Subsequent Satisfaction Date."</p> <p>Any termination made by a Party under this section shall be without liability or obligation to the other Party, except for payment of any CAISO Energy already delivered and received before notice of such termination.</p> <p>Notwithstanding any other provision in this Confirmation, Seller will have no obligation to transfer Green Attributes to Purchaser unless the Condition Subsequent Satisfaction Date has occurred.</p>

## ARTICLE 2 DEFINITIONS

"Buyer" means "Purchaser".

"CAISO" means the California Independent System Operator.

"CAISO Energy" means "Energy" as defined in the Tariff.

"California Energy Commission-certified RPS Bundled Electric Energy" means electric energy from an Eligible Renewable Energy Resource, as such term is defined in Public Utilities Code Section 399.12 and 399.16.

**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

“Category 1 Transaction” means procurement of product that meets the product content requirements under Public Utilities Code Section 399.16(b)(1) as adopted in Senate Bill 2 (1x), enacted on April 12, 2011 in the First Extraordinary Session of the Legislature in a manner consistent with Section 3203 (a) of the Enforcement Procedure for the Renewable Portfolio Standard for Local Publicly Owned Electric Utilities, as adopted by the California Energy Commission on June 12, 2013, as may be further amended.

“Condition Subsequent Satisfaction Date” means the date on which CPUC approval, as fully described in the “Condition Subsequent” provision, has been obtained or waived, by Seller, in its sole discretion.

“CPUC” means the California Public Utilities Commission or its regulatory successor.

“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
- (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 *et seq.*), Decision 03-06-071, or other applicable law.

CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable.

Notwithstanding the foregoing, if a Tier 2 or Tier 3 advice letter process is used to obtain CPUC Approval of this Agreement, CPUC Approval will also be deemed to have occurred on the date that a CPUC Energy Division disposition which contains such findings or deems approved an advice letter requesting such findings becomes final and non-appealable.

“Day-Ahead” has the meaning set forth in the Tariff.

“Delivery Period” means “Delivery Term”.

“Designated Contract Capacity” means the amount determined by Seller in accordance with the Scheduling Obligations section of this Confirmation.

“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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), 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>1</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

<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.



**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

Green Tag Purchaser's discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are 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.

"Index" means the CAISO Integrated Forward Market Day-Ahead price (as such term is defined in the Tariff) for the Delivery Point for each applicable hour as published by the CAISO on the CAISO website; or any successor thereto, unless a substitute publication and/or index is mutually agreed to by the Parties, averaged for the quantity of energy that is delivered under this Confirmation for each Scheduling Period.

"Integrated Forward Market" has the meaning set forth in the Tariff.

"Monthly Contract Capacity" has the meaning set forth in the "Contract Capacity" section of this Confirmation.

"Off-Peak Period" means any hour that is not an On-Peak Period.

"On-Peak Period" has the meaning established by the North American Energy Standards Board, as may be updated from time to time.

"RPS" means the California Renewable Portfolio Standard Program as codified at California Public Utilities Code Section 399.11 *et seq.*, the Enforcement Procedures for the Renewable Portfolio Standard for Local Publicly Owned Electric Utilities, as adopted by the California Energy Commission on June 12, 2013, as may be further amended.

"Tariff" means the tariff and protocol provisions, including any current CAISO-published "Operating Procedures" and "Business Practice Manuals," as amended or supplemented from time to time, of the CAISO.

"Vintage" means the calendar year and month during the Delivery Period in which the WREGIS Certificate is created through the generation of the Product.

"WREGIS" means the Western Renewable Energy Generation Information System or other process recognized under applicable laws for the registration, transfer or ownership of Green Attributes.

"WREGIS Certificate" means "Certificate" as defined by WREGIS in the WREGIS Operating Rules.

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**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

"WREGIS Operating Rules" means the operating rules and requirements adopted by WREGIS.

### **ARTICLE 3 CONVEYANCE OF RENEWABLE ENERGY**

#### **3.1 Seller's Conveyance Of Electric Energy**

Except as stated in this Section 3.1 and beginning on the first day of the Delivery Period and throughout all applicable months of the Delivery Period, Seller shall deliver and sell, and Buyer shall purchase and receive, the Product, subject to the terms and conditions of this Confirmation. Seller will not be obligated to sell or replace any Product that is not or cannot be delivered as a result of Uncontrollable Force.

Should any electric energy provided by Seller under this Confirmation be determined to have originated from a resource other than the Project, Seller shall remedy such failure in a manner reasonably acceptable to Buyer within a reasonable period of time after written notice of such failure is given to the Seller by the Buyer.

#### **3.2 Reserved**

#### **3.3 Seller's Conveyance Of Green Attributes**

(a) 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.

The Green Attributes are delivered and conveyed upon completion of all actions described in Section 3.3(b) below.

##### **(b) Green Attributes Initially Credited to Seller's WREGIS Account**

(A) During the Delivery Period, Seller, at its own cost and expense, shall maintain its registration with WREGIS. All Green Attributes transferred by Seller hereunder shall be designated California RPS-compliant with WREGIS. Seller shall, at its sole expense, use WREGIS as required pursuant to the WREGIS Operating Rules to effectuate the transfer of Green Attributes to Buyer in accordance with WREGIS reporting protocols and WREGIS Operating Rules.

(B) For each applicable month of the Delivery Period, Seller shall deliver and convey the Green Attributes associated with the electric energy delivered in Section 3.1 within five (5) Business Days after the end of the month in which the WREGIS Certificates for the Green Attributes are created by properly transferring such WREGIS Certificates, in accordance with the rules and regulations of WREGIS, equivalent to the quantity of Green Attributes to Purchaser into Purchaser's WREGIS account such that all right, title and interest in and to the WREGIS Certificates shall transfer from Seller to Purchaser. Provided, however, that Seller shall not be obligated to deliver and convey any Green Attributes or the associated WREGIS Certificates prior to the Condition Subsequent Satisfaction Date. Upon the Condition Subsequent Satisfaction Date, Seller shall deliver and convey the Green Attributes associated with the electric energy delivered in Section 3.1 within five (5) Business Days after the Condition Subsequent Satisfaction Date (and after the WREGIS Certificates for the Green Attributes are created) by properly transferring the WREGIS Certificates for such Green Attributes, in accordance with the rules and regulations of WREGIS, into Purchaser's WREGIS account such that all right, title and interest in and to the WREGIS Certificates shall transfer from Seller to

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Purchaser.

(C) In addition to its other obligations under this Section 3.3, Seller shall convey to Buyer WREGIS Certificates from the Project that are of the same Vintage as the Product that was provided under Section 3.1 of this Confirmation.

#### **ARTICLE 4 CPUC FILING AND APPROVAL**

Within [INSERT] days after the Confirmation Effective Date, Seller shall file with the CPUC the appropriate request for CPUC approval of this Agreement and possibly other agreements. Seller shall seek CPUC approval of the filing, including promptly responding to any requests for information related to the request for CPUC approval. Buyer shall use commercially reasonable efforts to support Seller in obtaining CPUC approval. Seller and Buyer have no obligation to seek rehearing or to appeal a CPUC decision which fails to approve this Agreement, or which fails to meet the requirements contained in the Condition Subsequent section.

#### **ARTICLE 5 COMPENSATION**

Purchaser will pay Seller as follows:

Calculation Period:	Each calendar month during the Delivery Period.
Monthly Cash Settlement Amount:	The Monthly Cash Settlement Amount for the period prior to the Condition Subsequent Satisfaction Date and for the period after the Condition Subsequent Satisfaction Date shall be as follows:
Interim Period (Prior to Condition Subsequent Satisfaction Date):	For each Calculation Period that occurs prior to the Condition Subsequent Satisfaction Date ("Interim Period"), Purchaser shall pay Seller the Monthly Cash Settlement Amount, in arrears, in the amount equal to the sum of the following: the product, for each hour of the Calculation Period, of the applicable Index Price for each hour, multiplied by the quantity of CAISO Energy scheduled, delivered and received by Purchaser pursuant to Section 3.1 during that hour.
Upon Condition Subsequent Satisfaction Date:	Upon the Condition Subsequent Satisfaction Date, Purchaser shall make a one-time payment to Seller for the Green Attributes associated with the CAISO Energy delivered pursuant to Section 3.1 during Calculation Periods during the Interim Period (the "Adjustment Amount") in the amount equal to the product of the following: (a) [XX.XX] multiplied by (b) the quantity of Green Attributes (in MWhs) associated with the CAISO Energy delivered during the Interim Period. If the Condition Subsequent Satisfaction Date does not occur prior to the end of the Delivery Term, Seller shall not deliver title to any accrued Green Attributes to Purchaser and Purchaser shall have no payment obligation to Seller for any Green Attributes.



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After Condition Subsequent  
Satisfaction Date:

After the Condition Subsequent Satisfaction Date, Purchaser shall pay Seller the Monthly Cash Settlement Amount, in arrears, for each Calculation Period in the amount equal to the sum of the following: (a) the sum, over all hours of the Calculation Period, of the product for each such hour of the applicable Index price for each hour, multiplied by the quantity of CAISO Energy scheduled, delivered and received by Purchaser pursuant to Section 3.1 during that hour; plus (b) the product of \$[XX.XX] multiplied by the quantity of Green Attributes (in MWhs) delivered or credited to Purchaser's WREGIS account pursuant to Section 3.3 during the applicable Calculation Period.

Payment Date:

Notwithstanding any provision to the contrary in Section 9.2 of the Master Agreement, payments of each Monthly Cash Settlement Amount by Purchaser to Seller under this Confirmation shall be due and payable on or before the later of the twentieth (20<sup>th</sup>) day of the month in which the Purchaser receives from Seller an invoice for the Calculation Period to which the Monthly Cash Settlement Amount pertains, or within ten (10) Business Days, or, if such day is not a Business Day, then on the next Business Day, following receipt of an invoice issued by Seller for the applicable Calculation Period. The invoice shall include a statement detailing the portion of Product transferred to Purchaser during the applicable Calculation Period.

Invoices to Buyer will be sent by hard copy and PDF format to: **[TO BE INSERTED]**

Attn:  
Address:  
Email:  
Phone:  
Facsimile:

For purposes of this Confirmation, Buyer shall be deemed to have received an invoice upon the receipt of either the hard copy or PDF format of the invoice, whichever comes first.

Payment to Seller shall be made by electronic funds transfer pursuant to the following:

BNK: Union Bank of California  
For: San Diego Gas & Electric Company  
ABA: Routing # 122000496  
ACCT: #4430000352  
Confirmation: SDG&E, Major Markets  
FAX :( 213) 244-8316

With a copy to:

**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

San Diego Gas & Electric Company  
8315 Century Park Ct.  
San Diego, California 92123-1593  
Attn: Energy Accounting Manager  
Phone: (858) 650-6177  
Facsimile: (858) 650-6190

## **ARTICLE 6 REPRESENTATIONS, WARRANTIES AND COVENANTS**

### **6.1 Seller's Representation, Warranties, and Covenants Related to Green Attributes**

- (a) 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 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.

(b) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the 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.

The term "commercially reasonable efforts" as set forth in Sections 6.1 (a) and (b) above shall not require Seller to incur out-of-pocket expenses in excess of \$25,000 in the aggregate in any one calendar year between the Confirmation Effective Date and the last day of the Term.

(c) 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.

For the avoidance of doubt, the term "contract" as used in the immediately preceding paragraph means this Agreement.

(d) In addition to the foregoing, Seller warrants, represents and covenants, as of the Confirmation Effective Date and throughout the Delivery Period, that:

- (i) Seller has the contractual rights to sell all right, title, and interest in the Product agreed to be delivered hereunder;
- (ii) Seller has not sold the Product to be delivered under this Confirmation to any other person or entity; and

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(iii) at the time of delivery, all rights, title, and interest in the Product to be delivered under this Confirmation are free and clear of all liens, taxes, claims, security interests, or other encumbrances of any kind whatsoever.

## **ARTICLE 7 GENERAL PROVISIONS**

### **7.1 Facility Identification**

Upon Buyer's reasonable request, within ten (10) Business Days after the end of each month during the Delivery Period, Seller shall provide indicative identification, based on preliminary meter data, of the facility(s) from the pooled facility that the Product was delivered from for that month.

## **ARTICLE 8 GOVERNING LAW**

### **Section 8.2 Governing Law/Venue**

THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED 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. The Parties hereby irrevocably and unconditionally agrees that any legal action or proceeding with respect to this Agreement shall be brought in the courts of the State of California in the County of Riverside or the courts of the United States in the County of San Diego, and by executing and delivering this Agreement, both Parties hereby submit to and accept irrevocably and unconditionally, the jurisdiction of the above mentioned courts. The foregoing, however, shall not limit the right of either Party as it may elect to bring any legal action or proceeding or to obtain execution of judgment in any other appropriate jurisdiction.

## **ARTICLE 9 SOVEREIGN IMMUNITY**

**[NOTE TO BIDDERS: insert only if applicable to governmental agencies, etc.] For purposes of this Confirmation only, the WSPP Agreement is amended by adding the following new provision: "Purchaser hereby waives sovereign immunity with regard to disputes relating to this Confirmation."**

## **ARTICLE 10 CONFIDENTIALITY**

**10.1 Amendment to WSPP Agreement. Changes to the WSPP shall apply to this Confirmation only.** For purposes of this Confirmation, Section 30 (Confidentiality) of the WSPP Agreement is deleted in its entirety and replaced with the following:

"30.1(a) 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 Affiliates and its and their officers, directors, employees, lenders, counsel, accountants or advisors who have a need to know such

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**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

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 30.1(b) of this Agreement; (v) in order to comply with any applicable law, regulation, including, but not limited to, the California Public Records Act and/or the California Ralph M Brown Act, or any exchange, control area or CAISO 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 30.1(a) ("Disclosure Order") each Party shall, to the extent practicable, use reasonable efforts within its sole and absolute discretion to pursue rights under such applicable laws, regulations, rules or orders which allow for the prevention or limitation of such disclosure. The Disclosing Party's determination of what efforts might be reasonable shall not be subject to challenge by the other Party. 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.

(b) RPS Confidentiality. Notwithstanding Section 30.1(a) of this Agreement, at any time on or after the date on which the Seller makes its filing seeking CPUC approval for this Agreement, either Party shall be permitted to disclose the following terms with respect to this Agreement: Party names, resource type, Delivery Term, project location, Contract Capacity, Contract Quantity, and Delivery Point.

(c) Publicity. Except as otherwise agreed to in this Section 30.1 above, no announcement, publicity, advertising, press release, promotional or marketing materials regarding the arrangement contemplated under this Agreement, including the existence hereof, shall be made by either Party without the prior written approval of the other Party which approval shall not be unreasonably withheld or delayed." Notwithstanding the foregoing, the Parties understand acknowledge and agree that Buyer is a California Public Agency and that certain actions and documents of Buyer are subject to public notice and/or disclosure under applicable laws and regulations, including, but not limited to, the California Public Records Act and/or the California Ralph M. Brown Act, and that Buyer is not obligated to seek prior approval of Seller when Buyer is complying, in its sole and absolute discretion, with such laws and regulations.

**ACKNOWLEDGED AND AGREED TO AS OF THE CONFIRMATION EFFECTIVE DATE:**

**SAN DIEGO GAS & ELECTRIC COMPANY**

**[INSERT NAME OF PURCHASER]**

**BY:** \_\_\_\_\_

**BY:** \_\_\_\_\_

**NAME:**

**NAME:**

**TITLE:** Vice President-  
Electric & Fuel Procurement

**TITLE:**

\_\_\_\_\_ APPROVED AS TO LEGAL FORM

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**SDG&E may insist on using the EEI master agreement depending on the credit evaluation.**

**EXHIBIT A**

**TO THE CONFIRMATION BETWEEN \_\_\_\_\_ AND SAN DIEGO GAS & ELECTRIC  
COMPANY DATED: \_\_\_\_\_**

[NOTE: Exhibits to be added before execution]

DRAFT



**APPENDIX 9**

**SAN DIEGO GAS & ELECTRIC COMPANY  
REDLINE OF DRAFT 2014 RPS SOLICITATION PROTOCOL  
AGAINST FINAL 2014 RPS SOLICITATION DOCUMENTS  
(RPS MODEL PPA)**

| *[Form of PPA for As-Available, Baseload, Peaking or Dispatchable Product]*

[Standard contract terms and conditions that “may not be modified” per CPUC D.04-06-014 and subsequent decisions are shown in red shaded text and standard contract terms and conditions that may be modified per CPUC D.04-06-014 and subsequent decisions are shown in green shaded text.]

**POWER PURCHASE AGREEMENT**

**Between**

**SAN DIEGO GAS & ELECTRIC COMPANY**  
(as “Buyer”)

and

\_\_\_\_\_  
(as “Seller”)

**POWER PURCHASE AGREEMENT**

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**COVER SHEET**

This Power Purchase Agreement is made as of the following date: [\_\_\_\_\_]. This Power Purchase Agreement and all exhibits, schedules, appendices, and any written supplements hereto, any designated collateral, credit support or margin agreement or similar arrangement between the Parties as well as all written and signed amendments and modifications thereto shall be a part of, and shall be referred to as, the "Agreement." The Parties to this Agreement (hereinafter individually a "Party" and collectively the "Parties") are the following:

**Name:** \_\_\_\_\_ ("Seller")  
**All Notices:**  
Street: \_\_\_\_\_  
City: \_\_\_\_\_ Zip: \_\_\_\_\_  
Attn: Contract Administration  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
Duns: \_\_\_\_\_  
Federal Tax ID Number: \_\_\_\_\_

**Invoices:**  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

**Scheduling:**  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

**Payments:**  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

**Wire Transfer:**  
BNK: \_\_\_\_\_  
ABA: \_\_\_\_\_  
ACCT: \_\_\_\_\_  
Confirmation: \_\_\_\_\_  
FAX: \_\_\_\_\_

**Credit and Collections:**  
\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_

**Name:** San Diego Gas & Electric Company ("Buyer")  
**All Notices:**  
Street: 8315 Century Park Court  
City: San Diego, CA Zip: 92123  
Attn: Electric & Fuel Procurement - Contract Administration  
Phone: (858) 636-5536  
Facsimile: (858) 650-6190  
Duns: 006911457  
Federal Tax ID Number: 95-1184800

**Invoices:**  
San Diego Gas & Electric Company  
8315 Century Park Ct.  
San Diego, California 92123-1593  
Attn: Electric & Fuel Procurement – Invoicing and Reporting  
Phone: (858) 650-6187  
Facsimile: (858) 650-6190

**Scheduling:**  
San Diego Gas & Electric Company  
8315 Century Park Ct.  
San Diego, California 92123-1593  
Attn: Transaction Scheduling Manager  
Phone: (858) 650-6160  
Facsimile: (858) 650-6191

**Payments:**  
San Diego Gas & Electric Company  
PO Box 25110  
Santa Ana, CA 92799-5110  
Attn: Mail Payments  
Phone: (619) 696-4521  
Facsimile: (619) 696-4899

**Wire Transfer:**  
BNK: Union Bank of California  
for: San Diego Gas & Electric Company  
ABA: Routing # 122000496  
ACCT: #4430000352  
Confirmation: SDG&E, Major Markets  
FAX: (213) 244-8316

**Credit and Collections:**  
San Diego Gas & Electric Company, Major Markets  
555 W. Fifth Street, ML 18A3  
Los Angeles, CA 90013-1011  
Attn.: Major Markets, Credit and Collections

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

With additional Notices of an Event of Default or  
Potential Event of Default to:

\_\_\_\_\_

\_\_\_\_\_

Attn: \_\_\_\_\_

Phone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

Manager

Fax No.: (213) 244-8316

Phone: (213) 244-4343

With additional Notices of an Event of Default or  
Potential Event of Default to:

San Diego Gas & Electric Company

8330 Century Park Ct.

San Diego, California 92123

Attn: General Counsel

Phone: (858) 650-6141

Facsimile: (858) 650-6106

## GENERAL TERMS AND CONDITIONS

### ARTICLE ONE: GENERAL DEFINITIONS

1.1 General. The following terms shall have the following meaning for purposes of this Agreement.

“[AAA][JAMS]” means [the American Arbitration Association] [JAMS, Inc.].

“Affiliate” means, with respect to any person, any other person (other than an individual) that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, such person. For this purpose, “control” means the direct or indirect ownership of fifty percent (50%) or more of the outstanding capital stock or other equity interests having ordinary voting power.

“Agreement” has the meaning set forth in the preamble to the Cover Sheet.

“Arbitration” has the meaning set forth in Section 12.3.

***[For As-Available Product only:*** “As-Available” means a Product for which, subject to the terms of this Agreement, Seller is excused from selling and delivering the Product to Buyer, and Seller shall not be liable to Buyer for any damages determined pursuant to Section 3.1(h) of the Agreement, in the event that Seller fails to deliver the Product to Buyer for any of the following reasons:

- (a) if the Project is unavailable as a result of a Forced Outage and such Forced Outage is not the result of Seller’s negligence or willful misconduct;
- (b) Force Majeure;
- (c) by the Buyer’s failure to perform;
- (d) by a Planned Outage of the Project;
- (e) a reduction in output as ordered under Dispatch Down Periods; or
- (f) [the unavailability of landfill gas which was not anticipated as of the Execution Date, 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 Project 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 Project’s 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

Execution Date, 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 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.] OR [insufficient solar power for the Project to generate energy as determined by the best solar standards utilized by other solar producers or purchasers in the vicinity of the Project.]

**[For Dispatchable Product only:** “Availability Adjustment Factor” has the meaning set forth in Section 4.1(b).]

“Availability Incentive Payments” shall mean Availability Incentive Payments as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

**[For Dispatchable Product only:** “Availability Notice” has the meaning set forth in Section 3.3([f/g]).]

“Availability Standards” shall mean Availability Standards as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

“Bankrupt” means with respect to any entity, such entity that (a) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy, insolvency, reorganization or similar Law, (b) has any such petition filed or commenced against it which remains unstayed or undismitted for a period of sixty (60) days, (c) makes an assignment or any general arrangement for the benefit of creditors, (d) otherwise becomes bankrupt or insolvent (however evidenced), (e) has a liquidator, administrator, receiver, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets, or (f) is generally unable to pay its debts as they fall due.

**[For Baseload Product only:** “Baseload” means a Unit Firm Product for which the delivery levels are uniform twenty-four (24) hours per day, seven (7) days per week.]

“Bundled Green Energy” means Energy, Green Attributes, and any other Product, the quantity of which is measured based on the amount of Delivered Energy, in each case, that is produced by or associated with the Project. The quantity of Bundled Green Energy shall be equal to the lesser of the quantity of (i) **[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program: Contract Energy] [When SDG&E is SC for the Project and Project is in the VER Forecasting Program: Delivered Energy]** (ii) Green Attributes that are delivered to Buyer, and (iii) any other Product that is delivered to Buyer, the quantity of which is measured based on the amount of Delivered Energy. For example, if the quantity of Renewable Energy Credits that are delivered to Buyer is less than the quantity of the **[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program: Contract Energy] [When SDG&E is SC for the Project and Project is in**

**the VER Forecasting Program:** Delivered Energy], then the quantity of Bundled Green Energy shall be equal to the quantity of Renewable Energy Credits that are delivered to Buyer.

“Business Day” means any day except a Saturday, Sunday, or a Federal Reserve Bank holiday and shall be between the hours of 8:00 a.m. and 5:00 p.m. local time for the relevant Party’s principal place of business where the relevant Party, in each instance unless otherwise specified, shall be the Party from whom the Notice, payment or delivery is being sent and by whom the Notice or payment or delivery is to be received.

“Buyer” has the meaning set forth on the Cover Sheet.

“CAISO” means the California Independent System Operator Corporation or any successor entity performing similar functions.

**[When SDG&E is the SC for the Project:** “CAISO Charges Invoice” has the meaning set forth in Section 3.3([a/b])(iv).]

“CAISO Grid” means the system of transmission lines and associated facilities of the Participating Transmission Owners that have been placed under the CAISO’s operational control.

“CAISO Tariff” means the CAISO Operating Agreement and Tariff, including the rules, protocols, procedures and standards attached thereto, as the same may be amended or modified from time-to-time and approved by FERC.

“California Renewables Portfolio Standard” means the Renewables Portfolio Standard of California under California Senate Bills 1078 and 107, as codified in California Public Utilities Code Sections 387, 390.1, and Article 16 (commencing with Section 399.11) of Chapter 2.3 of Part 1 of Division 1, as such provisions are amended or supplemented from time to time.

“Capacity Attributes” means any current or future defined characteristic, certificate, tag, credit, or ancillary service attribute, whether general in nature or specific as to the location or any other attribute of the Project intended to value any aspect of the capacity of the Project to produce Energy or ancillary services, including but not limited to any accounting construct so that the Contract Capacity of the Project may be counted toward a Resource Adequacy obligation or similar measure in respect to the capacity of the Project to generate Energy by the CPUC, the CAISO, the FERC, or any other entity vested with the authority under federal or state Law, to require Buyer to procure, or to procure at Buyer’s expense, Resource Adequacy or other similar products.

**[For Dispatchable Product only:** “Capacity Price” has the meaning set forth in Section 4.1(a).]

**[For Baseload, Peaking, or Dispatchable Product only:** “Capacity Test” shall be the complete capacity testing procedure for the Project that is reasonably acceptable to Buyer that Seller shall develop no later than thirty (30) days prior to the initial capacity testing of the Project prior to the Commercial Operation Date. The capacity testing procedure shall describe in detail the testing standard(s) to be used for the technology of the Project, the conditions under which

testing shall take place, the average summer ambient conditions to which the results will be corrected, and the testing procedures. The same capacity testing procedure shall be applied to all subsequent Capacity Tests.]

“CEC” means the California Energy Commission or its successor agency.

“CEC Certification and Verification” means that the CEC has certified (or, with respect to periods before the Project has been constructed, that the CEC has pre-certified) that the Project is an ERR for purposes of the California Renewables Portfolio Standard and that all Energy produced by the Project qualifies as generation from an ERR for purposes of the Agreement.

“Claims” has the meaning set forth in Section 11.2(a).

“Commercial Operation” means that (a) the Project is operating and able to produce and deliver the Product to Buyer pursuant to the terms of this Agreement; (b) Seller shall have satisfied the requirements set forth in the Commercial Operation Certificate in the form attached as Exhibit E; (c) Seller shall have delivered a true, correct, and complete Commercial Operation Certificate from Seller, the Renewable Generation Equipment Supplier, the EPC Contractor, and a Licensed Professional Engineer; (d) Seller shall have delivered to Buyer the Delivery Term Security required under Article 8; (e) Seller has received all local, state and federal Governmental Approvals and other approvals as may be required by Law for the construction, operation and maintenance of the Project, including approvals, if any, required under the California Environmental Quality Act for the Project and related interconnection facilities; ***[For Baseload, Peaking, Dispatchable Product only:*** and (f) Seller shall have successfully completed the initial Capacity Test and delivered to Buyer a true, correct, and complete report documenting the results of Seller’s initial Capacity Test as required under Section 3.1(f)].

“Commercial Operation Date” means the date on which Seller achieves Commercial Operation for the Project.

“Conditions Precedent” has the meaning set forth in Section 2.3.

“Construction Period Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(ii)/(iii)] to secure performance of its obligations hereunder.

“Contract Capacity” has the meaning set forth in Section 3.1(f).

***[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program:*** “Contract Energy” means the lower of Delivered Energy or Scheduled Energy for any given period in each case net of all Electrical Losses.]

“Contract Quantity” has the meaning set forth in Section 3.1(e).

“Contract Year” means a period of twelve (12) consecutive months (except in the case of the first Contract Year which may be longer) with the first Contract Year commencing on the Commercial Operation Date and each subsequent Contract Year commencing on the anniversary of the first day of the month following the Commercial Operation Date.



“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 such Terminated Transaction.

“Cover Sheet” means the document that precedes Article 1: General Definitions to this Agreement.

“CP Satisfaction Date” shall mean the date on which all of the Conditions Precedent have been satisfied (or waived in writing by the Party described in Section 2.4).

“CPUC” or “Commission or successor entity” means the California Public Utilities Commission, or successor entity.

“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

(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 *et seq.*), Decision 03-06-071, or other applicable Law.

CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable. ***[For Agreements for the purchase and sale of TRECS only, use STC REC-3 instead of the foregoing]***

***[For Agreements with Delivery Terms greater than two years:*** “CPUC Approval Date” shall mean the date on which the Conditions Precedent set forth in Section 2.3(a) have been satisfied (or waived in writing by the beneficiary Party described in Section 2.4).]

***[For Agreements with Delivery Terms greater than two years:*** “CPUC Approval Security” shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)(i) to secure performance of its obligations hereunder.]

“Credit Rating” means, with respect to any entity, the rating then assigned to such entity’s unsecured, senior long-term debt obligations (not supported by third party credit enhancements) by S&P or Moody’s.

“Daily Delay Damages” means an amount equal to (a) the Construction Period Security amount required hereunder, divided by (b) the number of days in the Project Cure Period.

“Day-Ahead Forecast” has the meaning set forth in Section 3.3([d/e]).

**[For As-Available and Baseload Products only:** “Deemed Bundled Green Energy” means the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer by reason of Economic Dispatch Down. The quantity of Bundled Green Energy shall be equal to **[For As-Available Products:** (a) the Deemed Delivery Forecast of Energy corresponding to the applicable Economic Dispatch Down periods, whether or not Seller is participating in the VER Forecasting Program during such events, less the amount of Delivered Energy delivered to the Delivery Point during such periods, or (b) if there is no such Deemed Delivery Forecast available during the applicable Economic Dispatch Down periods or if the Bundled Green Energy amount has historically not been determined based on clause (i) of the definition of Bundled Green Energy, the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer during the Economic Dispatch Down periods as determined by Buyer in a commercially reasonable manner; *provided that*, if the applicable amount calculated pursuant to (a) above is negative, the Deemed Bundled Green Energy shall be zero (0).] **[For Baseload Products:** the amount of Bundled Green Energy that Seller could reasonably have delivered to Buyer but was prevented from delivering to Buyer during the applicable Economic Dispatch Down periods, as determined by Buyer in a commercially reasonable manner.

**[For As-Available only:** “Deemed Delivery Forecast” means the forecast of the Energy to be produced by the Project prepared by the CAISO or its agent in accordance with the VER Forecasting Program and communicated to the Scheduling Coordinator, which forecast is the last such forecast prepared by the CAISO that does not reflect curtailed production as a result of Economic Dispatch Down periods. As of the Execution Date, such Deemed Delivery Forecast is the CAISO forecast generated through its Resource Specific VER Forecast Usage Report].

**[Dispatchable Product only:** “Default Availability Factor” means, for any period, the amount determined according to the following formula:

$$\text{Default Availability Factor} = (PH - (EDH - EEDH)) / PH$$

Where:

*PH* is the number of period hours;

*EDH* is the number of equivalent derate hours calculated as the sum, for each derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the initial Contract Capacity (as of the Commercial Operation Date) divided by the initial Contract Capacity. For the purposes of this calculation, a derate includes all outages for any reason, including without limitation, Forced Outages, Force Majeure events, Dispatch Down Periods, Planned Outages, Buyer’s failure to perform, and other times when any portion of the Contract Capacity is not available and when the Delivered Energy of the Project is less than the amount of Energy dispatched by Buyer; and

*EEDH* is the number of equivalent excused derate hours solely due to either Force Majeure events, Dispatch Down Periods or Buyer's failure to perform (and for no other reason), calculated as the sum, for each excused derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the initial Contract Capacity, divided by the initial Contract Capacity.]

"Defaulting Party" means the Party that is subject to an Event of Default.

"Default Rate" means for any date, the lesser of (a) the per annum rate of interest equal to the prime lending rate as may from time to time be published in *The Wall Street Journal* under "Money Rates" on such day (or if not published on such day on the most recent preceding day on which published), plus two percent (2%) and (b) the maximum rate permitted by applicable Law.

"Delivered Energy" means all Energy produced from the Project and delivered to Buyer at the Delivery Point as measured in MWh at the CAISO revenue meter of the Project based on a power factor of precisely one (1) and net of all Electrical Losses.

"Delivery Point" means the point at which Buyer receives Seller's Product, as set forth in Section 3.1(d).

"Delivery Term" has the meaning set forth in Section 3.1(c).

"Delivery Term Security" shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(iii)/(iv)] to secure performance of its obligations hereunder.

"Development Period Security" shall mean the Performance Assurance that Seller is required to maintain during the period and as otherwise specified in Section 8.4(a)[(i)/(ii)] to secure performance of its obligations hereunder.

"Disclosing Party" has the meaning set forth in Section 13.1(a).

"Disclosure Order" has the meaning set forth in Section 13.1(a).

"Dispatch Down Period" means the period of curtailment of delivery of Product from the Project resulting from System Dispatch Down ***[For all Products other than Dispatchable Product: or Economic Dispatch Down]***.

"Dispatch Notice" means the operating instruction, and any subsequent updates given either by Buyer to Seller or by the CAISO to Seller, directing Seller to operate the Project at a specified megawatt output for the period of time set forth in such order.

***[For Dispatchable Product only: "Dispatchable" means a Unit Firm Product for which Seller makes available capacity for Buyer to Schedule and dispatch up or down at Buyer's option in accordance with Section 3.3([g/h]).]***

"Distribution Upgrades" has the meaning set forth in the CAISO Tariff.

“DUNS” means the Data Universal Numbering System, which is a unique nine character identification number provided by Dun and Bradstreet.

“Early Termination Date” has the meaning set forth in Section 5.2.

***[For all Products other than Dispatchable Product:*** “Economic Dispatch Down” means curtailment of delivery of Product from the Project that is the result of economic curtailment where Buyer (as the Scheduling Coordinator) or a third party Scheduling Coordinator (in accordance with Buyer’s directions) either submits a self-schedule with a binding Product quantity or an economic bid in the applicable CAISO market or fails to submit any such schedule or bid, in either case, that when implemented by the CAISO results in an otherwise available Product quantity not being scheduled or awarded in such CAISO market and such curtailment is not concurrently the result of a Planned Outage, Forced Outage, Force Majeure and/or a System Dispatch Down.

“Electrical Losses” means all electrical losses associated with the transmission of Product to the Delivery Point, including if applicable, but not limited to, any transmission or transformation losses between the CAISO revenue meter and the Delivery Point.

“Electrical Interconnection Upgrades” means the facilities to which Seller shall be able to interconnect and deliver Energy from the Project to and at the Delivery Point and Buyer shall be able to transmit Energy from the Delivery Point and the facilities that protect the Participating Transmission Owner’s, Transmission Provider’s, or distribution operator’s, as applicable, electric system (or other systems to which such electric systems are connected, including the CAISO Grid) and the Participating Transmission Owner’s, Transmission Provider’s, or distribution operator’s, as applicable, customers from faults occurring at the Project, including, but not limited to, all network, distribution, connection, transformation, switching, metering, communications, control, and safety equipment, as such equipment may be required pursuant to Good Industry Practices or in accordance with the Participating Transmission Owner’s, Transmission Provider’s, or distribution operator’s, as applicable, facility connection requirements. If the Project interconnects to the CAISO Grid, such Electrical Interconnection Upgrades include all Network Upgrades, Distribution Upgrades, and Interconnection Facilities that are determined to be necessary by the CAISO or Participating Transmission Owner, as applicable, to physically and electrically interconnect the Project to the Participating Transmission Owner’s electric system so as to allow Seller to deliver Energy from the Project to the Delivery Point and Buyer to be able to transmit Energy from the Delivery Point.

“Eligible Renewable Energy Resource” or “ERR” has the meaning set forth in California Public Utilities Code Section 399.11, *et seq.*, as amended or supplemented from time to time.

“Energy” means electric energy measured in MWh and net of Station Service (unless otherwise specified).

“Energy Price” has the meaning set forth in Section 4.[1/2](a).

“EPC Contract” means the Seller’s engineering, procurement and construction contract with the EPC Contractor.

“EPC Contractor” means an engineering, procurement, and construction contractor, selected by Seller, with substantial experience in the engineering, procurement, and construction of power plants of the same type of facility as Seller’s.

“Equitable Defenses” means any bankruptcy, insolvency, reorganization or other Laws affecting creditors’ rights generally and, with regard to equitable remedies, the discretion of the court before which proceedings may be pending to obtain same.

**[For Dispatchable Product only:** “Equivalent Availability Factor” or “EAF” has the meaning set forth in Section 4.1(b).]

“Event of Default” has the meaning set forth in Section 5.1.

“Execution Date” means the date hereof as set forth in the preamble of the Cover Sheet.

“Executive(s)” has the meaning set forth in Section 12.2(a).

“FERC” means the Federal Energy Regulatory Commission or any successor government agency.

“Force Majeure” means any event or circumstance which wholly or partly prevents or delays the performance of any material obligation arising under this Agreement but only to the extent (1) such event is not within the reasonable control, directly or indirectly, of the Party seeking to have its performance obligation(s) excused thereby, (2) the Party seeking to have its performance obligation(s) excused thereby has taken all reasonable precautions and measures in order to prevent or avoid such event or mitigate the effect of such event on such Party’s ability to perform its obligations under this Agreement and which by the exercise of due diligence such Party could not reasonably have been expected to avoid and which by the exercise of due diligence it has been unable to overcome, and (3) such event is not the direct or indirect result of the fault or negligence of the Party seeking to have its performance obligations excused thereby.

(a) Subject to the foregoing, events that could qualify as Force Majeure include, but are not limited to the following:

(i) acts of God, flooding, lightning, landslide, earthquake, fire, drought, explosion, epidemic, quarantine, storm, hurricane, tornado, volcano, other natural disaster or unusual or extreme adverse weather-related events;

(ii) war (declared or undeclared), riot or similar civil disturbance, acts of the public enemy (including acts of terrorism), sabotage, blockade, insurrection, revolution, expropriation or confiscation; or

(iii) except as set forth in subpart (b)(vii) below, strikes, work stoppage or other labor disputes (in which case the affected Party shall have no obligation to settle the strike or labor dispute on terms it deems unreasonable).

(b) Force Majeure shall not be based on:

(i) Buyer's inability economically to use or resell the Product purchased hereunder;

(ii) Seller's ability to sell the Product at a price greater than the price set forth in this Agreement;

(iii) Seller's inability to obtain Governmental Approvals or other approvals of any type for the construction, operation, or maintenance of the Project;

(iv) a lack of wind, sun or other fuel source of an inherently intermittent nature;

(v) Seller's inability to obtain sufficient labor, equipment, materials, or other resources to build or operate the Project, except to the extent Seller's inability to obtain sufficient labor, equipment, materials, or other resources is caused by an event of Force Majeure of the specific type described in any of subsections (a)(i) through (a)(iii) above;

(vi) Seller's failure to obtain financing or other funds, including funds authorized by a state or the federal government or agencies thereof to supplement the payments made by Buyer pursuant to this Agreement;

(vii) a strike, work stoppage or labor dispute limited only to any one or more of Seller, Seller's Affiliates, the EPC Contractor or subcontractors thereof or any other third party employed by Seller to work on the Project; or

(viii) any equipment failure except if such equipment failure is caused solely by an event of Force Majeure of the specific type described in any of subsections (a)(i) through (a)(iii) above.

"Force Majeure Extension Period" has the meaning set forth in Section 3.9(c)(ii).

"Forced Outage" means any unplanned reduction or suspension of production of Product from the Project or unavailability of the Project in whole or in part that is not a Planned Outage or a willful withholding of Product when the Project is otherwise capable of delivering Product under Good Industry Practices.

"GAAP" has the meaning set forth in Section 13.4.

"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 this Agreement for the remaining Delivery Term, determined in a commercially reasonable manner, subject to Section 5.2 hereof. 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 this Agreement and include the value, if any, of Capacity Attributes, and Green Attributes.

“Good Industry Practice” means those practices, methods and acts that would be implemented and followed by prudent operators of electric transmission facilities (with respect to Buyer) or prudent operators of electric generation facilities similar to the Project (with respect to Seller) in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety, and shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and applicable Law. Good Industry Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the region.

“Governmental Approval” means all authorizations, consents, approvals, waivers, exceptions, variances, filings, permits, orders, licenses, exemptions and declarations of or with any governmental entity and, with respect to the Seller, shall include those siting and operating permits and licenses, and any of the foregoing under any applicable environmental Law, that are required for the construction, use, and operation of the Project.

“Governmental Authority” means any federal, state, local or municipal government, governmental department, commission, board, bureau, agency, or instrumentality, or any judicial, regulatory or administrative body, having jurisdiction as to the matter in question.

“Governmental Charges” has the meaning set forth in Section 9.2.

“Green Attributes” means, subject to the limitations in the final sentence of this definition, 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), 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>1</sup> and (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

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<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.

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 Policy Act of 1992 and any present or future federal, state, or local Law, regulation or bill, and international or foreign emissions trading program. Green Tags are 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 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 and for all electric generation using biomethane as fuel, Seller shall transfer to Buyer sufficient Green Attributes of biomethane production and capture to ensure that there are zero net emissions associated with the production of electricity from the Project using the biomethane.

"Guaranteed Commercial Operation Date" or "GCOD" means [insert date], as may be extended pursuant to Section 3.9(c)(ii).

"Guaranteed Energy Production" has the meaning set forth in Section 3.1(e).

"Guarantor" means, with respect to Seller, any person that (a) does not already have any material credit exposure to Buyer under any other agreements, guarantees, or other arrangements at the time its Guaranty is issued, (b) is an Affiliate of Seller, or other third party reasonably acceptable to Buyer, (c) has a Credit Rating of [\_\_\_\_] or better from S&P or a Credit Rating of [\_\_\_\_] or better from Moody's, (d) has a tangible net worth of at least [\_\_\_\_\_], (e) is incorporated or organized in a jurisdiction of the United States and is in good standing in such jurisdiction, and (f) executes and delivers a Guaranty for the benefit of Buyer substantially in the form attached hereto as Exhibit D. ***[SDG&E will consider accepting a Guaranty based on the Project, the amount of Performance Assurance, and the identity of the Seller and Guarantor]***

"Guaranty" means a guaranty from a Guarantor provided for the benefit of Buyer substantially in the form attached hereto as Exhibit D. ***[SDG&E will consider accepting a Guaranty based on the Project, the amount of Performance Assurance, and the identity of the Seller and Guarantor]***

"Imbalance Energy" means the amount of Energy, in any given settlement period, by which the amount of Delivered Energy deviates from the amount of Scheduled Energy.

"Initial Negotiation End Date" has the meaning set forth in Section 12.2(a).

"Interconnection Facilities" has the meaning set forth in the CAISO Tariff.



“Interest Amount” means, with respect to an Interest Period, the amount of interest derived from the product of (a) the sum of (i) the principal amount of Performance Assurance in the form of cash held by Buyer during that Interest Period, and (ii) the sum of all accrued and unpaid Interest Amounts accumulated prior to such Interest Period; multiplied by (b) the Interest Rate in effect on the first day of the Interest Period; multiplied by (c) the number of days in that Interest Period; divided by (d) 360.

“Interest Payment Date” means the date on which cash held as Performance Assurance is returned pursuant to the terms of this Agreement.

“Interest Period” means the monthly period beginning on the first day of each month and ending on the last day of each month or the shorter period during which Performance Assurance in the form of cash is held by Buyer.

“Interest Rate” means for any date the rate per annum equal to the Commercial Paper (non-financial, 3 months) rate as published the prior month in the Federal Reserve Statistical Release, H.15. Should publication of the interest rate on Commercial Paper (non-financial, 3 months) be discontinued, then the interest rate on commercial paper, which most closely approximates the discontinued rate, published the prior month in the Federal Reserve Statistical Release, H.15, or its successor publication.

“[Large/Small] Generator Interconnection Agreement” has the meaning set forth in the CAISO Tariff.

“Law” means any statute, law, treaty, rule, regulation, ordinance, code, Governmental Approval, enactment, injunction, order, writ, decision, authorization, judgment, decree or other legal or regulatory determination or restriction by a court or Governmental Authority of competent jurisdiction, including any of the foregoing that are enacted, amended, or issued after the Execution Date, and which become effective prior to the end of the Delivery Term; or any binding interpretation of the foregoing by a Governmental Authority.

“Letter(s) of Credit” means one or more irrevocable, standby letters of credit issued by a U.S. commercial bank or a foreign bank with a U.S. branch with such bank having a Credit Rating of at least [A-] with an outlook designation of “stable” from S&P or [A3] with an outlook designation of “stable” from Moody’s, in substantially the form as contained in Exhibit C to this Agreement.

“Licensed Professional Engineer” means a person acceptable to Buyer in its reasonable judgment who (a) is licensed to practice engineering in California, (b) has training and experience in the power industry specific to the technology of the Project, (c) has no economic relationship, association, or nexus with Seller or Buyer, other than to meet the obligations of Seller pursuant to this Agreement, (d) is not a representative of a consultant, engineer, contractor, designer or other individual involved in the development of the Project or of a manufacturer or supplier of any equipment installed at the Project, and (e) is licensed in an appropriate engineering discipline for the required certification being made.

“Losses” means with respect to any Party, an amount equal to the present value of the economic loss to it, if any (exclusive of Costs), resulting from a Terminated Transaction for the

remaining term of this Agreement, 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 this Agreement and include the value, if any, of Capacity Attributes, and Green Attributes.

“Manager” has the meaning set forth in Section 12.2(a).

“Milestones” has the meaning set forth in Section 3.9(b)(i).

**[For Dispatchable Product only:** “Monthly Capacity Payment” has the meaning set forth in Section 4.1(b).]

“Monthly Energy Payment” has the meaning set forth in Section 4.[1/2]([b/c]).

**[For Dispatchable Product only:** “Monthly Shaping Factor” has the meaning set forth in Section 4.1(b).]

“Moody’s” means Moody’s Investor Services, Inc., or its successor.

“MWh” means megawatt-hour.

“Negative Imbalance Energy” has the meaning set forth in Section 4.[2/3].

“NERC” means the North American Electric Reliability Corporation or a successor organization that is responsible for establishing reliability criteria and protocols.

“NERC Holiday” means any of the following holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Three of these days, Memorial Day, Labor Day, and Thanksgiving Day, occur on the same day each year. Memorial Day is the last Monday in May; Labor Day is the first Monday in September; and Thanksgiving Day is the fourth (4<sup>th</sup>) Thursday in November. New Year’s Day, Independence Day, and Christmas Day occur on the same date each year, but in the event any of these holidays occur on a Sunday, the “NERC Holiday” is celebrated on the Monday immediately following that Sunday; and if any of these holidays occur on a Saturday, the “NERC Holiday” remains on that Saturday.

“Network Upgrades” has the meaning set forth in the CAISO Tariff.

“Non-Availability Charges” shall mean Non-Availability Charges as defined in FERC filing ER09-1064 or such other similar term as modified and approved by FERC thereafter to be incorporated in the CAISO Tariff or otherwise applicable to CAISO.

“Non-Defaulting Party” has the meaning set forth in Section 5.2.

“Notice” shall, unless otherwise specified in the Agreement, mean written communications by a Party to be delivered by hand delivery, United States mail, overnight courier service, facsimile or electronic messaging (e-mail).

“Notice to Proceed” or “NTP” means the notice provided by Seller to the EPC Contractor following execution of the EPC Contract between Seller and such EPC Contractor and satisfaction of all conditions precedent to performance of such contract, by which Seller authorizes such EPC Contractor to commence and complete full performance of the work under the EPC Contract without any delay or waiting periods.

“Outage Notification Form” means the completed document from Seller notifying Buyer of an outage of the Project substantially in the form attached hereto as Exhibit G. Buyer reserves the right to reasonably revise or change the form upon Notice to Seller.

**[For intermittent As-Available Product:** “Participating Intermittent Resource” shall have the meaning set forth in the CAISO Tariff.]

“Participating Transmission Owner” or “Participating TO” means an entity that (a) owns, operates and maintains transmission lines and associated facilities and/or has entitlements to use certain transmission lines and associated facilities and (b) has transferred to the CAISO operational control of such facilities and/or entitlements to be made part of the CAISO Grid. As of the Execution Date, the Participating Transmission Owner is *[San Diego Gas & Electric Company]*.

“Party” or “Parties” means the Buyer or Seller individually, or to both collectively.

**[For Peaking Product only:** “Peaking” means a Unit-Firm Product for which Energy must be delivered during hours ending 1200-1900 (11:00 am to 7:00 pm) on Monday-Friday, excluding NERC Holidays, for the months July through October and during hours ending 1400-2100 (1:00 pm to 9:00 pm) on Monday-Friday, excluding NERC Holidays, for the months November and December.] **[Note: Buyer will consider other firm products such as 6x16:** “6x16 Block” means a Unit-Firm Product for which Energy must be delivered during hours ending 0700-2200 (6:00 am to 10:00 pm) on Monday-Saturday throughout the Delivery Term.]

“Performance Assurance” means collateral provided by Seller to Buyer to secure Seller’s obligations hereunder and includes **[For Agreements with Delivery Terms greater than two years:** CPUC Approval Security,] Development Period Security, Construction Period Security, and Delivery Term Security.

**[For As-Available, Baseload, Peaking Product:** “Performance Measurement Period” has the meaning set forth in Section 3.1(e).]

“Planned Outage” means any planned reduction or suspension of the electrical output from the Project or unavailability of the Project in whole or in part as a result of the inspection, maintenance, or repair of equipment that is scheduled in accordance with Section 3.7(a).

“PNode” has the meaning set forth in the CAISO Tariff.

“Positive Imbalance Energy” has the meaning set forth in Section 4.[2/3].

“Product” has the meaning set forth in Section 3.1(a).

***[For Projects receiving PTCs:*** “Production Tax Credit” or “PTC” means the tax credit for electricity produced from certain renewable generation resources described in Section 45 of the Internal Revenue Code of 1986, as it may be amended from time to time.***]***

“Project” means all of the *[insert technology]* electric generating units, the Site at which the generating facility is located, the utility interconnection facilities up to the point of change in ownership to the applicable utility’s facilities, and the other assets, tangible and intangible, that compose the generation facility as more particularly described on Exhibit A.

“Project Cure Period” has the meaning set forth in Section 3.9(c)(i).

“Quarterly Progress Report” means the report similar in form and content attached hereto as Exhibit F, as may be modified from time to time to meet applicable CPUC requirements.

“Recording” has the meaning set forth in Section 13.6.

“Reductions” has the meaning set forth in Section 3.2(c).

“Referral Date” has the meaning set forth in Section 12.2(a).

“Remedial Action Plan” has the meaning provided in Section 3.9(b)(ii).

“Renewable Energy Credit” has the meaning set forth in California Public Utilities Code Section 399.12(h) and CPUC Decision 08-08-028, as each may be amended from time to time or as further defined or supplemented by Law.

“Renewable Generation Equipment Supplier” means the supplier of the [electric generating [wind] [gas] [steam] turbine(s)] [solar electric generating equipment] for the Project, selected by Seller.

“Replacement Price” means the price (in dollars per megawatt hour) at which Buyer, acting in a commercially reasonable manner, purchases for delivery at the Delivery Point (or any other reasonably equivalent delivery point for Buyer) a replacement for any Product (including its associated Green Attributes) that was not Scheduled and delivered by Seller, plus (a) costs (calculated in dollars per megawatt hour) reasonably incurred by Buyer in purchasing such replacement Product and (b) additional transmission charges (calculated in dollars per megawatt hour), if any, reasonably incurred by Buyer for such replacement Product, or absent a purchase, the market price at the Delivery Point (or any other reasonably equivalent delivery point for Buyer) for such replacement Product for the hours impacted by such failure to Schedule or deliver such Product as determined by Buyer in a commercially reasonable manner. The Replacement Price also shall include all CAISO and other charges and penalties calculated in dollars per megawatt hour with respect to the deviation from the Scheduled supply resulting from Seller’s failure to Schedule or deliver; provided, however, in no event shall such price include any ratcheted demand or similar charges, nor shall Buyer be required to utilize or change its

utilization of its owned or controlled assets or market positions to minimize Seller's liability. For the purposes of this definition, Buyer shall be considered to have purchased replacement Product to the extent Buyer shall have entered into one or more arrangements in a commercially reasonable manner whereby Buyer repurchases its obligation to sell and deliver the Product to another party. If for any reason a Replacement Price is unavailable when Seller fails to deliver or Schedule Product, then the Replacement Price for the hours when a Replacement Price is unavailable shall be the last available Replacement Price together with any charges and penalties allocated to Buyer during such time.

"Resource Adequacy" means the procurement obligation of load serving entities, including Buyer, as such obligations are described in CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-04-040, 06-06-064, 06-07-031, 07-06-029, 08-06-031, 09-06-028, 10-06-036, 11-06-022, 12-06-025, 13-06-024, and subsequent CPUC decisions addressing Resource Adequacy issues, as those obligations may be altered from time to time in the CPUC Resource Adequacy Rulemakings (R.) 04-04-003 and (R.) 05-12-013 or by any successor proceeding, and all other Resource Adequacy obligations established by any other entity, including the CAISO.

"Sales Price" means the price (in dollars per megawatt hour) at which Seller, acting in a commercially reasonable manner, resells any Product not Scheduled and received by Buyer, deducting from such proceeds any (a) costs (calculated in dollars per megawatt hour) reasonably incurred by Seller in reselling such Product including all costs charged by CAISO to Schedule and deliver the Product into the CAISO System, and (b) additional transmission charges (calculated in dollars per megawatt hour), if any, reasonably incurred by Seller in Scheduling and delivering such Product to the third party purchasers, or absent a sale despite commercially reasonable efforts to resell the Product, zero. The Sales Price shall also be reduced by all CAISO and other costs, charges and penalties with respect to the deviation from the Scheduled supply, in each case, resulting from Buyer's failure to take Product and calculated in dollars per megawatt hour; provided, however, in no event shall such price include any ratcheted demand or similar charges, nor shall Seller be required to utilize or change its utilization of its owned or controlled assets, including contractual assets, or market positions to minimize Buyer's liability. The Sales Price may be less than zero.

"S&P" means the Standard & Poor's Rating Group (a division of McGraw-Hill, Inc.) or its successor.

"Schedule" means the actions of Seller, Buyer and/or their designated representatives, or Scheduling Coordinators, including each Party's Transmission Providers, if applicable, of notifying, requesting and confirming to each other and the CAISO the quantity and type of Product to be delivered on any given day or days at a specified Delivery Point.

"Scheduling Coordinator" or "SC" means an entity certified by the CAISO as qualifying as a Scheduling Coordinator pursuant to the CAISO Tariff, for the purposes of undertaking the functions specified in "Responsibilities of a Scheduling Coordinator," of the CAISO Tariff, as amended from time-to-time.

"Scheduled Energy" means the Energy that clears under the applicable CAISO market based on the final Schedule developed in accordance with this Agreement, the operating

procedures developed by the Parties pursuant to Section 3.10, and the applicable CAISO Tariff, protocols and Scheduling practices.

“SEC” means the U.S. Securities and Exchange Commission.

“Seller” shall have the meaning set forth on the Cover Sheet.

“Settlement Amount” means, with respect to the Non-Defaulting Party, the Losses or Gains, and Costs, expressed in U.S. Dollars, which such Party incurs as a result of the liquidation of a Terminated Transaction pursuant to Sections 5.2 and 5.3.

“Site” shall mean the location of the Project as described in Exhibit A.

“Station Service” means the electric energy produced by the Project that is used within the Project to power the lights, motors, control systems and other auxiliary electrical loads that are necessary for operation of the Project.

“System Dispatch Down” means curtailment of delivery of Product from the Project resulting from (a) curtailment ordered by the CAISO (whether directly or through the Scheduling Coordinator or the Participating Transmission Owner), for any reason, including, but not limited to, any system emergency as defined in the CAISO Tariff (“System Emergency”), any warning of an anticipated System Emergency, or any warning of an imminent condition or situation which could jeopardize the CAISO’s or Participating Transmission Owner’s electric system integrity or the integrity of other systems to which the CAISO or Participating Transmission Owner is connected, any warning, forecast, or anticipated overgeneration conditions, including a request from CAISO to manage over-generation conditions; (b) curtailment ordered by the Participating Transmission Owner or distribution operator (if interconnected to distribution or sub-transmission system) for reasons including, but not limited to, (i) any situation that affects normal function of the electric system including, but not limited to, any abnormal condition that requires action to prevent circumstances such as equipment damage, loss of load, or abnormal voltage conditions, (ii) any warning, forecast or anticipation of conditions or situations that jeopardize the Participating Transmission Owner’s electric system integrity or the integrity of other systems to which the Participating Transmission Owner is connected; (c) curtailment ordered by the Participating Transmission Owner or distribution operator (if interconnected to distribution or sub-transmission system) as a result of scheduled or unscheduled maintenance or construction on the Participating Transmission Owner’s transmission facilities or distribution operator’s facilities (if interconnected to distribution or sub-transmission system) that prevents the delivery or receipt of Delivered Energy to or at the Delivery Point, (d) curtailment in accordance with Seller’s obligations under its interconnection agreement with the Participating Transmission Owner or distribution operator, **[If the Project is located outside of the CAISO:** or (e) curtailment ordered by the Transmission Provider provided, that Seller has contracted for firm transmission with such Transmission Provider for the Product to be delivered to the Delivery Point and such curtailment is due to “force majeure” or “uncontrollable force” or a similar term as defined under the Transmission Provider’s tariff]; **[For Dispatchable Product only:** or ([e/f] curtailment ordered by Buyer pursuant to a Dispatch Notice.] **[For all Products other than Dispatchable:** provided, however, that System Dispatch Down shall not include Economic Dispatch Down].

“Terminated Transaction” means the termination of this Agreement in accordance with Section 5.2 of this Agreement.

“Termination Payment” has the meaning set forth in Section 5.2.

*[For TOD Pricing Only:* “TOD Factors” has the meaning set forth in Section 4.[1/2](b).]

*[For TOD Pricing Only:* “TOD Delivery Cap” has the meaning set forth in Section 4.[1/2](a).]

*[For TOD Pricing Only:* “TOD Period” has the meaning set forth in Section 4.[1/2](b).]

“Transmission Provider” means any entity or entities transmitting or transporting the Product on behalf of Seller or Buyer to or from the Delivery Point.

*[For Baseload, Peaking, or Dispatchable Product only:* “Unit Firm” means, with respect to a Product, that the Product is intended to be supplied from the Project, and subject to the terms of this Agreement, Seller is excused from selling and delivering the Product to Buyer, and Seller shall not be liable to Buyer for any damages determined pursuant to Section 3.1(h) of the Agreement, in the event that Seller fails to deliver the Product to Buyer for any of the following reason:

- (a) if the Project is unavailable as a result of a Forced Outage and such Forced Outage is not the result of Seller’s negligence or willful misconduct;
- (b) Force Majeure;
- (c) by the Buyer’s failure to perform;
- (d) by a Planned Outage of the Project; or
- (e) a reduction in output as ordered under Dispatch Down Periods.

The following products shall be considered “Unit Firm” products: Peaking, Baseload, and Dispatchable.]

*[For an intermittent As-Available Product only:* “VER Forecasting Program” means the rules, protocols, procedures and standards for Participating Intermittent Resources under the CAISO’s Eligible Intermittent Resource Protocol, as may be amended from time to time, as set forth in the CAISO Tariff.]

“WECC” means the Western Electricity Coordinating Council or successor agency.

“WREGIS” means the Western Renewable Energy Generating Information System or any successor renewable energy tracking program.

1.2 Interpretation. The following rules of interpretation shall apply:

(a) The term “month” shall mean a calendar month unless otherwise indicated, and a “day” shall be a 24-hour period beginning at 12:00:01 a.m. Pacific Prevailing Time and ending at 12:00:00 midnight Pacific Prevailing Time; provided that a “day” may be 23 or 25 hours on those days on which daylight savings time begins and ends.

(b) Unless otherwise specified herein, all references herein to any agreement or other document of any description shall be construed to give effect to amendments, supplements, modifications or any superseding agreement or document as then exist at the applicable time to which such construction applies.

(c) Capitalized terms used in this Agreement, including the appendices hereto, shall have the meaning set forth in Article 1, unless otherwise specified.

(d) Unless otherwise specified herein, references in the singular shall include references in the plural and vice versa, pronouns having masculine or feminine gender will be deemed to include the other, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organizations or other entities (whether or not having a separate legal personality). Other grammatical forms of defined words or phrases have corresponding meanings.

(e) The term “including” when used in this Agreement shall be by way of example only and shall not be considered in any way to be in limitation.

(f) References to a particular article, section, subsection, paragraph, subparagraph, appendix or attachment shall, unless specified otherwise, be a reference to that article, section, subsection, paragraph, subparagraph, appendix or attachment in or to this Agreement.

(g) Any reference in this Agreement to any natural person, Governmental Authority, corporation, partnership or other legal entity includes its permitted successors and assigns or to any natural person, Governmental Authority, corporation, partnership or other legal entity succeeding to its functions.

(h) All references to dollars are to U.S. dollars.

## **ARTICLE TWO: EFFECTIVENESS OF AGREEMENT; CONDITIONS PRECEDENT**

2.1 Effectiveness of Agreement Prior to CP Satisfaction Date. Commencing on the Execution Date until the CP Satisfaction Date, this Agreement shall be in full force and effect, enforceable and binding only to the extent required to give full effect to, and enforce, the rights and obligations of the Parties under this Article 2, including, as it relates to Article 2, the rights and obligations under Articles 1, 5, 7, 8, 9, 10, 11, 12, and 13.

2.2 Obligations of the Parties. The Parties shall cooperate with each other to cause the Conditions Precedent to be satisfied as soon as reasonably practical.

(a) Seller’s Obligations. Prior to the CP Satisfaction Date, Seller shall (i) use commercially reasonable efforts to pursue satisfaction of the Conditions Precedent set forth in



Sections [\_\_\_], (ii) diligently pursue development of the Project in accordance with Section 3.9, (iii) comply with Section 3.9(b) in achieving the applicable Milestones that have due dates occurring prior to the CP Satisfaction Date, reporting completion of such Milestones, and delivering Remedial Action Plans in respect of missed Milestones as more fully described therein, (iv) deliver the Quarterly Progress Report in accordance with Section 3.9(a), and (v) otherwise comply with its obligations, covenants, representations, and warranties under Articles 7-13. **[For Agreements with Delivery Terms greater than two years:** Upon an Event of Default of Seller prior to the CPUC Approval Date, Buyer may terminate this Agreement in which case Seller shall owe Buyer liquidated damages in the amount of the CPUC Approval Security.] Upon an Event of Default of Seller **[For Agreements with Delivery Terms greater than two years:** on or after the CPUC Approval Date but] prior to the CP Satisfaction Date, Buyer may terminate this Agreement in which case Seller shall owe Buyer liquidated damages in the amount of the Development Period Security. Buyer may retain such Performance Assurances to pay such liquidated damages. Each Party agrees and acknowledges that (a) the actual damages that Buyer would incur due to an Event of Default of Seller prior to the CP Satisfaction Date would be difficult or impossible to predict with certainty, (b) the liquidated damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the liquidated damages set forth in this section are the exclusive remedy for an Event of Default of Seller prior to the CP Satisfaction Date.

(b) **Buyer's Obligations.** Prior to the CP Satisfaction Date, Buyer shall (i) use commercially reasonable efforts to pursue satisfaction of the Conditions Precedent set forth in Sections 2.3(a), and (ii) otherwise comply with its obligations, covenants, representations, and warranties under Articles 7-13. **[For Agreements with Delivery Terms greater than two years:** Upon an Event of Default of Buyer prior to the CPUC Approval Date, Seller may terminate this Agreement in which case Buyer shall owe Seller liquidated damages in the amount of the CPUC Approval Security.] Upon an Event of Default of Buyer **[For Agreements with Delivery Terms greater than two years:** on or after the CPUC Approval Date but] prior to the CP Satisfaction Date, Seller may terminate this Agreement in which case Buyer shall owe Seller liquidated damages in the amount of the Development Period Security. Each Party agrees and acknowledges that (a) the actual damages that Seller would incur due to an Event of Default of Buyer prior to the CP Satisfaction Date would be difficult or impossible to predict with certainty, (b) the liquidated damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the liquidated damages set forth in this section are the exclusive remedy for an Event of Default of Buyer prior to the CP Satisfaction Date.

2.3 **Conditions Precedent.** Subject to Section 2.1, the effectiveness of the remainder of this Agreement is conditioned upon the satisfaction (or waiver by the Party described in Section 2.4) of all of the following conditions precedent ("Conditions Precedent") by the deadline dates set forth below for each Condition Precedent without extension for Force Majeure or any other reason:

(a) **CPUC Approval.** No later than [\_\_\_\_\_], Buyer shall have obtained CPUC Approval. Prior to this deadline, should the CPUC issue an order approving this Agreement but with conditions or modifications that materially alter the commercial aspects of this Agreement, the Parties agree to use good faith efforts to renegotiate this Agreement and file the amended agreement with the CPUC seeking CPUC Approval therefor. If, no later than the

earlier of (i) sixty (60) days after such order or (ii) the deadline date above, no agreement is reached, either Party may terminate this Agreement upon delivery of Notice to the other Party.

(b) Electrical Interconnection. No later than [\_\_\_\_\_], Seller shall have entered into a [Large/Small] Generator Interconnection Agreement providing for the construction of the Electrical Interconnection Upgrades necessary to maintain the “[Full Capacity] [Energy Only] Deliverability Status” (as defined in the CAISO Tariff) of the Project and setting forth:

(i) an estimated in-service interconnection date for the “Participating TO’s Interconnection Facilities,” the “Network Upgrades,” and the “Distribution Upgrades” (as each term is defined in the CAISO Tariff) of no later than [\_\_\_\_\_] months after Seller provides the Participating Transmission Owner with the appropriate security and written authorization to proceed under its [Large/Small] Generator Interconnection Agreement for the Project,

(ii) a refundable cost for “Network Upgrades” (as defined in the CAISO Tariff) that Seller would be obligated to pay and would be entitled to reimbursement from the CAISO, a Participating Transmission Owner, or any other affected transmission provider as provided thereunder not exceeding \$[\_\_\_\_\_], and [*Note: Seller may propose additional provisions whereby Seller can satisfy this Condition Precedent by buying down the Network Upgrade costs that exceed the foregoing cost cap in a manner that is mutually acceptable to the Parties.*]

(iii) a nonrefundable cost that Seller would be obligated to pay thereunder not exceeding \$[\_\_\_\_\_] (or such greater amount as Seller may approve, in its sole discretion).

(c) *[Others, Major Governmental Approvals, Financing, etc.]*

#### 2.4 Failure to Meet All Conditions Precedent.

(a) Beneficiary Party.

(i) Both of the Parties are the beneficiaries of the Conditions Precedent set forth in Sections 2.3(a), 2.3(b)(i)-(ii) *[Others]*, and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, both of the Parties must waive (in their sole discretion) non-satisfaction by the deadline date therefor.

(ii) Buyer shall be the sole beneficiary of the Conditions Precedent set forth in Sections *[List]*, and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, Buyer alone must waive (in its sole discretion) non-satisfaction by the deadline date therefor.

(iii) Seller shall be the sole beneficiary of the Conditions Precedent set forth in Sections 2.3(b)(iii) *[Others]*, and in order for a waiver of non-satisfaction of such Conditions Precedent to be effective, Seller alone must waive (in its sole discretion) non-satisfaction by the deadline date therefor.

(b) Termination. If any of the Conditions Precedent is not satisfied or waived in writing by the beneficiary Parties thereto on or before the date that is fifteen (15) days after the applicable deadline date therefor, then this Agreement shall automatically terminate with no further obligation to either Party (other than as set forth in Sections 2.4(b)(i)-(ii) below and any other payment obligations which are accrued and payable at the time of termination).

(i) Upon a termination of this Agreement for any reason under Section 2.4 other than as described in Section 2.4(b)(ii) below, Seller shall forfeit to Buyer an amount equal to the Performance Assurance then required to be delivered to Buyer hereunder. Buyer may retain such Performance Assurance to pay such amount.

(ii) Upon a termination of this Agreement under this Section 2.4 as a result of the failure of the Conditions Precedent set forth in Sections 2.3(a) to be satisfied (or waived by both Parties) or as a result of the failure of the Conditions Precedent set forth in Sections 2.3(b)(i)-(ii) to be satisfied or waived by Buyer, Buyer shall return to Seller the Performance Assurances then held by Buyer.

2.5 Effectiveness of Agreement on and after CP Satisfaction Date. This Agreement shall be in full force and effect, enforceable and binding in all respects as of the CP Satisfaction Date until the conclusion of the Delivery Term or earlier termination pursuant to the terms of this Agreement; provided however, that this Agreement shall remain in effect until (i) the Parties have fulfilled all obligations under this Agreement, including payment in full of amounts due for the Product delivered prior to the end of the Delivery Term, the Settlement Amount, indemnification payments or other damages (whether directly or indirectly such as through set-off or netting) and (ii) the undrawn portion of the *[For Agreements with Delivery Terms greater than two years: CPUC Approval Security,] Development Period Security, Construction Period Security, or Delivery Term Security, as applicable, is released and/or returned as applicable (if any is due)*. All indemnity rights shall survive the termination or expiration of this Agreement for the longer of twelve (12) months or the expiration of the statute of limitations period of the claim underlying the indemnity obligation.

### ARTICLE THREE: OBLIGATIONS AND DELIVERIES

#### 3.1 Transaction.

(a) Product. The “Product” to be delivered and sold by Seller and received and purchased by Buyer under this Agreement is *[Seller to select: As-Available, Baseload, Peaking, or Dispatchable]* Energy, Capacity Attributes, Green Attributes, and other ancillary products, services or attributes similar to the foregoing which are or can be produced by or associated with the Project (net of Station Service) in accordance with the terms hereof.

(b) Transaction. Unless specifically excused by the terms of this Agreement during the Delivery Term, Seller shall sell and deliver, or cause to be delivered, and Buyer shall purchase and receive, or cause to be received, the Product at the Delivery Point, and Buyer shall pay Seller for the Product in accordance with the terms hereof. *In no event shall Seller have the right to procure any element of the Product from sources other than the Project for sale or*

delivery to Buyer under this Agreement *[If the Project is located outside of the CAISO: except with respect to Imbalance Energy from the Transmission Provider].*

(c) **Delivery Term.** The Parties agree that the period of Product delivery is [ ] Contract Years. As used herein, “Delivery Term” shall mean the period of Contract Years specified above beginning on the Commercial Operation Date and continuing until the end of the last Contract Year unless terminated earlier as provided by the terms of this Agreement.

(d) **Delivery Point.** The Delivery Point shall be [the point of interconnection of the Project to the CAISO Grid] *[Seller may specify another delivery point; for a Project located outside the CAISO Grid, the Delivery Point should be a CAISO Scheduling Point as defined by the CAISO]* and for financial settlement purposes under the applicable CAISO market, the PNode corresponding to such point.

(e) **[For Baseload, Peaking, As-Available Product: Contract Quantity and Guaranteed Energy Production.** The quantity of Bundled Green Energy that Seller expects to be able to deliver to Buyer during each Contract Year is [ ] MWh (“Contract Quantity”). Throughout the Delivery Term, Seller shall be required to deliver to Buyer no less than the Guaranteed Energy Production (as defined below) in any [twelve (12)] [twenty-four (24)] consecutive calendar month period during the Delivery Term (“Performance Measurement Period”). “Guaranteed Energy Production” means an amount of Bundled Green Energy, as measured in MWh, equal to [two times] [ ]% of the Contract Quantity. Notwithstanding the excuses to performance set forth in the definition of the Product type (as such Product type is specified in Section 3.1(a)), Seller shall be excused from achieving the Guaranteed Energy Production during any Performance Measurement Period only to the extent of any Force Majeure events, Buyer’s failure to perform, or Dispatch Down Periods. For purposes of determining whether Seller has achieved the Guaranteed Energy Production, Seller shall be deemed to have delivered to Buyer an amount of Bundled Green Energy that it could reasonably have delivered to Buyer but was prevented from delivering to Buyer by reason of any Force Majeure events, Buyer’s failure to perform, or Dispatch Down Periods.] **[For Dispatchable Product: Contract Quantity.** The quantity of Bundled Green Energy that Seller expects to be able to deliver to Buyer during each Contract Year is [ ] MWh (“Contract Quantity”).]

(f) **Contract Capacity.** The “Contract Capacity” is the full generation capacity of the Project net of all Station Service which shall be *[For As-Available Product: no less than [ ] MW and no greater than [ ] MW] [For Baseload, Peaking, or Dispatchable Product only: an amount determined periodically pursuant to a Capacity Test as set forth below].* Throughout the Delivery Term, Seller shall sell and Schedule all Product associated with the Contract Capacity of the Project solely to Buyer, except in the case of an Event of Default of Buyer *[If the Project is located outside of the CAISO: or the sale of Imbalance Energy to the Transmission Provider]. [For Dispatchable Product: Throughout the Delivery Term, Seller shall make the Contract Capacity available solely to Buyer at all times, except in the case of an Event of Default of Buyer [If the Project is located outside of the CAISO: or the sale of Imbalance Energy to the Transmission Provider].]*

(i) ***[For Baseload, Peaking, Dispatchable Product: Initial Capacity Testing***. Upon no less than fourteen (14) days prior Notice to Buyer, Seller shall schedule and complete a Capacity Test prior to the Commercial Operation Date for the Project. Such initial Capacity Test shall establish the Contract Capacity for the Project for the first Contract Year.]

(ii) ***[For Baseload, Peaking, Dispatchable Product: Annual Capacity Testing***. Thereafter, at least once per Contract Year within the first quarter of each Contract Year, upon no less than 14 days prior Notice to Buyer, Seller shall schedule and complete a Capacity Test. In addition, Buyer shall have the right to require a retest of the Capacity Test at any time upon five (5) days prior written Notice to Seller if Buyer reasonably believes that the actual Contract Capacity has varied materially from the results of the most recent tests. Seller shall have the right to run a retest of the Capacity Test at any time upon two (2) days prior written Notice to Buyer (or any shorter period reasonably acceptable to Buyer consistent with Good Industry Practices).]

(iii) ***[For Baseload, Peaking, Dispatchable Product: Witness at Capacity Tests***. Buyer shall have the right to send one or more representative(s) to witness all Capacity Tests.]

(iv) ***[For Baseload, Peaking, Dispatchable Product: Capacity Test Reporting***. No later than fourteen (14) days following any Capacity Test, Seller shall submit a testing report detailing results and findings of the test. The report shall include meter readings and plant log sheets verifying the operating conditions and output of the Project. The Contract Capacity determined pursuant to a Capacity Test shall become the new Contract Capacity at the beginning of the day following the completion of the test for all purposes under this Agreement.]

(v) ***[For Baseload, Peaking, Dispatchable Product: Capacity Test Costs and Payments***. Buyer shall pay the [Monthly Energy Payment] in respect of the Product produced during the initial Capacity Test prior to the Commercial Operation Date and each annually scheduled Capacity Test thereafter. In addition, Buyer shall pay the [Monthly Energy Payment] in respect of the Product produced during any other Buyer requested test unless the results of such test demonstrate that the actual Contract Capacity has varied by more than two percent (2%) from the results of the most recent tests, in which case Buyer shall pay the lesser of the [Monthly Energy Payment] in respect of the Product produced during such test and the applicable CAISO real-time hourly average energy price. In addition, Buyer shall pay the lesser of the [Monthly Energy Payment] in respect of the Product produced during any Seller requested test and the applicable CAISO real-time hourly average energy price]. Buyer is responsible for all costs, expenses and fees payable or reimbursable to its representative(s) witnessing Capacity Testing. All other costs of any Capacity Tests shall be borne by Seller.]

(g) **Project**. All Product provided by Seller pursuant to this Agreement shall be supplied from the Project only ***[If the Project is located outside of the CAISO: except with respect to Imbalance Energy from the Transmission Provider]***. Other than maintenance in accordance with Good Industry Practices, Seller shall not make any alteration or modification to the Project which results in a change to the Contract Capacity of the Project **or any other material changes to the Project** without Buyer's prior written consent. The Project is further described in Exhibit A.

(h) Performance Excuses.

(i) Seller Excuses. The performance of Seller to Schedule, deliver, and sell the Product shall be excused only for the reasons set forth in the definition of *[Seller to select: "As-Available" or "Unit Firm"]*. If Seller fails to Schedule, deliver, or sell all or part of the Product, and such failure is not excused as described above, then Seller shall pay Buyer, on the date payment would otherwise be due in respect of the month in which the failure occurred an amount for such Product deficiency equal to the positive difference, if any, obtained by subtracting (A) the product of the Energy Price *[For TOD Pricing Only: times the weighted average TOD Factor for such period of Product deficiency]* times the Product deficiency, from (B) the product of the Replacement Price times the Product deficiency. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

(ii) Buyer Excuses. The performance of Buyer to Schedule, receive, and pay for the Product shall be excused only (A) during periods of Force Majeure, (B) by Seller's failure to perform or (C) during Dispatch Down Periods *[For all Products other than Dispatchable Product: (except that Buyer shall not be excused from paying for the Product as required under Section 3.4 during periods of Economic Dispatch Down)]*. If Buyer fails to Schedule, receive, or purchase all or part of the Product and such failure is not excused as described above, then Buyer shall pay Seller, on the date payment would otherwise be due in respect of the month in which the failure occurred an amount for such Product deficiency equal to the positive difference, if any, obtained by subtracting (Y) the product of the Sales Price times the Product deficiency from (Z) the product of the Energy Price *[For TOD Pricing Only: times the weighted average TOD Factor for such period of Product deficiency]* times the Product deficiency. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

(i) 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. *[For all electric generation using biomethane as fuel, neither Buyer nor Seller may make a marketing, regulatory, or retail claim that asserts that a procurement contract to which that entity was a party resulted, or will result, in greenhouse gas reductions related to the destruction of methane if the capture and destruction is required by Law. If the capture and destruction of the biomethane is not required by Law, neither Buyer nor Seller may make a marketing, regulatory, or retail claim that asserts that a procurement contract to which that entity was a party resulted, or will result, in greenhouse gas reductions related to the destruction of methane, unless the environmental attributes associated with the capture and destruction of the biomethane pursuant to that contract are transferred to Buyer and retired on behalf of the retail customers consuming the electricity associated with the use of that biomethane, or unless Seller's procurement contract with the source of biomethane prohibits the source of biomethane from separately marketing the environmental attributes associated with the capture and destruction of the biomethane sold pursuant to that contract, and such attributes have been retired.]*

(j) Resource Adequacy. During the Delivery Term, Seller grants, pledges, assigns and otherwise commits to Buyer all of the Project's Contract Capacity, including Capacity Attributes, from the Project for Buyer to use in meeting its Resource Adequacy or successor program requirements, as the CPUC, CAISO or other regional entity may prescribe. Seller understands that the CPUC is currently in the process of developing requirements for Resource Adequacy and these requirements and the implementation thereof have not been finalized. Seller agrees that it shall take all commercially reasonable actions and execute any and all documents or instruments reasonably necessary to enable Buyer to use all of the Contract Capacity, including Capacity Attributes, to be committed by Seller to Buyer pursuant to this Agreement for the Resource Adequacy requirements of Buyer. Seller agrees that the Project is subject to the terms of the Availability Standards.

(k) WREGIS. Prior to the initial delivery of Energy to Buyer, Seller shall register the Project in WREGIS, execute a CAISO Qualified Reporting Entity Service Agreement to allow CAISO, on the Seller's behalf, to upload generation information directly into WREGIS, and take all other actions necessary to ensure that the Green Attributes produced from the Project in an amount equal to the amount of Delivered Energy are issued and tracked for purposes of satisfying the requirements of the California Renewable Portfolio Standard and transferred to Buyer, including payment of all fees required to register the facility in WREGIS, issue WREGIS certificates, and transfer such certificates to Buyer. Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in WREGIS will be taken prior to the first delivery under the Agreement.

(l) Prevailing Wage. To the extent applicable, Seller shall comply with the prevailing wage requirements of California Public Utilities Code Section 399.13, subdivision (h).

### 3.2 Transmission

(a) Seller's Transmission Service Obligations. During the Delivery Term, Seller shall arrange and be responsible for transmission service for delivery of the Product to and at the Delivery Point and bear all risks and costs associated with such transmission service, including, but not limited to, all Transmission Provider costs and charges, electric transmission losses, and any transmission outages or curtailment, except as provided otherwise in this Agreement in respect of Dispatch Down Periods. ***[For Projects located outside of CAISO:*** Seller shall obtain and maintain during the Delivery Term firm transmission service to deliver the Product from the Site to the Delivery Point from all intermediary Transmission Providers between the Site and the Delivery Point. At Buyer's request, Seller shall provide to Buyer a copy of all firm transmission service agreements and any amendments thereto.] Seller shall fulfill all contractual, metering and applicable interconnection requirements, including those set forth in Participating Transmission Owner's applicable tariffs, the CAISO Tariff and implementing CAISO standards and requirements, including, but not limited to, executing applicable interconnection agreements, Participating Generator Agreement and Meter Service Agreement so as to be able to deliver Energy to the CAISO Grid. Seller shall arrange for any interconnection agreement with the CAISO and such interconnection agreement is separate and not a part of this Agreement.

(b) Buyer's Transmission Service Obligations. During the Delivery Term, Buyer shall arrange and be responsible for transmission service for delivery of the Product from the Delivery Point and bear all risks and costs associated with such transmission service, including, but not limited to, all Transmission Provider costs and charges, electric transmission losses, and any transmission outages or curtailment, except as provided otherwise in this Agreement in respect of Dispatch Down Periods.

(c) Congestion Charges. Seller shall be responsible for all costs of congestion for transmission of the Product up to and at the Delivery Point. Buyer shall be responsible for all costs of congestion for transmission of the Product from the Delivery Point. To the extent that Seller is reimbursed for or receives any refunds, credits, or benefits from the CAISO for congestion charges or losses in respect of transmission of the Product from the Delivery Point, whether due to differences between the locational marginal pricing at the Delivery Point and Buyer's load aggregation point or any other point downstream of the Delivery Point, congestion revenue rights associated with any transmission path downstream of the Delivery Point, or any other hedging instruments associated with the transmission of the Product from the Delivery Point (collectively, any such refunds, credits or benefits are referred to as "Reductions"), then, at Buyer's option, either (i) Seller shall transfer any such Reductions and their related rights to Buyer; or (ii) Buyer shall reduce payments due to Seller under this Agreement in amounts equal to the Reductions and Seller shall retain the Reductions.

### 3.3 Scheduling.

(a) ***[For As-Available intermittent Product only: VER Forecasting Program Requirements.*** Seller shall cause the Project to become a Participating Intermittent Resource including executing all necessary documents to become a Participating Intermittent Resource. Seller shall be responsible for all CAISO forecasting fees and related charges associated with the Project becoming a Participating Intermittent Resource and participating in the VER Forecasting Program. Seller and Buyer shall comply with the VER Forecasting Program, and all additional protocols issued by the CAISO relating to Participating Intermittent Resources, including the VER Forecasting Program, for the Delivery Term. Seller shall provide Buyer with a copy of the notice from the CAISO certifying the Project as a Participating Intermittent Resource prior to the Commercial Operation Date. In the event that the VER Forecasting Program or the CAISO Tariff and/or any protocols relating thereto are changed, amended, modified replaced or terminated, Seller and Buyer agree to comply with such revisions and, to the extent practical, to implement such revisions in a manner that maintains the relative economic positions of the parties as of the date of this Agreement.]

(b) Scheduling Coordinator.

***[When Seller is SC for the Project, include the following two paragraphs:***

(i) Seller as Scheduling Coordinator for the Project. During the Delivery Term, Seller shall be its own Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with its Transmission Provider to schedule and deliver the Product to the Delivery Point and Buyer shall be its own Scheduling Coordinator or designate a qualified third party to provide Scheduling Coordinator services with its Transmission Provider to schedule and receive the Product at the Delivery Point. Throughout



the Delivery Term, Buyer and Seller shall submit inter-SC trades for scheduling all Product from the Project at the Delivery Point (including Energy, Integrated Forward Market Load Uplift Obligations in respect of self-scheduled Energy, and other Product from time to time contemplated under the CAISO Tariff to be subject to inter-SC trades), based on a final Schedule developed in compliance with this Agreement. During the Delivery Term, each Party or each Party's SC shall conduct all Scheduling in accordance with the operating procedures developed by the Parties pursuant to Section 3.10 and in full compliance with the applicable CAISO Tariff, protocols and Scheduling practices for Product on a day-ahead, hour-ahead, or real time basis, as determined by Buyer. ***[For As-Available intermittent Product only:*** Whenever the VER Forecasting Program is applicable, Seller shall submit Schedules and any updates to such Schedules to the CAISO based on the most current forecast of Delivered Energy consistent with the VER Forecasting Program.] In all cases, ***[For all Products other than Dispatchable:*** consistent with its Economic Dispatch Down curtailment rights,] Buyer may direct the Scheduling Coordinator to submit, and Seller shall cause the Scheduling Coordinator to submit in accordance with such Buyer's directions, a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO. It is the intent of the Parties that neither Party be subject to a double payment or a double charge for Product from the Project through this Agreement and CAISO settlement process and that the more detailed Scheduling and operating procedures developed pursuant to Section 3.10 complement the CAISO settlement process to produce a final economic result between them that is consistent with the fundamental transaction of this Agreement.

(ii) CAISO Costs and Revenues. Seller shall be responsible for CAISO costs (including penalties and other charges) and shall be entitled to all CAISO revenues (including credits and other payments) as the Scheduling Coordinator for the Project, in each case, associated with Imbalance Energy, including all CAISO charges or penalties incurred as a consequence of the Project not being available, the Seller not notifying the CAISO and Buyer of outages in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7), any other failure by Seller to abide by the CAISO Tariff, and any other deviations between Delivered Energy and Scheduled Energy that are attributable to Seller, the Project, or any event, circumstance, act, or incident occurring prior to or at the Delivery Point, including without limitation uninstructed deviation penalties. The Parties agree that any Availability Incentive Payments are for the benefit of the Seller and for Seller's account and that any Non-Availability Charges or other CAISO charges associated with the Project not providing sufficient Resource Adequacy capacity are the responsibility of the Seller and for Seller's account. In addition, if during the Delivery Term, the CAISO implements or has implemented any sanction or penalty related to scheduling, outage reporting, or generator operation, the cost of the sanctions or penalties shall be the Seller's responsibility. Buyer shall be entitled to all credits, payments, or revenues from the CAISO in respect of the Product Scheduled or delivered from the Project, including revenues associated with CAISO dispatches, inter-SC trade credits, and bid cost recovery.

***[When SDG&E is SC for the Project, include the following seven paragraphs:***

(iii) Buyer as Scheduling Coordinator for the Project. [During the Delivery Term] [Upon initial synchronization of the Project to the CAISO Grid], Buyer shall be the Scheduling Coordinator or designate a qualified third party to provide Scheduling

Coordinator services with the CAISO for the Project for both the delivery and the receipt of the Product at the Delivery Point. At least thirty (30) days prior to the [Commercial Operation Date of the Project] [initial synchronization of the Project to the CAISO Grid], Seller shall take all actions and execute and deliver to Buyer and the CAISO all documents necessary to authorize or designate Buyer as Seller's Scheduling Coordinator for the Project effective as of [the beginning of the Delivery Term] [initial synchronization of the Project to the CAISO Grid]. [During the Delivery Term] [On and after initial synchronization of the Project to the CAISO Grid], Seller shall not authorize or designate any other party to act as Seller's Scheduling Coordinator, nor shall Seller perform for its own benefit the duties of Scheduling Coordinator, and Seller shall not revoke Buyer's authorization to act as Seller's Scheduling Coordinator unless agreed to by Buyer. Buyer (as Seller's SC) shall submit Schedules to the CAISO based on the final Schedule developed in accordance with this Agreement, the operating procedures developed by the Parties pursuant to Section 3.10, and the applicable CAISO Tariff, protocols and Scheduling practices for Product on a day-ahead, hour-ahead, or real time basis, as determined by Buyer. ***[For As-Available intermittent Product only:*** Buyer (as Seller's SC) shall submit Schedules and any updates to such Schedules to the CAISO based on the most current forecast of Delivered Energy consistent with the VER Forecasting Program whenever the VER Forecasting Program is applicable, and consistent with Buyers' best estimate based on the information reasonably available to Buyer including Buyer's forecast whenever the VER Forecasting Program is not available.] In all cases, ***[For all Products other than Dispatchable:*** consistent with its Economic Dispatch Down curtailment rights,] Buyer (as the Scheduling Coordinator) may, or may direct the third party Scheduling Coordinator to, submit a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO.

(iv) Notices. Buyer (as Seller's SC) shall provide Seller with access to a web based system through which Seller shall submit to Buyer and the CAISO all notices and updates required under the CAISO Tariff regarding the Project's status, including, but not limited to, all outage requests, forced outages, forced outage reports, clearance requests, or must offer waiver forms. In accordance with Section 3.7 and this Section 3.2, Seller will cooperate with Buyer to provide such notices and updates. If the web based system is not available, Seller shall promptly submit such information to Buyer and the CAISO (in order of preference) telephonically, by electronic mail, or facsimile transmission to the personnel designated to receive such information.

(v) CAISO Costs and Revenues. Except as otherwise set forth below, ***[For all Products other than Dispatchable Product:*** in Section 3.4(c)(ii),] and elsewhere in this Agreement, Buyer (as Seller's SC) shall be responsible for CAISO costs (including penalties, ***[For As-Available Product VER Forecasting Program Participants only:*** Negative Imbalance Energy costs or revenues,] and other charges) and shall be entitled to all CAISO revenues (including credits, ***[For As-Available Product VER Forecasting Program Participants only:*** Positive Imbalance Energy revenues or costs,] and other payments) as the Scheduling Coordinator for the Project, including revenues associated with CAISO dispatches, bid cost recovery, inter-SC trade credits, or other credits in respect of the Product Scheduled or delivered from the Project. ***[For As-Available Product VER Forecasting Program Participants only:*** Seller shall be responsible for all CAISO charges or penalties net of credits and payments (including without limitation all Imbalance Energy costs), in each case, resulting from the Seller not notifying the CAISO and Buyer (as Seller's SC) of outages or other unavailability of Project

capacity in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7) or any other failure by Seller to abide by the CAISO Tariff.] ***[For all Products other than As-Available Product VER Forecasting Program Participants:*** Seller shall be responsible for all CAISO charges or penalties net of credits and payments, in each case, resulting from the Project not being available, the Seller not notifying the CAISO and Buyer (as Seller's SC) of outages in a timely manner (in accordance with the CAISO Tariff and as set forth in Section 3.7), any other failure by Seller to abide by the CAISO Tariff, and deviations between Delivered Energy and Scheduled Energy that are attributable to Seller, the Project, or any event, circumstance, act, or incident occurring prior to or at the Delivery Point, including without limitation uninstructed deviation penalties.] The Parties agree that any Availability Incentive Payments are for the benefit of the Seller and for Seller's account and that any Non-Availability Charges or other CAISO charges associated with the Project not providing sufficient Resource Adequacy capacity are the responsibility of the Seller and for Seller's account. In addition, if during the Delivery Term, the CAISO implements or has implemented any sanction or penalty related to scheduling, outage reporting, or generator operation, and any such sanctions or penalties are imposed upon the Project or to Buyer as Scheduling Coordinator due to the actions or inactions of Seller, the cost of the sanctions or penalties shall be the Seller's responsibility.

(vi) CAISO Settlements. Buyer (as Seller's SC) shall be responsible for all settlement functions with the CAISO related to the Project. Buyer shall render a separate invoice to Seller for any CAISO charges or penalties ("CAISO Charges Invoice") for which Seller is responsible under this Agreement. CAISO Charges Invoices shall be rendered after settlement information becomes available from the CAISO that identifies any CAISO charges. Notwithstanding the foregoing, Seller acknowledges that the CAISO will issue additional invoices reflecting CAISO adjustments to such CAISO charges. Seller shall pay the amount of CAISO Charges Invoices within ten Business Days of Seller's receipt of the CAISO Charges Invoice. If Seller fails to pay such CAISO Charges Invoice within that period, Buyer may net or offset any amounts owing to it for these CAISO Charges Invoices against any future amounts it may owe to Seller under this Agreement. The obligations under this section with respect to payment of CAISO Charges Invoices shall survive the expiration or termination of this Agreement.

(vii) Dispute Costs. Buyer (as Seller's SC) may be required to dispute CAISO settlements in respect of the Project. Seller agrees to pay Buyer's costs and expenses (including reasonable attorneys' fees, including reasonably allocated costs of in-house counsel of the Buyer) associated with its involvement with such CAISO disputes.

(viii) Terminating Buyer's Designation as Scheduling Coordinator. At least thirty (30) days prior to expiration of this Agreement or as soon as reasonably practicable upon an earlier termination of this Agreement, the Parties will take all actions necessary to terminate the designation of Buyer as Scheduling Coordinator for the Project as of 11:59 p.m. on such expiration date.

(ix) Master-Data File and Resource Data Template. Seller shall provide the data to the CAISO (and to Buyer) that is required for the CAISO's Master-Data File and Resource Data Template (or successor data systems) for this Project consistent with this

Agreement. Neither Party shall change such data without the other Party's prior written consent.]

(c) Annual Delivery Schedules. No later than forty-five (45) days before (A) the first day of the first Contract Year of the Delivery Term and (B) the beginning of each calendar year for every subsequent Contract Year during the Delivery Term, Seller shall provide a non-binding forecast of each month's average-day expected Delivered Energy, by hour, for the following calendar year.

(d) Monthly Delivery Schedules. Ten (10) Business Days before the beginning of each month during the Delivery Term, Seller shall provide a non-binding forecast of each day's average expected Delivered Energy, by hour, for the following month ("Monthly Delivery Forecast").

(e) Daily Delivery Schedules. By 5:30 AM Pacific Prevailing Time on the Business Day immediately preceding the date of delivery, Seller shall *[When Seller is SC for the Project: cause its Scheduling Coordinator to]* provide Buyer with a *[For As-Available intermittent Product only: non-binding forecast of the Project's available capacity (or if the VER Forecasting Program is not available for any reason, the expected Delivered Energy)]* *[For all Products other than As-Available intermittent: binding forecast of the expected Delivered Energy]* for each hour of the immediately succeeding day ("Day-Ahead Forecast") *[For all Products other than As-Available intermittent: [When Seller is SC for the Project: concurrent with delivery to the CAISO] [When SDGE is SC for the Project: and Buyer shall submit a Schedule to the CAISO consistent with such Day-Ahead Forecast]]*, it being understood that, *[For all Products other than Dispatchable: consistent with its Economic Dispatch Down curtailment rights,]* Buyer (as the Scheduling Coordinator) may, or may direct the third party Scheduling Coordinator to, submit a self-schedule or an economic bid in the applicable CAISO market in order to Schedule the Product with the CAISO. A Day-Ahead Forecast provided in a day prior to any non-Business Day(s) shall include Schedules for the immediate day, each succeeding non-Business Day and the next Business Day. Each Day-Ahead Forecast shall clearly identify, for each hour, Seller's best estimate of *[For As-Available intermittent Product only: the Project's available capacity (or if the VER Forecasting Program is not available for any reason, the expected Delivered Energy)]* *[For all Products other than As-Available intermittent: the expected Delivered Energy]*. Seller may not change such Schedule past the deadlines provided in this section except in the event of a Forced Outage or Schedule change imposed by Buyer or the CAISO, in which case Seller shall promptly provide Buyer with a copy of any and all updates to such Schedule indicating changes from the then-current Schedule. These notices and changes to the Schedules shall be sent to Buyer's on-duty Scheduling Coordinator. If Seller fails to provide Buyer with a Day-Ahead Forecast as required herein, then for such unscheduled delivery period only Buyer shall rely on the delivery Schedule provided in the Monthly Delivery Forecast or Buyer's best estimate based on information reasonably available to Buyer and Seller shall be liable for Scheduling and delivery based on such Monthly Delivery Forecast or Buyer's best estimate.

(f) Real Time Delivery Schedules. Notwithstanding anything to the contrary herein, in the event Seller makes a change to its Schedule on the actual date of delivery for any reason including Forced Outages (other than a scheduling change imposed by Buyer or CAISO)

which results in a change to its deliveries (whether in part or in whole), Seller shall notify Buyer immediately by calling Buyer's on-duty Scheduling Coordinator. Seller shall notify Buyer and the CAISO of Forced Outages in accordance with Section 3.7. Seller shall keep Buyer informed of any developments that will affect either the duration of the outage or the availability of the Project during or after the end of the outage.

(g) ***[For Dispatchable Product Only: Availability Notices.*** During the Delivery Term, no later than two (2) Business Days before each Schedule day for the day-ahead market in accordance with WECC scheduling practices, Seller shall provide Buyer with an hourly Schedule of the capacity that the Project is expected to have available for each hour of such Schedule day (the "Availability Notice"). Seller will notify Buyer immediately if the available capacity of the Project may change after Buyer's receipt of an Availability Notice. Seller shall accommodate Buyer's reasonable requests for changes in the time of delivery of Availability Notices. Seller shall provide Availability Notices using the form developed by the Parties under Section 3.10 by (in order of preference) electronic mail, facsimile transmission or, telephonically to Buyer personnel designated to receive such communications.]

(h) ***[For Dispatchable Product Only: Dispatch Notices.*** Buyer or the CAISO will have the right to dispatch the Project, seven days per week and 24 hours per day (including holidays), by providing Dispatch Notices and updated Dispatch Notices to Seller electronically, subject to the requirements and limitations set forth in this Agreement, including the system requirements under Section 3.4(b) and the Project operating restrictions set forth in Exhibit H. Each Dispatch Notice will be effective unless and until Buyer modifies such Dispatch Notice by providing Seller with an updated Dispatch Notice. In addition to any other requirements set forth or referred to in this Agreement, all Dispatch Notices and updated Dispatch Notices will be made in accordance with the timelines as specified in the CAISO Tariff.]

#### 3.4 Dispatch Notices.

(a) **General.** Seller shall reduce delivery amounts as directed by the CAISO, the Participating Transmission Owner, Buyer, or a Transmission Provider during any Dispatch Down Period.

(b) **System Requirements.** Seller shall acquire, install, and maintain such facilities, communications links and other equipment, and implement such protocols and practices, as necessary (i) for Seller to respond and follow instructions, including an electronic signal conveying real time instructions, to operate the Project as directed by the Buyer and/or the CAISO, including to implement a System Dispatch Down or an Economic Dispatch Down in accordance with the then-current methodology used to transmit such instructions as it may change from time to time, and (ii) for Buyer and/or the CAISO to control the quantity of Product generated by the Project in order to implement a System Dispatch Down or an Economic Dispatch Down, in each case, in accordance with the then-current methodology used to transmit such instructions as it may change from time to time. As of the Execution Date, the systems required to comply with clause (i) include at a minimum the CAISO's Automatic Dispatch System (as described in the CAISO website) and the systems required to comply with clause (ii) include at a minimum the CAISO'S Application Programming Interfaces (as described in the CAISO website). If at any time during the Delivery Term Seller's facilities, communications

links or other equipment, protocols or practices are not in compliance with then-current methodologies, Seller shall take all commercially reasonable steps necessary to become compliant as soon as possible. Seller shall be liable pursuant to Section **[For all Products other than Dispatchable Product: 3.4(c)(ii)] [For Dispatchable Product: 3.3(b)[(ii)/(iii)]** for failure to comply with an order directing a Dispatch Down Period, during the time that Seller's facilities, communications links or other equipment, protocols or practices are not in compliance with then-current methodologies. For the avoidance of doubt, an order directing a Dispatch Down Period via such systems and facilities shall have the same force and effect on Seller as any other form of communication. If an electronic submittal is not possible, Buyer and/or the CAISO may provide Dispatch Notices by (in order or preference) electronic mail, telephonically, or facsimile transmission to Seller's personnel designated to receive such communications, as provided by Seller in writing and Seller shall maintain communications systems necessary to permit such transmittal of Dispatch Notices.

(c) **[For all Products other than Dispatchable Product: Economic Dispatch Down. [For Projects where SDG&E purchases Test Energy:** Before or after the Commercial Operation Date,] each of Buyer and the CAISO has the right to order Seller to curtail deliveries of Energy from the Project to the Delivery Point Project for Economic Dispatch Down purposes, seven days per week and 24 hours per day (including holidays), by providing Dispatch Notices and updated Dispatch Notices to Seller electronically via the communications systems described in Section 3.4(b), subject to the requirements and limitations set forth in this Agreement, including the Project operating restrictions set forth in Exhibit H. Each Dispatch Notice will be effective unless and until Buyer (or the CAISO) modifies such Dispatch Notice by providing Seller with an updated Dispatch Notice. In addition to any other requirements set forth or referred to in this Agreement, all Dispatch Notices and updated Dispatch Notices will be made in accordance with the timelines as specified in the CAISO Tariff.]

(i) **[Buyer Payments. [For Projects where SDG&E purchases Test Energy:** On and after the Commercial Operation Date], Buyer shall pay Seller, on the date payment would otherwise be due in respect of the month in which any such Economic Dispatch Down occurred an amount equal to the positive difference, if any, of (Y) the product of the Energy Price, times **[For TOD Pricing Only:** the weighted average TOD Factor for such period of Economic Dispatch Down, times] the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down **[For Projects receiving PTCs:** plus the product of the after tax value of any lost PTC benefits (in dollars per megawatt hour) that Seller has not been able to mitigate after use of reasonable efforts, times the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down], minus (Z) the product of the positive value of the Sales Price, if received, times the amount of Deemed Bundled Green Energy resulting from such Economic Dispatch Down. Seller agrees to reduce the Project's Delivered Energy as set forth in a Dispatch Notice that meets the requirements of Economic Dispatch Down.]

(ii) **[Failure to Comply.** If Seller fails to comply with a Dispatch Notice that ~~meets the requirements of Economic Dispatch Downs in compliance with this Agreement,~~ then, for the amount of Delivered Energy that the Project delivered to the Delivery Point in contradiction of the Dispatch Notice, Seller shall pay Buyer an amount equal to the sum of (A) + (B) + (C), where: (A) is the amount, if any, paid to Seller by Buyer for such Delivered

Energy (for example, the Contract Price adjusted by TOD Factors), and (B) is all Imbalance Energy costs or charges (excluding any revenues or credits), and (C) is any penalties or other charges resulting from Seller's failure to comply with the Dispatch Notice.]

### 3.5 Standards of Care.

(a) General Operation. Seller shall comply with all applicable requirements of Law, the CAISO, NERC and WECC relating to the Project (including those related to safety, construction, ownership and/or operation of the Project).

(b) CAISO and WECC Standards. Each Party shall perform all generation, scheduling and transmission services in compliance with all applicable (i) operating policies, criteria, rules, guidelines, tariffs and protocols of the CAISO, (ii) WECC scheduling practices and (iii) Good Industry Practices.

(c) Reliability Standard. Seller agrees to abide by all (i) NERC, WECC and CAISO reliability requirements, including all such reliability requirements for generator owners and generator operators, and, if applicable, CPUC General Order No.167, "Enforcement of Maintenance and Operation Standards for Electrical Generating Facilities," and (ii) all applicable requirements regarding interconnection of the Project, including the requirements of the interconnected Transmission Provider. Seller shall enter into and comply with the WECC Reliability Management System (Generator) Agreement, or successor agreement, as of the Commercial Operation Date and throughout the Delivery Term.

### 3.6 Metering.

(a) CAISO Revenue Meter. All output from the Project per the terms of this Agreement must be delivered through a single CAISO revenue meter and that meter must be dedicated exclusively to the Project described herein. All Product purchased under this Agreement must be measured by the Project's CAISO revenue meter to be eligible for payment under this Agreement. Seller shall bear all costs relating to all metering equipment reasonably necessary to accommodate the Project. In addition, Seller hereby agrees to provide all meter data to Buyer in a form acceptable to Buyer, and consents to Buyer obtaining from the CAISO the CAISO meter data applicable to the Project and all inspection, testing and calibration data and reports. Seller shall grant Buyer the right to retrieve the meter reads from the CAISO meter reporting website and/or directly from the CAISO meter(s) at the Project site. If the CAISO makes any adjustment to any CAISO meter data for a given time period, Seller agrees that it shall submit revised monthly invoices, pursuant to Section 6.2, covering the entire applicable time period in order to conform fully such adjustments to the meter data. Seller shall submit any such revised invoice no later than thirty (30) days from the date on which the CAISO provides to Seller such binding adjustment to the meter data.

(i) Testing and Calibration. Seller shall perform or cause to be performed, at its expense, annual testing and calibration of the electric meters in accordance with Good Industry Practice and the CAISO Tariff. Seller shall give Buyer reasonable advance notice of any inspection, testing or calibration of the electric meters. Buyer shall have the right to have a representative or designee present at such inspection, test or calibration of the electric meters.

Buyer shall have the right to require, at Buyer's expense, except as required below, a test of any of the electric meters not more often than two (2) times every twelve (12) months.

(ii) Inaccurate Meters. If any of the electric meters is deemed to be inaccurate under the Meter Service Agreement, deliveries shall be measured by reference to Seller's check-meters, if any are installed and registering accurately, or the meter readings for the period of inaccuracy shall be adjusted as far as can be reasonably ascertained by Seller from the best available data, subject to review and approval by Buyer. If the period of the inaccuracy cannot be ascertained reasonably, any such adjustment shall be for a period equal to one-half of the time elapsed since the preceding test by applying the percentage of inaccuracy so found. Seller shall promptly cause such electric meters to be corrected and, where such inaccuracy was determined pursuant to a test required by Buyer, Seller shall bear the expense of any such test.

(iii) Delivered MWh Adjustments. In the event that, due to correction for inaccurate electric meters deemed to be inaccurate under the Meter Service Agreement, the Delivered Energy is increased or decreased, the revised Delivered Energy shall be used for purposes of calculating payments. If any of such amounts for any period have already been calculated using the previous amount of Delivered Energy, they shall be recalculated using the revised amount of Delivered Energy. If the recalculation changes the amount payable for the period in question, revised payments shall be made by Buyer or Seller, as applicable, in accordance with Section 6.2.

(b) Real Time Telemetry. Seller shall install, activate and maintain metering, communication and telemetry equipment for the Project in a centralized system to which Buyer shall have real time access. Seller shall link its system to Buyer via an approved Buyer communication network, utilizing existing industry standard network protocol, as reasonably approved by Buyer. Seller shall correct any problems with such equipment as soon as practicable.

(c) *[The following section is for As-Available Intermittent Products only]* Meteorological Station. Seller, at its own expense, shall install and maintain such stand-alone meteorological stations at the Project as may be required under the VER Forecasting Program and the CAISO Tariff to monitor and report weather data to both the CAISO and Buyer's weather station data collection system. Each station shall be equipped with instruments and equipment that meet the specifications of the VER Forecasting Program and shall measure, collect, record, format, and communicate the data required under the VER Forecasting Program. Seller shall submit to Buyer for review and approval, which shall not be unreasonably withheld, its technical specifications for the meteorological station along with a site plan showing the location of the station within the Project. Seller shall correct any problems with such equipment as soon as practicable.

### 3.7 Outage Notification.

(a) Planned Outages. Seller shall schedule Planned Outages for the Project in accordance with Good Industry Practices and with the prior written consent of Buyer, which consent may not be unreasonably withheld or conditioned. The Parties acknowledge that in all circumstances, Good Industry Practices shall dictate when Planned Outages should occur. Seller



shall notify Buyer of its proposed Planned Outage schedule for the Project for the following calendar year by submitting a written Planned Outage schedule no later than October 1<sup>st</sup> of each year during the Delivery Term. The Planned Outage schedule is subject to Buyer's approval, which approval may not be unreasonably withheld or conditioned. Buyer shall promptly respond with its approval or with reasonable modifications to the Planned Outage schedule and Seller shall use its best efforts in accordance with Good Industry Practices to accommodate Buyer's requested modifications. Notwithstanding the submission of the Planned Outage schedule described above, Seller shall also submit a completed Outage Notification Form to Buyer no later than fourteen (14) days prior to each Planned Outage and all appropriate outage information or requests to the CAISO in accordance with the CAISO Tariff. Seller shall contact Buyer with any requested changes to the Planned Outage schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next scheduled Planned Outage consistent with Good Industry Practices. Seller shall not change its Planned Outage schedule without Buyer's approval, not to be unreasonably withheld or conditioned. Seller shall use its best efforts in accordance with Good Industry Practices not to schedule Planned Outages during the months of July, August, September and October. At Buyer's request, Seller shall use commercially reasonable efforts to reschedule Planned Outage so that it may deliver Product during CAISO declared or threatened emergency periods. Seller shall not substitute Energy from any other source for the output of the Project during a Planned Outage.

(b) Forced Outages. Within *[When Seller is the SC for the Project:* Within two hours of any Forced Outage,*] [When SDG&E is the SC for the Project:* Within one-half of the notification time prescribed under the CAISO Tariff for Forced Outages,*] Seller shall submit a completed Outage Notification Form to the Buyer in accordance with the instructions shown on the form and shall submit outage information to the CAISO in accordance with the CAISO Tariff [When SDG&E is the SC for the Project:* and Section 3.3(b)(ii) above*].* Seller shall not substitute Energy from any other source for the output of the Project during a Forced Outage.

(c) Coordination with CAISO. Seller shall be responsible *[When SDG&E is SC for the Project:* in accordance with Section 3.3(b)(ii)*]* for all outage coordination communications with the CAISO. Buyer shall cooperate with Seller in arranging and coordinating all Project outages with the CAISO.

### 3.8 Operations Logs and Access Rights.

(a) Operations Logs. Seller shall maintain a complete and accurate log of all material operations and maintenance information on a daily basis. Such log shall include, but not be limited to, information on power production, fuel consumption, efficiency, availability, maintenance performed, outages, results of inspections, manufacturer recommended services, replacements, electrical characteristics of the generators, control settings or adjustments of equipment and protective devices. Seller shall maintain this information for at least two (2) years and shall provide this information electronically to Buyer within one day of Buyer's request.

(b) Access Rights. Buyer, its authorized agents, employees and inspectors shall have the right of ingress to and egress from the Project during normal business hours upon reasonable advance Notice and for any purposes reasonably connected with this Agreement.

3.9 New Generation Facility.

(a) Project Development. Seller, at no cost to Buyer, shall:

(i) Design and construct the Project.

(ii) Perform all studies, pay all fees, obtain all necessary approvals and execute all necessary agreements with the CAISO and the Participating Transmission Owner for the Electrical Interconnection Upgrades to Schedule and deliver the Product from the Project [*For Projects Providing Resource Adequacy*: under “Full Capacity Deliverability Status” (as defined in the CAISO Tariff)]. Following satisfaction or waiver of the Conditions Precedent set forth in Section 2.3(b), Seller shall not request from the CAISO or the Participating Transmission Owner any changes to its plan of interconnection that are inconsistent with the plan of interconnection that was evaluated in connection with the satisfaction or waiver of the Conditions Precedent in Section 2.3(b) without Buyer’s prior written consent.

(iii) Acquire all Governmental Approvals and other approvals necessary for the construction, operation, and maintenance of the Project.

(iv) Complete all environmental impact studies necessary for the construction, operation, and maintenance of the Project, including all environmental analysis required under the California Environmental Quality Act for the Project and related interconnection facilities.

(v) At Buyer’s request, provide to Buyer Seller’s electrical specifications and design drawings pertaining to the Project.

(vi) Within fifteen (15) days after the close of each calendar quarter following the Execution Date until the Commercial Operation Date, provide to Buyer a Quarterly Progress Report and agree to regularly scheduled meetings between representatives of Buyer and Seller to review such reports and discuss Seller’s construction progress. The Quarterly Progress Report shall identify the Milestones and indicate whether Seller has met or is on target to meet such Milestones.

(vii) Provide access to Buyer, its authorized agents, employees and inspectors for purpose of inspecting the Project’s construction site or on-site Seller data and information pertaining to the Project during normal business hours upon reasonable advance Notice.

(viii) At Buyer’s request, provide information to Buyer relating to Seller’s or Seller’s contractor’s use, during Project construction, of “Women-Owned Businesses” or “Minority-Owned Businesses” or “Disabled Veteran Business Enterprises” as defined in CPUC General Order 156, and the number of new employees hired by Seller or Seller’s contractors and the number of women, minority, and disabled veterans trained or hired by Seller or Seller’s contractor’s as contemplated under Cal. Public Utilities Code §910(a)(8), as each such group of entities and individuals may be amended from time to time or further defined, supplemented, or superseded by applicable Law or replaced with similar designations or

certifications. *[Include other covenants related to “women-owned business” or “minority-owned business” as may be applicable to the Seller’s RFO bid.]*

(b) Construction Milestones.

(i) The Parties agree time is of the essence in regards to this Agreement. As such, the Parties also agree certain milestones for the construction of the Project as set forth in the Milestone schedule attached hereto as Exhibit B (“Milestones”) must be achieved in a timely fashion or Buyer will suffer damages.

(ii) Within seven (7) days after completion of each Milestone, Seller shall provide Buyer with Notice along with accompanying documentation (including reasonably redacted copies of applicable agreements, Governmental Approvals, and certificates) to reasonably demonstrate the achievement of such Milestone. If Seller misses the deadline date for three (3) or more Milestones or misses the deadline date for any one Milestone by more than ninety (90) days, Seller shall submit to Buyer, within ten (10) Business Days of such missed Milestone completion date, a remedial action plan (“Remedial Action Plan”) that describes in detail a reasonable course of action and plan (including accelerating the work, for example, by using additional shifts, overtime, additional crews or resequencing of the work, as applicable) to achieve the missed Milestones and all subsequent Milestones no later than the end of the Project Cure Period; provided, that delivery of any Remedial Action Plan shall not relieve Seller of its obligation to meet any subsequent Milestones and the Guaranteed Commercial Operation Date.

(c) Daily Delay Damages.

(i) COD. Seller shall cause the Project to achieve the Commercial Operation Date by the Guaranteed Commercial Operation Date; provided, however, that the Commercial Operation Date shall not occur more than one hundred eighty (180) days prior to the Guaranteed Commercial Operation Date. If the Commercial Operation Date occurs after the Guaranteed Commercial Operation Date, Seller shall pay to Buyer liquidated damages equal to Daily Delay Damages for each day or portion of a day that the Commercial Operation Date occurs after the Guaranteed Commercial Operation Date for up to a total of [\_\_\_\_\_] days (“Project Cure Period”). In addition, Seller shall submit a Remedial Action Plan within ten (10) days after the Guaranteed Commercial Operation Date if the Project has not then achieved the Commercial Operation Date. Each Party agrees and acknowledges that (a) the actual damages that Buyer would incur due to a delay in achieving the Commercial Operation Date on or before the Guaranteed Commercial Operation Date would be difficult or impossible to predict with certainty, (b) the Daily Delay Damages set forth in this section are a reasonable and appropriate approximation of such damages, and (c) the Daily Delay Damages set forth in this section are the exclusive remedy for Seller’s delay in achieving the Commercial Operation Date for the length of the Project Cure Period but shall not otherwise act to limit any of Buyer’s rights or remedies arising from any other Event of Default by Seller, including, without limitation, the failure by Seller to achieve the Commercial Operation Date altogether.

(ii) Extensions. The Guaranteed Commercial Operation Date and the deadline dates for Milestone numbers [\_\_\_\_\_] as set forth in Exhibit B shall be extended on a day for day basis for up to ninety (90) calendar days in the aggregate (“Force Majeure

Extension Period”) without imposition of any Daily Delay Damages to the extent Seller is actually and demonstrably delayed in its critical path to achieving the Commercial Operation Date by the Guaranteed Commercial Operation Date as a result of Force Majeure; provided, however, any such delay in excess of this period shall be subject to Daily Delay Damages pursuant to Section 3.9(c)(i).

3.10 Operating Procedures. No later than forty-five (45) days before the Commercial Operation Date, and from time to time as reasonably determined necessary by the Parties, the Parties shall meet to address how each Party will perform its respective obligations under this Agreement, including, but not limited to: (1) the method of day-to-day communications; (2) key personnel lists for each Party; (3) procedures for Forced Outage and Planned Outage reporting; (4) procedures for delivery forecasting; (5) procedures for record keeping; (6) Scheduling procedures; and (7) invoicing and payment procedures; provided, that the failure to agree on these operating procedures will not relieve the Parties of their respective obligations under this Agreement, and any failure to agree shall be resolved in accordance with the dispute resolution procedures in Article 12.

**ARTICLE FOUR: COMPENSATION; MONTHLY PAYMENTS**

4.1 *[For Dispatchable Product Only: Capacity Payment.*

(a) Capacity Price.

Contract Year	Capacity Price (\$/KW)
1	

(b) Monthly Capacity Payment. For each month, Buyer shall pay Seller for the Product the amount calculated as follows (“Monthly Capacity Payment”):

$$MCP = CC \times CP \times SF \times AAF$$

Where:

*MCP* is the Monthly Capacity Payment expressed in Dollars for such month of the Delivery Term.

*CC* is the Contract Capacity, expressed in kW, rounded to the nearest 100 kW.

*CP* is the Capacity Price expressed in Dollars per kW-year, for the applicable month.

*SF* is the Monthly Shaping Factor for the applicable month, as set forth in the following table:

<b>Month</b>	<b>Monthly Shaping Factor (%)</b>
January	6.7
February	5.0
March	5.0
April	5.8
May	6.3
June	8.3
July	15.8
August	17.5
September	11.7
October	5.8
November	5.8
December	6.3

*AAF* is the Availability Adjustment Factor for each month, expressed as a three-place decimal and determined as follows:

- (a) If the Equivalent Availability Factor (“EAF”) for the month is less than or equal to 0.980, then the AAF equals EAF / 0.98.
- (b) If the EAF for the month is greater than 0.980 but less than 0.990, then the AAF equals 1.0.
- (c) If the EAF for the month is greater than or equal to 0.990, then the AAF equals EAF / 0.99.

EAF is the Equivalent Availability Factor for each month determined as follows:

$$EAF = (PH - (EDH - EEDH)) / PH$$

Where:

*PH* is the number of period hours;

*EDH* is the number of equivalent derate hours calculated as the sum, for each derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the Contract Capacity divided by the Contract Capacity for the month. For the purposes of this calculation, a derate includes all outages for any reason,

including without limitation, Forced Outages, Force Majeure events, Dispatch Down Periods, Planned Outages, Buyer's failure to perform, and other times when any portion of the Contract Capacity is not available and when the Delivered Energy of the Project is less than the amount of Energy dispatched by Buyer; and

*EEDH* is the number of equivalent excused derate hours solely due to either Dispatch Down Periods or Buyer's failure to perform (and for no other reason), calculated as the sum, for each excused derate, of the product of the number of hours of full or partial derate hours times the size of the reduction from the Contract Capacity, divided by the Contract Capacity for the month.

4.2 Energy Payment.

(a) Energy Price. The price for the Bundled Green Energy that is delivered to Buyer in each Contract Year shall be as follows ("Energy Price"):

<b>Contract Year</b>	<b>Energy Price (\$/MWh)</b>

provided, however, that:

(i) if Seller delivers Bundled Green Energy in the aggregate for any hour in excess of one hundred ten percent (110%) of the product of the Contract Capacity times one hour, then the Energy Price for such excess Bundled Green Energy in such hour shall be reduced to zero dollars (\$0);

(ii) if Seller delivers Bundled Green Energy in the aggregate for any Contract Year during the Delivery Term in excess of one hundred fifteen percent (115%) of the annual Contract Quantity, then the Energy Price for such excess Bundled Green Energy for the remainder of that Contract Year shall be reduced to seventy five percent (75%) of the applicable Energy Price (except for any hour in which the Energy Price is reduced by clause (i) above);

(iii) if Seller delivers Bundled Green Energy in the aggregate for any TOD Period during the Delivery Term in excess of one hundred fifteen percent (115%) of the TOD Delivery Cap listed in the table below for that TOD Period ("TOD Delivery Cap"), then the Energy Price for such excess Bundled Green Energy in such TOD Period shall be reduced to seventy five percent (75%) of the applicable Energy Price (except for any hour in which the Energy Price is reduced by clause (i) or (ii) above):

TOD Period	TOD Delivery Cap
Winter On-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Winter Semi-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Winter Off-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Summer On-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Summer Semi-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]
Summer Off-Peak	[Insert number which is derived from multiplying annual Contract Quantity times the TOD delivery profile ratio contained in bid form]

(b) **[For TOD Pricing Only: TOD Factors and TOD Periods.** In accordance with all other terms of this Article 4, the Energy Price shall be adjusted by the following Time of Delivery Factors (“TOD Factors”) for each of the specified Time of Delivery Periods (“TOD Periods”) in which Energy is delivered:]

**[For Projects Providing Local Resource Adequacy:**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	1. <del>0</del> <u>347</u>
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	<del>+</del> <u>0.726</u>
Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	<del>+</del> <u>0.717</u>
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	<del>+</del> <u>0.077</u>
Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	1. <del>0</del> <u>048</u>
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	<del>+</del> <u>0.937</u>

**[For Projects Providing System Resource Adequacy:**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	1. <del>0</del> <u>097</u>
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	<del>+</del> <u>0.847</u>
Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	<del>+</del> <u>0.833</u>
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	<del>+</del> <u>0.436</u>



Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	<u>±0.907</u>
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	<u>±0.978</u>

**[For Projects Providing Resource Adequacy in Imperial Valley:]**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	<u>1.0302</u>
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	<u>±0.791</u>
Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	<u>±0.781</u>
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	<u>±02.517</u>
Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	<u>1.0019</u>
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	<u>±0.977</u>

**[For Projects Not Providing Resource Adequacy:]**

TOD Period	Period Days and Hours	TOD Factor
Winter On-Peak	Nov 1 - Jun 30 (696 Hours) Weekdays 5 pm to 9 pm PPT (HE 18 to HE 21)	<u>1.0206</u>
Winter Semi-Peak	Nov 1 - Jun 30 (2262 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Winter On-Peak Hours	<u>±0.930</u>

Winter Off-Peak	Nov 1 - Jun 30 (2874 Hours) All Weekend Hours NERC Holiday Hours and Weekday Hours not already considered Winter On-Peak or Winter Semi-Peak	<del>1.0</del> <u>915</u>
Summer On-Peak	Jul 1 - Oct 31 (616 Hours) Weekdays 2 pm to 9 pm PPT (HE 15 to HE 21)	<del>1.0</del> <u>330</u>
Summer Semi-Peak	Jul 1 - Oct 31 (792 Hours) Weekdays 6 am to 10 pm PPT (HE 7 to HE 22) excluding Summer On-Peak Hours	<del>1.0</del> <u>959</u>
Summer Off-Peak	Jul 1 - Oct 31 (1544 Hours) All Weekend Hours, NERC Holiday Hours and Weekday Hours not already considered Summer On-Peak or Summer Semi-Peak	<del>1.0</del> <u>062</u>

(c) Monthly Energy Payment. For each month, Buyer shall pay Seller for the Product an amount equal to the sum for each hour in the month of the product of the Energy Price **[For TOD Pricing Only:** times the TOD Factor for the applicable TOD Period] times the Bundled Green Energy in each hour (“Monthly Energy Payment”).

$$\text{Monthly Energy Payment} = \sum \text{Energy Price} \times \text{[For TOD Pricing Only: TOD Factor} \times \text{] Bundled Green Energy}$$

4.3 Imbalance Energy. Seller shall use commercially reasonable efforts to deliver Energy in accordance with the Scheduled Energy. Buyer and Seller recognize that from time to time the amount of Delivered Energy will deviate from the amount of Scheduled Energy. When Delivered Energy minus Scheduled Energy is a positive amount, it shall be considered “Positive Imbalance Energy;” when Delivered Energy minus Scheduled Energy is a negative amount, the absolute (i.e., positive) value of that amount shall be considered the “Negative Imbalance Energy.” **[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program:** Seller shall be responsible for settlement of Imbalance Energy with the CAISO and all fees, liabilities, assessments, or similar charges assessed by the CAISO in connection with Imbalance Energy.] Buyer and Seller shall cooperate to minimize charges and imbalances associated with Imbalance Energy to the extent possible. Seller shall promptly notify Buyer as soon as possible of any material imbalance that is occurring or has occurred. **[When SDG&E is SC for the Project and Project is in the VER Forecasting Program:** Buyer shall receive all Green Attributes for the Positive Imbalance Energy in all settlement intervals.]

**[When Seller is SC for the Project or when Buyer is SC but Project is not in the VER Forecasting Program, include the following two paragraphs:**

(a) Positive Imbalance Energy (Over Deliveries). In the event that Delivered Energy for any CAISO settlement interval is equal to or greater than Scheduled Energy for such CAISO settlement interval, Buyer shall have no payment obligation in respect of the Positive Imbalance Energy. Buyer shall receive all Green Attributes for the Positive Imbalance Energy in such CAISO settlement interval regardless as to whether it was sold into the CAISO. Seller shall

be entitled to all payments or credits from the CAISO to Seller's SC and Seller shall make all payments to the CAISO in respect of the Positive Imbalance Energy.

(b) Negative Imbalance Energy (Under Deliveries). In the event that Delivered Energy for any CAISO settlement interval is less than Scheduled Energy for such CAISO settlement interval, Buyer shall have no payment obligation in respect of the Negative Imbalance Energy. Seller shall make all payments to the CAISO and Seller shall be entitled to all payments or credits from the CAISO to Seller's SC in respect of the Negative Imbalance Energy required under the CAISO Tariff.]

4.4 Additional Compensation. To the extent not otherwise provided for in this Agreement, in the event that Seller is compensated by a third party for any Product produced by the Project, including, but not limited to, compensation for Resource Adequacy or Green Attributes, Seller shall remit all such compensation directly to Buyer; provided that for avoidance of doubt, nothing herein precludes Seller from retaining credits related to transmission upgrades funded by Seller.

4.5 Energy Sales Prior to Commercial Operation Date. *[Seller may propose provisions for the sale to Buyer of energy prior to the Commercial Operation Date at a negotiated percentage of the Monthly Energy Payment]*

#### ARTICLE FIVE: EVENTS OF DEFAULT; FORCE MAJEURE

##### 5.1 Events of Default. An "Event of Default" shall mean,

(a) with respect to a Party that is subject to the Event of Default the occurrence of any of the following:

(i) the failure by such Party to make, when due, any payment required pursuant to this Agreement and such failure is not remedied within five (5) Business Days after Notice thereof;

(ii) 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, and such default is not remedied within thirty (30) days after Notice thereof;

(iii) the failure by such Party 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 Schedule, deliver, or receive the Product, the exclusive remedy for which is provided in Section 3.1(h)) and such failure is not remedied within thirty (30) days after Notice thereof;

(iv) such Party becomes Bankrupt;

(v) such Party assigns this Agreement or any of its rights hereunder other than in compliance with Section 13.2; or

(vi) 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 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.

(b) with respect to Seller as the Defaulting Party, the occurrence of any of the following:

(i) if at any time, Seller delivers or attempts to deliver to the Delivery Point for sale under this Agreement Energy that was not generated by the Project *[If the Project is located outside of the CAISO: other than Imbalance Energy from the Transmission Provider];*

(ii) the failure by Seller to achieve the Commercial Operation Date no later than the end of the Project Cure Period;

(iii) *[For Baseload, Peaking, Dispatchable Product: the Contract Capacity at the Commercial Operation Date or at any other time pursuant to a Capacity Test is less than [ ] MW and such default is not remedied within thirty (30) days after Notice thereof;]*

(iv) *[For Baseload, Peaking, As-Available Product: the failure by Seller to achieve the Guaranteed Energy Production requirement during any Performance Measurement Period as set forth in Section 3.1(e) of this Agreement] [For Dispatchable Product: the Default Availability Factor of the Project is less than [ ] percent for any rolling twelve (12) consecutive calendar month period];*

(v) the failure by Seller to deliver a Remedial Action Plan that reasonably demonstrates in detail how Seller will achieve the Commercial Operation Date within the Project Cure Period, if such failure is not remedied within ten (10) days after Notice;

(vi) failure by Seller to satisfy the collateral requirements pursuant to Sections 8.3 or 8.4 of this Agreement;

(vii) with respect to any Guaranty provided for the benefit of Buyer, the failure by Seller to provide for the benefit of Buyer either (1) cash, (2) a replacement Guaranty from a different Guarantor meeting the criteria set forth in the definition of Guarantor, or (3) a replacement Letter of Credit from an issuer meeting the criteria set forth in the definition of Letter of Credit, in each case, in the amount required hereunder within five (5) Business Days after Seller receives Notice of the occurrence of any of the following events:

(A) if any representation or warranty made by the Guarantor in connection with this Agreement is false or misleading in any material respect when made or when deemed made or repeated, and such default is not remedied within thirty (30) days after Notice thereof;

(B) the failure of the Guarantor to make any payment required or to perform any other material covenant or obligation in any Guaranty;

(C) the Guarantor becomes Bankrupt;

(D) the Guarantor shall fail to meet the criteria for an acceptable Guarantor as set forth in the definition of Guarantor;

(E) the failure of the Guaranty to be in full force and effect (other than in accordance with its terms) prior to the indefeasible satisfaction of all obligations of Seller hereunder; or

(F) the Guarantor shall repudiate, disaffirm, disclaim, or reject, in whole or in part, or challenge the validity of any Guaranty; or

(viii) with respect to any outstanding Letter of Credit provided for the benefit of Buyer that is not then required under this Agreement to be canceled or returned, the failure by Seller to provide for the benefit of Buyer either (1) cash, or (2) a substitute Letter of Credit from a different issuer meeting the criteria set forth in the definition of Letter of Credit, in each case, in the amount required hereunder within five (5) Business Days after Seller receives Notice of the occurrence of any of the following events:

(A) the issuer of the outstanding Letter of Credit shall fail to maintain a Credit Rating of at least "A-" by S&P or "A3" by Moody's;

(B) the issuer of such Letter of Credit becomes Bankrupt;

(C) the issuer of the outstanding Letter of Credit shall fail to comply with or perform its obligations under such Letter of Credit and such failure shall be continuing after the lapse of any applicable grace period permitted under such Letter of Credit;

(D) the issuer of the outstanding Letter of Credit shall fail to honor a properly documented request to draw on such Letter of Credit;

(E) the issuer of the outstanding Letter of Credit shall disaffirm, disclaim, repudiate or reject, in whole or in part, or challenge the validity of, such Letter of Credit;

(F) such Letter of Credit fails or ceases to be in full force and effect at any time; or

(G) Seller shall fail to renew or cause the renewal of each outstanding Letter of Credit on a timely basis as provided in the relevant Letter of Credit and as provided in accordance with this Agreement, and in no event less than sixty (60) days prior to the expiration of the outstanding Letter of Credit.

**5.2 Remedies; Declaration of Early Termination Date.** 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 (a) to send Notice, designating a day, no earlier than the day such Notice is deemed to be received and no later than twenty (20) days after such Notice is deemed to be received, as an early termination date of this Agreement (“Early Termination Date”) that terminates this Agreement and ends the Delivery Term effective as of the Early Termination Date, to accelerate all amounts owing between the Parties, and to collect liquidated damages calculated in accordance with Section 5.3 below (“Termination Payment”); (b) to withhold any payments due to the Defaulting Party under this Agreement; (c) to suspend performance; and (d) to exercise any other right or remedy available at law or in equity, including specific performance or injunctive relief, except to the extent such remedies are expressly limited under this Agreement.

**5.3 Termination Payment.** The Termination Payment for a Terminated Transaction shall be the aggregate of all Settlement Amounts plus any or all other amounts due to the Non-Defaulting Party netted into a single amount. Except in the case of a termination of this Agreement by the Non-Defaulting Party solely as a result of an Event of Default by the Defaulting Party under Section 5.1(a)(iv) [Bankruptcy], 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. The Non-Defaulting Party shall calculate, in a commercially reasonable manner, a Settlement Amount for the 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 vendors and other sources of market information. The Settlement Amount shall not include consequential, incidental, punitive, exemplary, indirect or business interruption damages; provided, however, that any lost Capacity Attributes and Green Attributes shall be deemed direct damages covered by this Agreement. Without prejudice to the Non-Defaulting Party’s duty to mitigate, the Non-Defaulting Party shall not have to enter into replacement transactions to establish a Settlement Amount. Each Party agrees and acknowledges that (a) the actual damages that the Non-Defaulting Party would incur in connection with a Terminated Transaction would be difficult or impossible to predict with certainty, (b) the Termination Payment described in this section is a reasonable and appropriate approximation of such damages, and (c) the Termination Payment described in this section is the exclusive remedy of the Non-Defaulting Party in connection with a Terminated Transaction but shall not otherwise act to limit any of the Non-Defaulting Party’s rights or remedies if the Non-Defaulting Party does not elect a Terminated Transaction as its remedy for an Event of Default by the Defaulting Party.

**5.4 Notice of Payment of Termination Payment.** As soon as practicable after a Terminated Transaction, 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 ten (10) Business Days after such Notice is effective.

**5.5 Disputes With Respect to Termination Payment.** If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Termination Payment, in whole or in part, the Defaulting Party shall, within five (5) Business Days of receipt of the Non-Defaulting Party's calculation of the Termination Payment, provide to the Non-Defaulting Party a detailed written explanation of the basis for such dispute. Disputes regarding the Termination Payment shall be determined in accordance with Article 12.

**5.6 Rights And Remedies Are Cumulative.** Except where liquidated damages are provided as the exclusive remedy, the rights and remedies of a Party pursuant to this Article 5 shall be cumulative and in addition to the rights of the Parties otherwise provided in this Agreement.

**5.7 Mitigation.** Any Non-Defaulting Party shall be obligated to mitigate its Costs, losses and damages resulting from any Event of Default of the other Party under this Agreement.

**5.8 Force Majeure.** To the extent either Party is prevented by Force Majeure from carrying out, in whole or part, its obligations under this Agreement and such Party gives Notice and details of the Force Majeure to the other Party as detailed below, then, the Party impacted by Force Majeure shall be excused from the performance of its obligations to the extent impacted. Within forty-eight (48) hours of commencement of an event of Force Majeure, the non-performing Party shall provide the other Party with oral notice of the event of Force Majeure, and within two (2) weeks of the commencement of an event of Force Majeure the non-performing Party shall provide the other Party with Notice in the form of a letter describing in detail the particulars of the occurrence giving rise to the Force Majeure claim. Seller shall not substitute Product from any other source for the output of the Project during an outage resulting from Force Majeure. The suspension of performance due to a claim of Force Majeure must be of no greater scope and of no longer duration than is required by the Force Majeure. Buyer shall not be required to make any payments for any Product that Seller fails to Schedule, deliver or provide as a result of Force Majeure during the term of a Force Majeure. This Agreement may be terminated by the non-claiming Party with no further obligation to the Force-Majeure-claiming Party if a Force Majeure event prevents the performance of a material portion of the obligations of the Force-Majeure-claiming Party hereunder and such Force Majeure event is not resolved within eight (8) months after the commencement of such Force Majeure event. In addition to the foregoing, prior to the Commercial Operation Date, this Agreement may be terminated by Buyer with no further obligation to Seller if one or more Force Majeure events prevents Seller from achieving the Commercial Operation Date by the end of the Force Majeure Extension Period; provided, however, that Buyer shall not have the right under this section to terminate this Agreement until the expiration of the Project Cure Period if Seller is paying delay liquidated damages to Buyer as required under Section 3.9(c)(i) during such Project Cure Period (it being acknowledged, that Seller may elect to pay Daily Delay Damages during periods of Force Majeure up to the expiration of any remaining unclaimed portion of the Project Cure Period in lieu of claiming Force Majeure relief hereunder).

## **ARTICLE SIX: PAYMENT**

**6.1 Billing and Payment.** On or about the tenth (10<sup>th</sup>) day of each month beginning with the second month of the first Contract Year and every month thereafter, and continuing

through and including the first month following the end of the Delivery Term, Seller shall provide to Buyer (a) records of metered data, including CAISO metering and transaction data sufficient to document and verify the generation of Product by the Project for any CAISO settlement time interval during the preceding months, (b) access to any records, including invoices or settlement data from CAISO, necessary to verify the invoice; and (c) an invoice, in a format reasonably specified by Buyer, covering the services provided in the preceding month determined in accordance with Article 4 (which may include preceding months), with all component charges and unit prices identified and all calculations used to arrive at invoiced amounts described in reasonable detail. Buyer shall pay the undisputed amount of such invoices on or before thirty (30) days after receipt of the invoice. If either the invoice date or payment date is not a Business Day, then such invoice or payment shall be provided on the next following Business Day. Each Party will make payments by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by the other Party. Any undisputed amounts not paid by the due date will be deemed delinquent and will accrue interest at the Default Rate, such interest to be calculated from and including the due date to but excluding the date the delinquent amount is paid in full. Invoices may be sent by facsimile or e-mail.

6.2 Disputes and Adjustments of Invoices. A Party may, in good faith, dispute the correctness of any invoice or any adjustment to an invoice, rendered under this Agreement or adjust any invoice for any arithmetic or computational error within twelve (12) months of the date the invoice, or adjustment to an invoice, was rendered. In the event an invoice or portion thereof, or any other claim or adjustment arising hereunder, is disputed, payment of the undisputed portion of the invoice shall be required to be made when due. Any invoice dispute or invoice adjustment shall be in writing and shall state the basis for the dispute or adjustment. Payment of the disputed amount shall not be required until the dispute is resolved. Upon resolution of the dispute, any required payment shall be made within two (2) Business Days of such resolution along with interest accrued at the Default Rate from and including the original due date to but excluding the date paid. Inadvertent overpayments shall be returned upon request or deducted by the Party receiving such overpayment from subsequent payments, with interest accrued at the Interest Rate from and including the date of such overpayment to but excluding the date repaid or deducted by the Party receiving such overpayment. Any dispute with respect to an invoice is waived if the other Party is not notified in accordance with this Section 6.2 within twelve (12) months after the invoice is rendered or subsequently adjusted, except to the extent any misinformation was from a third party not Affiliated with any Party and such third party corrects its information after the twelve-month period. If an invoice is not rendered within twelve (12) months after the close of the month during which performance occurred, the right to payment for such performance is waived.

6.3 Netting of Payments. The Parties hereby agree that they shall discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts owed by each Party to the other Party for the purchase and sale of Product during the monthly billing period under this Agreement, including any related damages calculated pursuant to Section 3.1(h), interest, and payments or credits, shall be netted so that only the excess amount remaining due shall be paid by the Party who owes it.



## ARTICLE SEVEN: LIMITATIONS

7.1 Limitation of Remedies, Liability and Damages. EXCEPT AS SET FORTH HEREIN, THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY AND ALL IMPLIED WARRANTIES ARE DISCLAIMED. THE PARTIES CONFIRM THAT THE EXPRESS REMEDIES AND MEASURES OF DAMAGES PROVIDED IN THIS AGREEMENT SATISFY THE ESSENTIAL PURPOSES HEREOF. FOR BREACH OF ANY PROVISION FOR WHICH AN EXPRESS REMEDY OR MEASURE OF DAMAGES IS PROVIDED, SUCH EXPRESS REMEDY OR MEASURE OF DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY, THE OBLIGOR'S LIABILITY SHALL BE LIMITED AS SET FORTH IN SUCH PROVISION AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED, UNLESS THE PROVISION IN QUESTION PROVIDES THAT THE EXPRESS REMEDIES ARE IN ADDITION TO OTHER REMEDIES THAT MAY BE AVAILABLE. EXCEPT FOR A PARTY'S INDEMNITY OBLIGATION IN RESPECT OF THIRD PARTY CLAIMS OR AS OTHERWISE EXPRESSLY HEREIN PROVIDED, NEITHER PARTY SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT, UNDER ANY INDEMNITY PROVISION OR OTHERWISE. UNLESS EXPRESSLY HEREIN PROVIDED, AND SUBJECT TO THE PROVISIONS OF SECTION 11.2 (INDEMNITIES), IT IS THE INTENT OF THE PARTIES THAT THE LIMITATIONS HEREIN IMPOSED ON REMEDIES AND THE MEASURE OF DAMAGES BE WITHOUT REGARD TO THE CAUSE OR CAUSES RELATED THERETO, INCLUDING THE NEGLIGENCE OF ANY PARTY, WHETHER SUCH NEGLIGENCE BE SOLE, JOINT OR CONCURRENT, OR ACTIVE OR PASSIVE. TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, THE PARTIES ACKNOWLEDGE THAT THE DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE, OR OTHERWISE OBTAINING AN ADEQUATE REMEDY IS INCONVENIENT AND THE DAMAGES CALCULATED HEREUNDER CONSTITUTE A REASONABLE APPROXIMATION OF THE HARM OR LOSS.

## ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS

8.1 Buyer Financial Information. If requested by Seller, Buyer shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Buyer's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Buyer'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 Buyer diligently pursues the preparation, certification and delivery of the statements. Buyer shall be deemed to have satisfied such delivery requirement if the applicable report is publicly available.

8.2 Seller Financial Information. Seller shall provide the following financial information:

(a) If requested by Buyer, Seller shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Seller's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Seller'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 Seller diligently pursues the preparation, certification and delivery of the statements.

(b) *If a Guaranty may be provided:* If a Guaranty is provided and if requested by Buyer, Seller shall deliver (i) within one hundred twenty (120) days following the end of each fiscal year, a copy of Guarantor's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Guarantor's quarterly report containing unaudited consolidated financial statements for such fiscal quarter certified by an officer of Guarantor. 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 Guarantor diligently pursues the preparation, certification and delivery of the statements. Seller shall be deemed to have satisfied such delivery requirement if the applicable report is publicly available.]

8.3 Grant of Security Interest/Remedies. To secure its obligations under this Agreement and to the extent Seller delivers Performance Assurance hereunder, Seller hereby grants to Buyer a present and continuing first priority security interest in, and lien on (and right of setoff against), and assignment of, all cash collateral and cash equivalent collateral and any and all proceeds resulting therefrom or the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of, Buyer, and each Party agrees to take such action as the other Party reasonably requires in order to perfect the Buyer's first-priority security interest in, and lien on (and right of setoff against), such collateral and any and all proceeds resulting therefrom or from the liquidation thereof. Upon or any time after the occurrence and during the continuation of an Event of Default by Seller or an Early Termination Date as a result thereof, Buyer may do any one or more of the following: (i) exercise any of the rights and remedies of a secured party with respect to all Performance Assurance, including any such rights and remedies under Law then in effect; (ii) exercise its rights of setoff against such collateral and any and all proceeds resulting therefrom or from the liquidation thereof; (iii) draw on any outstanding Letter of Credit issued for its benefit; and (iv) liquidate all or any portion of any Performance Assurance then held by or for the benefit of Buyer free from any claim or right of any nature whatsoever of Seller, including any equity or right of purchase or redemption by Seller. Buyer shall apply the proceeds of the collateral realized upon the exercise of any such rights or remedies to reduce the Seller's obligations under the Agreement (Seller remaining liable for any amounts owing to Buyer after such application), subject to Buyer's obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

#### 8.4 Performance Assurance.

(a) ***[For Agreements with Delivery Terms greater than two years: CPUC Approval Security,]*** Development Period Security, Construction Period Security, Delivery Term Security. To secure its obligations under this Agreement Seller agrees to deliver to Buyer and maintain in full force and effect for the period set forth below, the following Performance Assurance:

(i) ***[For Agreements with Delivery Terms greater than two years: CPUC Approval Security,*** in the amount of [ ] in the form of cash or a Letter of Credit [or a Guaranty] from the Execution Date of this Agreement until the return date specified in Section 8.4(b)(i) below;]

(ii) Development Period Security in the amount of [ ] in the form of cash or a Letter of Credit [or a Guaranty] from ***[For Agreements with Delivery Terms greater than two years: the CPUC Approval Date]*** ***[For all other Agreements: the Execution Date of this Agreement]*** until the return date specified in Section 8.4(b)[(i)/(ii)] below;

(iii) Construction Period Security in the amount of [ ] in the form of cash or a Letter of Credit [or a Guaranty] from the CP Satisfaction Date until the return date specified in Section 8.4(b)[(ii)/(iii)] below; and

(iv) Delivery Term Security in the amount of [ ] in the form of cash or a Letter of Credit [or a Guaranty] from the commencement of the Delivery Term until the return date specified in Section 8.4(b)[(iii)/(iv)] below.

Except as set forth in Section 2.2 as it pertains to ***[For Agreements with Delivery Terms greater than two years: the CPUC Approval Security and]*** the Development Period Security, any such Performance Assurance shall not be deemed a limitation of damages.

(b) Return of Performance Assurance.

(i) ***[For Agreements with Delivery Terms greater than two years:*** Buyer shall promptly return to Seller the unused portion of the CPUC Approval Security after the earlier of (A) the date on which Seller has delivered the Development Period Security or the Construction Period Security, as applicable, and (B) termination of the Agreement under Section 2.4(b)(ii).

(ii) Buyer shall promptly return to Seller the unused portion of the Development Period Security after the earlier of (A) the date on which Seller has delivered the Construction Period Security, and (B) termination of the Agreement under Section 2.4(b)(ii).

(iii) Buyer shall promptly return to Seller the unused portion of the Construction Period Security after the earlier of (A) the date on which Seller has delivered the Delivery Term Security, and (B) the date that all payment obligations of the Seller arising under this Agreement, including compensation for penalties, Termination Payment, indemnification payments or other damages are paid in full (whether directly or indirectly such as through set-off or netting) after an Early Termination Date.

(iv) Buyer shall promptly return to Seller the unused portion of the Delivery Term Security after the following have occurred: (A) the Delivery Term has expired or terminated early; and (B) all payment obligations of the Seller arising under this Agreement, including compensation for penalties, Termination Payment, indemnification payments or other damages are paid in full (whether directly or indirectly such as through set-off or netting).

8.5 Interest on Cash. If Seller provides Performance Assurance in the form of cash, Buyer shall pay interest on such cash held as *[For Agreements with Delivery Terms greater than two years: CPUC Approval Security,] Development Period Security, Construction Period Security, or Delivery Term Security, as applicable, at the Interest Rate. On or before each Interest Payment Date, Buyer shall transfer the sum of all accrued and unpaid Interest Amounts due to Seller for such security in the form of cash by wire transfer to the bank account specified under “Wire Transfer” in the Cover Sheet.*

8.6 Costs of Letter of Credit. If Seller provides Performance Assurance in the form of a Letter of Credit, in all cases, the reasonable costs and expenses of (including but not limited to the reasonable costs, expenses, and attorneys’ fees, including reasonably allocated costs of in-house counsel of the Buyer) establishing, renewing, substituting, canceling, increasing and reducing the amount of (as the case may be) one or more Letters of Credit shall be borne by the Seller.

#### **ARTICLE NINE: GOVERNMENTAL CHARGES**

9.1 Cooperation. Each Party shall use reasonable efforts to implement the provisions of and to administer this Agreement in accordance with the intent of the Parties to minimize all taxes, so long as neither Party is materially adversely affected by such efforts.

9.2 Governmental Charges. Seller shall pay or cause to be paid all taxes imposed by any governmental authority (“Governmental Charges”) on or with respect to the Product or the transaction under this Agreement arising prior to and at the Delivery Point, including, but not limited to, ad valorem taxes and other taxes attributable to the Project, land, land rights or interests in land for the Project. Buyer shall pay or cause to be paid all Governmental Charges on or with respect to the Product or the transaction under this Agreement from the Delivery Point. In the event Seller is required by Law or regulation to remit or pay Governmental Charges which are Buyer’s responsibility hereunder, Buyer shall promptly reimburse Seller for such Governmental Charges. If Buyer is required by Law or regulation to remit or pay Governmental Charges which are Seller’s responsibility hereunder, Buyer may deduct such amounts from payments to Seller with respect to payments under the Agreement; if Buyer elects not to deduct such amounts from Seller’s payments, Seller shall promptly reimburse Buyer for such amounts upon request. Nothing shall obligate or cause a Party to pay or be liable to pay any Governmental Charges for which it is exempt under the Law.

#### **ARTICLE TEN: REPRESENTATIONS AND WARRANTIES; COVENANTS**

10.1 General Representations and Warranties. On the Execution Date and the CP Satisfaction Date, each Party represents and warrants to the other Party that:

(a) it is duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation;

(b) it has all Governmental Approvals necessary for it to perform its obligations under this Agreement, except for as of the Execution Date (i) CPUC Approval in the case of Buyer, and (ii) all Governmental Approvals necessary to construct, operate and maintain the Project and related interconnection facilities in the case of Seller;

(c) the execution, delivery and performance of this Agreement is within its powers, have been duly authorized by all necessary action and do not violate any of the terms and conditions in its governing documents, any contracts to which it is a party or any applicable Law;

(d) this Agreement and each other document executed and delivered in accordance with this Agreement constitutes a legally valid and binding obligation enforceable against it in accordance with its terms, subject to any Equitable Defenses;

(e) it is not Bankrupt and there are no proceedings pending or being contemplated by it or, to its knowledge, threatened against it which would result in it being or becoming Bankrupt;

(f) except as may be set forth in its reports filed with the SEC, there is not pending or, to its knowledge, threatened against it or any of its Affiliates any legal proceedings that could materially adversely affect its ability to perform its obligations under this Agreement;

(g) no Event of Default with respect to it has occurred and is continuing and no such event or circumstance would occur as a result of its entering into or performing its obligations under this Agreement;

(h) it is acting for its own account, has made its own independent decision to enter into this Agreement and as to whether this Agreement is appropriate or proper for it based upon its own judgment, is not relying upon the advice or recommendations of the other Party in so doing, and is capable of assessing the merits of and understanding, and understands and accepts, the terms, conditions and risks of this Agreement; and

(i) it has entered into this Agreement in connection with the conduct of its business and it has the capacity or the ability to make or take delivery of the Product as provided in this Agreement.

#### **10.2 Seller Representations and Warranties.**

(a) 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 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.

(b) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the 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 CPUC Decision 08-08-028, and as may be modified by subsequent decision of the CPUC 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.

(c) *[Include other appropriate representations, warranties, and covenants to satisfy the California RPS content category requirements.]*

### 10.3 Covenants.

(a) General Covenants. Each Party covenants that throughout the Delivery Term:

(i) it shall continue to be duly organized, validly existing and in good standing under the Laws of the jurisdiction of its formation;

(ii) it shall maintain (or obtain from time to time as required, including through renewal, as applicable) all Governmental Approvals necessary for it to legally perform its obligations under this Agreement;

(iii) it shall perform its obligations under this Agreement in a manner that does not violate any of the terms and conditions in its governing documents, any contracts to which it is a party or any applicable Law; and

(iv) it shall not dispute its status as a “forward contract merchant” within the meaning of the United States Bankruptcy Code.

(b) Seller Covenants.

(i) Seller covenants throughout the Delivery Term that it, or its permitted successors or assigns, shall maintain ownership of a fee, easement, long-term leasehold interest, or other similar asset ownership interest in the Project.

(ii) Seller covenants throughout the Delivery Term that it shall maintain market based rate authority from FERC to sell Product to Buyer under the terms of this Agreement.

(iii) If at any time during the Delivery Term, Seller’s representations and warranties set forth in Section 10.2 become materially false or misleading, Seller covenants that it shall provide prompt Notice to Buyer describing such default along with a description of its efforts to cure such default.

(iv) *[Include other appropriate representations, warranties, and covenants to satisfy the California RPS content category requirements.]*

(v) *[Include other appropriate covenants regarding the use of contractors that may be diverse business enterprises.]*

#### **ARTICLE ELEVEN: TITLE, RISK OF LOSS, INDEMNITIES**

11.1 Title and Risk of Loss. Title to and risk of loss related to the Product shall transfer from Seller to Buyer at the Delivery Point. Seller warrants that it will deliver to Buyer the Product free and clear of all liens, security interests, claims and encumbrances or any interest therein or thereto by any person arising prior to or at the Delivery Point.

#### 11.2 Indemnities.

(a) Indemnity by Seller. Seller shall release, indemnify, defend, and hold harmless Buyer, its Affiliates, and its and their directors, officers, employees, agents, and representatives against and from any and all actions, suits, losses, costs, damages, injuries, liabilities, claims, demands, penalties and interest, including reasonable costs and attorneys' fees ("Claims") resulting from, or arising out of or in any way connected with (i) any event, circumstance, act, or incident relating to the Product delivered under this Agreement up to and at the Delivery Point, (ii) Seller's development, permitting, construction, ownership, operation and/or maintenance of the Project, (iii) the failure by Seller or the failure of the Project to comply with applicable Law, including without limitation the CAISO Tariff, (iv) any Governmental Charges for which Seller is responsible hereunder, or (v) any liens, security interests, encumbrances, or other adverse claims against the Product delivered hereunder made by, under, or through Seller, in all cases including, without limitation, any Claim for or on account of injury, bodily or otherwise, to or death of persons, or for damage to or destruction of property belonging to Buyer, Seller, or others, excepting only such Claim to the extent caused by the willful misconduct or gross negligence of Buyer, its Affiliates, and its and their directors, officers, employees, agents, and representatives.

(b) Indemnity by Buyer. Buyer shall release, indemnify, defend, and hold harmless Seller, its Affiliates, and its and their directors, officers, employees, agents, and representatives against and from any and all Claims resulting from, or arising out of or in any way connected with (i) any event, circumstance, act, or incident relating to the Product received by Buyer under this Agreement after the Delivery Point, (ii) the failure by Buyer to comply with applicable Law, including without limitation the CAISO Tariff, or (iii) any Governmental Charges for which Buyer is responsible hereunder, in all cases including, without limitation, any Claim for or on account of injury, bodily or otherwise, to or death of persons, or for damage to or destruction of property belonging to Buyer, Seller, or others, excepting only such Claim to the extent caused by the willful misconduct or gross negligence of Seller, its Affiliates, and its and their directors, officers, employees, agents, and representatives.

#### **ARTICLE TWELVE: DISPUTE RESOLUTION**

12.1 Intent of the Parties. Except as provided in the next sentence, the sole procedure to resolve any claim arising out of or relating to this Agreement or any related agreement is the

dispute resolution procedure set forth in this Article 12. Either Party may seek a preliminary injunction or other provisional judicial remedy if such action is necessary to prevent irreparable harm or preserve the status quo, in which case both Parties nonetheless will continue to pursue resolution of the dispute by means of the dispute resolution procedure set forth in this Article 12.

#### 12.2 Management Negotiations.

(a) The Parties will attempt in good faith to resolve any controversy or claim arising out of or relating to this Agreement or any related agreements by prompt negotiations between each Party's authorized representative designated in writing as a representative of the Party (each a "Manager"). Either Manager may, by Notice to the other Party, request a meeting to initiate negotiations to be held within ten (10) Business Days of the other Party's receipt of such request, at a mutually agreed time and place (either in person or telephonically). If the matter is not resolved within fifteen (15) Business Days of their first meeting ("Initial Negotiation End Date"), the Managers shall refer the matter to the designated senior officers of their respective companies that have authority to settle the dispute ("Executive(s)"). Within five (5) Business Days of the Initial Negotiation End Date ("Referral Date"), each Party shall provide one another Notice confirming the referral and identifying the name and title of the Executive who will represent the Party.

(b) Within five (5) Business Days of the Referral Date, the Executives shall establish a mutually acceptable location and date, which date shall not be greater than thirty (30) days from the Referral Date, to meet. After the initial meeting date, the Executives shall meet, as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute.

(c) All communication and writing exchanged between the Parties in connection with these negotiations shall be confidential and shall not be used or referred to in any subsequent binding adjudicatory process between the Parties.

(d) If the matter is not resolved within forty-five (45) days of the Referral Date, or if the Party receiving the Notice to meet, pursuant to Section 12.2(a) above, refuses or does not meet within the ten (10) Business Day period specified in Section 12.2(a) above, either Party may initiate arbitration of the controversy or claim by providing Notice of a demand for binding arbitration at any time thereafter.

12.3 Arbitration. Any dispute that cannot be resolved by management negotiations as set forth in Section 12.2 above shall be resolved through binding arbitration by a retired judge or justice from the [AAA][JAMS] panel conducted in San Diego, California, administered by and in accordance with [AAA's Commercial Arbitration Rules] [JAMS [Comprehensive][Streamlined] Arbitration Rules and Procedures] ("Arbitration").

(a) Any arbitrator shall have no affiliation with, financial or other interest in, or prior employment with either Party and shall be knowledgeable in the field of the dispute. The Parties shall cooperate with one another in selecting the arbitrator within sixty (60) days after Notice of the demand for arbitration. If, notwithstanding their good faith efforts, the Parties are unable to agree upon a mutually-acceptable arbitrator, the arbitrator shall be appointed as



provided for in [AAA's Commercial Arbitration Rules] [JAMS [Comprehensive][Streamlined] Arbitration Rules and Procedures].

(b) At the request of a Party, the arbitrator shall have the discretion to order depositions of witnesses to the extent the arbitrator deems such discovery relevant and appropriate. Depositions shall be limited to a maximum of three (3) per Party and shall be held within thirty (30) days of the making of a request. Additional depositions may be scheduled only with the permission of the arbitrator, and for good cause shown. Each deposition shall be limited to a maximum of six (6) hours duration unless otherwise permitted by the arbitrator for good cause shown. All objections are reserved for the Arbitration hearing except for objections based on privilege and proprietary and confidential information. The arbitrator shall also have discretion to order the Parties to exchange relevant documents. The arbitrator shall also have discretion to order the Parties to answer interrogatories, upon good cause shown.

(c) The arbitrator shall have no authority to award punitive or exemplary damages or any other damages other than direct and actual damages and the other remedies contemplated by this Agreement.

(d) The arbitrator shall prepare in writing and provide to the Parties an award including factual findings and the reasons on which their decision is based.

(e) The arbitrator's award shall be made within nine (9) months of the filing of the notice of intention to arbitrate (demand) and the arbitrator shall agree to comply with this schedule before accepting appointment. However, this time limit may be extended by agreement of the Parties or by the arbitrator, if necessary.

(f) Judgment on the award may be entered in any court having jurisdiction.

(g) The prevailing Party in this dispute resolution process is entitled to recover its costs. Until such award is made, however, the Parties shall share equally in paying the costs of the Arbitration.

(h) The arbitrator shall have the authority to grant dispositive motions prior to the commencement of or following the completion of discovery if the arbitrator concludes that there is no material issue of fact pending before the arbitrator.

(i) The existence, content, and results of any Arbitration hereunder is confidential information that is subject to the provisions of Section 13.1.

## ARTICLE THIRTEEN: MISCELLANEOUS

### 13.1 Confidentiality

(a) **General.** 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 Affiliates and its and their officers, directors, 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 13.1(b) of this Agreement; (v) in order to comply with any applicable Law, regulation, or any exchange, control area or CAISO 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 13.1(a) (“Disclosure Order”) each Party shall, to the extent practicable, use reasonable efforts to 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.

(b) RPS Confidentiality. Notwithstanding Section 13.1(a) of this Agreement, at any time on or after the date on which the Buyer makes its filing seeking CPUC Approval for this Agreement, either Party shall be permitted to disclose the following terms with respect to this Agreement: Party names, resource type, Delivery Term, Project location, Contract Capacity, anticipated Commercial Operation Date, Contract Quantity, and Delivery Point.

(c) Publicity. Except as otherwise agreed to in this Section 13.1 above, no announcement, publicity, advertising, press release, promotional or marketing materials regarding the arrangement contemplated under this Agreement, including the existence hereof, shall be made by either Party without the prior written approval of the other Party which approval shall not be unreasonably withheld or delayed.

13.2 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. For purposes hereof, the transfer of more than fifty percent (50%) of the equity ownership or voting interest of Seller (or any parent entity holding directly or indirectly at least fifty percent (50%) of the equity ownership or voting interest of Seller if such interest constitutes more than twenty percent (20%) of the fair market value of the assets of such parent entity) to a person that is not an Affiliate of Seller shall also constitute an assignment of this Agreement requiring Buyer’s prior written consent. Notwithstanding the foregoing, either Party may, without the consent of the other 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. In connection with any financing or refinancing of the Project by Seller, Buyer shall in good faith negotiate and agree upon a consent to collateral assignment of this Agreement in a form that is commercially reasonable and customary in the industry.

13.3 Audit. Each Party has the right, at its sole expense and during normal working hours, to examine the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made pursuant to this Agreement including amounts of Delivered Energy or Scheduled Energy. If any such examination reveals any inaccuracy in any statement, the necessary adjustments in such statement and the payments thereof will be made promptly and shall bear interest calculated at the Default Rate from the date

the overpayment or underpayment was made until paid; provided, however, that no adjustment for any statement or payment will be made unless objection to the accuracy thereof was made prior to the lapse of twelve (12) months from the rendition thereof, and thereafter any objection shall be deemed waived except to the extent any misinformation was from a third party not Affiliated with any Party and such third party corrects its information after such twelve-month period. In addition, Buyer shall have the right, at its sole expense and during normal working hours, to examine the records of Seller to the extent reasonably necessary to verify Seller's compliance with its representations and warranties set forth in Section 10.2.

13.4 Sarbanes-Oxley and SEC Requirements. The Parties acknowledge that accounting principles generally accepted in the United States of America ("GAAP") and SEC rules require Buyer and its independent auditor to evaluate whether Buyer must consolidate Seller's financial information (but not financial information of Seller's constituent members unless deemed to be included in the entity under GAAP). Buyer may require access to information concerning Seller's organizational structure, including its debt/capital structure, as well as to personnel of Seller to determine if consolidated financial reporting is required. If Buyer and its independent auditor determine at any time that the Buyer must consolidate the Seller's financial statements to comply with GAAP and/or SEC rules regarding consolidated financial reporting, then:

(a) Buyer shall require from Seller and Seller agrees to provide to Buyer the following during the Term of this Agreement:

(i) Unaudited financial statements of the Seller prepared in accordance with GAAP as of the end of the quarterly period. The financial statements should include quarter to date and year to date information and are to be provided within fifteen (15) calendar days of the end of the applicable reporting period (or the Business Day thereafter);

(ii) Unaudited financial schedules of the Seller, as deemed necessary for Buyer to prepare its consolidated financial statements and related footnotes to the financial statements in accordance with GAAP as of the end of the quarterly period. The financial schedules should include quarter to date and year to date information underlying the financial statements and footnotes to the financial statements and are to be provided within fifteen (15) calendar days of the end of the applicable reporting period (or the Business Day thereafter);

(iii) Access to Seller's accounting and other records, and accounting and management personnel as reasonably determined by both Buyer and Seller so that (A) Buyer's independent auditor or its internal auditors may conduct financial audits (in accordance with the standards of the Public Company Accounting Oversight Board (United States)) as well as internal control audits (in accordance with Section 404 of the Sarbanes-Oxley Act of 2002) and (B) Buyer can be provided analytical information, as needed, to enable Buyer to meet its SEC filing requirements, including but not limited to those under Item 2 on Form 10-Q, and Item 7 on Form 10-K, "Management's Discussion and Analysis of Financial Condition and Results of Operations;"

(iv) Upon the request of Buyer, such certifications by a duly authorized representative(s) of Seller as may be reasonably requested by Buyer (which certifications shall

presumptively be reasonable if the certifications are substantially identical to those required by Buyer or its parent of business units of Buyer or its parent); and

(v) As reasonably requested by Buyer, such information or schedules, similar to the items noted in clauses (i)-(iv) above, to enable Buyer to prepare consolidated financial statements and schedules as may be required for Buyer to obtain financing or to prepare other reports as required by regulatory bodies, such as the SEC, for periods other than as of the end of the monthly, quarterly or year to date periods then ended.

(b) If Buyer (i) in its sole discretion determines that the financial statements of the Seller would be considered material to the Buyer or its parent company's financial statements, financial condition, or internal controls over financial reporting, and (ii) reasonably determines Seller's internal controls over financial reporting are not operating effectively or have resulted in a control deficiency, Buyer shall provide Notice to Seller. Upon receipt of such Notice, Seller will have thirty (30) days to remediate any deficiency in Seller's internal controls over financial reporting identified by the Buyer, which Buyer and Buyer's independent auditor deem to be necessary to ensure Seller's internal controls over financial reporting are adequate, during or as a result of the audits permitted under Section 13.4(a)(iii) or any other provision of this Agreement.

(c) As soon as possible, but in no event later than two (2) Business Days following any occurrence that would affect Seller in any material way, Seller shall provide to Buyer a Notice describing such occurrence in sufficient detail to permit the Buyer to file a report on SEC Form 8-K. Such occurrences include all reportable events on the then current Form 8-K that applies to Buyer and its parent company at such time, including but not limited to a material acquisition or disposition of assets, a material direct financial obligation or off-balance sheet financing arrangement, material litigation, and the execution or termination of a material contract.

(d) Any information provided to Buyer shall be treated as confidential except that it may be disclosed in connection with the preparation, review, certification and publication of Buyer's financial statements.

(e) Seller shall notify Buyer at any time during the term of this Agreement of any services provided or proposed to be provided to Seller by Buyer's independent auditor. Seller, and any of Seller's Affiliates, are prohibited from engaging Buyer's independent auditor for any services or in any consulting agreement without the express written consent of partner in charge of Buyer's independent audit.

13.5 Entire Agreement. This Agreement, together with the Cover Sheet and each and every appendix, attachment, amendment, schedule and any written supplements hereto, if any, between the Parties constitutes the entire agreement between the Parties.

13.6 Recording. Unless a Party expressly objects to a Recording (defined below) at the beginning of a telephone conversation, each Party consents to the creation of a tape or electronic recording ("Recording") of all telephone conversations between the Parties to this Agreement, and that any such Recordings will be retained in confidence, secured from improper access, and

may be submitted in evidence in any proceeding or action relating to this Agreement. Each Party waives any further notice of such monitoring or recording, and agrees to notify its officers and employees of such monitoring or recording and to obtain any necessary consent of such officers and employees.

13.7 Forward Contract. The Parties acknowledge and agree that this Agreement constitutes a “forward contract” within the meaning of the United States Bankruptcy Code.

13.8 Governing Law. THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED 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.

13.9 Attorneys’ Fees. In any proceeding brought to enforce this Agreement or because of the breach by any Party of any covenant or condition herein contained, the prevailing Party shall be entitled to reasonable attorneys’ fees (including reasonably allocated fees of in-house counsel) in addition to court costs and any and all other costs recoverable in said action.

13.10 General. This Agreement shall be considered for all purposes as prepared through the joint efforts of the Parties and shall not be construed against one Party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof. Except to the extent provided for herein, no amendment or modification to this Agreement shall be enforceable unless reduced to writing and executed by both Parties. This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound to this Agreement). Waiver by a Party of any default by the other Party shall not be construed as a waiver of any other default. The headings used herein are for convenience and reference purposes only. This Agreement shall be binding on each Party’s successors and permitted assigns.

13.11 Severability. If any provision in this Agreement is determined to be invalid, void or unenforceable by any court having jurisdiction, such determination shall not invalidate, void, or make unenforceable any other provision, agreement or covenant of this Agreement and the Parties shall use their best efforts to modify this Agreement to give effect to the original intention of the Parties.

13.12 Counterparts. This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall be deemed one and the same Agreement. Delivery of an executed counterpart of this Agreement by fax will be deemed as effective as delivery of an originally executed counterpart. Any Party delivering an executed counterpart of this Agreement by facsimile will also deliver an originally executed counterpart, but the failure of any Party to deliver an originally executed counterpart of this Agreement will not affect the validity or effectiveness of this Agreement.

13.13 Notices. Whenever this Agreement requires or permits delivery of a “Notice” (or requires a Party to “notify”), the Party with such right or obligation shall provide a written communication delivered personally, by a nationally recognized overnight courier, mailed by registered or certified mail (return receipt requested), or by facsimile or e-mail (if facsimile numbers or e-mail addresses are identified on the Cover Sheet or by subsequent Notice) to the receiving Party at the addresses identified on the Cover Sheet (or at such other addresses as such receiving Party shall identify by like Notice to the other Party); provided, however, that notices of Outages or other Scheduling or dispatch information or requests, shall be provided in accordance with the terms set forth in the relevant section of this Agreement. Invoices may be sent by facsimile or e-mail (if facsimile numbers or e-mail addresses are identified on the Cover Sheet or by subsequent Notice). A Notice delivered in accordance herewith shall be deemed received (i) on the date of delivery, if hand delivered, (ii) two Business Days after the date of sending, if sent by a nationally recognized overnight courier, or at such earlier time as is confirmed by the receiving Party, (iii) three Business Days after the date of mailing, if mailed by registered or certified mail, return receipt requested, or at such earlier time as is confirmed by the receiving Party, and (iv) on the Business Day on which such Notice was transmitted by facsimile transmission or e-mail (where permitted); provided, however, that a Notice delivered in accordance with this Section but received on any day other than a Business Day or after 5:00 p.m. in the place of receipt will be deemed received on the next Business Day. Each Party shall provide Notice to the other Party of the persons authorized to nominate and/or agree to a Schedule or Dispatch Order for the delivery or acceptance of the Product or make other Notices on behalf of such Party and specify the scope of their individual authority and responsibilities, and may change its designation of such persons from time to time in its sole discretion by providing Notice.

13.14 Mobile Sierra. Notwithstanding any provision of this Agreement, neither Party shall seek, nor shall they support any third party in seeking, to prospectively or retroactively revise the rates, terms or conditions of service of this Agreement through application or complaint to FERC pursuant to the provisions of Section 205, 206 or 306 of the Federal Power Act, or any other provisions of the Federal Power Act, absent prior written agreement of the Parties. Further, absent the prior agreement in writing by both Parties, the standard of review for changes to the rates, terms or conditions of service of this Agreement proposed by a Party, a non-Party or the FERC acting *sua sponte* shall be the “public interest” application of the “just and reasonable” standard of review set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 US 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 US 348 (1956) and clarified by *Morgan Stanley Capital Group Inc. v. Pub. Util. Dist. No. 1 of Snohomish County*, 128 S. Ct. 2733 (2008).

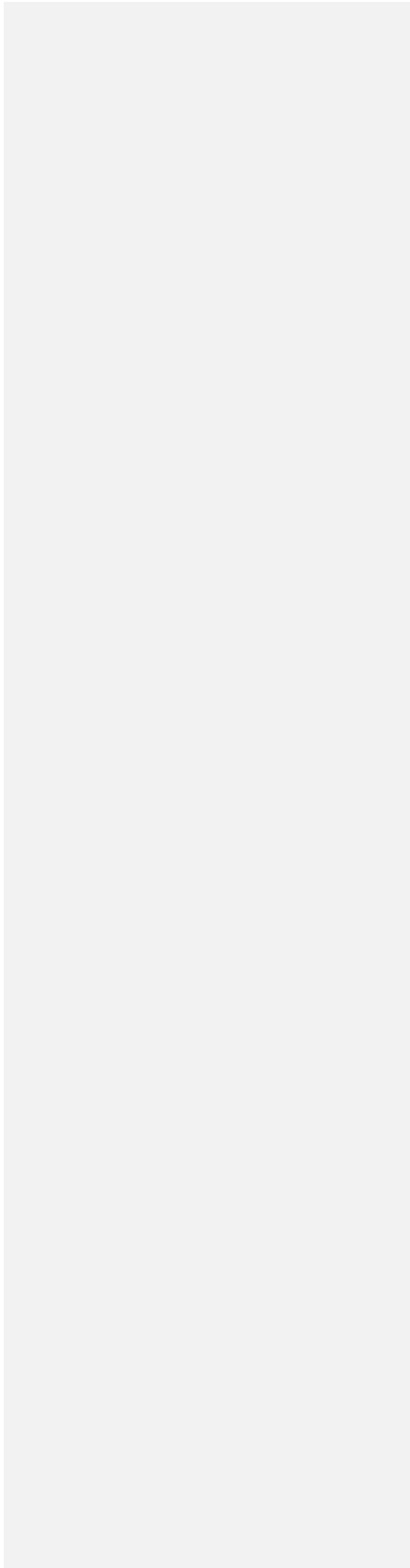
IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed as of the date first above written.

[\_\_\_\_\_] ]  
a [\_\_\_\_\_] ]

SAN DIEGO GAS & ELECTRIC COMPANY  
a California corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_



**Exhibit A**

**PROJECT DESCRIPTION INCLUDING DESCRIPTION OF SITE**

PROJECT DESCRIPTION

Project name \_\_\_\_\_

Project Site name: \_\_\_\_\_

Project physical address: \_\_\_\_\_

Total number of electric generating units at the Project (committed and not committed to Buyer) \_\_\_\_\_

Technology Type: \_\_\_\_\_

Substation:

The term "Site" as defined in the Agreement means the following parcel description upon which the Project is located:

Latitude and Longitude of Project: \_\_\_\_\_.

The nameplate capacity of the Project is \_\_\_\_\_.

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

[INSERT MAP]



**Exhibit B**  
**MILESTONE SCHEDULE**

	<i>Date</i>	<i>Project Name</i>
1.		Obtains control of all lands and rights-of-way comprising the Site.
2.		Files a CEC Pre-Certification and Verification application.
3.		Receives a completed [Phase I Interconnection Study Report] [interconnection feasibility study] and CAISO Deliverability Assessment Study Report.
4.		Receives a completed [Phase II Interconnection Study Report] [interconnection system impact study] and CAISO Deliverability Assessment Study report
5.		Files CEQA/NEPA application with appropriate agency(ies).
6.		Executes interconnection agreement and/or transmission agreement and receive FERC approval.
7.		Receives CEQA/NEPA approval/permit
8.		Executes a supply contract.
9.		Executes an Engineering, Procurement and Construction (“EPC”) contract.
10.		Delivers full NTP under EPC contract and begins construction of the Project.
11.		Executes Meter Service Agreement and Participating Generator Agreement.
12.		Achieves initial operation.
13.		Demonstrates the Contract Capacity.
14.		Receives all Governmental Approvals necessary to achieve COD.
15.		Receives CEC Certification and Verification.
16.	GCOD	Commercial Operation Date.

**Exhibit C**

**FORM OF LETTER OF CREDIT**

[DATE]

To: San Diego Gas & Electric Company  
555 W. Fifth Street  
Mail Code: ML 18A3  
Los Angeles, CA 90013

Re: Our Irrevocable Standby Letter of Credit No. \_\_\_\_\_  
In the Amount of US \_\_\_\_\_

Ladies and Gentlemen:

We hereby open our irrevocable standby Letter of Credit Number \_\_\_\_\_ in favor of [name of Beneficiary] ("Beneficiary"), by order and for account of [name of Applicant] ("Applicant"), [address of Applicant], available at sight upon demand at our counters, at [location] for an amount of US\$ \_\_\_\_\_ [amount spelled out and xx/100 U.S. Dollars] against presentation one of the following documents:

1- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: "[name of Applicant] ("Applicant") is in default under the Power Purchase Agreement between Beneficiary and Applicant dated \_\_\_\_\_ or under any transaction contemplated thereby (whether by failure to perform or pay any obligation thereunder or by occurrence of a "default", "event of default" or similar term as defined in such agreement, any other agreement between Beneficiary and Applicant, or otherwise). The amount due to Beneficiary is U.S. \$ \_\_\_\_\_."

or

2- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: "[name of Applicant] ("Applicant") has forfeited all or part of its ***[For Agreements with Delivery Terms greater than two years: CPUC Approval Security or] Development Period Security*** as set forth and defined in the Power Purchase Agreement between Beneficiary and Applicant dated \_\_\_\_\_. The amount due to Beneficiary, whether or not a default has occurred, is U.S. \$ \_\_\_\_\_."

or

3- Statement signed by a person purported to be an authorized representative of Beneficiary stating that: "as of the close of business on [insert date, which is less than 60 days prior to the expiration date of the Letter of Credit] you have provided

written notice to us indicating your election not to permit extension of this Letter of Credit beyond its current expiry date. The amount due to Beneficiary, whether or not a default has occurred, is U.S. \$\_\_\_\_\_.”

Special Conditions:

- All costs and banking charges pertaining to this Letter of Credit are for the account of Applicant.
- Partial and multiple drawings are permitted.
- Fax of Document 1 or 2 or 3 above is acceptable. Notwithstanding anything to the contrary herein, any drawing hereunder may be requested by transmitting the requisite documents as described above to us by facsimile at \_\_\_\_\_ or such other number as specified from time to time by us. The facsimile transmittal shall be deemed delivered when received. It is understood that drawings made by facsimile transmittal are deemed to be the operative instrument without the need of originally signed documents.

This Letter of Credit expires on \_\_\_\_\_ at our counters.

We hereby engage with Beneficiary that upon presentation of a document as specified under and in compliance with the terms of this Letter of Credit, this Letter of Credit will be duly honored in the amount stated in Document 1, 2, or 3 above. If a document is so presented by 1:00 pm on any New York banking day, we will honor the same in full in immediately available New York funds on that day and, if so presented after 1:00 pm on a New York banking day, we will honor the same in full in immediately available New York funds by noon on the following New York banking day.

It is a condition of this Letter of Credit that it shall be deemed automatically extended without an amendment for a one year period beginning on the present expiry date hereof and upon each anniversary of such date, unless at least ninety (90) days prior to any such expiry date we have sent you written notice by regular and registered mail or courier service that we elect not to permit this Letter of Credit to be so extended beyond, and will expire on its then current expiry date. No presentation made under this Letter of Credit after such expiry date will be honored.

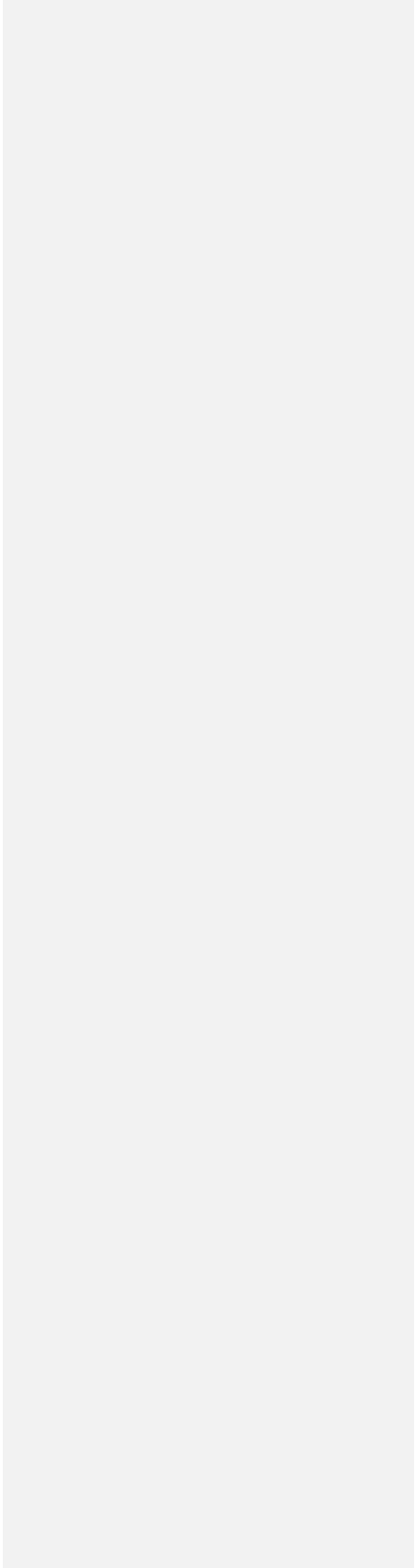
We agree that if this Letter of Credit would otherwise expire during, or within 30 days after, an interruption of our business caused by an act of god, riot, civil commotion, insurrection, act of terrorism, war or any other cause beyond our control or by any strike or lockout, then this Letter of Credit shall expire on the 30th day following the day on which we resume our business after the cause of such interruption has been removed or eliminated and any drawing on this Letter of Credit which could properly have been made but for such interruption shall be permitted during such extended period.

This Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits (2007 Revision) International Chamber of Commerce, Publication No. 600 (“UCP”), except to the extent that the terms hereof are inconsistent with the provisions of the UCP, including but not limited to Articles 14(b) and 36 of the UCP, in which case the terms of this Letter of Credit shall

govern. Matters not covered by the UCP shall be governed and construed in accordance with the laws of the State of California.

[Name of Bank]

\_\_\_\_\_  
Authorized Signature(s)



**Exhibit D**  
**FORM OF GUARANTY**

***GUARANTY***

In consideration of San Diego Gas & Electric Company (“Company”) entering into a power purchase agreement with [NAME OF COUNTERPARTY] (hereinafter referred to as “Applicant”), [NAME OF GUARANTOR], a [TYPE OF LEGAL ENTITY i.e. California corporation], (hereinafter referred to as “Guarantor”) agrees with Company as follows:

1. The term “Obligations” shall mean all obligations, liabilities and indebtedness of any kind whatsoever arising in connection with \_\_\_\_\_ or arising in connection with or under any security agreement or other agreement between the Company and Applicant. The amount of Obligations existing from time to time shall be calculated after giving effect to all contractual netting arrangements between Applicant and the Company.

2. Guarantor unconditionally and irrevocably guarantees to Company the full, prompt and faithful payment and performance when due of each and all of the Obligations.

3. This is a continuing guaranty relating to the Obligations. Guarantor acknowledges that there is a continuing consideration to Guarantor for this Guaranty and therefore Guarantor waives and relinquishes the right to revoke or terminate this Guaranty as provided in California Civil Code Section 2815.

4. Any of the Obligations may be amended, modified, waived, or increased (whether or not beyond any dollar limitation hereunder), further agreements may be entered into between Company and Applicant, Company may provide additional goods or services or credit to Applicant or increase or decrease the dollar value of such goods, services or credit, and further obligations (including, without limitation, the provision or pledging of security to Company for any obligation), indebtedness and liabilities may be entered into or incurred from time to time by Applicant and without further authorization from or notice to Guarantor and no such action shall terminate, release, impair, reduce, discharge, diminish or in any way affect any of the obligations of Guarantor hereunder or any security furnished by Guarantor or give Guarantor any recourse or defense against Company. Company need not inquire into the power of Applicant or the authority of its officers, directors, partners or agents acting or purporting to act in its behalf.

5. With respect to all Obligations, this is a guaranty of payment and performance and not of collection, and Guarantor waives and agrees not to assert or take advantage of:

(a) any right to require Company to proceed against Applicant or any other person or to resort to, proceed against or exhaust any security held by it at any time or to pursue any other remedy in its power before proceeding against any Guarantor;

(b) demand, presentment, protest and notice of any kind including, without limiting the generality of the foregoing, notice of nonperformance, protest, dishonor and acceptance of this Guaranty, notice under Section 9611 of the California Commercial Code, and

notice of the existence, creation or incurring of any new or additional indebtedness or obligation or of any action or non-action on the part of Applicant, Company, a guarantor under this or any other instrument, or creditor of Applicant or any other person whomsoever, in connection with any of the Obligations or any collateral for any of the Obligations or in connection with any of the Obligations; and

(c) any suretyship defenses and suretyship rights of every nature otherwise available under California law and the laws of any other state or jurisdiction, including, without limitation, all defenses and rights arising under Sections 2787 through 2855 of the California Civil Code (the "Suretyship Provisions") and any successor provisions to those Sections. Without limiting the generality of the foregoing, Guarantor acknowledges his, her or its understanding that the Suretyship Provisions provide various partial or complete defenses to the recovery by Company from Guarantor and/or grant Guarantor rights the enforcement of which could reduce or eliminate entirely Guarantor's liability hereunder to Company. Among the defenses and rights contained in the Suretyship Provisions are the following: (1) Section 2809 of the Civil Code, which provides, in part, that the obligation of a surety must not be either larger in amount or in other respects more burdensome than that of the principal; (2) Section 2810 of the Civil Code, which provides, in part, that a surety is not liable if for any reason other than the mere personal disability of the principal there is no liability upon the part of the principal at the time of execution of the contract, or the liability of the principal thereafter ceases; (3) Section 2819 of the Civil Code, which provides, in part, that a surety is exonerated if the creditor alters the original obligation of the principal without the consent of the surety; (4) Section 2845 of the Civil Code, which provides, in part, that a surety is exonerated to the extent that the creditor fails to proceed against the principal, or to pursue any other remedy in the creditor's power which the surety cannot pursue and which would lighten the surety's burden; (5) Section 2846 of the Civil Code, which provides that a surety may compel his principal to perform the obligation when due; (6) Section 2847 of the Civil Code, which provides, in part, that if a surety satisfies the principal obligation, or any part thereof, the principal is obligated to reimburse the surety for the amounts paid by the surety; (7) Section 2848 of the Civil Code, which provides, in part, that a surety, upon satisfaction of the obligation of the principal is entitled to enforce remedies which the creditor then has against the principal; (8) Section 2849 of the Civil Code, which provides, in part, that a surety is entitled to the benefit of security held by the creditor for the performance of the principal obligation held by the creditor; (9) Section 2850 of the Civil Code, which provides, in part, that whenever the property of a surety is hypothecated with property of the principal, the surety is entitled to have the property of the principal first applied to the discharge of the obligation; and (10) Section 2822 of the Civil Code, which provides, in part, for a right to have the principal designate the portion of any obligation to be satisfied by the surety in the event that the principal provides partial satisfaction of such obligation.

6. All existing and future indebtedness of Applicant to Guarantor ("Intercompany Obligations") is subordinated to all Obligations hereby guaranteed. All of Guarantor's right, title and interest in and to the Intercompany Obligations and rights to receive any payments of the Intercompany Obligations are hereby granted and assigned to Company as continuing security for the Obligations hereby guaranteed, and, in the event of any default in the payment of any of the Obligations when due and until the Obligations guaranteed hereby have been paid in full (a) at the Company's request, Applicant shall forthwith pay to the Company all or any part of such Intercompany Obligations and any capital which Guarantor is entitled to withdraw until all of the

Obligations guaranteed hereby have been paid in full, and (b) Guarantor shall pay to Company immediately any payments of such Intercompany Obligations received by Guarantor.

7. Guarantor agrees to pay all attorneys' fees (including without limitation, reasonably allocated fees of in-house counsel) and all other costs and expenses which may be incurred by Company in the enforcement of this Guaranty against Guarantor.

8. This Guaranty is not assignable by Guarantor without Company's consent. This Guaranty shall inure to the benefit of Company and its successors and assigns, including the assignees of any Obligations, and bind the heirs, executors, administrators, successors and permitted (if any) assigns of Guarantor. This Guaranty is assignable by Company with respect to all or any portion of the Obligations, and when so assigned Guarantor shall be liable to the assignees under this Guaranty without in any manner affecting the liability of Guarantor hereunder with respect to any Obligations retained by Company.

9. This Guaranty shall be governed by and construed in accordance with the laws of the State of California, without reference to its choice of law provisions. Guarantor hereby irrevocably and unconditionally agrees that any legal action or proceeding against Guarantor or any of Guarantor's property with respect to this Guaranty may be brought in the courts of the State of California in the County of San Diego or the courts of the United States in the County of San Diego, as Company may elect, and by executing and delivering this Guaranty Guarantor hereby submits to and accepts with regard to any such action or proceeding for himself, herself or itself and in respect of his, her or its property, generally, irrevocably and unconditionally, the jurisdiction of the above mentioned courts. Guarantor hereby irrevocably appoints the Secretary of State of the State of California as his, her or its agent for service of process in any suit or proceeding if the Guarantor is located outside the State of California at the time of service or cannot reasonably be located by Company. The foregoing, however, shall not limit the right of Company as it may elect to bring any legal action or proceeding or to obtain execution of judgment in any other appropriate jurisdiction including but not limited to any other jurisdiction in which Guarantor or his, her or its property is located.

10. Except as provided in any other written agreement now or at any time hereafter in force between Company and Guarantor, this Guaranty shall constitute the entire agreement of Guarantor with Company with respect to the subject matter hereof and no representation, understanding, promise or condition concerning the subject matter hereof shall be binding upon Company unless expressed herein.

11. All notices, demands, requests and other communications required or permitted hereunder shall be in writing and shall be given personally, by certified or registered mail, postage prepaid, return receipt requested, or by reliable overnight courier to the address of the Company set forth below (or to such new address as Company may designate hereafter in a notice to Guarantor) in the case of a communication to the Company and to the address appearing next to Guarantor's signature on this Guaranty (or to such new address as Guarantor may designate hereafter in a notice to Company) in the case of a communication to Guarantor. Any notice served personally shall be deemed delivered upon receipt, and any notice served by certified or registered mail or by reliable overnight courier shall be deemed delivered on the date

of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier.

San Diego Gas & Electric Company  
555 W. Fifth Street  
Attn: Major Markets 18A3, Credit Manager  
Los Angeles, CA 90013  
Fax No.: (213) 244-8316

12. Until all of the Obligations guaranteed hereby have been satisfied in full, Guarantor shall have no right of subrogation or reimbursement from the Applicant which Guarantor may have as a result of any payment by Guarantor under this Guaranty, and waives any right to enforce any remedy which Company now has or may hereafter have against the Applicant as a result of such payment by Guarantor under this Guaranty and waives any right under section 2849 of the California Civil Code and any other benefit of or right to participate in any security now or hereafter held by Company.

13. All amounts payable by Guarantor hereunder shall be paid without set-off or counterclaim and without any deduction or withholding whatsoever unless and to the extent that Guarantor shall be prohibited by law from doing so, in which case Guarantor shall pay to Company such additional amount as shall be necessary to ensure that Company receives the full amount it would have received if no such deduction or withholding had been made.

14. If any portion of this Guaranty is held to be unenforceable by a court of competent jurisdiction, the remainder of this Guaranty shall remain in full force and effect.

IN WITNESS WHEREOF, the undersigned Guarantor has executed this Guaranty on [MONTH AND DAY], [YEAR].

GUARANTOR:  
[NAME OF GUARANTOR]

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name of Person Signing for  
Guarantor



---

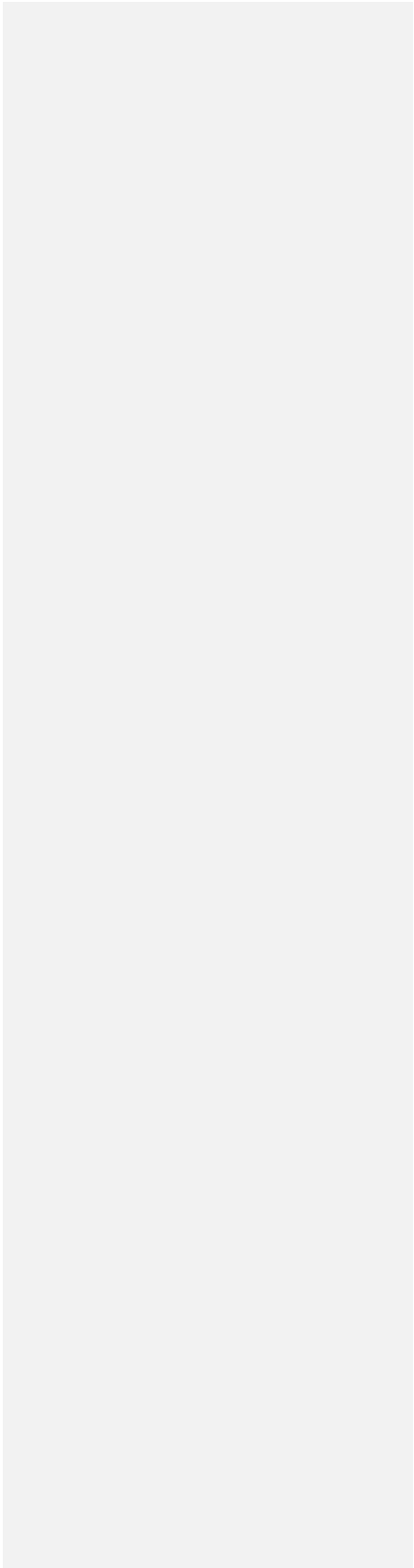
Guarantor's Address

---

City, State, Zip

---

Guarantor's Phone No.



**Exhibit E**

**COMMERCIAL OPERATION CERTIFICATE**

The undersigned, \_\_\_\_\_ (“EPC Contractor”), \_\_\_\_\_ (“Renewable Generation Equipment Supplier”), \_\_\_\_\_ (“Licensed Professional Engineer”) and [\_\_\_\_\_] (“Owner”) make the following certifications to San Diego Gas & Electric Company (“SDG&E”), dated as of \_\_\_\_\_. All capitalized terms not otherwise defined herein shall have the meaning given to them in the Power Purchase Agreement dated \_\_\_\_\_ between Owner and SDG&E (the “Agreement”).

**Renewable Generation Equipment Supplier hereby certifies that:**

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1. The [\_\_\_\_\_] comprising the Project have been erected and installed at the project site and have been commissioned as required under the Supply and Installation Agreement (“[\_\_\_\_\_] Supply Agreement”) dated as of \_\_\_\_\_, by and between Renewable Generation Equipment Supplier and Owner and each such [\_\_\_\_\_] has passed the performance testing required to be performed pursuant to the [\_\_\_\_\_] Supply Agreement.
2. The Warranty Period under the Warranty Agreement (“Warranty Agreement”) dated as of \_\_\_\_\_, by and between Renewable Generation Equipment Supplier and Owner has commenced.

**EPC Contractor hereby certifies that:**

All requirements necessary to achieve [Commercial Operation/Substantial Completion] as set forth in the agreement between the EPC Contractor and Owner dated \_\_\_\_\_ (“EPC Contract”) have been completed and the Project has successfully passed all performance tests at a level that demonstrates satisfaction of at least the [minimum performance guarantees].

**Owner hereby certifies that:**

1. Except for punch list items that would not materially affect the performance, reliability or safe operation of the Project, the Project has been completed in accordance with all applicable specifications and is ready for continuous commercial operation in compliance with all applicable laws and governmental approvals. The Project has successfully passed all performance tests at a level that demonstrates satisfaction of at least the [insert minimum performance guarantees], and complete test reports have been submitted to Buyer.
2. The Operation and Maintenance Agreement (O&M Agreement), by and between Owner and \_\_\_\_\_ dated as of \_\_\_\_\_ has commenced.

3. Owner has a valid leasehold or real property interest in the Project Site for a term of at least [ ] years from the Commercial Operation date.
4. The interconnection facilities have been completed in accordance with applicable specifications, tariffs, laws and governmental approvals to enable power generated by the Project to be received at the Delivery Point.
5. Owner has obtained all governmental approvals necessary for the continuous commercial operation of the Project and the Project is in compliance with all such governmental approvals and all other applicable laws.

**Licensed Professional Engineer certifies that:**

1. We have read the Agreement, the [ ] Supply Contract, and the EPC Contract and we understand the requirements for Commercial Operation under the Agreement, the specifications and performance testing requirements under the [ ] Supply Contract, and the requirements for [Commercial Operation/Substantial Completion] under the EPC Contract.
2. We have reviewed the material and data made available to us by the Owner, the Renewable Generation Equipment Supplier, and the EPC Contractor for the Project.
3. To the extent practical, we have reviewed the engineering, procurement, construction and performance testing for the Project and in the course of this review we have not discovered any material errors or omissions in the work performed to date.
4. We have reviewed the certificates of Owner, Renewable Generation Equipment Supplier, and EPC Contractor above, and find the representations provided to be correct in all material respects.
5. We have reviewed all Governmental Approvals and permits identified by the Owner as being required for the construction and operation of the Project and are of the opinion that the Project as completed is in compliance in all material respects with the environmental and technical requirements contained therein.
6. Based on our review of the aforementioned information and of information provided to us by others which we have not independently verified, we are of the opinion that, as of, Commercial Operation has occurred as defined in the Agreement.

Executed this \_\_\_ day of \_\_\_, 200\_

**RENEWABLE GENERATION EQUIPMENT  
SUPPLIER**

[Name of \_\_\_\_\_] *Supplier*  
a \_\_\_\_\_ corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EPC CONTRACTOR**

[Name of *EPC Contractor*]  
a \_\_\_\_\_ corporation

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**OWNER**

[Name of *Owner*]  
a \_\_\_\_\_ limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**LICENSED PROFESSIONAL ENGINEER:**

[Name of *Licensed Professional Engineer*]  
a \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ACCEPTED BY SAN DIEGO GAS & ELECTRIC COMPANY

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Exhibit F**  
**FORM OF QUARTERLY PROGRESS REPORT**

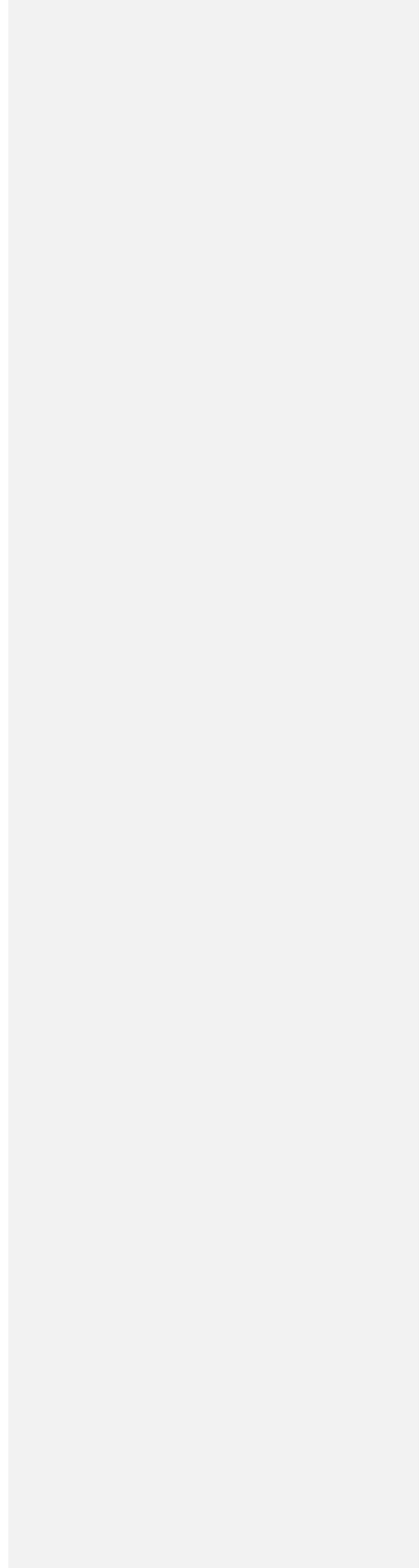
**Quarterly Progress Report**  
**of**  
[ \_\_\_\_\_ ]  
**(“Seller”)**

**provided to**  
**San Diego Gas & Electric Company**

[Date]

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[Insert Table of Contents]



## 1.0 Instructions.

All capitalized terms used in this report shall have the meanings set forth below and any capitalized terms used in this report which are not defined below shall have the meanings ascribed thereto in the Power Purchase Agreement by and between \_\_\_\_\_ (“Seller”) and San Diego Gas & Electric Company dated \_\_\_\_\_, \_\_\_\_ (the “Agreement”).

Seller shall review the status of each significant element of the Project schedule and Seller shall identify such matters referenced in clauses (i)-(v) below as known to Seller and which in Seller’s reasonable judgment are expected to adversely affect the Project or the Project schedule, and with respect to any such matters, shall state the actions which Seller intends to take to ensure that Conditions Precedent and the Milestones will be attained by their required dates. Such matters may include, but shall not be limited to:

(i) Any material matter or issue arising in connection with a Governmental Approval, or compliance therewith, with respect to which there is an actual or threatened dispute over the interpretation of a law or regulation, actual or threatened opposition to the granting of a necessary Governmental Approval, any organized public opposition, any action or expenditure required for compliance or obtaining approval that Seller is unwilling to take or make, or in each case which could reasonably be expected to materially threaten or prevent financing of the Project, attaining any Condition or Milestone, or obtaining any contemplated agreements with other parties which are necessary for attaining any Condition or Milestone or which otherwise reasonably could be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(ii) Any development or event in the financial markets or the independent power industry, any change in taxation or accounting standards or practices or in Seller’s business or prospects which reasonably could be expected to materially threaten financing of the Project, attainment of any Condition or Milestone or materially threaten any contemplated agreements with other parties which are necessary for attaining any Condition or Milestone or could otherwise reasonably be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(iii) A change in, or discovery by Seller of, any legal or regulatory requirement which would reasonably be expected to materially threaten Seller’s ability to attain any Condition or Milestone;

(iv) Any material change in the Seller’s schedule for initiating or completing any material aspect of Project;

(v) The status of any matter or issue identified as outstanding in any prior Quarterly Report and any material change in the Seller’s proposed actions to remedy or overcome such matter or issue.

Seller shall complete, certify, and deliver this form Quarter Quarterly Progress Report to [\_\_\_\_], together with all attachments and exhibits, with [3] copies of the Report delivered to [\_\_\_\_] and [\_\_\_\_\_].

**2.0 Executive Summary.**

**2.1 Major activities to be performed for each aspect of the Project during the current calendar quarter.**

Please provide a brief summary of the Major<sup>2</sup> activities to be performed for each of the following aspects of the Project during the current calendar quarter:

- 2.1.1 Design
- 2.1.2 Engineering
- 2.1.3 Major Equipment procurement
- 2.1.4 Construction
- 2.1.5 Milestone report
- 2.1.6 Permitting (See Section 3.0)

**2.2 Major activities scheduled to be performed in the previous calendar quarter but not completed as scheduled.**

Please provide a brief summary of the Major activities which were scheduled to be performed in the previous calendar quarter and their status, including those activities that were not completed as scheduled:

- 2.2.1 Design
- 2.2.2 Engineering
- 2.2.3 Major Equipment procurement
- 2.2.4 Construction
- 2.2.5 Milestone report
- 2.2.6 Permitting

---

<sup>2</sup> For Purposes of this Report, “Major” shall mean any activity, event, or occurrence which may have a material adverse impact on the construction of the Facility or completion of the Project on a timely basis if such activity, event, or occurrence occurs or if such activity, event, or occurrence fails to occur as anticipated or scheduled, which material adverse impact includes, but is not limited to, Seller’s inability to achieve a Milestone Date.



**3.0 Permitting.**

The following describes each of the major Governmental Approvals required for the construction of the Project and the status of each:

**3.1 State and/or federal Governmental Approvals.**

Please describe each of the Major state and/or federal Governmental Approval (including the Permit to Construct issued by the San Diego County Air Pollution Control District) to be obtained by Seller (or EPC Contractor) and the status of each.

DESCRIPTION	STATUS

**3.2 Local and/or county Governmental Approvals.**

Please describe each of the Major local and/or county Governmental Approvals to be obtained by Seller and the status of each.

DESCRIPTION	STATUS

**3.3 Permitting activities which occurred during the previous calendar quarter.**

Please list all permitting activities which occurred during the previous calendar quarter.

**3.4 Permitting activities occurring during the current calendar quarter.**

Please list all permitting activities which are expected to occur during the current calendar quarter.

**3.5 Permitting Notices received from EPC Contractor.**

Please attach to this Quarterly Progress Report copies of any notices related to permitting activities received from EPC Contractor during the previous calendar quarter.

**4.0 Design Activities.**

**4.1 Table of design schedule to be followed by Seller and its subcontractors.**

The following table lists the design schedule to be followed by Seller and its subcontractors.

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE

**4.2 Design activities to be performed during the current calendar quarter.**

Please explain in detail the design activities which are expected to be performed during the current calendar quarter.

**4.3 Table of design activities completed during the previous calendar quarter.**

Please explain in detail the design activities which were completed during the previous calendar quarter.

**5.0 Engineering Activities.**

**5.1 Table of engineering schedule to be followed by Seller and its subcontractors.**

The following table lists the engineering schedule to be followed by Seller and its subcontractors:

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE

**5.2 Engineering activities to be performed during the current calendar quarter.**

Please explain in detail the engineering activities which are expected to be performed during the current calendar quarter.

**5.3 Engineering activities completed during the previous calendar month.**

Please explain in detail the engineering activities which were completed during the previous calendar quarter.

**5.4 Three-month look-ahead engineering schedule.**

Please provide a three-month look ahead engineering schedule.

**6.0 Major Equipment Procurement.**

**6.1 Table of major equipment to be procured by Seller and its subcontractors.**

The following table lists major equipment to be procured by Seller and its subcontractors:

EQUIPMENT DESCRIPTION	MANUFACTURER	MODEL	CONTRACTED DELIVERY DATE	ACTUAL DELIVERY DATE	PROJECTED INSTALLATION DATE	ACTUAL INSTALLATION DATE


**6.2 Major Equipment procurement activities to be performed during the current calendar quarter.**

Please explain in detail the major equipment procurement activities which are expected to be performed during the current calendar quarter.

**6.3 Major Equipment procurement activities completed during the previous calendar quarter.**

Please explain in detail the major equipment procurement activities which were completed during the previous calendar quarter.

**7.0 Construction Activities.**

**7.1 Table of construction activities to be performed by Seller and its subcontractors.**

The following tables lists construction activities to be performed by Seller and its subcontractors:

ACTIVITY	CONTRACTOR/ SUBCONTRACTOR	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE
Civil Progress			
Structural Progress			
[Steam] Generator Progress			
Piping Progress			
IC and Electrical Progress			
Subcontractor Progress			

**7.2 Construction activities to be performed during the current calendar quarter.**

Please explain in detail the construction activities which are expected to be performed during the current calendar quarter.

**7.3 Construction activities completed during the previous calendar quarter.**

Please explain in detail the construction activities which are expected to be performed during the previous calendar quarter.

**7.4 EPC Contractor Monthly Progress Report.**

Please attach a copy of the Monthly Progress Reports received during the previous calendar quarter from the EPC Contractor pursuant to the EPC Contract, certified by the EPC Contractor as being true and correct as of the date issued.

**7.5 Three-month look-ahead construction schedule.**

Please provide a three-month look ahead construction schedule.

**8.0 Milestones.**

**8.1 Milestone schedule.**

Please state the status and progress of each Milestone and identify any completed Milestone(s) for the previous calendar quarter.

**8.2 Remedial Action Plan (applicable if Seller fails to achieve Milestone by the Milestone Date).**

Please explain in detail each of the following aspects of Seller's remedial action plan:

- 8.2.1 Missed Milestone
- 8.2.2 Plans to achieve missed Milestone
- 8.2.3 Plans to achieve subsequent Milestone
- 8.2.4 Delays in engineering schedule

Please explain in detail any delays beyond the scheduled Milestone Dates stated in Section 5.1, any impact from the delays on the engineering schedule, and Seller's plans to remedy such impact.

- 8.2.5 Delays in Major Equipment procurement

Please explain in detail any delays beyond the contracted delivery date and/or the projected installation date stated in Section 6.1, any impact from the delays on Major Equipment procurement schedule, and Seller's plans to remedy such impact.

- 8.2.6 Delays in construction schedule

Please explain in detail any delays beyond the scheduled completion dates stated in Section 7.1, any impact from the delays on the construction schedule, and Seller's plans to remedy such impact.

**9.0 Safety and Health Reports**

**9.1 Please list all accidents from the previous calendar quarter:**

**9.2 Any work stoppage from the previous calendar quarter:**

**9.3 Work stoppage impact on construction of the Project:**

I, \_\_\_\_\_, on behalf of and as an authorized representative of, do hereby certify that any and all information contained in the attached Seller's Quarterly Progress Report is true and accurate, and reflects, to the best of my knowledge, the current status of the construction of the Project as of the date specified below.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

<b>RPS Project Development Status Report</b>			
<b>Project Name</b>			
<b>Date</b>			
Date of Latest Construction Progress Report from Counterparty:			
Project Owner/Counterparty:			
Technology:			
Capacity (MW):	Annual Energy (GWh/year):		
On-Line Date:	Term/Duration (years):		
Construction Start Date:	Point of Delivery:		
Location:			
<b>Status At-A-Glance</b>			
The below to be filled in w/ either: Completed, Acceptable, Unknown, or Concern. See Section B for a description of milestones. When the answer is "Concern" the milestone should be flagged with a notation number where additional detail is provided in Section A.			
Milestones	Status	Initial Completion Date	Projected Completion Date
Fuel/Resource Supply:			
Financing:			
Corporate Financing			
Project Financing			
Site Control (100%):			
Permitting:			
Engineering:			
Major Equipment Procurement:			
Construction:			
Startup Testing and Commissioning:			
Transmission:			
<b>Transmission - Detail</b> (see Section C)			
Dependent Transmission Upgrade(s):			
Scheduled Completion:			
Point of Interconnection:			
Early Interconnection:			
Gen-Tie Length:			
Gen-Tie Voltage:			
ISO Queue Position:			
Feasibility Study (FS):			
System Impact Study (SIS):			
Facilities Study (FAS):			
Remedial Action Plan:			
Additional Comments:			
Date of Preparation:			

Exhibit G

OUTAGE NOTIFICATION FORM

OUTAGE NOTIFICATION FORM

This form may be used to comply with CAISO's outage notification requirements for both planned and forced outages. Report outages as soon as possible by submitting form via email to TSched@SempraUtilities.com or via fax at (858) 650-6191.

Request Type:

New Scheduled Maintenance Outage

Previous Notification (if applicable)

Date Sent: mm/dd/yyyy

Time Sent: hh:mm

Generator Name:

Location Code:

Address:

(For times, use 24hr format)

Today's Date: mm/dd/yyyy

Current Time: hh:mm

Contact Name:

Phone Number:

Email:

Outage Start Date: mm/dd/yyyy

Outage Start Time: hh:mm

Outage End Date: mm/dd/yyyy

Outage End Time: hh:mm

Alternate Name:

Alternate Number:

Email:

Outage Duration:

MW Available During Outage:

MW Unavailable During Outage:

RMR Unit? Yes/No

System (Select One)

- Boiler Codes 0010-1999
Generator Codes 4500-4899
Regulatory, Safety, Environmental Codes 9504-9720
Balance of Plant Codes 3110-3999
Pollution Control Equipment Codes 8000-8835
Others Codes 9900-9999
Steam Turbine Codes 4000-4499
External Codes 9000-9040

Cause Code Ranges / Affected Component

(Select One)

Cause Code / Component Problem

(Select One)

Comments

Comments section with multiple lines for text entry.



## Exhibit H

### PROJECT OPERATING RESTRICTIONS

Operational characteristics of the Project ~~for Dispatch Notices, which in each case~~ must be equal to or greater than the resource flexibility reflected in the resource Master File, as such term is defined in the CAISO Tariff. Buyer may request that CAISO modify the Master File for the Project to reflect the findings of a CAISO audit of the Project and to ensure that the information provided by Seller is true and accurate. Seller agrees to coordinate with Buyer and any third party Scheduling Coordinator to ensure all information provided to the CAISO regarding the operational and technical constraints in the Master File for the Project are accurate and are actually based on physical characteristics of the resource. The Parties agree to make reasonable modifications to this Exhibit H to modify existing operating restrictions or add additional operating restrictions that may be necessary to address changes in the CAISO Tariff or applicable Law applicable to the Products provided from this Project.

- Nameplate capacity of the Project: \_\_\_\_ MW
- Minimum operating capacity: \_\_\_\_ MW
- Advance notification required for a Dispatch Notice: \_\_\_\_
- Ramp Rate: \_\_\_\_ MW/minute



**APPENDIX 10**

**SAN DIEGO GAS & ELECTRIC COMPANY  
REDLINE OF DRAFT 2014 RPS PLAN (EXCEPT PROTOCOL/SOLICITATION  
DOCUMENTS) AGAINST FINAL 2014 RPS PLAN (EXCEPT  
PROTOCOL/SOLICITATION DOCUMENTS)**

# ATTACHMENT A

## SAN DIEGO GAS & ELECTRIC COMPANY 2014 RPS PROCUREMENT PLAN

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## I. EXECUTIVE SUMMARY

San Diego Gas & Electric Company's ("SDG&E's") 2014 Renewable Portfolio Standard ("RPS") Procurement Plan (the "RPS Plan") describes the process used by SDG&E to determine its RPS procurement need, as well as the methods it will use to manage its RPS portfolio in order to meet RPS program compliance targets in a cost-effective manner. The RPS Plan establishes guidelines for SDG&E's procurement of Least-Cost Best-Fit ("LCBF") RPS-eligible resources that will enable SDG&E to achieve the following levels of renewable deliveries during each relevant Compliance Period ("CP"): (a) an average of 20% of retail sales between January 1, 2011 and December 31, 2013, inclusive<sup>1</sup> ("CP1"); (b) 25% of retail sales by December 31, 2016, with reasonable progress made in 2014 and 2015<sup>2</sup> ("CP2"); (c) 33% of retail sales by December 31, 2020, with reasonable progress made in 2017, 2018 and 2019<sup>3</sup> ("CP3"); and (d) 33% of retail sales in each year beyond 2020<sup>4</sup> ("Post-2020 CP").

In order to determine the quantity of renewable generation that must be procured to meet SDG&E's RPS procurement need in each CP, SDG&E will follow the Need Determination Methodology described below. To determine its optimal portfolio mix, SDG&E manages its portfolio to conform to the portfolio content and balance requirements established through the RPS program. SDG&E will implement a work plan to fulfill its need, including soliciting additional multi-product and multi-term contracts through RPS solicitations, considering bilateral proposals, utilizing banked procurement, selling surplus generation when appropriate, and pursuing utility investment opportunities and/or utility ownership when economic and prudent.

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<sup>1</sup> Compliance towards Compliance Period 1 goals shall be measured in accordance with D.11-12-020, Ordering Paragraph ("OP") 1.

<sup>2</sup> Compliance towards Compliance Period 2 goals shall be measured in accordance with D.11-12-020, OP 2.

<sup>3</sup> Compliance towards Compliance Period 3 goals shall be measured in accordance with D.11-12-020, OP 3.

<sup>4</sup> Compliance towards Post-2020 Compliance Period goals shall be measured in accordance with D.11-12-020, OP 4.



## II. ASSESSMENT OF RPS PORTFOLIO SUPPLIES AND DEMAND

### A. *Need Determination Methodology*

SDG&E makes procurement decisions based on how its risk-adjusted RPS position forecast (referred to herein as its “RPS position”) compares to its RPS program compliance requirements, the result of which is its probability-weighted procurement need or Renewable Net Short (“RNS”). In order to calculate its RPS Position, SDG&E assigns a probability of success, following a qualitative and quantitative assessment, to the expected deliveries for each project in its portfolio<sup>5</sup> and then adds the risk-adjusted expected deliveries across all projects in its entire RPS portfolio. Probabilities are used because renewable projects and their deliveries are exposed to multiple risks, and the flexible compliance mechanisms that allowed for borrowing from future procurement were eliminated by Senate Bill (“SB”) 2 (1X).<sup>6</sup> These risks include approval risks (*e.g.*, Commission approval and the timing of such), development risks (*e.g.*, permitting, financing, or transmission interconnection), delivery risks (*e.g.*, generation fluctuations given the variant-intermittent nature of some renewable resources, or operational challenges), and/or other risks (*e.g.*, under-development of transmission infrastructure common to a group of projects).

In general, if SDG&E’s RPS Position is less than its RPS requirements, SDG&E will likely procure additional resources. If, on the other hand, its RPS Position is greater than its RPS requirements, SDG&E will consider opportunities to bank or sell surplus generation. In addition, in order to optimize the relative value of renewable energy across compliance periods, SDG&E also considers short-term contracts when, for example, it is short<sup>7</sup> in the most immediate CP but long in the subsequent CP. SDG&E will also consider procurement strategies that maximize the product category limitations in order to optimize ratepayer value across compliance periods, and strategies that secure greater value from approved RPS expenditures. SDG&E strives to have a well-diversified RPS portfolio so that its RPS compliance, particularly in the most immediate

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<sup>5</sup> For purposes of determining its RPS Position, SDG&E considers its portfolio to include all executed contracts until contract expiration (*e.g.* it does not assume expiring contracts will be renewed and excludes contracts under-negotiation unless indicated otherwise) and investment and UOG projects where relevant progress has been made.

<sup>6</sup> Stats. 2011, Ch. 1.

<sup>7</sup> The term “short” is used herein to refer to an RPS Position that is lower than the relevant RPS program requirements. The term “long” is used to refer to an RPS Position that is higher than relevant RPS program requirements.

compliance period, is not unduly exposed to any given risk (*e.g.*, a particular technology, region, counterparty, etc.). SDG&E's RPS portfolio management strategy involves identifying needs and risks and managing them as well as possible in a cost-effective manner.

The following sections explain SDG&E's methodology for determining its RNS. First, the process used to compute the RPS Position is explained. Then, needs by compliance periods are inferred by comparing RPS requirements to RPS Positions.

**i. Assessment of Probability of Success for Various Project Types as a Key Component of Calculating the Probability-Weighted RPS Position Forecast**

SDG&E must assess the probability of success of the following main types of projects: (a) delivering; (b) approved but not yet delivering; and (c) not yet approved.<sup>8</sup> SDG&E evaluates the probability of success for each project in its portfolio on a monthly basis in order to calculate its RNS, which is the basis for its procurement need. To do this, SDG&E conducts a monthly review with an interdisciplinary team and uses the most up-to-date qualitative and quantitative information to assign a probability of success to each individual project. SDG&E's May, 2014 most up-to-date assessment is set forth in Appendix 2. SDG&E applies the following methodology to analyze each project type:

*a. Assessment of Performance of Delivering Projects*

Projects that have already achieved commercial operation and begun delivering energy provide the most stable source of RPS deliveries when forecasting RPS procurement need. These projects have overcome development hurdles and are supported by steady revenues under executed Power Purchase Agreements ("PPAs"). However, it is crucial to consider the potential fluctuations in deliveries that these projects can experience and the impact that such fluctuations could have on SDG&E's need to procure additional resources to meet its RPS goals. As discussed further in Section V, deliveries from these projects can be impacted by resource availability, regulatory changes, economic environment, operational performance, and evolving technologies. These types of fluctuations can be significant. In order to ensure RPS compliance, SDG&E must account for potential fluctuations (while recognizing that swings in production could be positive). The monitoring of performance of delivering contracts and the assessment of

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<sup>8</sup> See the Renewable Net Short Calculation set forth in Appendix 2.

probabilities focuses on (a) understanding the historical profile of generation of each project and how it has differed year-on-year and relative to forecasts; and (b) the operational track record of any given project. SDG&E has found that a weighting of 100% is typically appropriate for delivering contracts, but if the fluctuations in generation have been high and/or the operational track record has been poor, SDG&E will revise its forecast accordingly. Adjusting forecasts when necessary is a crucial component of SDG&E's need assessment methodology.

*b. Assessment of the Development Progress of Approved Projects that Have Not Yet Begun Delivering*

Another important aspect of SDG&E's need assessment methodology is evaluating the development status of projects approved by the Commission, but that have not begun delivering energy. These projects are typically much riskier than projects that have begun delivering due to the challenges that can arise during the development process that might prevent a project from completing construction. Permitting, interconnection, financing and other development issues are discussed further in Section IV. SDG&E currently estimates a 90% success rate on average<sup>9</sup> for all contracts presently in effect. SDG&E must account for development risks when determining its procurement need and the monitoring of development status is the most critical aspect of SDG&E's need assessment methodology. As with delivering contracts, SDG&E meets internally on a monthly basis to assign a probability of success to each of its developing projects. SDG&E's May, 2014 current assessment is provided in the Renewable Net Short Calculation in Appendix 2.

*c. Assessment of the Approval Queue for Projects that Have Been Submitted to the Commission, but are not Yet Approved*

SDG&E typically meets at least monthly with Energy Division staff to discuss the likely approval timetable of projects that SDG&E has submitted to the Commission for approval. The discussion covers expected timing of Commission action and any potential constraints that might necessitate expedited Commission action or additional information needed. Since the Commission has indicated that it can take action on only one contract per business meeting,<sup>10</sup> SDG&E works collaboratively with the Commission to develop a work plan that results in timely

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<sup>9</sup> See Appendix 2 for a list of SDG&E's risk assessment by project.

<sup>10</sup> E-mail from Julie Fitch, former Energy Division Director, dated December 18, 2009.

approval. It is possible, however, that the shortage of Energy Division staff or other procedural challenges can result in approval delays that can impact a project's ability to achieve milestones. SDG&E must monitor this process closely to determine what, if any, impact it may have on the timing of expected deliveries or sales.

## **ii. Assessment of Other Portfolio Impacts**

Once SDG&E has determined the probability of success for each of the contracts in its portfolio, SDG&E must also consider a broader range of risk factors that can impact multiple projects or its entire portfolio. SDG&E evaluates the impact of these factors on a monthly basis, and describes its methodology for analyzing these risk factors below.

### *a. Impact of Retail Sales Fluctuations*

Since RPS compliance is based on a GWh target that is calculated using a percentage of retail sales, it is important to monitor fluctuations in forecasted retail sales. In accordance with Commission guidance, SDG&E uses a forecast based upon the assumptions used to develop its most recently-approved Long-Term Procurement Plan ("LTPP").<sup>11</sup> SDG&E currently uses its own internal forecast for the first five years, and the California Energy Commission's ("CEC's") forecast<sup>12</sup> beginning in year six, as authorized in [D-Decision \("D."\)12-01-033](#).<sup>13</sup> SDG&E monitors its retail sales forecasts on a monthly basis in order to identify potential fluctuations and their impact on its RPS requirements.

### *b. Impact of Solar Panel Degradation*

Contracts with solar photovoltaic ("PV") developers incorporate a degradation factor which is used to forecast the project's performance over time as the panels age and become less efficient. SDG&E utilizes the degradation factor provided by the bidder in its LCBF evaluation, and uses the contractual degradation factor when calculating project deliveries for its RPS

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<sup>11</sup> San Diego Gas & Electric Company's 2012 Long Term Procurement Plan, p. 89.

<sup>12</sup> SDG&E utilizes the LSE and BA Mid Demand Baseline-Mid AAEE CEC forecast which is available under the Adopted California Energy Commission Demand Forecast Report 2014-2024, Demand Forecast Forms, at: [http://www.energy.ca.gov/2013\\_energypolicy/documents/index.html#12112013](http://www.energy.ca.gov/2013_energypolicy/documents/index.html#12112013).

<sup>13</sup> D.12-01-033, *memo*, pp. 15-17, Ordering Paragraphs 3, 8, and 9.

position calculation (both nominal<sup>14</sup> and probability-weighted). To the extent deliveries are different than the provided estimates, SDG&E will adjust its RPS position calculation accordingly.

*c. Impact of Key Transmission Upgrades and/or Infrastructure*

Transmission has long been recognized as a barrier to achieving RPS goals, and SDG&E continues to monitor the progress of transmission upgrades on which SDG&E's RPS projects depend in order to assess potential delays and possible impacts.

*d. Impact of Contract Renewal*

SDG&E began signing RPS contracts in 2003, most of which had terms of 20 years. Some of these contracts are expected to deliver through 2023, and will impact SDG&E's procurement needs for the Post-2020 Compliance Period. Some contracts for renewable energy procurement, however, were signed before the institution of the RPS program. Some of these contracts are scheduled to terminate during Compliance Period 2 and Compliance Period 3. As part of its RPS position calculation, and in accordance with Commission direction,<sup>15</sup> SDG&E does not assume that these contracts will be renewed. Owners of these projects will be asked to bid such projects into future requests for offers ("RFO") to compete with other options available to SDG&E at that time, and these bids will be required to conform with the need identified in the then-current RFO.<sup>16</sup> SDG&E believes that ratepayers will benefit from this additional supply being submitted into competitive solicitations as this would both reduce costs for ratepayers during periods when SDG&E is over-procured, and provide these facilities with the opportunity to extend their contracts past the original termination dates into later years when SDG&E has a need for additional resources. Additionally, as explained under Section B, SDG&E may seek to extend the term of an existing contract when economically prudent.

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<sup>14</sup> Nominal RPS position refers to a position estimate assuming that deliveries from contracts will occur as expected 100% of the time.

<sup>15</sup> *Administrative Law Judge's Ruling on Renewable Net Short*, issued May 21, 2014.

<sup>16</sup> Qualifying Facilities with expiring RPS contracts may be able to sign a Standard Contract for Qualifying Facilities with a Power Rating that is Less than or Equal to 20 MW, which was approved by the Commission on November 23, 2011 as part of the Qualifying Facilities and Combined Heat and Power Program Settlement (the "QF Settlement").

*e. Impact of Contract Termination*

As part of its contract administration process, SDG&E actively monitors upcoming contractual conditions precedent that must be met (or waived) in order for the contract to continue to be viable. When SDG&E is the beneficiary of a condition precedent that may not be or has not been met, or when parties can mutually agree to a termination that is in the best interest of ratepayers, SDG&E will consider terminating the contract.

*f. Impact of Banking Rules*

RPS program rules allow SDG&E to bank excess procurement from one compliance period for use in another, with exceptions for short term contracts and products that meet the requirements of § 399.16(b)(3) (“Category 3”).<sup>17</sup> In accordance with Commission direction,<sup>18</sup> SDG&E assumes for purposes of calculating its RNS that eligible excess procurement<sup>19</sup> will be utilized in future compliance periods.<sup>20</sup> SDG&E’s RPS Position is also impacted by the fact that the Commission’s authorized RNS calculation methodology does not incorporate the strategy of holding Category 1 products in an active Western Renewable Energy Generation Information System (“WREGIS”) sub-account across compliance periods, as discussed in Section VI.

*g. Impact of the Deficit From 2010 RPS Program*

Pursuant to D.12-06-038, SDG&E must carry forward into CP1 its procurement deficit from the former RPS program, which required that retail sellers achieve 20% by 2010. SDG&E has incorporated this deficit in its need assessment for CP1 based on the methodology provided by the decision. SDG&E’s calculation of this deficit is provided in [Table 2 of Appendix 2](#).

*h. Impact of the Resale Market*

SDG&E will closely monitor opportunities to sell excess procurement. SDG&E will assess the market when opportunities arise to determine whether it is more advantageous for SDG&E’s ratepayers to bank such excess procurement for use in a future compliance period or

<sup>17</sup> Public Utilities Code § 399.13(a)(4)(B). All statutory references herein are to the Public Utilities Code unless otherwise noted.

<sup>18</sup> *Administrative Law Judge’s Ruling on Renewable Net Short*, issued May 21, 2014..

<sup>19</sup> Rules regarding excess procurement are set forth in D.12-06-038.

<sup>20</sup> Note that SDG&E may manage excess procurement by selling such products when doing so would benefit ratepayers, or by utilizing a retired renewable energy credit (“REC”) for RPS compliance in future compliance periods.

to sell it in the market. If SDG&E believes that the current market price is high and expects that it will be able to fulfill any future needs with more economic options, it may choose to sell excess procurement instead of banking<sup>21</sup> it. This strategy is described in more detail under Section B.

*i. Impact of Rim Rock Settlement*

In 2011, the Commission approved a settlement agreement between SDG&E, NaturEner Rim Rock Wind Energy, LLC, the Division of Ratepayer Advocates (“DRA”) and The Utility Reform Network (“TURN”) (together, the “Settling Parties”) regarding SDG&E’s tax equity investment in the Rim Rock wind project located in Montana.<sup>22</sup> As part of the settlement agreement, SDG&E has agreed not to procure any incremental renewable energy credits (“RECs”) from projects that are neither directly connected nor dynamically scheduled to a California-based Balancing Area Authority (“CBA”) if such purchase would cause SDG&E to meet more than 25% of its RPS requirements with such RECs through December 31, 2017. SDG&E currently includes Rim Rock in its RNS calculation. If the project ultimately does not become part of SDG&E’s portfolio, SDG&E may undertake procurement to fill the resulting need. This need can be filled with procurement from all categories, subject to the relevant portfolio balance limitations.

*j. Impact of Mandated Procurement Programs*

The Legislature has passed, and the Commission has been working to implement several renewable procurement programs mandated by state legislature: Senate Bill (“SB”) 43 (“Green Tariff Shared Renewables”), SB 1122 (“Bioenergy Feed-in-Tariff”), and the Renewable Market Adjusting Tariff (“Re-MAT”). The Commission also implemented its own mandated renewable procurement program, the Renewable Auction Mechanism (“RAM”) program. These programs will result in additional RPS procurement that SDG&E must include in its RNS calculation; this will impact SDG&E’s position and procurement decisions. Further detail regarding these programs is provided below:

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<sup>21</sup> Note that banking a REC may either mean that the REC is held in SDG&E’s active WREGIS sub-account to be used later in its 36 month active lifespan, or it can mean that the REC is retired before its 36 month active lifespan ends and is then held in SDG&E’s retirement account for use in future compliance periods.

<sup>22</sup> See D.11-07-002.

- Green Tariff Shared Renewables (“GTSR”): SB 43, which is intended to facilitate customer participation in offsite renewable generation facilities, became effective on January 1, 2014.<sup>23</sup> This bill requires participating utilities, including SDG&E, to file an application for a GTSR program, which would allow customers to buy some or all of their energy from local renewable projects. This bill also requires that SDG&E use “commission-approved tools and mechanisms to procure additional eligible renewable energy resources for the green tariff shared renewables program,”<sup>24</sup> and states that “[a]ny renewable energy credits associated with electricity procured by a participating utility for the shared renewable energy self-generation program, but not utilized by a participating customer, shall be counted toward meeting that participating utility’s renewables portfolio standard.”<sup>25</sup> SDG&E filed an application requesting approval of its “*connected.....to the sun*” program in January, 2012 (A.12-01-008), and has modified this application to comport with the GTSR program requirements of SB 43. This application is currently under review at the Commission.
- Bioenergy Feed-in-Tariff: SB 1122, which is intended to establish a rate based on quantifiable avoided cost, contain costs, ensure maximum value to the ratepayer and utility, and stimulate the development of in-state biogas, became effective on January 1, 2013.<sup>26</sup> This bill requires that the Commission create a new feed-in-tariff (“FiT”) for bioenergy projects commencing operations after June 1, 2013 that are no larger than 3 MW in size. SDG&E expects that it will be required to procure approximately 25 MW of bioenergy from one or more product categories. As explained in more detail below under Section B, SDG&E will continue to participate in the program design and implementation process with the goals of minimizing ratepayer costs, utilizing regional resource knowledge in the allocation methodology, and addressing the inherent overlap between this Bioenergy FiT and the Re-MAT FiT program.

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<sup>23</sup> Stats. 2013, Ch. 413.

<sup>24</sup> 2833(c)

<sup>25</sup> 2833(r)

<sup>26</sup> Stats. 2012, Ch. 612.



- Re-MAT: The Re-MAT program, which is intended to establish a rate based on quantifiable avoided cost, contain costs, ensure maximum value to the ratepayer and utility, and utilize locations close to load and the distribution system, began on October 1, 2013. This renewable energy tariff is offered to projects that are no larger than 3 MW in size on a first-come first-served basis. A project must apply to participate, and if SDG&E determines that a project is eligible, it will assign this project a Re-MAT Queue Number for the project's relevant Product Type (Baseload, Peaking As-Available, and Non-Peaking As-Available), and the project will then be able to indicate acceptance of the price for its Product Type. Capacity is offered incrementally on a bi-monthly basis in 3 MW increments to each Product Type Queue to the extent possible. SDG&E's target is 30.9 MW, which is based on its allocation of 48.8 MW, less the amount contracted under SDG&E's prior FiT Programs, the Customer Renewable Energy ("CRE") FiT and the Water Agency Tariff for Eligible Renewables ("WATER") FiT.<sup>27</sup>
- Renewable Auction Mechanism: The Commission adopted the RAM program in December 2010 with the intent of creating a standardized method for procuring projects up to 20 MW in size in order to contribute to RPS goals in the near-term, and reduce transaction costs for all parties. D.10-12-048 directed the investor-owned utilities ("IOUs") to hold four auctions over a two year period and to submit bidding protocols and standard contracts through a Tier 3 advice letter ("AL"). SDG&E's program target is 155 MW, of which approximately ~~65~~72 MW remain to be procured. SDG&E has held four auctions over the past 3 years, and Resolution E-4582 issued on May 13, 2013 authorized a fifth solicitation.<sup>28</sup> SDG&E ~~will issue~~issued this fifth solicitation ~~in~~on June ~~of~~2, 2014 to solicit bids for its remaining capacity under the RAM program. Per D.14-11-042, SDG&E will issue a sixth RAM auction for approximately 82 MW<sup>29</sup> to close by June 30, 2015.

<sup>27</sup> D.13-01-041, pp. 79-80.

<sup>28</sup> E-4582, Ordering Paragraph 2, p. 12.

<sup>29</sup> D.14-11-042, mimeo, p. 103.

*k. Impact of Local Capacity Resource Needs*

In D.14-03-004, the Commission directed SDG&E to procure 200 MW of preferred local capacity resources, which can include renewable energy, consistent with the loading order to meet its 2021 Local Capacity Requirements (“LCR”).<sup>30</sup> This decision also required that SDG&E submit a preferred resources procurement plan. SDG&E ~~expects to issue~~ issued a solicitation targeted at preferred resources ~~in the second half of~~ on September 5, 2014. To the extent SDG&E procures renewable projects to fill its LCR need, this renewable energy is RPS-eligible and all or a portion of this renewable energy is made available to SDG&E’s bundled customers, SDG&E will apply it towards its RPS requirements.<sup>31</sup>

*l. Impact of Distributed Generation Policy Goals*

The Governor’s commitment to renewable distributed generation (“DG”) continues to influence proceedings, programs, and legislation. This will ultimately shape the State’s renewable mix, and as load-serving entities (“LSEs”) reach compliance, they may be required to shift procurement from utility-scale projects to small-scale DG projects. SDG&E is monitoring the legislative and policy activities related to this goal, and any potential impacts to its portfolio.

*m. Impact of Energy Storage Procurement*

The Commission issued D.13-10-040 on October 1, 2013, requiring SDG&E to procure 165 MW of energy storage by 2020.<sup>32</sup> Energy storage itself is not explicitly RPS-eligible, as explained in the 7<sup>th</sup> Edition of the CEC’s RPS Renewables Portfolio Standard Eligibility Commission Guidebook (“RPS Guidebook”).<sup>33</sup> However, to the extent SDG&E procures energy storage that meets CEC criteria for RPS-eligibility, it will count this capacity towards its RPS targets.

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<sup>30</sup> D.14-03-004, Ordering Paragraph 2, p. 143.

<sup>31</sup> Resources procured to meet the LCR need are made to subject the Commission’s Cost Allocation Mechanism (“CAM”). The Commission has not yet addressed how costs related to a renewable resource would be allocated under the CAM.

<sup>32</sup> D.13-10-040, *mimeo.* Ordering Paragraph 3, p. 77.

<sup>33</sup> RPS Guidebook, pp. 64-65.

*n. Impact of California Energy Commission Requirements*

The CEC revises its RPS Guidebook with relative frequency, which sometimes results in changes to eligibility requirements for various renewable energy resources. SDG&E monitors this process and works with CEC staff to determine the effects, if any, on its portfolio as a result of these periodic Guidebook revisions. The CEC is also tasked with verifying RPS procurement. SDG&E ~~will be submitting~~ submitted its remaining CP1 procurement data to the CEC on July 1, 2014. The CEC's subsequent verification will be the first opportunity for the CEC to verify SDG&E's procurement under the post-SB 2 (1X) rules. SDG&E is prepared to work with the CEC in this review process.

*o. Impact of New Generator Interconnection and Deliverability Allocation Procedure*

Under the California Independent System Operator's ("CAISO's") Generator Interconnection and Deliverability Allocation Procedure ("GIDAP") procedure, the CAISO will: (i) identify the needed transmission upgrades in its annual Transmission Planning Process ("TPP"); (ii) calculate the amount of transmission capacity ("TP Deliverability") available; and (iii) allocate this TP Deliverability to eligible projects based on project viability. As a part of this process, projects seeking either Full or Partial Capacity Deliverability Status will be required to select Option A (indicating the need for ratepayer-funded deliverability upgrades), or Option B (indicating the willingness and ability to self-fund the necessary upgrades). The outcome of this TP Deliverability allocation process can affect projects in several ways if they select Option A. While projects choosing Option A will receive cash reimbursement for upgrades in accordance with their assigned cost responsibility, they may have to downsize, keep their project size and accept "Partial Capacity Deliverability Status," convert to "Energy-Only Deliverability Status," or withdraw from the interconnection queue if they do not receive a sufficient TP Deliverability allocation. A project's TP Deliverability allocation and the consequences associated with it could make it difficult for the project to secure financing, and may also impact the project's ability to meet its contractual obligations, such as the project online date. SDG&E will closely monitor this process, and any affects it may have on its portfolio.

### iii. Determination of the Compliance Needs for Each Compliance Period

After probabilities are assigned to each project, SDG&E's RNS is calculated by multiplying the forward contractual delivery profiles (including degradation) of each project by each project's probability and then adding those generation profiles across the portfolio.<sup>34</sup> The discussion below describes SDG&E's current forecasted RNS for each compliance period based on its assessment as of May, 2014.

D.14-03-004 directs SDG&E to procure preferred resources to meet LCR needs, which may result in new renewables contracts, to fulfill system LCR requirements by 2021. This requirement, coupled with SDG&E's expectation that it will be able to meet its CP2 goals with procurement already under contract (as explained below), leads to the conclusion that the most reasonable course of action at this time is to refrain from soliciting new renewable resources in the 2014 procurement cycle. SDG&E also notes that it continues to procure renewable energy projects under mandated procurement programs, such as the RAM and Re-MAT. SDG&E reserves the right to file a motion ~~later in 2014~~ to update its 2014 RPS Plan if it determines that an RPS RFO is necessary, and will seek Commission approval before pursuing RPS contracts other than those resulting from authorized programs such as the Re-MAT and RAM during the 2014 RPS RFO cycle.

Additionally, SDG&E continues to seek optimization opportunities, which may include the sale of RPS products via bilateral sales agreements and/or a request for proposals ("RFP"). These opportunities are market-driven. To the extent SDG&E determines that an RFP is necessary, it will issue the RFP attached in Appendix 8. SDG&E reserves the right to modify the content of the RFP document as necessary to reflect its need if SDG&E elects to issue this RFP in 2014. SDG&E will determine if a need for either a buy RFO or sales RFP exists at the time it files its final 2014 RPS Plan based upon updated information available at that time. More detail on SDG&E's need in each compliance period is provided in Appendix 2.

#### *a. Compliance Period 1 Procurement Needs*

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<sup>34</sup> As explained above, SDG&E's practice is to exclude contracts under-negotiation and to not assume renewal for expiring contracts.

SDG&E filed its 2014 33% RPS Procurement Progress Report on April 1, 2014, which will show that SDG&E met its CP1 RPS compliance obligations. However, the compliance reporting process for CP1 is not yet complete. SDG&E ~~will report~~reported all RECs used for CP1 compliance to the CEC ~~by July 1~~on June 25, 2014, and to the Commission ~~by~~on August 1, 2014. As explained under Section IV, the compliance process to be used following the submittal of these reports, as well as the documents and forms necessary for the August 1 report to the Commission, are currently under development. SDG&E will know the results of its CP1 RPS compliance efforts and any impact to its procurement needs once these elements of the compliance process are finalized and the process itself is completed.

*b. Compliance Period 2 Procurement Needs*

Based on current projections, SDG&E expects that it will meet its CP2 RPS goals with generation from contracts that have been executed, together with the deliveries from utility-owned generation (“UOG”) initiatives where relevant progress has been made.<sup>35</sup> SDG&E intends to manage potential over-procurement by banking it for future compliance needs, terminating contracts where conditions precedent are not met or where mutual agreement is reached, and/or selling such excess procurement.

*c. Compliance Period 3 Procurement Needs*

Based on SDG&E’s current probability-weighted RPS position forecast, it is possible that SDG&E will not require additional procurement in CP3. It is important to note, however, that this outlook is based on current data, and procurement needs are difficult to forecast for periods beyond several years into the future. The level of any new purchases required for CP3 will be a function of portfolio performance and will be subject to the level of banking, if any, related to potential excess procurement in CP2 into CP3. SDG&E intends to fill any remaining RPS need with viable low-cost opportunities from future solicitations, bilateral transactions, and potential investments, and will continue to procure from mandated programs to the extent required. SDG&E intends to manage potential over-procurement by banking it for future compliance needs, terminating contracts where conditions precedent are not met or where mutual agreement is reached, and/or selling such excess procurement.

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<sup>35</sup> This analysis includes SDG&E’s Solar Energy Program.

*d. Post-2020 Compliance Period Needs*

SDG&E may undertake procurement for this period of time to ensure compliance subsequent to the end of CP3, with the understanding that any resulting excess can be either banked or sold bilaterally or through an RFO. Additional discussion regarding the analysis of selling versus banking can be found in Section B below.

**iv. Utility Tax Equity Investment and Utility Ownership Opportunities**

SDG&E's participation as a tax equity investor in renewable generation projects enhances project viability (through securing of financing) and decreases costs for ratepayers (given SDG&E's cost of capital relative to the renewable financing market). Tax equity investments by utilities and other non-traditional investors are particularly important in light of the phase out of the Cash Grant.<sup>36</sup> SDG&E is considering additional investment opportunities in a limited number of projects where: (a) its involvement might enhance the viability or cost competitiveness of a project; and/or (b) where a project may have a positive socioeconomic impact, potentially involving a Diverse Business Enterprise ("DBE").

Additionally, SDG&E continues to make progress on its Solar Energy Project,<sup>37</sup> pursuant to which SDG&E is authorized to build up to 26 MWs of utility-owned solar PV. SDG&E held an RFP in the fall of 2011 and has executed a contract for up to a total of 17 MW. This contract was subsequently reduced to 8.8 MW due to permitting issues. SDG&E expects construction ~~on~~ ~~some or all~~ of these projects to begin in ~~late 2014 or early~~ 2015 depending on permitting success. Anticipated deliveries from these projects, expected to begin in ~~Q2Q4~~ 2015, have been incorporated into SDG&E's RPS procurement need forecast.

**B. Portfolio Optimization Strategy**

SDG&E's optimization strategy is designed to allow SDG&E to meet and maintain its RPS compliance, while minimizing ratepayer costs, maximizing portfolio value and managing risk. SDG&E approaches this task from a variety of angles as described below.

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<sup>36</sup> The American Recovery and Reinvestment Act of 2009 (H.R. 1), enacted in February 2009, created a renewable energy grant program that is administered by the U.S. Department of Treasury. This cash grant may be taken in lieu of the federal business energy investment tax credit ("ITC").

<sup>37</sup> Approved by D.08-07-017.

### **i. RNS Optimization**

The first step in SDG&E's portfolio optimization strategy is to determine its RPS need. As outlined above, the probability of success of each of the projects in SDG&E's portfolio is revised monthly in an interdepartmental meeting using the most current information. The result of this comprehensive review is a calculation of SDG&E's forecasted RPS position, which is then compared with SDG&E's RPS compliance requirements to determine its RNS. SDG&E uses this RNS to determine the appropriate level of procurement, including the necessary margin of over-procurement, going forward. Generally, if SDG&E foresees a shortfall then it will procure additional resources; if it foresees an excess then it will seek to sell a portion or all of this excess pending the results of a detailed cost and benefit analysis of banking versus selling. Once SDG&E has determined its need, it proceeds to manage its procurement by continually reviewing its portfolio to minimize costs, maximize value and manage risk.

The *Administrative Law Judge's Ruling on Renewable Net Short*, issued May 21, 2014, included specific questions regarding the RNS calculation and assumptions. Responses to these questions are set forth below:

- a. *How do current and historical performance of online resources in your RPS portfolio impact future projections of RPS deliveries and your subsequent RNS?*

An explanation of SDG&E's methodology for forecasting project deliveries can be found in Section II(A)(i).

- b. *Do you anticipate any future changes to the current bundled retail sales forecast? If so, describe how the anticipated changes impact the RNS.*

An explanation of SDG&E's methodology for forecasting bundled retail sales can be found in Section II(A)(ii)(a).

- c. *Do you expect curtailment of RPS projects to impact your projected RPS deliveries and subsequent RNS?*

Curtailment is discussed in Section II(eC)(i)(a).

- d. Are there any significant changes to the success rate of individual RPS projects that impact the RNS?*

The average success rate of SDG&E's contracts currently in effect is discussed in Section II(A)(i), and the success rates of individual projects are shown in Appendix 2.

- e. As projects in development move towards their COD, are there any changes to the expected RPS deliveries? If so, how do these changes impact the RNS?*

The average success rate of SDG&E's contracts currently in effect is discussed in Section II(A)(i), and the success rates of individual projects are shown in Appendix 2.

- f. What is the appropriate amount of RECs above the PQR to maintain? Please provide a quantitative justification and elaborate on the need for maintaining banked RECs above the PQR.*

SDG&E's current level of RECs above its PQR is discussed in Section VII, and is shown in Appendix 2.

- g. What are your strategies for short-term management (10 years forward) and long-term management (10-20 years forward) of RECs above the PQR? Please discuss any plans to use RECs above the PQR for future RPS compliance and/or to sell RECs above the PQR.*

An explanation of SDG&E's methodology for managing RECs above the PQR can be found in Sections II(B)(ii)(d) and II(B)(ii)(e).

- h. Provide VMOP on both a short-term (10 years forward) and long-term (10-20 years forward) basis. This should include a discussion of all risk factors and a quantitative justification for the amount of VMOP.*

A discussion of risk factors affecting RPS procurement can be found in Sections IV and V, and SDG&E's current level of RECs above its PQR is discussed in Section VII and is shown in Appendix 2.

- i. Please address the cost-effectiveness of different methods for meeting any projected VMOP procurement need, including application of forecast RECs above the PQR.*



An explanation of SDG&E’s methodology for managing RECs above the PQR can be found in Sections II(B)(ii)(d) and II(B)(ii)(e).

- j. Are there cost-effective opportunities to use banked RECs above the PQR for future RPS compliance in lieu of additional RPS procurement to meet the RNS?*

An explanation of SDG&E’s methodology for managing RECs above the PQR can be found in Sections II(B)(ii)(d) and II(B)(ii)(e).

- k. How does your current RNS fit within the regulatory limitations for PCCs? Are there opportunities to optimize your portfolio by procuring RECs across different PCCs?*

An explanation of the content categorization of SDG&E’s portfolio can be found in Section II(A)(iii)(a), and an explanation of SDG&E’s methodology for optimizing procurement across content categories can be found in Section II(A)(iii)(iv)(a).

## **ii. Cost Optimization**

Cost optimization begins before a contract is executed, with contract analysis methodology development and adoption. Once this analysis methodology is utilized and a contract is executed, if an opportunity to optimize this contract becomes apparent, SDG&E will investigate it to determine the best course of action for ratepayers.

### *a. Least-Cost Best-Fit Analysis*

SDG&E carefully analyzes bids and bilateral proposals according to its LCBF methodology. This methodology is intended to optimize SDG&E’s procurement decisions by minimizing cost and maximizing value. It includes analysis of the PPA price, which inherently includes the counterparty’s interest, carrying, and transaction costs. The analysis also takes into account the energy and capacity value provided by each of the projects, congestion costs, and transmission costs. The LCBF process results in the quantification and subsequent ranking of the cost of each bid based on these metrics. The formula deducts the PPA Price (Levelized Contract Cost), Transmission Cost, and Congestion Cost from the sum of the Energy Benefit and Capacity Benefits to determine a project’s Net Market Value (“NMV”). These NMVs can then be compared and used to create the shortlist. The projects that are placed on the shortlist will

have the lowest combined net cost when compared with other bids from the particular solicitation. SDG&E revises its LCBF methodology as necessary to incorporate new information.

*b. Revision of Time of Day Factors and Periods, and Capacity Values*

Integral to the LCBF calculation are the Time-of Day (“TOD”) factors and periods, and Capacity values. TOD factors are also used in SDG&E’s pro forma PPA, attached hereto as Appendix 6. SDG&E utilizes forward market conditions to calculate the TOD factors and periods, ~~and as well as the Capacity values that will be used for the LCBF calculation.~~ As the forward market evolves, SDG&E will continue to assess the TOD factors and periods, and Capacity values ~~used in the LCBF calculation,~~ and prior to the issuance of any RPS solicitation, may update those factors, time periods, and values so that they are consistent with the latest forecasts.

*c. Contract Management*

SDG&E continually monitors its existing contracts and seeks to optimize their performance on behalf of customers. SDG&E may elect to modify a contract to meet its current portfolio needs, for example by allowing an alternate termination date<sup>38</sup> or a change in contract volumes. SDG&E may also have the opportunity to secure increased value from an RPS resource by adjusting terms of an existing contract, for example extending the contract term of a relatively inexpensive contract or by moving the project site to a location that provides greater capacity benefits. Additionally, in accordance with D.14-11-042, SDG&E has modified its PPA so that it has the right to review and accept or reject proposed material changes to a facility at its sole discretion.<sup>39</sup> Finally, SDG&E is also considering arrangements involving existing contracts that would improve counterparty financing options, thereby increasing the probability of project success. If opportunities such as these present themselves, SDG&E will perform a detailed analysis of the costs and benefits associated with making such a change, and if it determines that the proposed changes would result in more value for ratepayers it will pursue these options.

<sup>38</sup> For example, in Resolution E-4587, the Commission approved a contract amendment that established an earlier termination date for an existing RPS contract.

<sup>39</sup> D.14-11-042, mimeo, p. 29.

These optimization methods provide SDG&E with flexibility in managing its portfolio and therefore portfolio costs.

*d. Banking vs. Sales Analysis*

Another optimization tool related to contract management is the analysis of the option to bank or sell excess procurement. When SDG&E has excess RPS procurement in its portfolio, it will perform a detailed analysis of both the quantitative and qualitative costs and benefits associated with either banking this excess, or selling it. The quantitative portion of the valuation takes into account SDG&E's RPS position and any opportunity costs associated with the transaction. If SDG&E determines that banking would provide the most value to SDG&E's ratepayers then this optimization method will be used. If it finds that a sale would provide customers with more value, then this optimization method will be chosen. SDG&E will reflect current industry best practices in its sales contracts.<sup>40</sup>

*e. Retirement Analysis*

There is a significant link between SDG&E's banking versus sales analysis and its retirement analysis where SDG&E evaluates its compliance position and strategy to ensure that RECs are handled in the most cost-effective way for SDG&E's ratepayers. SDG&E considers the time value of the rate impact to bundled customers when making the decision to buy, sell, bank, or delay the retirement of RECs. SDG&E evaluates and attributes value to the bankability of the different "bucket" categorization of RECs by assigning opportunity costs. These opportunity costs are only realized when the RECs can no longer be used for RPS compliance. This can occur under the following circumstances: (i) a REC is not retired within 36 months of the month in which is produced; (ii) a REC is retired, but cannot count toward RPS because it violates the procurement rules set forth by the RPS guidelines (*e.g.* 10% Category 3 in

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<sup>40</sup> In Resolution E-4572, the Commission approved Southern California Edison's ("SCE") request to enter into a 19.5 month renewable energy sales contract with Energy America LLC. Contractual deliveries began on May 15, 2012, and the contract was filed with the Commission on July 6, 2012. The Commission also approved in Resolution E-4639 Pacific Gas & Electric Company's ("PG&E") request to enter into two overlapping renewable energy sales agreements for a period of approximately 1 month and 9 days with Tenaska Power Services Company. Contractual deliveries began November 22, 2013, and the contract was filed with the Commission on December 19, 2013. In order to provide maximum flexibility and value to customers, SDG&E will also consider opportunities where deliveries begin before the contract is submitted and approval is granted retroactively.

Compliance Period 3); or (iii) a REC is retired and counts toward RPS, but results in RPS surplus. In circumstance (iii), it is assumed that the ratepayer has paid for this REC, but because its retirement resulted in excess procurement, it is not an optimal solution for ratepayers. The RNS model prescribed by the Commission does not take into consideration all of these circumstances, as a result, SDG&E intends to model each scenario to determine the optimal retirement strategy.

### iii. Value Optimization

In addition to its contract analysis and management strategies, SDG&E also seeks to add value to the RPS procurement process by actively participating in the discussion of current and proposed procurement programs, and by evaluating unique procurement opportunities.

#### a. RAM Program

~~On December 18, 2012, SDG&E submitted AL 2437-E requesting that the Commission allow projects located in the IV and either interconnecting to the CAISO directly or delivering to the CAISO via pseudo-tie to participate in this program.<sup>41</sup> The purpose of this request was to (i) provide developers with more project siting options near San Diego in order to alleviate some of SDG&E's territory's geographic constraints; (ii) encourage development of new projects in an area with rich solar, wind, and geothermal resource potential; and (iii) introduce a greater level of competition, which would reduce costs and benefit SDG&E's ratepayers. The Commission denied this AL on April 11, 2014,<sup>42</sup> and subsequently issued a revised disposition letter indicating that this issue is pending before the Commission as a part of the RAM review and comment process initiated on December 31, 2013.~~

As SDG&E's need declines and it begins to focus mainly on the procurement of smaller projects, changes to the RAM program become more important. SDG&E ~~has~~ actively ~~participates~~participated in discussions regarding the future of this program, which were formally initiated on December 31, 2013 via the *Administrative Law Judge's Ruling Requesting Comments on the Renewable Auction Mechanism*. ~~It submitted comments in response to the Ruling on January 30, 2014, and reply comments on February 14, 2014. The Commission has~~

<sup>41</sup>—San Diego Gas & Electric Company's Request to Modify the Renewable Auction Mechanism ("RAM") Program Requirements, AL 2437-E, filed December 18, 2012.

<sup>42</sup>—SDG&E AL 2437 Disposition Letter, p. 1.

declared that the RAM program “will promote competition and elicit the lowest cost for ratepayers, encourage the development of resources that can utilize existing transmission and distribution infrastructure, and contribute to RPS goals in the near term.”<sup>43</sup> The Commission has also observed that the RAM program will help to ensure achievement of RPS program goals since smaller RPS projects that can be deployed quickly to provide an effective hedge against the potential failure of larger RPS projects.<sup>44</sup> The Commission addressed the future of RAM in D.14-11-042, and determined that “the original objectives of RAM have been met... [however, as] suggested by SDG&E and [the Office of Ratepayer Advocates]... RAM may provide the IOUs with a procurement tool to facilitate more streamlined procurement for RPS needs... [therefore] starting with the 2015 annual RPS procurement plans filings, the utilities shall include, at the discretion of the utility, RAM as a streamlined procurement tool.”<sup>45</sup>

~~While SDG&E supports the continued availability of a streamlined procurement process for small to mid-sized RPS projects, it notes on an as-needed basis. It believes that the conditions underlying the RAM program’s original authorization no longer exist. Most notably, flexibility provided by the utilities have made considerable progress toward their respective RPS compliance obligations. Thus, a principal justification for the program — i.e., the existence of Commission in allowing the IOUs to utilize RAM as a need for near term RPS generation — is no longer present. Accordingly, based procurement tool provides a benefit not found in mandated procurement — proper alignment with actual procurement need. SDG&E believes reauthorization of intends to utilize the RAM program in its current form is not appropriate, and has recommended that the current RAM program be eliminated, while retaining the RAM procurement mechanism as a tool available to the IOUs to solicit small to mid-sized RPS projects on an as-needed basis. tool on an as-needed basis to efficiently procure low cost RPS resources.~~

*b. SB 1122 Feed-in Tariff*

On December 20, 2013, SDG&E submitted comments on the *Administrative Law Judge’s Ruling Seeking Comments on Staff Proposal on Implementation of Senate Bill 1122 and*

<sup>43</sup> D.10-12-048, p. 2.

<sup>44</sup> *Id.* at p. 10.

<sup>45</sup> D.14-11-042, *mimeo.*, pp. 91-92.

*Accepting Consultant Report into the Record*, issued November 19, 2013. SDG&E also submitted reply comments on January 16, 2014. Both sets of comments focused on ratepayer protection, with the following key recommendations: (i) allow projects to self-select between the Re-MAT Baseload queue and SB1122 queue to avoid the use of any one queue as a “backup plan” thereby causing unnecessary price increases; (ii) allocate capacity to SDG&E based the resources available locally to offer the best probability of meeting program targets; (iii) incorporate the CEC fuel monitoring process to increase administrative efficiencies; (iv) scale all parts of the pricing mechanism to maintain the appropriate level of ratepayer protection; (v) use the same starting price as the Re-MAT program as the pricing mechanism is intended to operate to find the proper price; (vi) incorporate a cost cap and program sunset date to protect ratepayers from prolonged and excessive price increases; (vii) maintain consistency with Re-MAT to avoid unnecessary complications in program design; and (viii) to the extent the IOUs are directed to procure bioenergy resources that are intended to confer a statewide benefit to all parties located within California, the costs of such procurement should be distributed equally to all parties via the cost allocation mechanism (“CAM”), rather than being borne solely by utility ratepayers.

[The Commission issued a proposed decision \(“PD”\) regarding the SB1122 program on November 18, 2014. The PD sets forth the MW allocations for each category and for each IOU, it also sets the program term, eligibility requirements, starting price and it explains the pricing mechanism. After approval, the next step is for the IOUs to file a uniform tariff and PPA.](#)

SDG&E looks forward to working with the Commission and stakeholders on the design and implementation of this program.

*c. Tax Equity*

As explained above, SDG&E evaluates tax equity opportunities as a procurement option and assesses the value of its involvement. SDG&E may participate in this type of project if its participation would either augment the probability of project success, and/or lead to a positive socioeconomic impact, for example potentially involving a DBE.

*d. Bilateral Transactions*

SDG&E will enter into bilateral purchase or sales agreements to the extent that these transactions benefit ratepayers. Not all products are well-suited for the RFO process due to, for example, deal timing and/or complexity. The ability to contract bilaterally is a valuable tool in

maximizing value to ratepayers – it is useful in addressing an unforeseen need in a timely manner and also allows an IOU to take advantage of opportunities that are too complex to solicit through an RFO, such as tax equity or buy/sell transactions. In addition, the ability to engage in bilateral deals is necessary from a practical perspective; bilateral deals assist market development by offering an additional sales option, making project development less dependent on RPS solicitation cycles.

#### **iv. Risk Optimization**

The risk of noncompliance with RPS requirements can become a reality either before or after the conclusion of a CP. SDG&E has adopted several long-term and short-term strategies to mitigate this risk, and also seeks to add value by actively participating in discussions regarding compliance and enforcement rules.

##### *a. Category 1 Procurement*

While SDG&E faces some degree of risk related to a procurement deficit – and therefore, as explained herein, regularly reviews its RNS so that it has the best information available with which to manage its portfolio towards compliance – the most significant non-compliance risk faced by SDG&E relates to contract categorization under § 399.16(b) – *i.e.*, the risk that SDG&E’s categorization of the contracts in its portfolio will not be accepted by the Commission. SDG&E has expressed this concern verbally and in comments to the Commission filed in R.11-05-005. This concern will be alleviated somewhat after CP1 compliance has been determined, as many of the CP1 contracts span several compliance periods. Thus, any change in categorization of these contracts can be reflected going forward, and any discrepancies will have been explained and can be used to inform categorization determinations in the future. In the meantime, however, this uncertainty constrains SDG&E’s procurement activities and as a conservative measure, SDG&E’s long-term strategy is to continue to emphasize the procurement of products it considers to be Category 1.

##### *b. Voluntary Margin of Over-procurement*

A second long-term procurement strategy utilized by SDG&E is the adoption of a “buffer” or Voluntary Margin of Over-procurement (“VMOP”)<sup>46</sup> to ensure to the extent possible that SDG&E is able to reach its RPS goals, as explained in more detail below under Section VII. SDG&E seeks to minimize additional procurement during compliance periods in which it has already met RPS targets. As explained above, the anticipated success rate of the developing contracts presently in effect in SDG&E’s portfolio is currently 90%, and in combination with the constant fluctuation of RPS targets (based on retail sales), as well as continual changes in RPS deliveries, it is essentially impossible to meet the RPS targets exactly. SDG&E undertakes VMOP procurement as a prudent and conservative measure to guard against any unforeseen events that may impact its portfolio and jeopardize compliance.

*c. Short-term Contracts*

Due to unforeseen events, a situation in which SDG&E needs to procure a small amount of renewable energy in the near-term may occur. In this scenario, short-term contracting is a viable strategy as it allows SDG&E to respond quickly to a sudden change in portfolio status and manage a short-term need without entering into an unnecessary long-term commitment.

*d. Category 3 Procurement*

SDG&E intends to maximize its Category 3 procurement to the extent that such products continue to be cost-effective. However, SDG&E also intends to maintain enough room below its Category 3 procurement limits to ensure that Category 3 procurement is a potential strategy in the short-term should SDG&E need to procure to fill any unforeseen immediate need.

**C. Lessons Learned & Trends**

In its 2013 RPS Plan, SDG&E identified a number of trends and lessons learned that it has observed over the past few years. SDG&E anticipates that a subset of that list remains relevant, and has added several new topics to the discussion below. The following sections

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<sup>46</sup> 399.13(a)(4)(D):

(4) The commission shall adopt, by rulemaking, all of the following...

(D) An appropriate minimum margin of procurement above the minimum procurement level necessary to comply with the renewables portfolio standard to mitigate the risk that renewable projects planned or under contract are delayed or canceled. This paragraph does not preclude an electrical corporation from voluntarily proposing a margin of procurement above the appropriate minimum margin established by the commission.



discuss how these issues impacts RPS procurement, and illustrate how SDG&E accounts for these factors in its RPS plan and procurement activities.

**i. Lessons Learned**

*a. TOD Gaming*

As described in SDG&E's 2013 RPS Plan, developers can and have used SDG&E's TOD factors to minimize the cost of their bid by providing a generation profile that places more generation in the off-peak hours than is realistic.<sup>47</sup> While this bidding strategy results in a favorable valuation for the particular generator, it creates an unfavorable result for the utility's ratepayers when the contract ultimately generates more in peak times, thereby raising the cost of this contract. It also creates an unfavorable result on a system-wide basis as the hours in which over-generation is focused are the peak hours, which can increase the incidence of negative pricing. In response to this observation, SDG&E modified its PPA to include a maximum limit on generation during each TOD period, which the Commission approved as a part of SDG&E's 2013 RPS Plan. SDG&E ~~has continued~~will continue to evaluate ways to enhance its procurement process to minimize gaming ~~and has made an additional adjustment in this 2014 RPS Plan with respect, including potential modifications~~ to its TOD factors. ~~SDG&E will revise all TOD factors in its PPA, attached hereto as Appendix 6, to 1, thereby resulting in a flat PPA price for contracts going forward. This change will make no difference in the price paid to developers, the calculation of which is described further in this section, but it will dis-incentivize over-generation.~~

~~To determine the required bid price for a facility to meet its required rate of return, a developer will: (a) calculate the amount of money needed per year; and (b) divide this amount by the estimated volume of MWh per year. The result of this calculation is the \$/MWh price necessary for the facility to meet its required rate of return. By way of comparison, if TOD factors are used in the contract, the developer will perform two additional calculations to determine the facility's bid price: (a) calculate the facility's annual TOD factor; and (b) divide the \$/MWh price determined via the process described above by this amount to calculate the pre-TOD price. In both scenarios, the facility is paid the same amount in the aggregate; changing the~~

<sup>47</sup> SDG&E 2013 RPS Plan, p. 37.

~~TOD factors to 1 merely eliminates this second set of calculations. This change is beneficial to all parties—developers will still be able to bid the price necessary for a facility to meet its required rate of return, and ratepayers will have an added level of protection from gaming. As described above under Section B, the TOD factors will continue to be updated for valuation purposes and will be used in the LCBF analysis. This will enable SDG&E to value all bids based on the most current information. SDG&E acknowledges that the grid landscape is changing and will continue to reevaluate the TOD factors in subsequent versions of the plan, as new information becomes available, in order to determine if and how the periods and factors should be updated.~~

*b. Peak Shifting*

As a result of the success of the RPS program, a significant amount of solar and wind energy has been added to the grid and there is much more planned to come online before 2020. These renewable resources are very low variable cost resources that (at high penetration levels) will cause significant reductions in marginal prices in periods when they operate. Substantial amounts of rooftop solar are also being added by customers behind the meter. A large amount of variable resource penetration during any single time during the day may result in significant decreases in marginal energy prices and even significant ramping events. As a result of increased renewable generation in Southern California, the peak load net of variable energy resources has shifted and will continue to shift as the California resource portfolio evolves. As market conditions develop it is important that SDG&E's TOD factors and time periods, which will be used for analysis and contracting purposes, reflect the most up-to-date information in order to provide ratepayers with the greatest value. SDG&E updated its TOD periods in the 2013 RPS Plan, as well as the TOD factors based on the market conditions, to reflect the shift in timing and magnitude of energy and capacity and will continue to do so as market conditions change. The TOD factors included in the PPA attached hereto as Attachment 6 have been updated in accordance with the direction provided by D.14-11-042.<sup>48</sup>

*c. Capacity Value*

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<sup>48</sup> [D.14-11-042, mimeo, p. 27.](#)

SDG&E's 2013 RPS Plan incorporated a new method for calculating capacity value by using an updated benchmark.<sup>49</sup> SDG&E seeks to rely on data that has been published and vetted by key stakeholders, and will update its calculations as the assumption sources are updated.

*d. Curtailment Rights & Load Following Ability*

The Federal Energy Regulatory Commission ("FERC") issued Order No. 764 ("FERC 764") on June 22, 2012, in an effort to "adopt reforms that would remove barriers to the integration of variable energy resources and provide for related just and reasonable rates."<sup>50</sup> In response to FERC 764, the CAISO updated its open access transmission tariff, which was conditionally approved by the FERC on December 19, 2013. As part of this tariff update, the cap on negative pricing was increased. Negative pricing refers to the price paid to the CAISO to take power when that power is not necessary. SDG&E is required to pay the CAISO if the facilities from which it purchases generate power during negative pricing periods. The likelihood of incurring these charges is greatly increased with respect to renewable facilities which typically do not follow load. Prior to the CAISO tariff revision, SDG&E's exposure was capped at \$30/MWh plus the hourly price of the contract, the new tariff revision has increased this level of exposure exponentially by instituting a new cap of \$150/MWh.<sup>51</sup>

In order to manage excess generation, minimize the incidence of negative pricing, and maintain grid reliability, the CAISO, the Participating Transmission Owner or distribution operator, or the Buyer can instruct a generator to curtail (take its power off of the grid). SDG&E's existing contracts have varying levels of economic curtailment rights, which refers to a curtailment order in response to price signals (such as negative pricing events). Although negative pricing occurrences are not new, the frequency of these events has increased as more renewable generation has come online. In fact, SDG&E has seen several instances of negative pricing (for example, on May 3, 4, 10 and 11) since the CAISO implemented its new tariff revisions on May 1, 2014, and has acted to minimize ratepayer exposure to negative pricing payments. These instances have followed the same sequence of events: (a) SDG&E economically bids energy from a facility into the market, (b) a negative pricing event occurs, (c)

<sup>49</sup> SDG&E 2013 RPS Plan, p. 38.

<sup>50</sup> California Independent System Operator Corporation Docket No. ER13-2452-000 Tariff Revisions to Comply with Order No. 764, p. 2.

<sup>51</sup> Order Conditionally Accepting Tariff Revisions, 145 FERC ¶ 61,254, p. 3.

the CAISO instructs the facility that was economically bid by SDG&E to dispatch down (curtail), and (d) the facility responds to the extent possible. These actions protected ratepayers by reducing the negative pricing payments made to the CAISO, but SDG&E's ability to curtail its current portfolio is limited by the fact that many facilities do not have the ability to respond immediately to a curtailment order, as well as the fact that SDG&E's ability to economically curtail is limited to 5% of a facility's annual deliveries. By making some adjustments to the pro forma PPA, these limitations can be removed going forward.

In D.14-11-042, the Commission approved SDG&E's proposal that ~~theits~~ pro forma PPA be revised to allow for unlimited economic curtailment rights, and also that it include a requirement that the generator install the automated dispatch system ("ADS"), which is the software that receives the curtailment order, and the application programming interface ("API"), which is the software necessary to respond to the curtailment order. Requiring this software will ensure that responses to economic curtailment orders are immediate, which will bolster grid management efforts. The PPA is attached hereto as Appendix 6. ~~It should be noted that this revision~~The revised PPA allows for payment to the generator for the economically curtailed generation—, within the parameters established by D.14-11-042.

The benefits to this change are threefold. First, this will assist the CAISO in complying with the North American Electric Reliability Corporation ("NERC") reliability standards. Second, this increased ability to manage excess generation could help reduce the incidence of negative pricing events on the CAISO system as a whole, which provides a general benefit to all ratepayers in the state. And third, by allowing unlimited curtailment, SDG&E will better be able to manage the incidence of negative pricing payments made to the CAISO, which is beneficial to SDG&E's ratepayers. Anything less than unlimited economic curtailment rights will leave customers exposed to both the PPA price plus the negative pricing risk in scenarios where there is excess power on the grid and SDG&E is required to schedule the resource. SDG&E is also working to revise the curtailment provision in its existing contracts when approached by facilities regarding other contract modifications.

*e. Distributed Generation Deliverability*

The CAISO conducts an annual assessment methodology for determining and allocating resource adequacy deliverability to DG resources at locations that do not require any yet-to-

be-approved network transmission upgrades. The assessment is coordinated with the CAISO's interconnection procedures and the CAISO's transmission planning process. The initiative is in support of California's goal of 12,000 MWs of DG by 2020.<sup>52</sup>

The CAISO performed the 2013-2014 Distributed Generation Deliverability ("DGD") assessment to determine MW quantities of Potential DGD at specific nodes of the CAISO Controlled Grid for assigning deliverability status to DG Facilities. The 2013-2014 DG deliverability assessment results indicate that a total of 2,178.46 MWs of Potential DGD is available at locations on the CAISO grid for assignment of deliverability status to DG resources connected or requesting interconnection below those locations.

There were 32 locations studied for Potential DGD in the SDG&E service territory. A total of 134.61 MWs of Potential DGD is available for assignment of deliverability status to DG resources at 13 of these 32 locations. There is no Potential DGD available at the remaining 19 nodes either because: (i) no DG was designated at these nodes in the base portfolio utilized in the ISO's annual transmission planning process and there were no energy-only interconnection requests in a WDAT/Rule 21 queue; and/or (ii) deliverability constraints were identified. DG resources interconnected, or seeking interconnection, to the Distribution System of an IOU Participating Transmission Owner may apply to the applicable IOU Participating Transmission Owner to be eligible to receive a Deliverability Status assignment in the current DG Deliverability Assessment cycle.

The study model used by the CAISO for the DGD assessment incorporates the most recent CAISO generation interconnection deliverability assessment base case, and is a snapshot in time. It does not necessarily reflect the most current state of distribution-level RPS procurement in SDG&E's distribution service territory. SDG&E observes that there are several locations in the San Diego area where potential DG resources have been contracted for in the Re-MAT and RAM programs, but which were not reflected in the CAISO's assessment. However, the CAISO's assessment is performed annually; therefore these locations may be studied in the CAISO's next DGD assessment. SDG&E plans continued monitoring of this annual assessment

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<sup>52</sup> See <http://www.aiso.com/informed/Pages/StakeholderProcesses/DeliverabilityforDistributedGeneration.aspx>.

and will make existing and potential distribution-level resources aware of the need to apply for a potential assignment of deliverability.

## **ii. Trends**

### *a. Improvement of Project Success Rates*

As the market for renewable energy has matured, SDG&E has observed a positive trend in the success rate of the projects in its current RPS portfolio. In the 2013 RPS Plan, SDG&E estimated that the average success rate for contracts in effect at that time was 75%. In this year's version of the plan, SDG&E estimates that the success rate for contracts currently in effect will be approximately 90% on average. As explained above, SDG&E reviews project success rates on a monthly basis to incorporate the most recent information and will continue this practice.

### *b. Expansion of RA Products*

A recent trend is an increasing interest in the [Resource Adequacy \(“RA”\)](#) program and the products it encompasses. The RA program is currently the subject of Commission rulemaking proceedings R.11-10-023 Phase 3 and R.14-02-001. For the 2014 RA compliance year, rulemaking R.11-10-023 Phase 2 implemented a new RA attribute, flexible RA capacity, on an interim optional basis. Now R.11-10-023 Phase 3 will fully invoke flexible RA into the obligations of the California RA program beginning with RA compliance year 2015. These flexible RA changes are intended to assist with increased energy ramping needs driven by the integration of growing levels of renewable energy onto the grid combined with the retirement of Once-Through Cooling (“OTC”) units.

Renewable facilities are typically intermittent, and therefore would not be capable of providing flexible RA capacity, but would continue to provide system and local RA as appropriate. Since this is the first RA compliance year with mandatory flexible RA requirements for LSEs, the impact that flexible RA capacity will have on the market value of system and local RA is unknown at this time. It is possible that the market may value flexible RA capacity at the current RA market price, in which case the value of system and local RA may decrease, impacting the value of RA received by renewable facilities. However, it is also possible that the market value of the full bundle (*i.e.* system, local, and flexible) may collectively increase above the current price, increasing the value of one or more of these attributes. For implementation in

future RA compliance years, R.14-02-001 is contemplating RA program changes addressing: (i) two to three year forward RA obligations; (ii) a CAISO-administered forward capacity market; and (iii) a 4-10 year mid-term RA planning horizon. SDG&E is monitoring these proceedings to determine what impact this will have on its procurement practices.

*c. Multiple RPS Contract Versions Across Programs*

SDG&E has noted that as the volume of mandated programs has increased, so have the number of contract versions that must be managed. At this time there are three distinct PPAs for RPS products, all with separate approval processes: the RPS pro-forma PPA (attached hereto as Appendix 6), the RAM PPA, and the Re-MAT PPA. And once SB 1122 is completed there will likely be a fourth RPS PPA. As ~~these PPAs are all utilized for RPS products~~[the Commission has acknowledged](#), it ~~would be~~ logical that the TOD factors used in each PPA be consistent, to the extent possible. ~~As such~~<sup>53</sup> [Accordingly, in accordance with D.14-11-042](#), SDG&E intends to use the TOD factors approved in this plan in all other PPAs for RPS products executed in 2014, with updates where appropriate.

### III. PROJECT DEVELOPMENT STATUS UPDATE

As described further in Section II, SDG&E regularly evaluates project development status to assess each project's ability to begin deliveries in a timely manner. SDG&E's portfolio of renewable energy resources currently under contract but not yet delivering (either pre-construction or in construction) are in various stages of development. It is anticipated that projects will enter commercial operation consistently from 2014 to 2015. Projects under development generally require numerous permitting approvals, generator interconnection, financing, and completion of construction before they can achieve commercial operation. Each of the above issues adds significant risk to the development of a project and can directly impact the success or failure of a project. SDG&E's experience is that achieving all of these milestones represents a significant challenge for developers.

SDG&E has contracted with 27 projects in the pre-construction phase, 5 projects that are currently under construction and 43 projects that are post-construction. Generally, projects in the pre-construction phase are most at risk of failure. However, projects under construction may

<sup>53</sup> [D.14-11-042, mimeo, p. 24.](#)

also encounter issues that could affect their ability to achieve commercial operation, such as successful litigation against the project. In general, projects that have achieved commercial operation have a high probability of meeting their contractual obligations; however, project failure or resource fluctuations (*i.e.*, a bad wind year) can create challenges. Although a developer's experience may improve the likelihood of a project achieving commercial operation, it does not ensure that a project will be successful. Sections IV and V of this plan discuss the various delays and risks that could impact projects in various stages of development, and Appendix 1 provides the most recent information on SDG&E's developing projects from SDG&E's May 16, 2014 Procurement Review Group ("PRG") meeting.

Renewable project developers continue to face a challenging environment. SDG&E observed an increase in the difficulty experienced by developers in securing financing after 2008 when the U.S. economy entered a deep recession. In addition, as more projects were proposed in desert regions, permitting approvals took longer than developers expected due to increased scrutiny of environmental issues and permitting agency coordination efforts. Today, many smaller projects are experiencing local agency permitting delays as individuals and community groups challenge projects. These challenges can result in increased costs to the developer and significant project delays that can jeopardize project viability and potentially lead to project failure. Finally, the time required to study and construct generator interconnection upgrades continues to take years to complete and can significantly increase project costs.

#### ***A. Impact of Project Development Status***

As a practical matter, until a project actually begins commercial operation, it bears significant development risk. SDG&E currently expects that a majority of the projects in its portfolio will meet their commercial operation dates either on schedule or within the prescribed cure period. However, SDG&E does have a significant number of primarily smaller projects that are experiencing development issues that could affect their ability to meet commercial operation. SDG&E bases its forecasting, and therefore its RNS calculation, on its individual project assessments, as is described in more detail in Section II. It also relies on the lessons it has learned and trends it has observed as a result of the RPS procurement process, as discussed in more detail in Section II. The above factors contribute to SDG&E's monthly project assessments of the likelihood of each project's success. For example, a project that has been



experiencing permitting issues would receive a probability weighting reduction to account for this risk until the issue is resolved. The result of these cumulative assessments is reflected in the RNS, which SDG&E will use to inform its procurement activities over the next two compliance periods and past 2020. The RNS as of May, 2014 is provided in Appendix 2.

#### **IV. POTENTIAL COMPLIANCE DELAYS**

The market for renewable energy is dynamic; multiple factors can impact project development and SDG&E's attainment of its RPS program goals. The following discussion covers the major issues affecting both renewable project developers and SDG&E. It begins with the transmission, permitting, and financing hurdles faced during project development, and continues through some of the challenges experienced as a project matures – *e.g.*, viability, debt equivalence, accounting issues, and regulatory uncertainty.

##### ***A. Transmission and Permitting***

###### **i. Interconnection Facility Delays**

The timely approval, permitting, and completion of interconnection facilities are crucial to the successful implementation of SDG&E's renewable portfolio. With the completion of the DREW Switchyard and the interconnection of four renewable projects to the Imperial Valley ("IV") Substation, the key transmission facilities that can still impact SDG&E's renewable portfolio are the ECO Substation project and two new collector switchyards north of the IV Substation. These collector switchyards consist of a "Public Policy" project approved by the CAISO where IID was selected to construct and own the facilities, and the other collector switchyard will initially interconnect the CSolar West project and ultimately a new 230 kV line from the Imperial Irrigation District ("IID") to IV Substation. If development of these facilities is delayed or blocked, the ability to implement SDG&E's renewable portfolio may be adversely impacted.

Existing transmission constraints between IV and the San Diego load center have been largely resolved with the construction of the Sunrise Powerlink project. However, ongoing requests to interconnect new generation – principally new generation – in the San Diego and IV

areas,<sup>54</sup> the anticipated retirement of coastal gas-fired power plants using ocean water for cooling, and the permanent retirement of the San Onofre Nuclear Generating Station (“SONGS”) has lead the CAISO to approve a new 230 kV Sycamore Canyon-Penasquitos transmission line. This new line will support the ability of renewable resources to obtain Full Capacity Deliverability Status (“FCDS”); thereby enhancing the likelihood that new renewable resources can be counted towards LSEs’ RA requirements. The CAISO Board-approved 2012-2013 transmission plan lists the 230 kV Sycamore Canyon-Penasquitos line with a 2017 in-service date. The CAISO conducted a competitive solicitation for developers to offer proposals to construct, own and maintain this new line. SDG&E submitted a proposal to this solicitation and was selected by the CAISO. Subsequent to its selection, SDG&E submitted an application to the CPUC for a Certificate of Public Convenience and Necessity (“CPCN”) to build the new line. SDG&E believes it can obtain a CPCN and other required permits, build the project, and place the new line in-service by 2017. Any delays in securing the necessary authorizations and permits may cause uncertainty for renewable developers whose project economics rely on the deliverability that the 230 kV Sycamore Canyon-Penasquitos project supports.

The ECO Substation project (which includes the new Boulevard East Substation and new 138 kV Boulevard East-ECO transmission line) has been permitted ~~and~~ began construction on May 13, 2013, and will be completed in December of 2014. Additionally, SDG&E, IID and generation developers are focused on building the interconnection and network facilities necessary to interconnect and deliver the output of renewable energy projects in the Imperial Valley to the transmission system, including construction by IID and CSolar of the new collector switchyards north of the IV Substation.

Analysis conducted by the CAISO for the CAISO’s 2013-2014 transmission plan found that:

“[T]he deliverability of future renewable generation from the Imperial Valley area may be significantly reduced primarily due to changes in flow patterns resulting from the retirement of the San Onofre Nuclear Generating Station. Despite the impacts being heavily offset by other reinforcements proposed in this transmission plan, only 1000 MW of the 1715 MW of Imperial zone renewable generation portfolio amounts can be made

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<sup>54</sup> 2012-2013 ISO Transmission Plan, p. 34.

deliverable without additional actions.”<sup>55</sup> And more specifically, the CAISO found that “[w]ith SONGS retired no additional renewable generation can be made deliverable in the Imperial zone until considering the reliability mitigations being proposed in this transmission plan. Adding the flow control device would result in accommodating 800 MW of Imperial zone renewable generation. Adding the Delaney-Colorado River 500 kV project would increase the deliverable amount to about 1,000 MW.”<sup>56</sup>

The analysis conducted for the CAISO’s 2013-2014 transmission plan focused on the year 2023. The extent to which the retirement of SONGS will affect the deliverability of Imperial Valley renewable generation between now and year 2023 will depend upon (i) how quickly the CAISO Board-approved mitigation solutions – such as the Imperial Valley flow control device – can be permitted and built; and (ii) the results of the CAISO’s ongoing analysis of other potential transmission upgrades (such as the proposed 500 kV Delaney-Colorado River transmission line). Delays in implementing these transmission solutions could limit the deliverability of existing and planned renewable resources in the Imperial Valley and thereby compromise the economic viability of those resources.

## **ii. Interconnection Study Process**

The CAISO’s process for determining required upgrades for renewable projects can cause delay and expense. SDG&E protects ratepayers by establishing transmission upgrade cost limits and including conditions precedent in the PPA whereby if the upgrade costs are higher than the thresholds established in the PPA, the contract can be terminated. In the past, developers have been required to wait years for study results and in some cases have been faced with extremely high upgrade costs that render their projects unviable.

Recent changes in the CAISO’s approach for identifying network upgrades that provide interconnecting renewable generators with FCDS appear to be reducing transmission funding hurdles for new generators that are in interconnection cluster 5 and later clusters. The CAISO’s transmission planning process now identifies ratepayer-funded transmission upgrades that support a specific 33% RPS portfolio. For generators that are not part of the specific 33% RPS portfolio, the CAISO’s interconnection studies will identify Delivery Network Upgrades that are needed to support the generator’s request for FCDS. However, these generators now have the option to choose not to fund construction of these upgrades and, instead, rely on deliverability

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<sup>55</sup> 2013-2014 ISO Transmission Plan, p. 2.

<sup>56</sup> *Id.* at p. 202.

that may be available because other generators fail to develop as expected. Nevertheless, renewable generators that sought interconnection prior to cluster 5 are still subject to financing hurdles tied to the requirement to advance construction funds for Delivery Network Upgrades. Generator funding obligations continue to pose a challenge to renewable resource development.

### **iii. Jurisdictional Agency Permitting Delays**

Uncertainty surrounding the timely issuance of key permits associated with lead agency review continues to create risks for projects under development. The permitting timeline can vary greatly based on a multitude of factors including project location, environmental issues, lead/other agency resources, and public participation. First, this uncertainty may lead to scheduling challenges and corresponding problems with project elements such as site control, financing, permitting, engineering, procurement including supplier and construction (“EPC”) contracts. Second, costs to mitigate environmental issues or respond to public concerns can lead to higher than expected costs for developers to complete a project.

### ***B. Project Finance, Tax Equity Financing and Government Incentives***

Obtaining financing is key to the successful development of renewable projects. Two areas of financing are of primary importance: (i) project financing relied upon to construct the project; and (ii) tax equity financing relied upon to monetize tax benefits such as the Production (“PTC”) or Investment Tax Credits (“ITC”). Financial institutions traditionally provide project financing, the cost and availability of which is a function of the overall health of the financial system. Tax equity financing is also traditionally provided by banks or large corporations. In order to secure financing, renewable projects generally must: (i) complete permitting; (ii) have a long-term fixed price PPA from a credit-worthy off-taker; and (iii) have a bankable (or proven) technology. The financial markets have proven fickle, thus non-traditional investors are also key to the success of the renewable energy industry. Non-traditional investors include institutional investors reached by projects issuing a security, and utilities and other corporations with tax appetite as tax equity investors.

The American Recovery and Reinvestment Act of 2009 was successful in increasing the economic viability of projects through enabling the PTC and ITC. The PTC (which expired at the end of 2013) and ITC (currently set to expire at the end of 2016) represent about 33% of the economic value of renewable projects and without them, the relative competitiveness of

renewable energy relative to fossil fuels, will be severely impacted. The expiration of the PTC and looming expiration of the ITC continues to reshape the project development and financing landscape for future projects. Remaining RPS needs are being partially fulfilled through programs such as RAM and FIT, creating further uncertainty for utility scale project development.

### ***C. Solar Panel Risk and Project Viability***

SDG&E may be subject to industry and technology risks when selecting solar power projects to meet its RPS goals. For example, the industry is undergoing significant consolidation and attrition of market participants. Numerous manufacturers are experiencing severe financial difficulties or have declared bankruptcy in response to intense competition and the significant declines in market prices. The risk to SDG&E is that the viability of some low-cost projects may depend on specific manufacturers that might cease operations, forcing the developer to seek other suppliers. Or, more significantly, the price of panels may increase before the purchase is final and greatly reduce the viability of the project. More industry shakeout is anticipated but prices are expected to stabilize, or increase, once the excess supply is absorbed by the market.

SDG&E also faces technology risk related to solar photovoltaic (“PV”) technology. Final technology choices are made by project developers; SDG&E attempts to manage this technology risk through diversification of the solar technologies and companies included in its portfolio. For example, PV panel materials and manufacturing processes vary significantly. There are proven technologies with long operational and performance histories, and also newer technologies that have not yet been proven over the typical 20-year contract term. The risk to SDG&E is that a solar facility may fail to perform as intended due to panel failure or degradation, causing it to fall short of the minimum power delivery requirements. In such a case the developer is subject to penalties, but if the failure is too great, the developer may simply abandon the project. Filing claims under solar panel warranties might be complicated further if the manufacturer is located overseas or is out of business. Such a catastrophic project failure with limited ability to cure through warranty claims could cause SDG&E to experience a significant short-term deficit in its RPS procurement. This risk is compounded if significant quantities of SDG&E’s PV installations use the same technology from the same company. As noted above, SDG&E attempts to manage this risk by diversifying the solar technologies and

companies included in its portfolio.

#### ***D. Debt Equivalence and Accounting***

Two additional issues may challenge SDG&E's ability to achieve its RPS goals. The first involves debt equivalence. As SDG&E executes an increasing number of PPAs, the cumulative debt equivalence of all these agreements may greatly affect SDG&E's credit profile and, consequently, its financial standing. Rating agencies include long-term fixed financial obligations, such as power purchase agreements, in their credit risk analysis. These obligations are treated as additional debt during their financial ratio assessment. Standard and Poor's ("S&P") views the following three ratios, Funds From Operations ("FFO") to Debt, FFO to Interest Expense, and Debt to Capitalization, as the critical components of a utility's credit profile. Debt equivalence negatively impacts all three ratios. Unless mitigated, a PPA would negatively impact SDG&E's credit profile by degrading credit ratios.

The second issue relates to Accounting Standards Codification ("ASC") 810 Consolidation, which includes the subject of Consolidation of Variable Interest Entities. Application of ASC 810 as it pertains to Consolidation of Variable Interest Entities ("VIEs") could also impact SDG&E's ability to sign new contracts. As part of SDG&E's overall internal review and approval process for new PPAs, SDG&E conducts a review of whether each PPA will be subject to consolidation under ASC 810. Under ASC 810, no renewable PPA has been deemed subject to such consolidation, however, ASC 810 requires SDG&E to perform an evergreen assessment for those contracts which are considered VIEs. For this reason, SDG&E believes that it is required to assess quarterly each contract or category of contracts to ensure continued compliance with ASC 810, to determine whether or not SDG&E must consolidate a Seller's financial information with SDG&E's own quarterly financial reports to the Securities and Exchange Commission. The accounting rules associated with ASC 810 can change and thus wind, solar, geothermal and bio-gas renewable Sellers could be impacted.

Application of ASC 810 could hinder SDG&E's ability to achieve its RPS goals, and add further costs and risk to execution of new renewable contracts. If SDG&E determines that consolidation is required, a Seller must open its books to SDG&E and submit financial information, on a quarterly and monthly basis, as specified in SDG&E's contract language for the duration of any agreement.

All PPAs are affected by either debt equivalence or ASC 810 requirements. The Commission is well aware of the negative impact of debt equivalence on SDG&E's credit profile. AB 57 requires that the Commission adopt procurement plans that, among other objectives, enhance the creditworthiness of the utility. ASC 810 will affect SDG&E's reported financial data and may have a negative impact on SDG&E's balance sheet and/or credit profile. ASC 810 could impact SDG&E's capital structure on a consolidated basis and cause it to be misaligned with its authorized capital structure. To the extent SDG&E must seek to mitigate the impacts of debt equivalence and ASC 810, it will do so through a separate cost of capital filing.

***E. Regulatory Factors Affecting Procurement***

The Commission is in the process of implementing changes to the RPS program required by SB 2 (1X). As a result, full program details are not yet final, which creates regulatory uncertainty. However, it is important to note that SDG&E currently expects to meet its near-term RPS program goals with procurement already under contract, as explained in Sections I and II above, and as such the RPS procurement initiatives pending before the Commission will likely have a greater impact on RPS procurement undertaken to meet future need. Several key RPS procurement issues are scheduled to be addressed this year; as set forth in the *Third Amended Scoping Memo and Ruling*, issued January 13, 2014 in R.11-05-005, these issues will be addressed as follows: compliance and enforcement (Q1 2014); the compliance spreadsheet (Q2 2014); RPS procurement expenditure limitations (Q2 2014); [RPS procurement process improvements \(Q2 2014\)](#); and LCBF reform (Q3 2014).

In accordance with the Phase 3 Scoping Memo in R.11-10-023, Energy Division Staff is also currently developing a probabilistic reliability model to replace the current methodology used to calculate the Effective Load Carrying Capability ("ELCC") and Qualifying Capacity ("QC") of wind and solar resources. It is anticipated that modeling results will be vetted in late 2014 and early 2015, and adopted in June 2015 as part of the proceeding to determine local capacity requirements for the 2016 RA compliance year, and the results of this revision will be incorporated into the LCBF calculation. The final results of these initiatives are unknown at this time; consequently, SDG&E cannot predict the impact these issues will have on its future procurement activities.

The first two issues listed above are particularly interrelated as the compliance

spreadsheet and associated required documents will feed into the compliance review process. On September 29, 2013, the Commission issued a ruling requesting comment regarding certain aspects of the compliance and enforcement process, including the reporting process, waiver and reduction request processes, and penalties. The Commission subsequently [issued a Final Decision regarding enforcement rules on December 4, 2014](#). The Commission also issued a proposal requesting informal comments on Staff's proposed RPS Compliance Report spreadsheet and new reporting documents related to the new RPS portfolio content categories ("PCCs") on February 12, 2014. ~~SDG&E assumes that these issues will be resolved prior to the required compliance filing due to the CEC on July 1, 2014,<sup>57</sup> and to the Commission on August 1, 2014.<sup>58</sup>~~ [The final spreadsheet format and list of reporting documents has not yet been determined.](#) The results of the CEC and Commission review and verification of SDG&E's Compliance Period 1 procurement and associated documentation will provide greater certainty regarding the PCCs of contracts in SDG&E's portfolio and will thereby inform SDG&E's procurement activities going forward.

It is anticipated that the final decision regarding procurement expenditure limitations will implement a cap on expenditures by ~~investor-owned utilities ("IOUs")~~ to meet RPS goals. Greater detail regarding the actual limitation for SDG&E, how it will relate to the procurement dollars spent and contracts signed as of the date of the final decision, and how the expenditure cap will interact with the other requirements of the RPS program will assist SDG&E in planning its future procurement activities.

~~The~~ [In D.14-11-042, the Commission established new rules related to the RPS procurement process](#) ~~improvements that are under consideration by the Commission vary in degree of complexity and could add significant delays to the procurement process. More detail regarding the~~. [It is too soon to comment on potential constraints that may be placed on RPS procurement as a](#) ~~the~~ [result of this proceeding will also assist](#) ~~the new rules, but~~ SDG&E ~~in~~ [will consider the impact of these changes when planning for future procurement. D.14-11-042 also makes mention of a rulemaking set for "early 2015"<sup>59</sup> regarding the Commission's new authority](#)

<sup>57</sup> ~~RPS Guidebook, p. 89.~~

<sup>58</sup> ~~D.12-06-038, Ordering Paragraph 36, p. 103.~~

<sup>59</sup> [D.14-11-042, mimeo, p. 5.](#)



under AB 327, which allows the Commission the discretion to raise the RPS target above the existing goal of 33% by 2020. The Commission's implementation of this new authority will impact the RPS program as a whole; SDG&E looks forward to actively participating in the stakeholder process.

Finally, the pending nature of LCBF reform also creates uncertainty. Clarity surrounding any alterations to this calculation and/or the factors used in bid evaluation will help SDG&E understand and plan for any impacts. In addition, the Commission's new probabilistic reliability model may significantly alter the expected QC of new and existing wind and solar resources and thereby impact the Net Qualifying Capacity ("NCQ") of a resource for RA compliance purposes. This in turn may materially alter the NCQ value assigned to renewable projects as a part of the LCBF evaluation. SDG&E continues to monitor this process and will incorporate the new methodology into its LCBF evaluation when final.

#### ***F. Impact of Potential Delays***

SDG&E bases its forecasting, and therefore its RNS calculation, on its individual project assessments, as described in more detail in Section II. It also considers lessons learned and trends it has observed as a result of the RPS procurement process, as discussed in more detail in Section II. The above factors contribute to SDG&E's monthly assessment of the likelihood of each project's success. For example, a project that has been experiencing difficulty in obtaining a key permit would receive a probability weighting reduction to account for this risk until the issue is resolved. While the impacts of the regulatory proceedings mentioned above cannot be known until the final decisions are issued, SDG&E is monitoring these issues and will reflect their outcomes accordingly, when appropriate. The result of these cumulative assessments is reflected in the RNS, which SDG&E will then use to inform its procurement activities over the next two compliance periods and past 2020. The RNS as of May 2014 is provided in Appendix 2.

#### **V. RISK ASSESSMENT**

SDG&E periodically evaluates the risk that delivering projects will underperform. In SDG&E's experience, developers are inherently motivated to achieve the COD for their facilities and maintain successful operations due to several factors: (i) the significant investment required to achieve COD; (ii) the timely payments made for energy delivered once COD is reached; and

(iii) the penalties incurred if the project does not meet contractual requirements to supply at least the minimum amount of energy contemplated. As explained above under Section II, SDG&E anticipates meeting its CP2 targets with procurement already under contract, and estimates a project success rate of approximately 90% for the contracts currently in effect. These two factors have mitigated the risk to SDG&E's portfolio. However, risks are still present, and over the past decade, SDG&E has observed some dynamic factors that may affect power production from delivering projects:

- Resource Availability, Lower than Expected Generation, and Variable Generation: Renewable resources depend on natural sources of energy which are variable, and can be impacted by various factors. For example, a bad wind year can greatly impact a wind facility's performance and cause lower than expected generation, impacting SDG&E's ability to meet its RPS goals. Another factor that could also impact generation, and therefore SDG&E's ability to meet its RPS goals, is the occurrence of unexpected mechanical failures. This could cause the facility to be partially or fully unavailable until the issue can be resolved.
- Regulatory Changes: The expiration of subsidies, such as the Public Goods Charge or the Production Tax Credit lowers the revenue stream for RPS developers and could lead to reduced production if the project has difficulty in supporting this lower revenue stream.
- Economic Environment: The interest rates and flexibility of financing arrangements entered into by developers can impact a project's success. Long term project financing arrangements with unfavorable terms can lead to project failure or reduced production if the project has difficulty in supporting the financing cost requirements.
- Evolving Technology: Facilities with older generation technology that is no longer supported by the manufacturer can experience project failure or reduced production. This problem is arising now for older RPS projects, and could repeat itself over the next 20 years as the projects being contracted for today begin to age.
- Issues with Third Party Mandatory Systems: Recently the CAISO and WREGIS systems have experienced some technical issues, and as a result, some of SDG&E's

pre-paid RECs have not been received when due. Working with CAISO, WREGIS, and the affected counterparties may lead to dispute(s) with the affected counterparties.

SDG&E's current assessment is that projects in its portfolio are at a low risk of non-performance, but notes that this assessment is based on the above risk factors remaining relatively stable. As noted herein, SDG&E bases its forecasting, and therefore its RNS calculation, on its individual project assessments, lessons learned and trends it has observed as a result of the RPS procurement process. The above factors contribute to SDG&E's monthly project assessments of the likelihood of each project's success. For example, the probability weighting for a project that has begun experiencing technical difficulties due to an aging system and has been unable to receive assistance from a manufacturer that no longer exists, would receive a probability weighting reduction to account for its reduced generation until the issue is resolved. The result of these cumulative assessments is reflected in the RNS, which SDG&E will then use to inform its procurement activities over the next two compliance periods and past 2020. The RNS as of May, 2014 is provided in Appendix 2.

## **VI. QUANTITATIVE INFORMATION**

The analysis attached hereto in Appendix 2 shows SDG&E's 2010 deficit, and the Commissions' prescribed Residual Net Short ("RNS") calculation with supporting probability weighting calculations by project as of May 2014. SDG&E has identified that the RNS calculations do not take the 36 month shelf life of RECs into consideration when calculating the IOUs compliance position. SDG&E intends to monitor the vintage and remaining life of RECs in order to maximize their value to the portfolio by retiring them at the most opportune time, this is discussed in more detail in Section II.

## **VII. MINIMUM MARGIN OF OVER-PROCUREMENT**

SDG&E's RPS Risk Adjusted Net Short Calculation, as shown in Appendix 2, provides a "Minimum Margin of Procurement" that is intended to account for foreseeable project failures or delays. This calculation also includes an additional VMOP, which is intended to ensure that SDG&E achieves its RPS requirements despite unforeseeable risks. Since both the RPS targets and RPS deliveries fluctuate constantly, it is nearly impossible to meet RPS targets with the exact number of MWhs required. SDG&E's VMOP is designed to ensure that it achieves its

RPS goals with a “buffer” to account for unforeseen changes to either the RPS targets or deliveries. Because it is more difficult to predict retail sales and project performance in CP2 and CP3, SDG&E’s VMOP is higher in those years. SDG&E’s RNS calculation, including its VMOP, for each compliance period is described below.

***A. Compliance Period 1***

SDG&E’s Compliance Period 1 RNS is based on the following formula:

RPS Risk-adjusted Net Short = (Bundled Retail Sales Forecast x RPS Procurement Quantity Requirement + Voluntary Minimum Margin of Procurement) – (Online Generation + Risk-adjusted Forecast Generation + Pre-approved Generic Generation)

Where:

- a. Bundled Retail Sales Forecast = the forecast developed in accordance with Section II(A)(ii)(a) of SDG&E’s 2014 RPS Plan
- b. RPS Procurement Quantity Requirement = Compliance Period 1 RPS percentage target plus the deficit that SDG&E is required to carry forward from the prior RPS regime as discussed in Section II(A)(ii)(g) of SDG&E’s 2014 RPS Plan.
- c. Voluntary Minimum Margin of Procurement = up to the current anticipated net long position for CP1
- d. Online Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have achieved commercial operation, as discussed in Section II(A)(i)(a) of SDG&E’s 2014 RPS Plan
- e. Risk-adjusted Forecast Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have not yet achieved commercial operation, as discussed in Section II(A)(i)(b) of SDG&E’s 2014 RPS Plan
- f. Pre-approved Generic Generation = unsubscribed volumes that SDG&E is required to procure under CPUC mandated procurement programs such as the Renewable Auction Mechanism and the Feed-in-Tariff

### ***B. Compliance Period 2***

SDG&E's Compliance Period 2 RNS is based on the following formula:

$$\text{RPS Risk-adjusted Net Short} = (\text{Bundled Retail Sales Forecast} \times \text{RPS Procurement Quantity Requirement} + \text{Voluntary Minimum Margin of Procurement}) - (\text{Online Generation} + \text{Risk-adjusted Forecast Generation} + \text{Pre-approved Generic Generation})$$

Where:

- a. Bundled Retail Sales Forecast = the forecast developed in accordance with Section II(A)(ii)(a) SDG&E's 2014 RPS Plan
- b. RPS Procurement Quantity Requirement = Compliance Period 2 RPS percentage target
- c. Voluntary Minimum Margin of Procurement = up to the current anticipated net long position for CP2 plus any unsubscribed CTTS procurement if applicable
- d. Online Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have achieved commercial operation, as discussed in Section II(A)(i)(a) of SDG&E's 2014 RPS Plan
- e. Risk-adjusted Forecast Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have not yet achieved commercial operation, as discussed in Section II(A)(i)(b) of SDG&E's 2014 RPS Plan
- f. Pre-approved Generic Generation = unsubscribed volumes that SDG&E is required to procure under CPUC mandated procurement programs such as the Renewable Auction Mechanism and the Feed-in-Tariff

### ***C. Compliance Period 3***

SDG&E's Compliance Period 3 RNS is based on the following formula:

$$\text{RPS Risk-adjusted Net Short} = (\text{Bundled Retail Sales Forecast} \times \text{RPS Procurement Quantity Requirement} + \text{Voluntary Minimum Margin of Procurement}) - (\text{Online Generation} + \text{Risk-adjusted Forecast Generation} + \text{Pre-approved Generic Generation})$$

Where:

- a. Bundled Retails Sales Forecast = the forecast developed in accordance with Section II(A)(ii)(a) SDG&E's 2014 RPS Plan
- b. RPS Procurement Quantity Requirement = Compliance Period 3 RPS percentage target
- c. Voluntary Minimum Margin of Procurement = up to the current anticipated net long position for CP3 plus any unsubscribed CTTS procurement if applicable
- d. Online Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have achieved commercial operation, as discussed in Section II(A)(i)(a) of SDG&E's 2014 RPS Plan
- e. Risk-adjusted Forecast Generation = the generation that SDG&E expects will be delivered by its portfolio of RPS projects that have not yet achieved commercial operation, as discussed in Section II(A)(i)(b) of SDG&E's 2014 RPS Plan
- f. Pre-approved Generic Generation = unsubscribed volumes that SDG&E is required to procure under CPUC mandated procurement programs such as the Renewable Auction Mechanism and the Feed-in-Tariff

#### **VIII. BID SOLICITATION PROTOCOL, INCLUDING LEAST-COST, BEST -FIT**

Attached hereto in Appendices 6-8 are SDG&E's proposed protocols for a RFP for RPS sales and a RPS Sales Model PPA. Note that the RPS Sales Model PPA currently contemplates the sale of a Category 1 product; SDG&E will modify this agreement as necessary to accommodate the sale of Category 2 or Category 3 products. Although SDG&E does not intend to issue a solicitation for RPS purchases in 2014, it has also attached a RPS Model PPA and a RPS REC Agreement. Submitting the updated RPS Model PPA is important so that it does not become stale, and so that SDG&E can use the most current version of this contract for any renewable procurement that occurs through the preferred resources solicitation associated with SDG&E's LCR.<sup>60</sup> Many of the changes SDG&E made to this PPA result from lessons learned

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<sup>60</sup> SDG&E will use the 2013 version of the RPS Model PPA as a starting point for the preferred resources solicitation if the 2014 version is not approved by the time SDG&E issues the solicitation.

discussed in Section C(i) above. [Per D.14-11-042, SDG&E will request Commission approval via a Tier 1 AL if it determines that changes to these documents are necessary.](#)<sup>61</sup>

- Appendix 6: 2014 RPS Model PPA (RPS PPA)
- Appendix 7: 2014 RPS REC Agreement (RPS REC PPA)
- Appendix 8: 2014 RPS Sale (RFP Document)
- Appendix 8.A: 2014 RPS Sales Model PPA (RPS Sales PPA)

## IX. CONSIDERATION OF PRICE ADJUSTMENT MECHANISMS

SDG&E acknowledges that contracts with online dates occurring more than 24 months after the contract execution date can pose additional risk to ratepayers. SDG&E has incorporated price adjustment mechanisms in some of its current contracts that are intended to alleviate some of these risks, including the following:

- Price adjustment for delay in Guaranteed Commercial Operation Date (“GCOD”): A lower price for a late GCOD provides additional incentive for developers to come online as early as possible. However, this structure can create financing challenges if financing parties are not comfortable with the potentially lower price. It is also difficult to quantify an appropriate price adjustment amount and can lead to drawn out negotiations.
- Capped transmission upgrade costs: Placing a cap on the amount of transmission upgrade costs, which are ultimately borne by ratepayers, that a project can incur is an effective way to limit ratepayer exposure to such costs. This type of cap is especially important for projects with CODs more than 24 months after the contract execution date because it is more likely that transmission upgrade cost estimates could change for these projects. The cap is set as a condition precedent to SDG&E’s obligations under the PPA. If estimated costs exceed the cap, SDG&E has the right not to move forward with the PPA.
- Price adjustment for higher than expected transmission upgrade costs: Another mechanism that SDG&E has successfully incorporated into past contracts is a mechanism whereby the seller agrees to a price reduction to offset higher than anticipated transmission upgrade costs. Under this mechanism, the contract price would be reduced

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<sup>61</sup> [D.14-11-042, mimeo, p. 22.](#)

on a dollars per megawatt-hour basis commensurate with the cost of transmission upgrades above an agreed upon cap. The price adjustment mechanism would include an upper limit on transmission upgrade costs, above which SDG&E can terminate the contract. This mechanism is similar to the cap described immediately above except, rather than giving SDG&E the right not to move forward with the PPA, it gives the developer the choice of whether to go forward at a reduced price equal to the amount of transmission costs above the cap, or the developer may choose not to go forward with the PPA.

- Price adjustment for failure to achieve full capacity deliverability status: If a project is not deemed fully deliverable by CAISO at the time of COD, then the PPA price is reduced by either (1) a negotiated price reduction specific to the project; or (2) the application of “energy only” TOD factors in place of “FCDS” factors until such time as the project is deemed fully deliverable.

## X. COST QUANTIFICATION

The tables attached hereto in Appendix 3 provide an annual summary of both actual and forecasted RPS procurement costs and generation, by technology type, as of May, 2014.

## XI. EXPIRING CONTRACTS

The table attached hereto in Appendix 4 lists the contracts in SDG&E’s portfolio that will be expiring in the next 10 years.

## XII. IMPERIAL VALLEY

### *A. Participation in 2013 RPS RFO by Imperial Valley Projects*

In response to its 2013 RPS RFO, SDG&E received 141 bids from 27 counterparties, with the majority of projects coming online in 2020. Of the 141 bids, 80 were conforming, and of this 80, 18 were located in the IID territory. The following table represents the breakdown by technology and capacity:

<b>Technology</b>	<b>Capacity (MW)</b>
Solar PV <sup>62</sup>	985

<sup>62</sup> Several projects submitted multiple bids for the purpose of proposing different project capacities and different project term lengths.



Solar Thermal	59.7
Geothermal	57

SDG&E shortlisted two projects on a contingent basis as a result of its 2013 solicitation, neither of which is located in the Imperial Valley (“IV”).

SDG&E currently has 15 contracts in the Imperial Valley/IID territory, that when completed will provide an estimated 3,753 GWh per year. As of May 2014, four of these projects have reached commercial operations, and the generation from these projects is anticipated to be approximately 1,800 GWh per year. The remainder of the projects are in various stages of construction.

**XIII. IMPORTANT CHANGES TO 2013 RPS PLAN**

Important changes made to SDG&E’s 2013 RPS Plan are detailed in Appendix 5.

**XIV. OTHER RPS PLANNING CONSIDERATIONS AND ISSUES**

SDG&E has no additional considerations and issues to discuss at this time, but reserves the right to add to this section in subsequent versions of its RPS Plan.

**XV. SAFETY CONSIDERATIONS**

SDG&E is committed to providing safe, reliable and environmentally sound electric service for its customers. As discussed herein, SDG&E’s RPS Plan contemplates procurement of RPS-eligible generation through both PPAs and UOG. SDG&E’s emphasis on safety is reflected in (i) the terms and conditions contained in the pro forma PPAs used in its various procurement programs; and (ii) the safety procedures that all contractors working on UOG facilities are required by SDG&E to follow.

***A. RPS Power Purchase Agreements***

SDG&E’s current procurement programs and the safety-related contractual provisions included in the contract for each program are detailed below. Although the precise wording varies slightly among PPAs related to different programs, each PPA follows the same logic by first defining prudent business practices as those which, given the information available at the time the decision was made, could reasonably be expected to accomplish the desired result consistent with good business practices, reliability and safety. This definition is then referenced

throughout the contract. By executing any of the following referenced PPAs, a counterparty agrees to incorporate safety considerations into its decision making process and operate accordingly.

**i. PPA Provisions - Utility Scale RFOs**

- Section 1.1: “Good Industry Practice” means those practices, methods and acts that would be implemented and followed by prudent operators of electric transmission facilities (with respect to Buyer) or prudent operators of electric generation facilities similar to the Project (with respect to Seller) in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety, and shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and applicable Law. Good Industry Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the region.
- Section 3.1(f)(ii): [For Baseload, Peaking, Dispatchable Product: Annual Capacity Testing. Thereafter, at least once per Contract Year within the first quarter of each Contract Year, upon no less than 14 days prior Notice to Buyer, Seller shall schedule and complete a Capacity Test. In addition, Buyer shall have the right to require a retest of the Capacity Test at any time upon five (5) days prior written Notice to Seller if Buyer reasonably believes that the actual Contract Capacity has varied materially from the results of the most recent tests. Seller shall have the right to run a retest of the Capacity Test at any time upon two (2) days prior written Notice to Buyer (or any shorter

period reasonably acceptable to Buyer consistent with Good Industry Practices).]

- Section 3.5(a): General Operation. Seller shall comply with all applicable requirements of Law, the CAISO, NERC and WECC relating to the Project (including those related to safety, construction, ownership and/or operation of the Project).
- Section 3.5(b): CAISO and WECC Standards. Each Party shall perform all generation, scheduling and transmission services in compliance with all applicable (i) operating policies, criteria, rules, guidelines, tariffs and protocols of the CAISO, (ii) WECC scheduling practices and (iii) Good Industry Practices.
- Section 3.5(c): Reliability Standard. Seller agrees to abide by all (i) NERC, WECC and CAISO reliability requirements, including all such reliability requirements for generator owners and generator operators, and, if applicable, CPUC General Order No.167, “Enforcement of Maintenance and Operation Standards for Electrical Generating Facilities,” and (ii) all applicable requirements regarding interconnection of the Project, including the requirements of the interconnected Transmission Provider. Seller shall enter into and comply with the WECC Reliability Management System (Generator) Agreement, or successor agreement, as of the Commercial Operation Date and throughout the Delivery Term.
- Section 3.6(a)(i): Testing and Calibration. Seller shall perform or cause to be performed, at its expense, annual testing and calibration of the electric meters in accordance with Good Industry Practice and the CAISO Tariff. Seller shall give Buyer reasonable advance notice of any inspection, testing or calibration of the electric meters. Buyer shall have the right to have a representative or designee present at such inspection, test or calibration of the electric meters. Buyer shall have the right to require, at Buyer’s expense, except as required below, a test of any of the electric meters not more often than two (2) times every twelve (12) months.

- Section 3.7(a): Planned Outages. Seller shall schedule Planned Outages for the Project in accordance with Good Industry Practices and with the prior written consent of Buyer, which consent may not be unreasonably withheld or conditioned. The Parties acknowledge that in all circumstances, Good Industry Practices shall dictate when Planned Outages should occur. Seller shall notify Buyer of its proposed Planned Outage schedule for the Project for the following calendar year by submitting a written Planned Outage schedule no later than October 1st of each year during the Delivery Term. The Planned Outage schedule is subject to Buyer's approval, which approval may not be unreasonably withheld or conditioned. Buyer shall promptly respond with its approval or with reasonable modifications to the Planned Outage schedule and Seller shall use its best efforts in accordance with Good Industry Practices to accommodate Buyer's requested modifications. Notwithstanding the submission of the Planned Outage schedule described above, Seller shall also submit a completed Outage Notification Form to Buyer no later than fourteen (14) days prior to each Planned Outage and all appropriate outage information or requests to the CAISO in accordance with the CAISO Tariff. Seller shall contact Buyer with any requested changes to the Planned Outage schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next scheduled Planned Outage consistent with Good Industry Practices. Seller shall not change its Planned Outage schedule without Buyer's approval, not to be unreasonably withheld or conditioned. Seller shall use its best efforts in accordance with Good Industry Practices not to schedule Planned Outages during the months of July, August, September and October. At Buyer's request, Seller shall use commercially reasonable efforts to reschedule Planned Outage so that it may deliver Product during CAISO declared or threatened emergency periods. Seller shall not substitute Energy from any other source for the output of the Project during a Planned Outage.
- Appendix F, Form of Quarterly Progress Report, Section 9.0: Safety and Health Reports

- 9.1 Please list all accidents from the previous calendar quarter:
- 9.2 Any work stoppage from the previous calendar quarter:
- 9.3 Work stoppage impact on construction of the Project:

**ii. PPA Provisions – RAM Program<sup>63</sup>**

- Section 1.1: “Good Industry Practice” means those practices, methods and acts that would be implemented and followed by prudent operators of electric transmission facilities (with respect to Buyer) or prudent operators of electric generation facilities similar to the Project (with respect to Seller) in the Western United States during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety, and shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and applicable Law. Good Industry Practice is not intended to be the optimum practice, method or act to the exclusion of all others, but rather is intended to be any of the practices, methods and/or actions generally accepted in the region.
- Section 3.5(a): General Operation. Seller shall comply with all applicable requirements of Law, the CAISO, NERC and WECC relating to the Project (including those related to safety, construction, ownership and/or operation of the Project).
- Section 3.5(b): CAISO and WECC Standards. Each Party shall perform all generation, scheduling and transmission services in compliance with all

<sup>63</sup> SDG&E filed RAM AL 2580-E on February 28, 2014. Included in this AL were proposed modifications to section 3.5(a) of SDG&E’s RAM PPA to further include safety as an element of the general operation of the project. In addition, as part of the RAM PPA’s semiannual progress reporting from Seller to Buyer, SDG&E proposes that Seller’s include a safety and health report listing all accidents, any resulting work stoppages, and work stoppage impact on construction of the project. [These changes have become effective.](#)

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applicable (i) operating policies, criteria, rules, guidelines, tariffs and protocols of the CAISO, (ii) WECC scheduling practices and (iii) Good Industry Practices.

- Section 3.5(c): Reliability Standard. Seller agrees to abide by all (i) NERC, WECC and CAISO reliability requirements, including all such reliability requirements for generator owners and generator operators, and, if applicable, CPUC General Order No.167, “Enforcement of Maintenance and Operation Standards for Electrical Generating Facilities,” and (ii) all applicable requirements regarding interconnection of the Project, including the requirements of the interconnected Transmission Provider.
- Section 3.6(a)(i): Testing and Calibration. Seller shall perform or cause to be performed, at its expense, annual testing and calibration of the electric meters in accordance with Good Industry Practice and the CAISO Tariff. Seller shall give Buyer reasonable advance notice of any inspection, testing or calibration of the electric meters. Buyer shall have the right to have a representative or designee present at such inspection, test or calibration of the electric meters. Buyer shall have the right to require, at Buyer’s expense, except as required below, a test of any of the electric meters not more often than two (2) times every twelve (12) months.
- Section 3.7(a): Planned Outages. Seller shall schedule Planned Outages for the Project in accordance with Good Industry Practices and with the prior written consent of Buyer, which consent may not be unreasonably withheld or conditioned. The Parties acknowledge that in all circumstances, Good Industry Practices shall dictate when Planned Outages should occur. Seller shall notify Buyer of its proposed Planned Outage schedule for the Project for the following calendar year by submitting a written Planned Outage schedule no later than October 1st of each year during the Delivery Term. The Planned Outage schedule is subject to Buyer’s approval, which approval may not be unreasonably withheld or conditioned. Buyer shall promptly respond with its approval or with reasonable modifications to the Planned Outage schedule and Seller shall use its best efforts in accordance with Good Industry Practices to

accommodate Buyer's requested modifications. Notwithstanding the submission of the Planned Outage schedule described above, Seller shall also submit a completed Outage Notification Form to Buyer no later than fourteen (14) days prior to each Planned Outage and all appropriate outage information or requests to the CAISO in accordance with the CAISO Tariff. Seller shall contact Buyer with any requested changes to the Planned Outage schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next scheduled Planned Outage consistent with Good Industry Practices. Seller shall not change its Planned Outage schedule without Buyer's approval, not to be unreasonably withheld or conditioned. Seller shall use its best efforts in accordance with Good Industry Practices not to schedule Planned Outages during the months of July, August, September and October. At Buyer's request, Seller shall use commercially reasonable efforts to reschedule Planned Outage so that it may deliver Product during CAISO declared or threatened emergency periods. Seller shall not substitute Energy from any other source for the output of the Project during a Planned Outage.

**iii. PPA Provisions – CRE and WATER FiT Programs<sup>64</sup>**

- Section 5.4: The Generating Facility shall be operated with all of Producer's Protective Functions in service and in accordance with Prudent Electrical Practices whenever the Generating Facility is operated in parallel with SDG&E's Distribution System. Any deviation from these requirements may occur only when the Parties have agreed to such deviations in writing.
- Appendix F, Item 32: "Operate," "Operating" or "Operation" means to provide (or the provision of) all the operation, engineering, purchasing, repair, supervision, training, inspection, testing, protection, use, management, improvement, replacement, refurbishment, retirement, and maintenance activities associated with operating the Generating Facility in accordance with Prudent Electrical Practices.

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<sup>64</sup> SDG&E's CRE and WATER FiT programs terminated July 24, 2013.

- Appendix F, Item 41: “Prudent Electrical Practices” means those practices, methods and acts that would be implemented and followed by prudent operators of electric energy generating facilities in the Western United States, similar to the Generating Facility, during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety.
  - Prudent Electrical Practices shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the ISO and applicable laws.
  - Prudent Electrical Practices shall also include taking reasonable steps to ensure that:
    - Equipment, materials, resources, and supplies, including spare parts inventories, are available to meet the Generating Facility’s needs;
    - Sufficient operating personnel are available at all times and are adequately experienced and trained and licensed as necessary to operate the Generating Facility properly and efficiently, and are capable of responding to reasonably foreseeable emergency conditions at the Generating Facility and emergencies whether caused by events on or off the Site;
    - Preventive, routine, and non-routine maintenance and repairs are performed on a basis that ensures reliable, long term and safe operation of the Generating Facility, and are performed by knowledgeable, trained, and experienced personnel utilizing proper equipment and tools;
    - Appropriate monitoring and testing are performed to ensure equipment is functioning as designed;



- Equipment is not operated in a reckless manner, in violation of manufacturer's guidelines or in a manner unsafe to workers, the general public, or SDG&E's electric system or contrary to environmental laws, permits or regulations or without regard to defined limitations such as, flood conditions, safety inspection requirements, operating voltage, current, volt ampere reactive (VAR) loading, frequency, rotational speed, polarity, synchronization, and control system limits; and
- Equipment and components designed and manufactured to meet or exceed the standard of durability that is generally used for electric energy generating facilities operating in the Western United States and will function properly over the full range of ambient temperature and weather conditions reasonably expected to occur at the Site and under both normal and emergency conditions.

**iv. PPA Provisions – Re-MAT FiT Program<sup>65</sup>**

- Section 6.4: Standard of Care. Seller shall: (a) maintain and operate the Facility and Interconnection Facilities, except facilities installed by Buyer, in conformance with all Laws and in accordance with Prudent Electrical Practices; (b) obtain any governmental authorizations and permits required for the construction and operation thereof; and (c) generate, schedule and perform transmission services in compliance with all applicable operating policies, criteria, rules, guidelines and tariffs and Prudent Electrical Practices. Seller shall reimburse Buyer for any and all losses, damages, claims, penalties, or liability Buyer incurs as a result of Seller's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of the Facility throughout the Term of this Agreement.
- Section 6.5.2: Access Rights. Buyer, its authorized agents, employees and inspectors may, on reasonable advance notice under the circumstances, visit

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<sup>65</sup> SDG&E's Re-MAT FiT Program began November 1, 2013.

the Project during normal business hours for purposes reasonably connected with this Agreement or the exercise of any and all rights secured to Buyer by Law, its tariff schedules, and rules on file with the CPUC. Buyer, its authorized agents, employees and inspectors must (a) at all times adhere to all safety and security procedures as may be required by Seller; and (b) not interfere with the operation of the Project. Buyer shall make reasonable efforts to coordinate its emergency activities with the Safety and Security Departments, if any, of the Project operator. Seller shall keep Buyer advised of current procedures for contacting the Project operator's Safety and Security Departments.

- Appendix A: “Demonstrated Contract Capacity” means the Facility’s total rated electric alternating current energy generating capacity which will equal the [lesser of (a) the sum of the Inverter Block Unit Capacity of all Inverter Block Units in the Facility and (b) the continuous output power rating at the expected operating power factor of the step-up transformer that connects the Facility to the Transmission/Distribution Owner’s system[for solar photovoltaic technology]] [the total of the manufacturer’s nameplate ratings of all installed Wind Turbines, consistent with Prudent Electrical Practices and accepted industry standards, as indicated on the nameplates physically attached to the individual Wind Turbine generators[for wind technology]] [sum of the Metered Amounts for the Demonstration Hour[all other technologies]], as determined in accordance with Appendix M.
- Appendix A: “Inverter Block Unit Capacity” means, with respect to each Inverter Block Unit, the total rated electric alternating current energy generating capacity of such Inverter Block Unit, determined as the lesser of: (a) The manufacturer’s output rating of the Current Inverter included in such Inverter Block Unit, consistent with Prudent Electrical Practices and accepted industry standards, as indicated on the nameplate physically attached to such Current Inverter; (b) The sum of the manufacturer’s nameplate ratings of all Photovoltaic Modules included in such Inverter Block Unit, consistent with

Prudent Electrical Practices and accepted industry standards, as indicated on the nameplates physically attached to such individual Photovoltaic Modules;

- Appendix A: “Prudent Electrical Practices” means those practices, methods and acts that would be implemented and followed by prudent operators of electric energy generating facilities in the Western United States, similar to the Facility, during the relevant time period, which practices, methods and acts, in the exercise of prudent and responsible professional judgment in the light of the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result consistent with good business practices, reliability and safety. Prudent Electrical Practices shall include, at a minimum, those professionally responsible practices, methods and acts described in the preceding sentence that comply with manufacturers’ warranties, restrictions in this Agreement, and the requirements of Governmental Authorities, WECC standards, the CAISO and Laws. Prudent Electrical Practices also includes taking reasonable steps to ensure that:
  - (a) Equipment, materials, resources, and supplies, including spare parts inventories, are available to meet the Facility’s needs;
  - (b) Sufficient operating personnel are available at all times and are adequately experienced and trained and licensed as necessary to operate the Facility properly and efficiently, and are capable of responding to reasonably foreseeable emergency conditions at the Facility and Emergencies whether caused by events on or off the Site;
  - (c) Preventive, routine, and non-routine maintenance and repairs are performed on a basis that ensures reliable, long term and safe operation of the Facility, and are performed by knowledgeable, trained, and experienced personnel utilizing proper equipment and tools;
  - (d) Appropriate monitoring and testing are performed to ensure equipment is functioning as designed;
  - (e) Equipment is not operated in a reckless manner, in violation of manufacturer’s guidelines or in a manner unsafe to workers, the

general public, or the Transmission/Distribution Owner's electric system or contrary to environmental laws, permits or regulations or without regard to defined limitations such as, flood conditions, safety inspection requirements, operating voltage, current, volt ampere reactive (VAR) loading, frequency, rotational speed, polarity, synchronization, and control system limits; and

- (f) Equipment and components are designed and manufactured to meet or exceed the standard of durability that is generally used for electric energy generating facilities operating in the Western United States and will function properly over the full range of ambient temperature and weather conditions reasonably expected to occur at the Site and under both normal and emergency conditions.

#### ***B. Renewable Utility-Owned Generation Projects***

SDG&E requires all contractors working on UOG facilities to observe the following safety-related procedures:

##### **i. Safety Requirements**

- The Contractor shall establish, implement, and maintain a complete site-specific Safety Program, which includes pre-employment and random drug testing to prevent accidents, losses, or damage to personnel, equipment, and structures. The Contractor shall submit a written copy of this program to SDG&E for approval. The Program shall include a full time, on-site Safety Manager at the start of the Project and a sufficient, qualified, support staff for the duration of on-site work. This program shall follow the applicable laws, ordinances, regulations and standards for such programs and shall include: code of safe practices, fire protection plan, spill prevention plan, emergency situations response plan and procedures, and hazardous material control and training. The plan shall be coordinated with SDG&E's Program Manager and local authorities as required.
- The Safety Program shall include sections addressing Site environmental protection and a Personal Protective Equipment Program. As a minimum, the

Site Safety Plan shall require the following Personnel Protection Equipment (PPE) to be properly worn by all personnel on site unless inside an office building/trailer.

- Upon request, the Contractor shall submit to SDG&E for review the OSHA 200 log for the previous three (3) years for each site Subcontractor prior to Subcontract award.
- Safety and Health Orientation
  - Each new employee (including subcontractors and vendors) shall receive a thorough safety and health orientation, which gives the employee the basic information about the Contractor's Safety Program, Federal and/or State OSHA (the most stringent in any case) and other applicable safety rules and regulations. If necessary, the Contractor shall provide additional safety instructions during the scope of the normal daily activities for the performance of hazardous or unfamiliar tasks. Attendance to the orientation shall be required and appropriate records shall be maintained on file in the Contractor's office. Such records shall be available for review by SDG&E and authorized State or Federal agency personnel.
- Supervisor's Safety Orientation
  - The Contractor shall familiarize all supervisory personnel with the Contractor's safety and health responsibilities by conducting a safety and health orientation with each supervisor upon promotion or assignment. Orientation records shall be maintained on file in the Contractor's office. Supervisors shall be trained in CPR and First Aid.
- Weekly Toolbox and Daily Safety Meetings
  - The Contractor shall conduct weekly toolbox meetings, open to SDG&E's Representatives, to provide all on-site employees with up-to-date safety and health information. Employee attendance shall be mandatory and attendance records shall be maintained on file in the Contractor's office. Such records shall be made available for review

upon request by SDG&E. Daily task safety analysis for each planned activity shall be performed to help the employees prepare for the hazards associated with each assigned task.

- General Safety Requirements:
  - Barricades: The Contractor shall erect and maintain all barricades used to protect personnel from hazardous work operations as required by Federal or State OSHA.
  - Safety Signs: The Contractor shall post any signs or posters that may be needed to advise employees of unsafe areas or conditions as required by Federal or State OSHA.
  - Scaffolds: The Contractor shall erect all scaffolds in conformance with Federal or State OSHA standards and maintain a method of communication that daily scaffolding erection inspection has been performed and that the scaffolding is ready for use.
  - Floor and Roof Openings: The Contractor shall barricade or cover all floor and roof openings, to protect employees from falls as required by Federal or State OSHA.
  - Lock Out and Tag Out: The Contractor shall provide an approved procedure for lock out and tag out, including all lock tags, of all applicable equipment.
  - The Contractor shall designate to SDG&E in writing a qualified safety representative who shall administer the Contractor's Site Safety Plan. All vendor supplied service organizations shall each be required to implement a safety program appropriate for the Work being performed and in compliance with the Contractor's Site Safety Plan. The Contractor shall be responsible for all subcontractor compliance with the Site Safety Plan
  
- Loss Prevention
  - Implementation of an approved Safety Program
  - Provision of a safe workplace for all employees

- Implementation of a fire prevention program in accordance with NFPA 241: Standard for Safeguarding Construction, Alteration, and Demolition Operations
- Prevention of equipment operation unless the equipment is safe to operate, all protective equipment is in place, and the operators are properly trained and licensed or certified for the particular equipment being operated
- Control to ensure that hazards are not introduced unless protective equipment is in service, and appropriate notice and documentation has been provided
- Implementation of regular safety meetings and training
- Adherence to all Federal or State OSHA and other applicable safety requirements
- Non-compliance with Requirements
  - SDG&E's Program Manager or assigned representative shall have the right but not the obligation to monitor the safety performance of the personnel working on the Site, and shall have the authority to stop any activities on the Site deemed to be noncompliant with established safe work practices until such noncompliance is corrected. In no way shall SDG&E assume responsibility for Site safety. Site safety is solely the responsibility of the Contractor. All of the Contractor's employees shall be required to comply with safety obligations as established in the Agreement. The Contractor shall advise its employees that any employee who jeopardizes his or her safety and health, or the safety of others, shall be subjected to disciplinary action, including immediate removal from the site.
- Occupational Health
  - The Contractor shall take all reasonable steps and precautions to protect the health of their employees and other site personnel. The Contractor shall conduct occupational health monitoring and/or

sampling as required by Federal or State OSHA to determine the levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of employee sampling results shall be provided to SDG&E upon request.

- Fire Protection and Prevention

- The Contractor shall provide fire extinguishers that are adequate for potential fire hazards present during construction, and shall provide instruction in the proper use of such equipment to all employees. All extinguishers must be inspected at least annually and have a tag attached indicating compliance. Only carbon dioxide (CO<sub>2</sub>) fire extinguishers shall be used within proximity of the inverters, transformers, switchgear, and communications enclosures to avoid damage to this equipment.
- The Contractor shall insure the material it proposes to use at the site conforms to appropriate standards for flame-resistance or fireproof characteristics or is adequately protected from fire danger. Specific materials in this category include coatings, plastic-covering materials, construction lumber, scaffold plans, paper, boxes and crating materials. Flammables such as fuels and solvents must be stored in appropriate containers. Fire blankets shall be used to protect personnel and permanent Project equipment/installations when necessary.

- Crane Safety and Material Handling

- The Contractor shall comply with all rules, regulations and standards associated with crane safety and material handling. No equipment or machinery, intended for material or personnel handling, shall be allowed on-site without having written proof of a current inspection, insurance, and crane operator certification. All equipment inspection reports shall be renewed prior to expiration. All crane equipment shall have an inspection checklist signed-off by the operator at the beginning of each shift to ensure that any crane used is in safe



operating condition. Equipment must have functioning horns of sufficient volume to provide warnings when required.

**ii. Safety Inspections and Reporting**

- Inspections
  - The Contractor shall conduct weekly safety inspections of all work areas and operations in accordance with the Contractor’s Safety Program. The Contractor shall cooperate with any general safety inspections conducted by SDG&E.
  - The Contractor shall maintain an inspection program for review of safety compliance for the Contractor’s equipment, including power tools, electrical cords, rigging equipment, safety equipment, etc.
- Accident and Incident Reporting
  - The Contractor shall analyze any accident or incident (including “near misses”) and provide an independent report of the cause and results of the accident or incident to SDG&E. SDG&E’s Program Manager shall be notified immediately. Preliminary reports shall be submitted within twenty-four (24) hours of occurrence, and final reports within one week of occurrence. The Contractor shall make any improvement possible to the safety program to prevent future occurrence of a similar incident.
  - Contractor shall immediately notify Owner of any governmental agency (OSHA, Fire Dept., Health Dept., etc.) complaint and/or inspection of the Site.
- Record Keeping
  - The Contractor shall maintain all records required by federal and state agencies, which pertain to work related injuries or illness.
- Security
  - The Contractor shall be responsible for providing site security as necessary during construction.

**AFFIDAVIT**

I am an employee of the respondent corporation herein, and am authorized to make this verification on its behalf. The matters stated in the foregoing **SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E) 2014 RENEWABLES PORTFOLIO STANDARD PROCUREMENT PLAN COMPLIANCE FILING** are true of my own knowledge, except as to matters which are therein stated on information and belief, and as to those matters I believe them to be true.

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

Executed this 9th day of December, 2014, at San Diego, California

*/s/ Hillary Hebert*

Hillary Hebert  
Partnerships and Programs Manager  
Origination and Portfolio Design Department

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

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Order Instituting Rulemaking to Continue	)	Rulemaking 11-05-005
Implementation and Administration of California	)	(Filed May 5, 2011)
Renewables Portfolio Standard Program.	)	

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**SAN DIEGO GAS & ELECTRIC COMPANY  
(U 902 E) NOTICE OF AVAILABILITY OF  
2014 RENEWABLES PORTFOLIO STANDARD  
PROCUREMENT PLAN COMPLIANCE FILING**

AIMEE M. SMITH  
101 Ash Street, HQ-12  
San Diego, California 92101  
Telephone: (619) 699-5042  
Facsimile: (619) 699-5027  
[amsmith@semprautilities.com](mailto:amsmith@semprautilities.com)

Attorney for  
SAN DIEGO GAS & ELECTRIC COMPANY

December 9, 2014

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

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Order Instituting Rulemaking to Continue	)	Rulemaking 11-05-005
Implementation and Administration of California	)	(Filed May 5, 2011)
Renewables Portfolio Standard Program.	)	

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**SAN DIEGO GAS & ELECTRIC COMPANY  
(U 902 E) NOTICE OF AVAILABILITY OF  
2014 RENEWABLES PORTFOLIO STANDARD  
PROCUREMENT PLAN COMPLIANCE FILING**

Pursuant to Rule 1.9(d) of the Rules of Practice and Procedure of the California Public Utilities Commission (the "Commission"), San Diego Gas & Electric Company ("SDG&E") hereby provides notice that it has electronically filed with the Commission's docket office its **SAN DIEGO GAS & ELECTRIC COMPANY 2014 RENEWABLES PORTFOLIO STANDARD PROCUREMENT PLAN COMPLIANCE FILING** ("Final 2014 Plan").

The public version of the Final 2014 Plan filing is available on SDG&E's website at the following link: <http://www.sdge.com/regulatory-filing/3620/order-instituting-rulemaking-continue-implementation-and-administration>. The Final 2014 Plan filing may also be obtained by contacting:

Dean Kinports  
Regulatory Case Administrator  
SAN DIEGO GAS & ELECTRIC COMPANY  
8330 Century Park Ct.  
San Diego, CA 92123-1530  
Phone: (858) 654-8679  
[DAKinports@semprautilities.com](mailto:DAKinports@semprautilities.com)

Respectfully submitted this 9<sup>th</sup> day of December, 2014.

*/s/ Aimee M. Smith*  
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AIMEE M. SMITH  
101 Ash Street, HQ-12  
San Diego, California 92101  
Telephone: (619) 699-5042  
Facsimile: (619) 699-5027  
[amsmith@semprautilities.com](mailto:amsmith@semprautilities.com)  
Attorney for  
SAN DIEGO GAS & ELECTRIC COMPANY