505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298

Advice Letter: 4362-E

February 5, 2015

PUBLIC UTILITIES COMMISSION

Pacific Gas and Electric Company Attention: Meredith Allen Senior Director, Regulatory Relations 77 Beale Street, Mail Code B10C San Francisco, CA 94177

SUBJECT: Power Purchase Agreement for Procurement of an Eligible Renewable Energy Resource Between Diablo Winds, LLC and Pacific Gas and Electric Co.

Dear Ms. Allen:

Advice Letter 4362-E is effective as of June 12, 2014, per Resolution E-4656 Ordering Paragraphs.

Sincerely,

Edward Randoph

Edward Randolph Director, Energy Division



Brian K. Cherry Vice President Regulatory Relations Pacific Gas and Electric Company 77 Beale St., Mail Code B10C P.O. Box 770000 San Francisco, CA 94177

Fax: 415-973-7226

February 18, 2014

Advice 4362-E

(Pacific Gas and Electric Company ID U39 E)

Public Utilities Commission of the State of California

Subject: Power Purchase Agreement for Procurement of an Eligible Renewable Energy Resource between Diablo Winds, LLC and Pacific Gas and Electric Company

I. Introduction

A. Purpose of the advice letter

Pacific Gas and Electric Company ("PG&E") seeks California Public Utilities Commission ("Commission" or "CPUC") approval of a power purchase agreement ("PPA") with Diablo Winds, LLC ("Diablo Winds"). The PPA is for Renewables Portfolio Standard ("RPS")-eligible energy from an existing wind project to be located in Altamont Pass, California. The PPA has a term of fifteen years and is expected to deliver 62 GWh per year.

PG&E requests that the Commission issue a resolution no later than September 11, 2014, approving the PPA in its entirety and containing the findings as set forth in Section VI below.

B. Identify the subject of the advice letter, including:

1. Project name

The name of the project is Diablo Winds. Diablo Winds is an existing 18 MW wind facility located in Altamont Pass, California (the "Project").

2. Technology (including level of maturity)

The Project uses Vestas V-47 580 kV wind turbines.

3. General Location and Interconnection Point

The Project is located within California and is interconnected with the California Independent System Operator ("CAISO") at the Elsworthy Substation.

4. **Owner(s)** / **Developer(s)**

a. Name(s)

The owner of the Project is Diablo Winds, a limited liability company ("LLC"). The developer of the Project is NextEra, LLC ("NextEra"). Diablo Winds is a wholly owned subsidiary of NextEra.

b. Type of entity(ies) (e.g. LLC, partnership)

The owner of the Project is a LLC.

c. Business Relationship (if applicable, between seller/owner/developer)

Not applicable.

5. Project background, e.g., expiring QF contract, phased project, previous power purchase agreement, contract amendment

The Project is an existing 18 MW wind facility.

6. Source of agreement, i.e., RPS solicitation year or bilateral negotiation

The PPA resulted from PG&E's 2012 RPS Solicitation.

7. If an amendment, describe contract terms being amended and reason for amendment

Not applicable.

C. General Project(s) Description

Project Name	Diablo Winds
Technology	Wind
Capacity (MW)	18 MW
Capacity Factor	39%
Expected Generation (GWh/Year)	62 GWh
Initial Commercial Operational Date	2004
Date contract Delivery Term begins	June 30, 2016
Delivery Term (Years)	15
Vintage (New / Existing / Repower)	Existing facility
Location (city and state)	Alameda County, California
Control Area (e.g., CAISO, BPA)	CAISO

Nearest Competitive Renewable Energy Zone (CREZ) as identified by the Renewable Energy Transmission Initiative (RETI) ¹	Solano
Type of cooling, if applicable	Not applicable

D. Project location

- DIABLO WINDS DIABLO WINDS OAKLAND SCAVENSER OAKLAND SCAVENSER
- 1. Provide a general map of the generation facility's location.

2. For new projects describe facility's current land use type (private, agricultural, county, state lands (agency), federal lands (agency), etc.).

N/A as this is an existing facility.

E. General Deal Structure

Describe general characteristics of contract, for example:

1. Required or expected Portfolio Content Category of the proposed contract

¹ Information about RETI is available at: <u>http://www.energy.ca.gov/reti/</u>

The Project is an 18 MW wind facility that is connected to the CAISO controlled transmission system, a California balancing authority. Because the Project is an RPS-eligible generator that has its first point of interconnection with the Western Electricity Coordinating Council ("WECC") transmission system within the boundaries of a California balancing authority, the RPS-eligible procurement from the Project satisfies the criteria for the portfolio content category specified in Public Utilities Code Section 399.16(b)(1)(A) (hereinafter "Portfolio Content Category One").

2. Partial/full generation output of facility

PG&E will receive all of the generation output from the Project starting June 30, 2016. The PPA is for the purchase of an as-available product ("Product").

3. Any additional products, e.g. capacity

The Product includes the energy, capacity, and all ancillary products, services or attributes which are or can be produced by or associated with the Project, including, without limitation, Renewable Energy Credits ("RECs"), Capacity Attributes and Green Attributes.

4. Generation delivery point (e.g. busbar, hub, etc.)

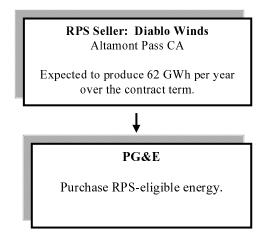
Diablo Winds' interconnection point is the Elsworthy Substation.

5. Energy management (e.g. firm/shape, scheduling, selling, etc.)

There is no firming or shaping associated with this PPA. PG&E or its agent will be the Scheduling Coordinator for the Project.

6. Diagram and explanation of delivery structure

Figure 1: Delivery Structure of the PPA



F. RPS Statutory Goals & Requirements

1. Briefly describe the Project's consistency with and contribution towards the RPS program's statutory goals set forth in Public Utilities Code §399.11. These goals include displacing fossil fuel consumption within the state; adding new electrical generating facilities within WECC; reducing air pollution in the state; meeting the state's climate change goals by reducing emissions of greenhouse gases associated with electrical generation; promoting stable retail rates for electric service; a diversified and balanced energy generation portfolio; meeting the state's resource adequacy requirements; safe and reliable operation of the electrical grid; and implementing the state's transmission and land use planning activities.

Public Utilities Code Section 399.11 states that increasing California's reliance on eligible renewable energy resources is intended to displace fossil fuel consumption within the state, promote stable electricity prices, reduce greenhouse gas ("GHG") emissions, improve environmental quality and promote the goal of a diversified and balanced energy generation portfolio. The Project is consistent with these goals because it is located in the WECC and will generate clean energy and will produce no GHG emissions directly associated with energy production.

2. Describe how procurement pursuant to the contract will meet IOU's specific RPS compliance period needs. Include Renewable Net Short calculation as part of response.

Senate Bill ("SB") 1078 established the California RPS Program, requiring an electrical corporation to increase its use of eligible renewable energy resources to 20 percent of total retail sales no later than December 31, 2017. The legislature subsequently accelerated the RPS goal to reach 20 percent by the end of 2010. In April 2011, Governor Brown signed into law SB 2 1X. As implemented by D.11-12-020, SB 2 1X requires retail sellers of electricity to meet the following RPS procurement quantity requirements beginning on January 1, 2011:

- An average of twenty percent of the combined bundled retail sales during the first compliance period (2011-2013).
- Sufficient procurement during the second compliance period (2014-2016) that is consistent with the following formula: (.217 * 2014 retail sales) + (.233 * 2015 retail sales) + (.25 * 2016 retail sales).
- Sufficient procurement during the third compliance period (2017-2020) that is consistent with the following formula: (.27 * 2017 retail sales) + (.29 * 2018 retail sales) + (.31 * 2019 retail sales) + (.33 * 2020 retail sales).
- 33 percent of bundled retail sales in 2021 and all years thereafter.

Consistent with the Energy Division Staff methodology for calculating the renewable net short ("RNS")², PG&E provides a RNS calculation in Table 1. PG&E also provides an alternative RNS calculation (the "Alternate RNS") in Table 2. The RNS calculates the volumes that PG&E projects it will need for RPS compliance based on direction provided

² See Administrative Law Judge's Ruling (1) Adopting Renewable Net Short Calculation Methodology (2) Incorporating the Attached Methodology into the Record, and (3) Extending the Date for Filing Updates to 2012 Procurement Plans issued on August 2, 2012.

in the August 2, 2012 Ruling using an "expected case" scenario. The Alternate RNS provides the same calculations as the RNS but substitutes PG&E's internal long-term bundled retail sales forecast for the assumptions provided in the August 2, 2012 ALJ Ruling.

As illustrated by both scenarios, PG&E's existing RPS portfolio is expected to provide sufficient RPS-eligible deliveries to meet PG&E's RPS compliance requirements in the first compliance period (2011 - 2013). Additionally, PG&E expects to exceed the RPS procurement requirement in the second compliance period (2014 - 2016). While the RNS calculations show a slight surplus in the third compliance period, both scenarios show that if RPS-eligible projects in PG&E's portfolio perform as expected, PG&E has fairly significant incremental need beginning in 2020 (prior to applying any excess procurement from earlier compliance periods) and beyond in order to maintain a 33 percent RPS level. This significantly increased need in the early part of the next decade is driven, primarily, by a large volume of expiring contracts in that time frame.

Through an existing PPA, PG&E presently purchases RPS-eligible energy from the Project and will continue to do so through June 30, 2016. Deliveries to PG&E under the new PPA will commence on June 30, 2016. Total deliveries from the Project are expected to average 62 GWh per year over the 15 year term of the PPA. Although the Project's initial deliveries are scheduled to begin prior to PG&E's stated preference of 2019-2020, the majority of the Project's deliveries will occur when PG&E has a need for new incremental deliveries of RPS-eligible volumes in 2020 and beyond. Furthermore, because the PPA is long term, and the Project satisfies the criteria of Portfolio Content Category One, any deliveries in excess of PG&E's RPS compliance obligation will be bankable and available for use to satisfy future compliance period or year needs.

Current Expected Need Scenario (Annual)							_		•					•					
Line #	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 2021		2022 2023	2024	2025	5 2026	5 2027	2028	2029	2080
1 RPS Target	20.0%	20.0%	20.0% 21.7%		23.3% 2	25.0%	27%	29% 3	31%	33% 33%	%EE %	% 33%	% 33%	33%	6 33%	8 33%	8 33%	33%	33%
2 Voluntary Margin of Over-Procurement (GWh)***	0	0	0	0	0	0	0	0	0	0 0		0 0	•	0	•	•	•	•	0
3 Aggregate Volumes (GWh)	14,833	14,511	17,167	14,833 14,511 17,167 22,054 23,723	3,723 2	24,048 2	25,375 2	24,354 23	23,881 23	23,265 22,820	_	20,485 20,151		19,887 19,763	63 19,158	58 18,82	18,823 18,713	18,104	18,037
4 Annual RPS Position (%)	19.8%	19.0%					32.2%	31.8% 3	31.1% 3	30.2% 29.6%	3% 26.5%	5% 26.0%	3% 25.6%	% 25.4%	% 24.6%	% 24.1%	% 23.9%	23.1%	23.0%
5 Gross Surplus/(Deficit) compared to Annual Targets* (GWh)	(140)	(130)				7	4,125 2	2,139 1	107 (2	(2,132) (2,626)	26) (5,013)		(5,397) (5,713)	3) (5,888)	8) (6,545)	5) (6,931)	1) (7,092)	(7,753)	(7,872)
6 Non-Bankable Volumes (GWh)	0	15					68	0	0	000	0	0	0	0	0	•	0	0	0
7 Volumes (Banked) or Withdrawn from Bank (GWh)	0	0				9	(4,037) ((2,139)	(107) 2,	2,132 2,626	6 5,013	13 5,397	97 5,713	3 2,209	06	•	0	0	0
8 Net Surplus/(Deficit) (GWh)	(140)	(730)					89	0	0	0 0	0	0	0	(3,678)	8) (6,545)	5) (6,931	1) (7,092)	(7,753)	(7,872)
9 Net Annual RPS Positions (%) with Use of Bank	19.8%	19.0%					27.1%	29.0% 3	31.0% 3	33.0% 33.0%	% 33.0%	0% 33.0%	33.0%	% 28.3%	% 24.6%	% 24.1%	% 23.9%	23.1%	23.0%
10 Cumulative Banked Volumes (GWh)	0	0			1	6,808 2	16,808 20,845 22,984	2,984 23	23,091 20	20,959 18,332	32 13,320	20 7,923	2,209	0 6	0	0	0	0	0
						-			.										
11 Forecast Failure Rate (%) for New Projects not yet online	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0% 0.0%	_	0.0% 0.0%	%0.0%	0.0%	%0.0 %	0.0%	0.0%	0.0%	%0.0
12 Forecast Failure Rate (%) for Existing Generation	0.0%	0.0%	0.1%	0.7%	0.5%	0.4%	0.4%	0.3% (0.2%	0.1% 0.0%	_	0.1% 0.1%	% 0.1%	0.1%	6 0.1%	6 0.1%	6 0.1%	0.1%	0.1%
Current Expected Need Scenario (Compliance Period)																			
	2011	2012	2013	2014	2015	2016	2017	2018 2019		2020 2021	1 2022	22 2023	2024	2025	5 2026	5 2027	2028	2029	2080
13 Compliance Period Requirement		20.0%			23.3%			30.0%	.0	33%	% 33%	% 33%	% 33%	33%	6 33%	6 33%	6 33%	33%	33%
14 Voluntary Margin of Over-Procurement (GWh)***		0			0			0		0	0	0	0	0	0	0	0	0	0
15 Aggregate Volumes (GWh)		46,511		9	69,826			96,874	4	22,820	-	185 20,1	20,485 20,151 19,887 19,763 19,158 18,823 18,713	19,71	53 19,15	58 18,8;	23 18,71	18,104	18,037
16 RPS Position (%)								31.4%		29.6%	_	26.5% 26.0%	25.6	% 25.4	25.6% 25.4% 24.6%	% 24.1%	% 23.9%	23.1%	23.0%
17 Gross Surplus/(Deficit) (GWh)								4,239		(2,626)		(5,013) (5,3	(5,397) (5,713)	3) (5,888)	8) (6,545)	5) (6,931)	1) (7,092)	(7,753)	(7,872)
18 Non-Bankable Volumes (GWh)								88		0	0	0	0	0	0	0	0	0	0
19 Volumes (Banked) or Withdrawn from Bank (GWh)								(4,151	(2,626	6 5,013	13 5,397	07 5,713	3 2,209	0	•	0	0	0
20 Net Surplus/(Deficit) (GWh)								88		0	0	0	0	(3,678)	8) (6,545)	5) (6,931	1) (7,092)	(7,753)	(7,872)
21 Net RPS Positions (%)								30.0%		33.0%	% 33.0%		33.0% 33.0%	% 28.3%	% 24.6%	% 24.1%	% 23.9%	23.1%	23.0%
22 Cumulative Banked Volumes (GWh)				-	16,808			20,959	_	18,3	32 13,	20 7,9	18,332 13,320 7,923 2,209	•	•	•	•	•	•

st Failure Rate (%) for New Projects not yet online 0%

0.0%

25 Total RPS Risk Adjusted Net Short (2011-2030) (GWh)

* 4ssumed amual targets are: 2011-2013 (20% amually), 2014 (21-7%), 2015 (23-3%), 2015 (23%), 2018 (29\%), 2018 (29

* The 2010 LtPP sales forecast extends only from 2018 through 2020. For purposes of extending this forecast past 2020, PGRE appled a 0.2% annual growth rate to the LTPPs, "Adjusted Energy Demand/Consumption" forecast in years after 2020. (This 0.2% growth rate is equal to the average growth rate seen in the LTPPs information and a second method of the average growth rate is equal to the

*** FG& consides an adequate bank of supuls RFS pocumement to be a volutiony maigin of pocumenent. However, in accordance with edsion 13-11-00, FG& will not seek in its 2013 RFS solidation to pocure Portfolio Content Category 2, and 3 RFS products to build and maintain an adequate bank.

Net Short Calculation Using PG&E Bundled Retail Sales Forecast In Near Term (2013 - 2017) and LTPP Methodology (2018 - 2030)**

Table 1: Renewable Net Short Calculation as of December 2013

Line #		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2080
1 RPS Target		20.0%	20.0%	20.0%	21.7%	23.3%	25.0%	27%	29%	31%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%
2 Voluntary Margin of Over-Procure ment (GWh)**	(GWh)**	•	•	•	0	•	0	0	•	•	0	0	0	0	0	0	0	0	0	0	0
3 Aggregate Volumes (GWh)		14,833	14,833 14,511		17,167 22,054	23,723	24,048	25,375	24,354	23,881	23,265 2	22,820	20,485 20,151	0,151 1	19,887 1	19,763 1	19,158 1	18,823 18,713		18,104	18,037
4 Annual RPS Position (%)		19.8%	19.0%					32.2%	30.7%	29.9%	29.0%	28.2%	25.1% 2	24.5% 2	23.9% 2	23.6% 2	22.6% 2	22.0% 2	21.6%	20.7%	20.4%
5 Gross Surplus/(Deficit) compared to Annual Targets* (GWh)	ual Targets* (GWh)	(140)	(730)					4,125	1,370	(841)	(3,243) ((3,896) ((6,480)	(7,043) (7	(7,567) (7,922)	3) (22 6' 1	(8,827) (9	(9,423) (9	(9,815) (1	(10,713)	(11,079)
6 Non-Bankable Volumes (GWh)		0	15					68	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Volumes (Banked) or Withdrawn from Bank (GWh)	ank (GWh)	0	0					(4,037)	(1,370)	841	3,243	3,896	6,480 7	7,043	712	0	0	0	0	0	0
8 Net Surplus/(Deficit) (GWh)		(140)	(130)					8	0	•	0	0	0	9) 0	(6,855) (7	(7,922) (8,827) (9,423) (9,815)	3,827) (9	9,423) (9	-	(10,713)	(11,079)
9 Net Annual RPS Positions (%) with Use of Bank	f Bank	19.8%	19.0%					27.1%	29.0%	31.0%	33.0%	33.0%	33.0% B	33.0% 24.8%		23.6% 2	22.6% 2	22.0% 2	21.6%	20.7%	20.4%
10 Cumulative Banked Volumes (GWh)		0	0				16,808	20,845	22,215	21,374	16,808 20,845 22,215 21,374 18,131 14,235	4,235	7,755	712	0	0	0	0	0	0	0
					Ī					-	-		ľ		Ì	ľ		-	-	-	[
11 Forecast Failure Rate (%) for New Projects not yet online	: online	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
12 Forecast Failure Rate (%) for Existing Generation		0.0%	0.0%	0.1%	0.7%	0.5%	0.4%	0.4%	0.3%	0.2%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Current Expected Need Scenario (Compliance Perioc	ario (Compliance Period)																				
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
13 Compliance Period Requirement			20.0%			23.3%			30.0%	%		33%	33%	33%	33%	33%	33%	33%	33%	33%	33%
1 /////instant Marrin of Oner Drocinc month (GWb)**	CW/P/**		c			c			c			- -	c	•	c	c	c	•	c	•	c

	2011 2012	2013	2014	2015 2016	6 2017	2018 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2080
13 Compliance Period Requirement	20.0%			23.3%		30.0%		33%	33%	33%	33%	33%	33%	33%	33%	33%	33%
14 Voluntary Margin of Over-Procurement (GWh)**	0			0		0		0	0	0	0	0	0	0	0	0	0
15 Aggregate Volumes (GWh)	46,511		9	69,826		96,874		22,820	20,485 20,151		19,887	19,763	19,158	19,158 18,823	18,713	18,104	18,037
16 RPS Position (%)						30.5%		28.2%	25.1%	24.5%	23.9%	23.6%	22.6%	22.0%	21.6%	20.7%	20.4%
17 Gross Surplus/(Deficit) (GWh)						1,411		(3,896)	(6,480)	(7,043)	(7,567)	(7,922)	(8,827)	(9,423)	(9,815)	(10,713)	(11,079)
18 Non-Bankable Volumes (GWh)						68		0	0	0	0	0	0	0	0	0	0
19 Volumes (Banked) or Withdrawn from Bank (GWh)						(1,323)		3,896	6,480	7,043	712	0	0	0	0	0	0
20 Net Surplus/(Deficit) (GWh)						89		0	0	0	(6,855)	(7,9 22)	(8,827)	(9,423)	(9,815)	(10,713)	(11,079)
21 Net RPS Positions (%)						30.0%		33.0%	33.0% 33.0%	33.0%	24.8%	23.6%	22.6%	22.0%	21.6%	20.7%	20.4%
22Cumulative Banked Volumes (GWh)			1	16,808		18,131		14,235	14,235 7,755	712	0	0	0	0	0	0	0
23 Forecast Failure Rate (%) for New Projects not yet online	%0			%0		%0		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
24 Forecast Failure Rate (%) for Existing Generation	0.0%			0.5%		0.3%		0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

25 Trotal RPS Risk Adjusted Net Short (2011-2030) (GWh)

* 4ss und targes a: 2012/307(smull), 2014(27%), 2015(23%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25%), 2015(25\%), 2015(25

** PG&E considers an adequate hank of surplus RPS procument to be a voluntary margin of procurement. However, in accordance with Decision 13: 11: 024, PG&E will not seekin its 2013 RPS solid tation to procure Portfolio Content Gragony 2 and 3 RPS products to build and maintain an adequate hank.

Table 2: Alternate Renewable Net Short Calculation as of December 2013 Net Short Calculation Using PG&E Bundled Retail Sales Forecast

Current Expected Need Scenario (Annual)

G. Confidentiality

Explain if confidential treatment of specific material is requested. Describe the information and reason(s) for confidential treatment consistent with the showing required by D.06-06-066, as modified by D.08-04-023.

In support of this Advice Letter, PG&E has provided the confidential information listed below. This information includes the PPA and other information that more specifically describes the rights and obligations of the parties. This information is being submitted in the manner directed by D.08-04-023 and the August 22, 2006, Administrative Law Judge's Ruling Clarifying Interim Procedures for Complying with D.06-06-066 to demonstrate the confidentiality of the material and to invoke the protection of confidential utility information provided under either the terms of the IOU Matrix, Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023, or General Order 66-C. A separate Declaration Seeking Confidential Treatment is being filed concurrently with this Advice Letter.

Confidential Attachments:

- Appendix A Consistency with Commission Decisions and Rules and Project Development Status
- Appendix B 2012 Solicitation Overview
- Appendix C1 Independent Evaluator Report (Confidential)
- Appendix D Contract Summary
- Appendix E Comparison of the PPA to PG&E's 2012 Pro Forma Power Purchase Agreement
- Appendix F Diablo Winds Power Purchase Agreement
- Appendix G Project's Contribution Toward RPS Goals

Public Attachment

Appendix C2 – Independent Evaluator Report (Public)

II. Consistency with Commission Decisions

A. **RPS Procurement Plan**

1. Identify the Commission decision that approved the utility's RPS Procurement Plan. Did the utility adhere to Commission guidelines for filing and revisions?

PG&E's 2012 Renewable Procurement Plan ("2012 RPS Plan") was conditionally approved in D.12-11-016 on November 8, 2012 and the decision was issued on

November 14, 2012. Consistent with the decision, PG&E submitted a final version of its 2012 RPS Plan on November 29, 2012. In this plan, PG&E stated that it seeks to procure about 1,000 GWh in its 2012 RPS solicitation, with a preference for long-term contracts that qualify as a Portfolio Content Category One product with initial deliveries starting in 2019-2020.

2. Describe the Procurement Plan's assessment of portfolio needs.

The goal of PG&E's 2012 RPS Plan is to procure approximately 1,000 GWh per year of RPS-eligible deliveries offering high portfolio value through new long-term contracts. In addition, based on deliveries from current projects, PG&E does not expect the need for deliveries from new projects until 2020 and beyond.

3. Discuss how the Project is consistent with the utility's Procurement Plan and meets utility procurement and portfolio needs (e.g. capacity, electrical energy, resource adequacy, or any other product resulting from the project).

The Proposed PPA is consistent with PG&E's goal to procure 1,000 GWh per year in the 2012 RPS solicitation. In addition, because the PPA is long-term, and deliveries from the Project are expected to satisfy the criteria of Portfolio Content Category One, any deliveries in excess of PG&E's portfolio need will be bankable and available for use to satisfy future compliance period needs.

4. Describe the preferred project characteristics set forth in the solicitation, including the required deliverability characteristics, online dates, locational preferences, etc. and how the Project meets those requirements.

The Project is also consistent with PG&E's preferred project characteristics set forth in the 2012 RPS Solicitation. PG&E's 2012 RPS Solicitation Protocol expressed a preference for bundled in-state resources delivering energy and capacity at a delivery point assigned by CAISO inside PG&E's service territory. The Project is interconnected to the CAISO and PG&E is entitled to all of the Project's Contract Capacity, including Capacity Attributes, from the Project to enable PG&E to meet its Resource Adequacy or successor program requirements, as the CPUC, CAISO or other regional entity may prescribe.

The PPA conforms to PG&E's Commission-approved 2012 RPS Plan by delivering an average of 62 GWh per year to fill a portion of PG&E's RPS net short position. The transaction complies with RPS program requirements, meets the portfolio needs outlined by the 2012 RPS Plan, and meets the majority of the project characteristics set forth in the solicitation. Finally, the PPA is competitive when compared to the other bids submitted in PG&E's 2012 RPS Solicitation and final shortlisted offers.

- 5. Sales
 - a) For Sales contracts, provide a quantitative analysis that evaluates selling the proposed contracted amount vs. banking the RECs towards future RPS compliance requirements (or any reasonable other options).

b) Explain the process used to determine price reasonableness, with maximum benefit to ratepayers.

This section is not applicable because the agreement is for the purchase, not sale, of energy.

- 6. Portfolio Optimization Strategy
 - a) Describe how the proposed procurement (or sale) optimizes IOU's RPS portfolio (or entire energy portfolio). Specifically, a response should include:
 - i. Identification of IOU's portfolio optimization strategy objectives that the proposed procurement (or sale) are consistent with.
 - ii. Identification of metrics within portfolio optimization methodology or model (e.g. PPA costs, energy value, capacity value, interest costs, carrying costs, transaction costs, etc.) that are increased/decreased as a result of the proposed transaction.
 - iii. Identification of risks (e.g. non-compliance with RPS requirements, regulatory risk, over-procurement of non-bankable RPS-eligible products, safety, etc.) and constraints included in optimization strategy that may be decreased or increased due to proposed procurement (or sale).

The PPA is consistent with PG&E's objectives of achieving and maintaining RPS compliance and minimizing customer costs over time. The PPA helps to meet the objective of filling the net short RPS compliance position through the steady and moderate procurement of cost effective RPS-eligible products through long-term contracts with start dates towards the latter part of the current decade. In order to minimize the total cost impact of the RPS program to customers, Net Market Value ("NMV") and Portfolio Adjusted Value ("PAV") calculations were used to evaluate the transaction's cost for PG&E's customers relative to the forecast market benefits provided by each offer. This transaction reduces the risk of non-compliance with RPS requirements by reducing the net short RPS compliance position beginning in 2019, consistent with PG&E's portfolio needs.

b. Description of how proposed procurement (or sale) is consistent with IOUs overall planned activities and range of transactions planned to optimize portfolio.

As stated in the 2012 RPS Plan, PG&E plans to fill the net short RPS compliance position through the steady and moderate procurement of cost effective RPS-eligible products through long-term contracts with start dates towards the latter part of the current decade. Although the Project's initial deliveries are scheduled to begin prior to PG&E's stated preference of 2019-2020, the Project's NMV and PAV scores demonstrate that the cost competitiveness and portfolio fit benefits of the PPA outweigh the potential negative effects of the near-term timing of initial contract deliveries. Furthermore, because the PPA is long-term, and the Project satisfies the criteria of Portfolio Content Category One, any deliveries in excess of PG&E's RPS compliance obligation will be bankable and available for use to satisfy future compliance period or year needs.

B. Bilateral contracting – if applicable

- 1. Discuss compliance with D.06-10-019 and D.09-06-050.
- 2. Specify the procurement and/or portfolio needs necessitating the utility to procure bilaterally as opposed to a solicitation.
- 3. Describe why the Project did not participate in the solicitation and why the benefits of the Project cannot be procured through a subsequent solicitation.

This section is not applicable because the PPA resulted from PG&E's 2012 RPS Solicitation and not from bilateral negotiations.

C. Least-Cost, Best-Fit (LCBF) Methodology and Evaluation

1. Briefly describe IOU's LCBF Methodology and how the Project compared relative to other offers available to the IOU at the time of evaluation.

PG&E's filed its 2012 RPS Shortlist Report on June 7, 2013 in Advice Letter 4238-E, a Supplement to the 2012 RPS Shortlist Report on July 10, 2013 in Advice Letter 4238-E-A, and a second Supplement to the 2012 RPS Shortlist Report on July 15, 2013 in Advice Letter 4238-E-B.

The RPS statute requires PG&E to procure the "least-cost best-fit" ("LCBF") eligible renewable resources.³ The LCBF decision directs the utilities to use certain criteria in their bid ranking⁴ and offers guidance regarding the process by which the utility ranks bids in order to select or "shortlist" the bids with which it will commence negotiations. PG&E's approved process for identifying the LCBF renewable resources focuses on four primary areas:

- a. Market Valuation;
- b. Portfolio Fit;
- c. Project Viability; and
- d. RPS Goals.

PG&E examined the reasonableness of the PPA using the LCBF evaluation criteria from the 2012 RPS solicitation. The general finding is that the PPA ranked favorably compared to the other projects received in PG&E's 2012 RPS Solicitation. A more

³ Pub. Util. Code § 399.14(a)(2)(B).

⁴ D.04-07-029.

detailed discussion of PG&E's evaluation of the PPA is provided in Confidential Appendix A.

a. Market Valuation

In a "mark-to-market analysis," the present value of the bidder's payment stream is compared with the present value of the product's market value to determine the benefit (positive or negative) from the procurement of the resource, irrespective of PG&E's portfolio. This analysis is based on an evaluation of the contract price in the PPA.

The transmission adder adjusts offer prices to include the cost, if any, of bringing the power from the generating facility to PG&E's network. Each bid is associated with a transmission cluster based upon the location of the facility. The costs in the CAISO interconnection study are used for bid evaluation.

PG&E's analysis of the market value and transmission adder is confidential and addressed in Confidential Appendix A.

b. Portfolio Fit

Portfolio fit considers how well an offer's features match PG&E's portfolio needs. PG&E evaluated the offer's consistency with portfolio fit as described in the 2012 RPS Plan and Protocol and filed its initial 2012 RPS Shortlist Report on June 7, 2013.

The PAV intends to more accurately reflect the value of renewable resources to PG&E customers. Specifically, the PAV methodology starts with net market value results, which reflect the value of a transaction relative to market forward curves, as an initial quantitative valuation. Additional quantitative adjustments are then made for aspects of market valuation, transmission adder, and portfolio fit described herein and for other factors that impact the value of a transaction with respect to PG&E's portfolio. Using PG&E's PAV methodology for the 2012 RPS Solicitation, the offer compared favorably to the other 2012 RPS shortlisted offers. Additional information about the PAV methodology is provided in Confidential Appendix A and Advice Letter 4238-E-B.

c. Project Viability

Project viability is based on three categories: 1) Company / Development Team, 2) Technology, and 3) Development Milestones. It is assessed by the CPUC developed Project Viability Calculator ("PVC"). The PVC is a tool for IOUs to evaluate the viability of a renewable energy project, relative to all other projects that bid into the California utilities' RPS solicitations. The PVC uses standardized categories and criteria to quantify a project's strengths and weaknesses in key areas of renewable project development.

PG&E's analysis of Project Viability and PVC score are confidential and can be found in Confidential Appendix A.

d. RPS Goals

PG&E assesses the Offer's consistency with and contribution to California's goals for the RPS program and the Offer's support of PG&E's supplier diversity goals (collectively "RPS Goals"). The RPS Goals assessment considers non-quantitative factors, legislative findings, and declarations that increase California's reliance on renewable energy, consistency with the CPUC's Water Action Plan, Executive Order S-06-06 which established a goal the state would meet 20% of its renewable energy needs with electricity produced from biomass, and supplier diversity.

2. Indicate when the IOU's Shortlist Report was approved by Energy Division.

The 2012 Shortlist Report was approved by Resolution E-4631 on December 19, 2013.

D. Compliance with Standard Terms and Conditions (STCs)

1. Does the proposed contract comply with D.08-04-009, D.08-08-028, and D.10-03-021, as modified by D.11-01-025?

The Commission set forth standard terms and conditions to be incorporated into contracts for the purchase of electricity from eligible renewable energy resources in D.04-06-014 and D.07-02-011, as modified by D.07-05-057 and D.07-11-025. These terms and conditions were compiled and published in D.08-04-009. Additionally, the non-modifiable term related to Green Attributes was finalized in D.08-08-028 and the non-modifiable terms related to RECs were finalized in D.10-03-021, as modified by D.11-01-025.

The non-modifiable standard terms and conditions in the PPA conform exactly to the "non-modifiable" terms set forth in Attachment A of D.08-04-009, as modified be D.08-08-028 and by Appendix C of D.10-03-021, as modified by D.11-01-025.

2. Using the tabular format, provide the specific page and section number where the RPS non-modifiable STCs are located in the contract.

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

Non-Modifiable Term	Contract Section Number	Contract Page Number
STC 1: CPUC Approval	1.36	4
STC 2: Green Attributes and RECs		
• Definition of Green Attributes	1.104	11
• Conveyance of Green Attributes	3.2	29
STC 6: Eligibility	10.2(b)	48
STC 17: Applicable Law	10.12	55
STC REC 1: Transfer of RECs	10.2(b)	48
STC REC 2: WREGIS Tracking of RECs	3.1(k)(viii)	26

3. Provide a redline of the contract against the utility's Commission-approved pro forma RPS contract as Confidential

Appendix E to the filed advice letter. Highlight modifiable terms in one color and non-modifiable terms in another.

A redline comparison of the PPA with PG&E's 2012 Pro Forma PPA is provided Confidential Appendix E.

E. Portfolio Content Category Claim and Upfront Showing (D.11-12-052, Ordering Paragraph 9)

1. Describe the contract's claimed portfolio content category.

As described in Section I.E and in further detail below, the PPA satisfies the upfront showing required for Portfolio Content Category One.

2. Explain how the procurement pursuant to the contract is consistent with the criteria of the claimed portfolio content category as adopted in D.11-12-052.

SB 2 1X, which is codified at Public Utilities Code Sections 399.11, and following, established three portfolio content categories that apply to RPS-eligible generation associated with RPS procurement contracts signed after June 1, 2010. D.11-12-052 requires that IOUs make an upfront showing related to the categorization of each proposed RPS procurement transaction. Specifically, for approval of contracts meeting the criteria of Portfolio Content Category One, an IOU may show the RPS-eligible generator has its first point of interconnection with the WECC transmission system within the boundaries of a California balancing authority area.

The Project meets the upfront showing required for Portfolio Content Category One because it is an in-state RPS-eligible renewable resource that expects to have its first point of interconnection with the WECC transmission system with the CAISO, a California balancing authority. Therefore, the RPS-eligible procurement from the Project satisfies the criteria for Portfolio Content Category One adopted in D.11-12-052.

3. Describe the risks that the procurement will not be classified in the claimed portfolio content category.

There is no known risk that the electric power would not be categorized as Portfolio Content Category One.

- 4. Describe the value of the contract to ratepayers if:
 - 1. Contract is classified as claimed

2. Contract is not classified as claimed

The value of the PPA, as described and assessed in this Advice Letter, is based on the assumption that the procurement meets the criteria of Portfolio Content Category One. If the PPA is not classified as Portfolio Content Category One, its value to PG&E and its customers could, under certain limited scenarios, be lower. For example, if PG&E (i) exceeds the applicable portfolio balance requirements set forth in Public Utilities Code Section 399.16(c)(2); and (ii) has excess procurement in that compliance period, D.12-06-038 would require any RECs from the Project exceeding the portfolio balance requirements to be deducted from the surplus.

5. Use the table below to report how the procurement pursuant to the contract, if classified as claimed, will affect the IOU's portfolio balance requirements, established in D.11-12-052.

Per PG&E's 2012 Preliminary Annual 33 percent RPS Compliance Report, amended and filed on November 15, 2013, PG&E's current Portfolio Balance Requirements are listed in the table below.

Forecast of Portfolio Balance Requirements	Compliance Period 2 (2014- 2016)	Compliance Period 3 (2017- 2020)
PCC 1 Balance Requirement	·	· · · · ·
CP 2 = 65% of RECs applied to proc.	urement quantity requiren	nent
$CP \ 3 = 75\% \text{ of } RECs \text{ applied to } process$	urement quantity requiren	nent
Quantity of PCC 1 RECs		
(under contract, not including proposed contract)	13,598 GWh	26,374 GWh
Quantity of PCC 1 RECs from proposed contract	31 GWh	248 GWh
Quantity of PCC 2 RECs		
	0	0
Quantity of PCC 2 RECs		
(under contract, not including proposed contract)	0	0
Quantity of PCC 2 RECs from proposed contract	0	0
PCC 3 Balance Limitation		<u>-</u>
$CP \ 2 = 15\%$ of RECs applied to proc	urement quantity requiren	nent
$CP \ 3 = 10\% \ of \ RECs \ applied \ to \ proc.$	urement quantity requirer	nent
Quantity of PCC 3 RECs		
(under contract, not including proposed contract)	0 ⁵	0^6
Quantity of PCC 3 RECs from proposed contract	0	0

⁵ PG&E has 34.5 GWh under contract pursuant to three PCC3 REC purchase agreements that are not yet effective because they are pending CPUC approval.

⁶ PG&E has 46 GWh under contract pursuant to three PCC3 REC purchase agreements that are not yet effective because they are pending CPUC approval.

F. Long-Term Contracting Requirement

D.12-06-038 established a long-term contracting requirement that must be met in order for an IOU to count RPS procurement from contracts less than 10 years in length ("short-term contracts") toward RPS compliance.

- 1. Explain whether or not the proposed contract triggers the long-term contracting requirement.
- 2. If the long-term contracting requirement applies, provide a detailed calculation that shows the extent to which the utility has satisfied the long-term contracting requirement. If the requirement has not yet been satisfied for the current compliance period, explain how the utility expects to satisfy the quantity by the end of the compliance period to count the proposed contract for compliance.

In D.12-06-038, the Commission adopted a threshold standard pursuant to SB 2 1X that requires load serving entities to sign long-term contracts in each compliance period equal to at least 0.25 percent of their expected retail sales over that same compliance period. The proposed PPA is a long-term 15-year contract that does not trigger the minimum quantity requirement set forth in D.12-06-038.

- G. Tier 2 Short-term Contract "Fast Track" Process if applicable
 - 1. Is the facility in commercial operation? If not in commercial operation, explain the IOU's basis for its determination that commercial operation will be achieved within the required six months.
 - 2. Describe and explain any contract modifications to the Commission-approved short-term pro forma contract.

PG&E is not submitting the PPA under the "Fast Track" process.

H. Interim Emissions Performance Standard

In D.07-01-039, the Commission adopted a greenhouse gas Emissions Performance Standard (EPS) which is applicable to electricity contract for baseload generation, as defined, having a delivery term of five years or more.

1. Explain whether or not the contract is subject to the EPS.

A greenhouse gas Emissions Performance Standard ("EPS") was established by Senate Bill 1368 ("SB 1368"), which requires that the Commission consider emissions costs associated with new long-term (five years or greater) power contracts procured on behalf of California ratepayers. To implement SB 1368, in D.07-01-039, the Commission adopted an EPS that applies to contracts for a term of five or more years for baseload generation with an annualized plant capacity factor of at least 60 percent. The PPA is not a covered procurement subject to the EPS because the generating facility has a forecast annualized capacity factor of less than 60 percent and therefore is not baseload generation under paragraphs 1(a)(ii) and 3(2)(a) of the Adopted Interim EPS Rules.

Notification of compliance with D.07-01-039 is provided through this Advice Letter, which has been served on the service list in the RPS rulemaking, R.11-05-005

2. If the contract is subject to the EPS, discuss how the contract is in compliance with D.07-01-039.

See Section H.1 above.

3. If the contract is not subject to EPS, but delivery will be firmed/shaped with specified baseload generation for a term of five or more years, explain how the energy used to firm/shape meets EPS requirements.

Not applicable.

4. If the contract term is five or more years and will be firmed/shaped with unspecified power, provide a showing that the utility will ensure that the amount of substitute energy purchases from unspecified resources is limited such that total purchases under the contract (renewable and non-renewable) will not exceed the total expected output from the renewable energy source over the term of the contract.

Not applicable.

- 5. If substitute system energy from unspecified sources will be used, provide a showing that:
 - a. the unspecified energy is only to be used on a short-term basis; and
 - b. the unspecified energy is only used for operational or efficiency reasons; and
 - c. the unspecified energy is only used when the renewable energy source is unavailable due to a forced outage, scheduled maintenance, or other temporary unavailability for operational or efficiency reasons; or
 - d. the unspecified energy is only used to meet operating conditions required under the contract, such as provisions for number of start-ups, ramp rates, minimum number of operating hours.

Not applicable.

I. Procurement Review Group (PRG) Participation

1. List PRG participants (by organization/company).

The Procurement Review Group ("PRG") for PG&E includes the Commission's Energy Division and Division of Ratepayer Advocates, Department of Water Resources, Union of Concerned Scientists, The Utility Reform Network, the California Utility Employees, and Jan Reid, as a PG&E ratepayer.

> 2. Describe the utility's consultation with the PRG, including when information about the contract was provided to the PRG, whether the information was provided in meetings or other correspondence, and the steps of the procurement process where the PRG was consulted.

The PPA was presented to the PRG as part of PG&E's proposed shortlist on March 27, 2013. The transaction was subsequently presented to the PRG as a potential contract for execution on November 12, 2013. Additional information is provided in Confidential Appendix A.

3. For short-term contracts, if the PRG was not able to be informed prior to filing, explain why the PRG could not be informed.

Not applicable

J. Independent Evaluator (IE)

The use of an IE is required by D.04-12-048, D.06-05-039, 07-12-052, and D.09-06-050.

1. Provide name of IE.

The Independent Evaluator is Lewis Hashimoto from Arroyo Seco Consulting.

2. Describe the oversight provided by the IE.

The IE reviewed and assessed PG&E's RPS evaluation and selection process, and observed the negotiations of the PPA to ensure that they were conducted fairly.

3. List when the IE made any findings to the Procurement Review Group regarding the applicable solicitation, the project/bid, and/or contract negotiations.

The IE provided insights and findings to the PRG during the PRG meetings noted in Section I above. Overall, the IE's opinion is that the Diablo Winds contract merits CPUC approval based on superior pricing, value, and viability.

4. Insert the public version of the project-specific IE Report.

The public version of the IE report is attached to this Advice Letter as Appendix C2.

III. Project Development Status

This section is not applicable because the project is already commercially operational.

A. Company / Development Team

- 1. Describe the Project development team and/or company principals and describe how many years of experience they have had on the development side of the electric industry.
- 2. List any successful projects (renewable and conventional) the Project development team and/or company principals have owned, constructed, and/or operated.
- B. Technology
 - 1. Technology Type and Level of Technology Maturity
 - a. Discuss the type and stage of the Project's proposed technology (e.g. concept state, testing stage, commercially operating, utility-scale operation, ample history of operation).
 - b. If the technology has not been commercially demonstrated, identify whether the developer has or plans to have a demonstration project. Describe the project (MW, hours run), its results (e.g., temperature, GWh, or other appropriate metric) and its ability to perform on a commercial scale.
 - c. If hybrid technology will be deployed, describe the configuration and potential issues and/or benefits created by the hybrid technology.
 - 2. Quality of Renewable Resource
 - a. Explain the quality of the renewable resource that the Project will rely upon. Provide supporting documentation, such as project-specific resource studies, reports from RETI or the National Renewable Energy Lab (NREL) that supports resource quality claims and ability for the facility to provide expected generation.
 - b. For biomass projects, please provide a fuel resource analysis and the developer's fuel supply plan. Identify:
 - i. From whom/where the fuel is being secured; and
 - ii. Where the fuel is being stored
 - c. Explain whether the IOU believes that the Project will be able meet the terms of the contract given its

independent understanding of the quality of the renewable resource. If necessary, reference successful nearby projects, completed studies, and/or other information.

- 3. Other Resources Required
 - a. Identify any other fuel supply (other than the renewable fuel supply discussed above) necessary to the Project and the anticipated source of that supply;
 - b. Explain whether the developer has secured the necessary rights for water, fuel(s), and any other required inputs to run the Project.
 - c. Provide the estimated annual water consumption of the facility (gallons of water/year).
 - d. Explain whether the IOU believes that the Project will be able meet the terms of the contract given its independent understanding of the adequacy of the additional fuel or any other necessary resource supply. If necessary, reference successful nearby projects, completed studies, and/or other information.
- C. Development Milestones
 - 1. Site Control

Explain the status of Project site control, including:

- a. Site control type (e.g. ownership, lease, BLM Right-of-Way grant, etc.)
 - i. If lease, describe duration of site control and any exercisable extension options
 - ii. Level or percent of site control attained if less than 100%, discuss seller's plan for obtaining full site control
- 2. Equipment Procurement

Explain the status of equipment procurement for the Project, including:

- a. The status of the procurement of major equipment (e.g. equipment in-hand, contracts executed and equipment in delivery, negotiating contracts with supplier(s), etc.). For equipment not yet procured, explain any contingencies and overall timing.
- b. The developer's history of ability to procure equipment.

- c. Any identified equipment procurement issues, such as lead time, and their effect on the Project's date of operability.
- 3. Permitting / Certifications Status
 - a. Describe the status of the Project's RPS-eligibility certification from the CEC. Explain if there is any uncertainty regarding the Project's eligibility.
 - b. Use the following table to describe the status of all major permits or authorizations necessary for development and operation of the Project, including, without limitation, CEC authorizations, air permits, certificates of public convenience and necessity (CPCN) or permits to construct (PTC) for transmission, distribution, or substation construction/ expansion, land use permits, building permits, water use or discharge authorizations, Federal Aviation Administration authorizations, military authorizations, and Federal Communication Commission authorizations. If necessary, table may be split between public and confidential sections permits requests with public agencies should be included in the public portion.

Name of Permit or Lease required	Grantor	Description of Permit or Lease	Current Status (to be filed, pending approval, approved)	Projected timeframe for approval

- 4. Production Tax Credit (PTC) / Investment Tax Credit (ITC) / Other government funding- if applicable
 - a. Explain the Project's potential eligibility for tax credits or other government funding based on the technology of the Project and contract operation date.
 - **b.** If the developer is pursuing PTCs/ITCs/Other, explain the criteria that must be met and the developer's plans

c. Explain whether the utility or the seller bears the risk if the anticipated tax credits/funding are not obtained.

5. Transmission

- a. Discuss the status of the Project's interconnection application, whether the Project is in the CAISO or any other interconnection queue, and which transmission
- b. Discuss the status of the Interconnection Agreement with the interconnecting utility (e.g., draft issued, executed and at FERC, fully approved).
- c. Describe the required network and gen-tie upgrades and the capacity to be available to the Project upon completion, including any proposed curtailment schemes.
- d. Describe any required substation upgrades or construction.
- e. Discuss the timing and process for all transmissionrelated upgrades. Identify critical path items and potential contingencies in the event of delays.
- f. Explain any issues relating to other generating facility projects in the transmission queue as they may affect the Project.
- g. If the Project is dependent on transmission that is likely to be congested at times, leading to a product that is less than 100% deliverable for at least several years, explain how the utility factored the congestion into the LCBF bid analysis.
- h. Describe any alternative transmission arrangements available and/or considered to facilitate delivery of the Project's output.
- A. Financing Plan

- 1. Explain developer's manner of financing (e.g. project financing, balance sheet financing, utility tax equity investment, etc.).
- 2. Describe the developer's general project financing status.
- 3. To what extent (%) has the developer received firm commitments from financers (both debt and equity), and how much financing is expected to be needed to bring the Project online?
- 4. List any government funding or awards received by the Project.
- 5. Explain the creditworthiness of all relevant financiers.
- 6. Describe developer's history of ability to procure financing.
- 7. Describe any plans for obtaining subsidies, grants, or any other third party monetary awards (other than Production Tax Credits and Investment Tax Credits) and discuss how the lack of any of this funding will affect the Project.

IV. Contingencies and/or Milestones

Describe major performance criteria and guaranteed milestones, including those outside the control of the parties, including transmission upgrades, financing, and permitting issues.

The PPA includes certain performance criteria and milestones that PG&E includes in its form RPS PPA contracts. These and other contingencies and milestones are addressed in Confidential Appendices A and D. The terms of the PPA are conditioned on the occurrence of CPUC Approval, as it is defined in the PPA.

V. Safety Considerations

1. What terms in the PPA address the safe operation, construction and maintenance of the Project? Are there any other conditions, including but not limited to conditions of any permits or potential permits, that the IOU is aware of that ensure such safe operation, construction and decommissioning?

Local, state and federal agencies that have review and approval authority over the Project are charged with enforcing safety, environmental and other regulations for the Project,

including decommissioning. Moreover, PG&E requires that the Project abide by contractual obligations in the PPA that require certain Standards of Care (Section 3.5) and Covenants (Section 10.3) to not violate applicable laws, rules and regulations. These provisions serve to: (1) clarify that the burden of safe operations resides with the seller, the entity with control over on-site decisions, and (2) protect PG&E customers against bearing the cost of imprudent or unsafe operations. They do not provide PG&E with rights to enforce or dictate safe operations of the Project as those rights reside with the governmental authorities with safety and permitting oversight over the Project.

2. What has the IOU done to ensure that the PPA and the Project's operation are: consistent with Public Utilities Code Section 451; do not interfere with the IOU's safe operation of its utility operations and facilities; and will not adversely affect the public health and safety?

The Project is owned, constructed and operated by a third party. As explained in Section V.1, the Seller is obligated to own and operate the Project in accordance with the laws, rules, and regulations and apply to it, a number of which are referenced in the PPA to clarify that the burden of safe operations, including operations that impact public safety, lies with the Seller.

3. If PPA or amendment is with an existing facility, please provide a matrix that identifies all safety violations found by any entity, whether government, industry-based or internal with an indication of the issue and if the resolution of that alleged violation is pending or resolved and what the progress or resolution was/is.

Seller has indicated that no safety violations have been found by any entity. PG&E has validated Seller's report through a search of the CA-OSHA database and a general Google search.

4. If PPA or amendment is with an existing facility, will the PPA or amendment lead to any changes in the structure or operations of the facility? Any change in the safety practices at the facility? If so, with what federal, state and local agencies did the developer confer or seek permits or permit amendments for these changes?

There are no expected changes to the structure or operations of this facility. The components of the facility have useful lives that exceed the term of this agreement.

VI. REQUEST FOR COMMISSION APPROVAL

PG&E requests that the Commission issue a resolution no later than September 11, 2014, that:

- 1. Approves the PPA in its entirety, including payments to be made by PG&E pursuant to the PPA, subject to the Commission's review of PG&E's administration of the PPA.
- 2. Finds that any procurement pursuant to the PPA is procurement from eligible renewable energy resources for purposes of determining PG&E's compliance

with any obligation that it may have to procure eligible renewable energy resources pursuant to the California RPS (Public Utilities Code Section 399.11 et seq.), D.03-06-071, D.06-10-050, D.11-12-020, D.11-12-052 or other applicable law.

- 3. Finds that all procurement and administrative costs, as provided by Public Utilities Code Section 399.13(g), associated with the PPA shall be recovered in rates.
- 4. Adopts the following finding of fact and conclusion of law in support of CPUC Approval:
 - a. The PPA is consistent with PG&E's 2012 RPS procurement plan.
 - b. The terms of the PPA, including the price of delivered energy, are reasonable.
- 5. Adopts the following finding of fact and conclusion of law in support of cost recovery for the PPA:
 - a. The utility's costs under the PPA shall be recovered through PG&E's Energy Resource Recovery Account.
 - b. Any stranded cost that may arise from the PPA is subject to the provisions of D.04-12-048 that authorize recovery of stranded renewables procurement costs over the life of the contract. The implementation of the D.04-12-048 stranded cost recovery mechanism is addressed in D.08-09-012.
- 6. Adopts the following findings with respect to resource compliance with the EPS adopted in R.06-04-009:
 - a. The PPA is not a form of covered procurement subject to the EPS, because the generating facility has an expected capacity factor of less than 60 percent and, therefore, is not baseload generation under paragraph 1(a)(ii) and 3(2)(a) of the adopted Interim EPS Rules.
- 7. Adopts a finding of fact and conclusion of law that deliveries from the PPA shall be categorized as procurement under the portfolio content category specified in Section 399.16(b)(1)(A), subject to the Commission's after-the-fact verification that all applicable criteria have been met.

Protests:

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than March 10, 2014, which is 20 days after the date of this filing. Protests must be submitted to:

CPUC Energy Division ED Tariff Unit 505 Van Ness Avenue, 4th Floor San Francisco, California 94102

Facsimile: (415) 703-2200 E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Brian K. Cherry Vice President, Regulatory Relations Pacific Gas and Electric Company 77 Beale Street, Mail Code B10C P.O. Box 770000 San Francisco, California 94177

Facsimile: (415) 973-7226 E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Rule 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Rule 3.11).

Effective Date:

PG&E requests that the Commission issue a resolution approving this **Tier 3** advice filing by **September 11, 2014**.

Notice:

In accordance with General Order 96-B, Section IV, a copy of this Advice Letter excluding the confidential appendices is being sent electronically and via U.S. mail to parties shown on the attached list and the service lists for R.11-05-005, and R.12-03-014. Non-market participants who are members of PG&E's Procurement Review Group and have signed appropriate Non-Disclosure Certificates will also receive the Advice Letter and accompanying confidential attachments by overnight mail. Address changes to the General Order 96-B service list should be directed to PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at

(415) 703-2021 or at Process_Office@cpuc.ca.gov. Advice letter filings can also be accessed electronically at http://www.pge.com/tariffs.

Brian Cherry /IG

Vice President – Regulatory Relations

cc: Service List for R.11-05-005 Service List for R.12-03-014 Cynthia Walker – Energy Division Paul Douglas – Energy Division Jason Simon – Energy Division Shannon O'Rourke – Energy Division Joseph Abhulimen – ORA Karin Hieta – ORA

Limited Access to Confidential Material:

The portions of this Advice Letter marked Confidential Protected Material are submitted under the confidentiality protection of Sections 583 and 454.5(g) of the Public Utilities Code and General Order 66-C. This material is protected from public disclosure because it consists of, among other items, the PPA itself, price information, and analysis of the proposed RPS PPA, which are protected pursuant to D.06-06-066 and D.08-04-023. A separate Declaration Seeking Confidential Treatment regarding the confidential information is filed concurrently herewith.

CALIFORNIA PUBLIC UTILITIES COMMISSION ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COM	PLETED BY UTILITY (A	Attach additional pages as needed)				
Company name/CPUC Utility No. Pacific C	Gas and Electric Comp	any (ID U39 E)				
Utility type:	Contact Person: Igor C	rinberg				
\square ELC \square GAS	Phone #: (415) 973-85	80				
DPLC DHEAT WATER		n and PGETariffs@pge.com				
EXPLANATION OF UTILITY TY		(Date Filed/ Received Stamp by CPUC)				
ELC = Electric $GAS = Gas$						
	WATER = Water					
Advice Letter (AL) #: <u>4362-E</u>		Tier: <u>3</u>				
		ment of an Eligible Renewable Energy Resource				
		Gas and Electric Company				
Keywords (choose from CPUC listing): <u>Agr</u>						
AL filing type: \Box Monthly \Box Quarterly \Box Ann						
If AL filed in compliance with a Commission or						
Does AL replace a withdrawn or rejected AL?	• •					
Summarize differences between the AL and the prior withdrawn or rejected AL: Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: Yes. See the attached matrix that identifies all of the confidential information. Confidential information will be made available to those who have executed a nondisclosure agreement: Yes I No <u>All members</u>						
matrix that identifies all of the confidential information.						
Confidential information will be made available to those who have executed a nondisclosure agreement: 🗹 Yes 🗆 No <u>All members</u>						
of PG&E's Procurement Review Group who have signed nondisclosure agreements will receive the confidential information.						
information: Charles Post, (415) 973-9286 Resolution Required? ☑ Yes □ No Requested effective date: September 11, 2014 No. of tariff sheets: N/A						
Estimated system annual revenue effect (%): \underline{N}	<u>A</u>					
Estimated system average rate effect (%): $\underline{N/A}$						
When rates are affected by AL, include attachme commercial, large C/I, agricultural, lighting).	ent in AL showing averag	e rate effects on customer classes (residential, small				
Tariff schedules affected: <u>N/A</u>						
Service affected and changes proposed: <u>N/A</u>						
Pending advice letters that revise the same tariff	sheets: <u>N/A</u>					
Protests, dispositions, and all other corresponde otherwise authorized by the Commission, and sh		due no later than 20 days after the date of this filing, unless				
California Public Utilities Commission		c Gas and Electric Company				
Energy Division		Brian Cherry President Degulatory Polations				
EDTariffUnit		President, Regulatory Relations ale Street, Mail Code B10C				
505 Van Ness Ave., 4 th Flr. San Francisco, CA 94102	P.O.	Box 770000				
E-mail: EDTariffUnit@cpuc.ca.gov		rancisco, CA 94177 il: PGETariffs@pge.com				
	E-IIIa	n. i Ge i al llis@pgc.com				

DECLARATION OF CHARLES POST SEEKING CONFIDENTIAL TREATMENT FOR CERTAIN DATA AND INFORMATION CONTAINED IN ADVICE LETTER 4362-E (PACIFIC GAS AND ELECTRIC COMPANY - U 39 E)

I, Charles Post, declare:

1. I am presently employed by Pacific Gas and Electric Company ("PG&E"), and have been an employee at PG&E since 2000. My current title is Principal within PG&E's Energy Procurement organization. In this position, my responsibilities include negotiating PG&E's Renewables Portfolio Standard Program ("RPS") Power Purchase Agreements ("PPAs"). In carrying out these responsibilities, I have acquired knowledge of PG&E's contracts with numerous counterparties and have also gained knowledge of the operations of electricity buyers and sellers in general. Through this experience, I have become familiar with the type of information that would affect the negotiating positions of electricity buyers and sellers with respect to price and other terms, as well as with the type of information that parties consider confidential and proprietary.

Based on my knowledge and experience, and in accordance with Decision ("D.")
 08-04-023 and the August 22, 2006 "Administrative Law Judge's Ruling Clarifying Interim
 Procedures for Complying with Decision 06-06-066," I make this declaration seeking
 confidential treatment of the redacted portion of Advice Letter 4362-E, Appendices A, B, C1, D,
 E, F, and G to PG&E's Advice Letter 4362-E submitted on February 18, 2014. By this Advice
 Letter, PG&E is seeking this Commission's approval of a PPA that PG&E has executed with RE
 Astoria, LLC.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is

- 1 -

seeking to protect constitutes the particular type of data and information listed in Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023 (the "IOU Matrix"), and/or constitutes information that should be protected under General Order 66-C. The matrix also specifies the category or categories in the IOU Matrix to which the data and information corresponds, if applicable, and why confidential protection is justified. Finally, the matrix specifies that: (1) PG&E is complying with the limitations specified in the IOU Matrix for that type of data or information, if applicable; (2) the information is not already public; and (3) the data cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text in the attached matrix that is pertinent to this filing.

I declare under penalty of perjury, under the laws of the State of California, that to the best of my knowledge the foregoing is true and correct. Executed on February 18, 2014 at San Francisco, California.

LNP

Charles Post

		·			February 18, 2014)]4	
			IDENTIFICAT	123	CONFIDEN	ON OF CONFIDENTIAL INFORMATION	
Redaction Reference	1) The material submitted constitutes a particular type of data listed in the Matrix, appended as Appendix 1 to D.06-06-	2) Which category or categories in the Matrix the data correspond to:	 That it is complying with the with the limitations on confidentiali ty specified in the Matrix for that type of data (Y/N) 	 4) That 4) That the information is not already public (Y/N) 	5) The data cannot be aggregated, redacted, masked or otherwise protected in a way that allows partial disclosure (Y/N)	PG&E's Justification for Confidential Treatment	ength of Time
Document: A	Advice Letter 4361-E	61-E					
Appendix A	Y	Item V C) LSE Total Energy Forecast – Bundled Customer (MWh)	Y	Y	Y	This Appendix contains information on PG&E's sales forecast and PG&E's renewable net open position. This information would provide market sensitive information to	For information covered under Item V C) and VIB) the front three years of the forecast remain confidential for three verses
		Item VI B) Utility Bundled Net Open (Long or Short) Position for Energy (MWh)				This Appendix contains bid information and evaluations from the 2012 Solicitation; discuss, analyze and evaluate the	For information covered under Item VII G) remain confidential for three
		Item VII G) Renewable Resource Contracts under RPS program – Contracts without SEPs.				Project and the terms of the Fower Furchase Agreement ("PPA"); contain information, analyses and evaluations of project viability; and contain confidential information of the counterparty (including financial information). Disclosure of this information would provide valuable market sensitive	years after the commercial operation date, or one year after expiration (whichever is sooner). For information covered under Item
		Item VII (un-numbered category following VII G))				information to competitors. Release of this information would be damaging to negotiations.	VII (un-numbered category following VII G), remain confidential for three years.
		Score sheets, analyses, evaluations of proposed RPS projects.				In addition, it information about and evaluations of the project's viability is made public, it could harm the counterparties and adversely affect project viability. Finally, correction information has been obtained in confidence from	For information covered under Item VIII A), remain confidential until after final contracts submitted to
		Item VIII A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating				the counterparty under an expectation of confidentiality. It is in the public interest to treat such information as confidential because if such information were made public, it would put the counterparty at a business disadvantage,	CPUC for approval. For information covered under Item VIII B), remain confidential for three
	-	Ulus. General Order 66-C.				other regulated utilities, and could have a damaging effect on current and future negotiations with other counterparties.	For information covered under General Order 66-C, remain confidential

		Length of Time	For information covered under Item VIII A), remain confidential until after final contracts submitted to CPUC for approval For information covered under Item VIII B), remain confidential for three years after winning bidders selected.
PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E) Advice Letter 4362-E February 18, 2014	IDENTIFICATION OF CONFIDENTIAL INFORMATION	PG&E's Justification for Confidential Treatment	This Appendix contains bid information and bid evaluations from the 2012 Solicitation. This information would provide market sensitive information to competitors and is therefore considered confidential. Furthermore, offers received outside of the solicitations are still under negotiation, further substantiating why releasing this information would be damaging to the negotiation process.
VD ELECTRIC COM Advice Letter 4362-E February 18, 2014	CONFIDENT	 The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N) 	Y
S AND E Advi Fek	TION OF	4) That the informa tion is not already public (Y/N)	Y
ACIFIC GA	DENTIFICA'	3) That it is complying with the limitations on confidentiali ty specified in the Matrix for that type of data (Y/N)	×
4	ſ	2) Which category or categories in the Matrix the data correspond to:	Item VIII A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids.
		1) The material submitted constitutes a particular type of data listed in the Matrix, appended a Appendix 1 to D.06-06- 066 (Y/N)	¥
		Redaction Reference	Appendix B

		Length of Time	For information covered under Item VII G) remain confidential for three years after the commercial operation date, or one year after expiration (whichever is sooner). For information covered under Item VII (un-numbered category following VII G), remain confidential for three years. For information covered under Item VIII A), remain confidential until after final confidential until after final confidential until after final confidential until after final for information covered under Item VIII B), remain for three years after winning bidders selected. For information covered under for three years after winning bidders selected. For information covered under for information covered under for three years after winning bidders selected.	
AND ELECTRIC COMPANY'S (U 39 E) Advice Letter 4362-E February 18, 2014	IDENTIFICATION OF CONFIDENTIAL INFORMATION	PG&E's Justification for Confidential Treatment	This Appendix contains bid information and evaluations from the 2012 Solicitation; discusses, analyzes and evaluates the Project and the terms of the PPA; contains information, analyses, and evaluations of project viability; and it contains confidential information of the counterparty. Disclosure of this information would provide valuable market sensitive information to competitors. Release of this information would be damaging to negotiations with other counterparties and should remain confidential. In addition, if information about and evaluations of project viability is made public, it project viability. Finally, certain information has been obtained in confidence from the counterparty under an expectation of confidentiality. It is in the public interest to treat such information as confidential because if such information were made public, it would put the counterparty at a business disadvantage, could create a disincentive to do business with PG&E and other regulated utilities, and could have a damaging effect on current and future negotiations with other counterparty.	
VD ELECTRIC COM Advice Letter 4362-E February 18, 2014	CONFIDENT	 The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N) 	Y	
	TION OF	4) That the informa tion is not already public (Y/N)	Y	
PACIFIC GAS	IDENTIFICA	3) That it is complying with the limitations on confidentiali ty specified in the Matrix for that type of data (Y/N)	Y	
		2) Which category or categories in the Matrix the data correspond to:	Item VII G) Renewable Resource Contracts under RPS program - Contracts without SEPs. Item VII (un-numbered category following VII G) Score sheets, analyses, evaluations of proposed RPS projects. Item VIII A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids. General Order 66-C.	
		 The material submitted constitutes a particular type of data listed in the Matrix, Matrix, Appended as Appendix 1 to D.06-06- 066 (Y/N) 	Y	· · · · ·
		Redaction Reference	Appendix CI	

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E) Advice Letter 4362-E February 18, 2014	IDENTIFICATION OF CONFIDENTIAL INFORMATION	Length of Time	For information covered under Item VII G) remain confidential for three years after the commercial operation date, or one year after expiration (whichever is sooner). For information covered under Item VII (un-numbered category following VII G), remain confidential for three years. For information covered under General Order 66-C, remain confidential.	For information covered under Item VII G), remain confidential for three years after the commercial operation date, or one year after expiration (whichever is sooner)
		PG&E's Justification for Confidential Treatment	This Appendix contains bid information and discusses the terms of the PPA. Disclosure of this information would provide valuable market sensitive information to competitors. Release of this information would be damaging to negotiations with other counterparties and should remain confidential. Furthermore, the counterparty to the PPA has an expectation that the terms of the PPA will remain confidential. It is in the public interest to treat such information as confidential because if such information were made public, it would put the counterparty at a business disadvantage, could create a disincentive to do business with PG&E and other regulated utilities, and could have a damaging effect on current and future negotiations with other counterparty.	This Appendix contains the PPA for which PG&E seeks approval in the Advice Letter filing. Disclosure of certain terms of the PPA would provide valuable market sensitive information to competitors. Release of this information would be damaging to negotiations with other counterparties and should remain confidential. Furthermore, the counterparty to the PPA has an expectation that the terms of the PPA will remain confidential.
		 The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N) 	Х	X
		4) That the informa tion is not already public (Y/N)	Х	Y
		 That it is complying with the limitations on confidentiali ty specified in the Matrix for that type of data (Y/N) 	¥	Y
		2) Which category or categories in the Matrix the data correspond to:	Item VII G) Renewable Resource Contracts under RPS program - Contracts without SEPs. Item VII (un-numbered category following VII G) Score sheets, analyses, evaluations of proposed RPS projects. General Order 66-C.	ttem VII G) Renewable Resource Contracts under RPS program - Contracts without SEPs.
		1) The material material submitted constitutes a particular type of data listed in the Matrix, appended as Appendix 1 to D.06-06-06-006 (Y/N)	Y	X
		Redaction Reference	Appendix D	Appendix E

PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E) Advice Letter 4362-E February 18, 2014	IDENTIFICATION OF CONFIDENTIAL INFORMATION	Length of Time	For information covered under Item VII G), remain confidential for three years after the commercial operation date, or one year after expiration (whichever is sooner).	Remain confidential for three years.
		PG&F's Justification for Confidential Treatment	This Appendix contains the PPA for which PG&E seeks approval in the Advice Letter filing. Disclosurc of certain terms of the PPA would provide valuable market sensitive information to competitors. Relcasc of this information would be damaging to negotiations with other counterparties and should remain confidential. Furthermore, the counterparty to the PPA has an expectation that the terms of the PPA will remain confidential.	This Appendix contains information that, if disclosed, would provide valuable market sensitive information to competitors and allow them to see PG&E's remaining RPS net open energy position. This information should remain confidential for three years.
		5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)	ж	X.
		4) That the informa tion is not already public (Y/N)	Y	×
		3) That it is complying with the limitations on confidentiali ty specified in the Matrix for that type of data $(\gamma'N)$	Y	Ą .
H		2) Which category or categories in the Matrix the data correspond to:	Item VII G) Renewable Resource Contracts under RPS program - Contracts without SEPs.	Item VII (un-numbered category following VII G) Score sheets, analyses, evaluations of proposed RPS projects. Item VI B) Utility Bundled Net Open Position for Energy (MWh).
		1) The material submitted constitutes a particular type of data listed in the Matrix, Appended as Appendix 1 to D.06-06- 066 (YIN)	Y	≻
		Reference Reference	Appendix F	Appendix G

Public Appendix C2 Independent Evaluator Report A R R O Y O S E C O C O N S U L T I N G

PACIFIC GAS AND Electric company 2012 Renewable Power Solicitation

ADVICE LETTER REPORT OF THE INDEPENDENT EVALUATOR ON A CONTRACT WITH DIABLO WINDS, LLC

FEBRUARY 18, 2014

TABLE OF CONTENTS

EXE	CUTIVE SUMMARY	.3
	UMMARY OF FINDINGS FROM THE SHORT LIST REPORT	
2. F/	AIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS	17
	ERIT FOR CPUC APPROVAL	

EXECUTIVE SUMMARY

This report provides an independent evaluation of the process by which the Pacific Gas and Electric Company (PG&E) undertook a competitive solicitation in 2013¹ to procure energy eligible to meet Renewables Portfolio Standard (RPS) goals. An independent evaluator (IE), Arroyo Seco Consulting (Arroyo), conducted a range of activities to review, test, and check PG&E's processes as the utility conducted outreach to renewable power developers and operators, solicited Offers, evaluated Offers, and selected a short list of Offers with which to pursue negotiations.

Subsequent to the selection of a short list, PG&E negotiated with the selected Participants to seek agreement on the terms of contracts for renewable power. On December 16, 2013, PG&E executed a Power Purchase Agreement (PPA) for renewable energy with Diablo Winds, LLC, a wholly-owned subsidiary of ESI Energy, LLC, a subsidiary of NextEra Energy Resources ("NEER"), LLC, which itself is a subsidiary of NextEra Energy, Inc. (parent of Florida Power and Light Company). Diablo Winds is an operating 18-MW wind generation facility in Alameda County (in Altamont Pass) that has been selling renewable energy to PG&E under an existing contract since 2005.

The purpose of this report is to provide an independent review of the extent to which the project-specific negotiations with Diablo Winds were fair, and an opinion about whether this contract merits approval by the California Public Utilities Commission (CPUC).

The structure of this report follows the 2012 RPS Shortlist Report Template provided by the Energy Division of the CPUC. Topics covered include:

- The role of the IE;
- Adequacy of outreach for and robustness of the 2012 competitive solicitation;
- The fairness of the design of PG&E's least-cost, best-fit (LCBF) methodology;
- The fairness of PG&E's administration of its LCBF methodology;²
- Fairness of project-specific negotiations; and
- Merit of the contract for CPUC approval.

¹ While the Offers were due on February 6, 2013 and were evaluated in 2013, the solicitation was issued on December 10, 2012 and is considered to be a 2012 Request for Offers.

² The first chapter is a summary of the IE report prepared in June 2013 that accompanied PG&E's short list for its 2012 RPS solicitation.

Arroyo's opinion is that the negotiations between PG&E and Diablo Winds were for the most part conducted in a manner that was fair. However, a unique concession that PG&E granted to NEER but not to competing sellers was, in the IE's opinion, less than fully fair to ratepayers and competitors. This disparate treatment was sufficiently narrow in scope and may be sufficiently unlikely to have a material impact on ratepayers over the contract term that Arroyo does not believe that the PPA merits rejection based on fairness concerns.

Arroyo ranks the Diablo Winds contract moderate to high in net valuation and low in contract price. Arroyo's assessment is that the portfolio fit of the Diablo Winds PPA with PG&E's compliance needs ranks as low; the PPA will begin deliveries in the second compliance period and will deliver RPS-eligible period through several years in which PG&E currently expects a net long RPS compliance position, thus contributing to overprocurement of renewable energy credits (RECs) during these years. However, Arroyo does not consider this to be a major concern because the long-term nature of this Category 1 contract should render the RECs bankable for later use in meeting compliance needs; the contract will add to the anticipated build-up of RECs that PG&E is accumulating for later use in the 2020s. The project viability of the contract ranks high because the existing facility is currently operating and is expected to continue to produce renewable energy when the existing contract expires and the new PPA takes effect in 2016.

Arroyo's opinion is that the agreement merits CPUC approval based on its low pricing, moderate to high value, and high project viability, despite the contract's low portfolio fit. Arroyo believes that approval is merited despite a fairness issue with PG&E granting a concession provided to Diablo Winds that shifts a certain, narrowly defined category of risk to ratepayers from the project by a means that PG&E has not provided to competitors.

1. SUMMARY OF FINDINGS FROM THE SHORT LIST REPORT

Pacific Gas and Electric Company issued a Request for Offers (RFO) on December 10, 2012, a competitive solicitation for power generation qualifying as eligible renewable energy resources (ERRs). In its solicitation protocol for the 2012 RPS RFO, PG&E announced its intent to procure about 1.25% of its retail sales volume, or about 1,000 GWh annually. This chapter summarizes the contents of the previously submitted Independent Evaluator report that described PG&E's selection of a short list for the 2012 RPS solicitation.

A. ROLE OF THE INDEPENDENT EVALUATOR

The CPUC required an independent evaluator to participate in competitive solicitations for utility power procurement in Decision 04-12-048. It required an IE when Participants in a competitive procurement solicitation include affiliates of investor-owned utilities (IOUs), IOU-built projects, or IOU-turnkey projects. Decision 06-05-039 expanded requirements, ordering use of and IE to evaluate and report on the entire solicitation, evaluation, and selection process for the 2006 RPS RFO and future competitive solicitations. This was intended to increase the fairness and transparency of the Offer selection process.

To comply with the requirements ordered by the CPUC, PG&E retained Arroyo Seco Consulting to serve as IE for the 2012 RPS solicitation. Arroyo undertook several tasks both prior to Offer Opening and subsequently. These included reviewing PG&E's solicitation protocols and discussing the methodology with the evaluation team, observing and analyzing PG&E's outreach efforts, participating in Offer opening, reading the Offers, performing independent evaluations of Offer value and project viability, monitoring PG&E's evaluation of Offers against its evaluation criteria, and discussing the shortlisting process and decisions with PG&E's team, management, and its Procurement Review Group.

The CPUC's Decision 06-06-066 detailed guidelines for treating confidential information in IOU power procurement including competitive solicitations. It provides for confidential treatment of "Score sheets, analyses, evaluations of proposed RPS projects", vs. public treatment of the total number of projects and MW bid by resource type. Where Arroyo's reporting on the fairness of PG&E's selection of Offers requires explicit discussion of such analyses, scores, and evaluations, these are redacted in the public version of this document.

B. ADEQUACY OF OUTREACH TO PARTICIPANTS AND ROBUSTNESS OF THE SOLICITATION

<u>Concision and clarity of solicitation materials.</u> PG&E's 2012 RPS solicitation protocol was modestly sized for a document of its type and is more concise than protocols PG&E used in prior years. Some of the bulky text specifying detailed requirements for Offers was shifted into Attachment J from the protocol's main body. Arroyo regards this as an improvement. Arroyo believes that the contents of PG&E's 2012 RPS RFO solicitation

protocol generally provided clear and comprehensible direction to Participants on how to prepare and submit complete Offer packages that could be accepted and evaluated.

By December 2012, PG&E had compiled a general contact list for use in publicizing its RFOs, totaling more than 1,900 individuals, an increase from the version of the list used in the 2011 RPS solicitation. About 60% of contacts represented entities that could develop renewable generation, sell from existing facilities, or sell RECs.

PG&E did not issue a press release to announce the issuance of the 2012 RPS RFO. News of the solicitation was picked up and reported in the electric power trade press, including <u>Megawatt Daily</u>. A turnout of 170 individual registrants and 167 actual attendees represented a strong response and expression of industry interest. Out of the firms represented at the 2012 bidders' conference, about three-quarters were companies directly involved with developing or owning and operating renewable energy generation.

Arroyo's conclusion is that PG&E conducted substantial outreach to renewable power developers active in North America. The number of individuals contacted, the distribution of the news of the solicitation in the electric power trade press, and the attendance at the bidders' conference all suggest that PG&E's overall outreach effort was strong and effective.

Robustness of the solicitation. Arroyo's opinion is that the response to the solicitation was robust; contracting with all Offers would provide almost half of all the energy required to serve PG&E's customers. The volume of bundled energy Offers proposed, represented a decrease by about 60% from the 2011 RPS RFO's response. The total capacity offered for in-state, bundled generation was which is about 30% of the response in PG&E's 2011 RPS RFO.

One would expect PG&E to be easily able to meet its volume goal for the solicitation from such a robust response.

Arroyo speculates that the lower volume of Offers this year vs. last year stems partly from the requirement for new projects to have an active interconnection application that has obtained a Phase I interconnection study. In the 2011 RPS RFO, half of all Offers were for the output of proposed projects that had not yet applied for an interconnection or obtained a completed Phase I study. Such projects would have been ineligible to participate if the 2012 requirement had been in place. Also, some developers might have chosen not to offer projects that they would rather bring on line before PG&E's preferred 2019 and 2020 dates.

<u>Imperial Valley Offers.</u> The CPUC has stated a public interest in obtaining a robust response to the IOUs' RPS solicitations from developers in the Imperial Valley. In the 2009 RPS solicitations it required IOUs to hold special Imperial Valley bidders' conferences.

PG&E received Offers for output of Imperial Valley facilities, of all proposals for bundled energy delivery.

In the 2012 solicitation the total capacity of Offers for Imperial

Valley projects, ______, totaled about ______ of all capacity offered. The total annual volume of Imperial Valley projects, _______. This representation of Imperial Valley projects seems to be quite robust _______.

Adequacy of feedback from Participants. PG&E offered an opportunity for Participants whose Offers were rejected to discuss the outcome. Arroyo observed for these sessions Arroyo' opinion is that PG&E sought

adequate feedback from Participants about the bidding and evaluation process.

C. FAIRNESS OF OFFER EVALUATION AND SELECTION METHODOLOGY

Arroyo's opinion is that PG&E's evaluation and selection methodology for identifying a short list for the 2012 RPS RFO was designed fairly, overall. Arroyo has some specific but narrow disagreements with the utility's approach.

<u>Consistency with RPS Procurement Plan.</u> PG&E's methodology was, overall, consistent with the approved 2012 RPS procurement plan. This includes numerous elements including the procurement goal, a focus on contracts that will contribute to RPS needs after 2019, equivalent treatment of existing and new projects' Offers, a preference for Offers contributing to Resource Adequacy needs, a discount to valuation for intermittent generation vs. firm energy, and use of a zero integration cost adder.

The plan also stated that PG&E would procure long-term volumes with initial delivery dates "no later than the latter part of the third compliance period." However, there was no specific element of PG&E's methodology that deterred selection of or discounted the value of Offers whose delivery starts after the end of the third compliance period. In the actual event,

and PG&E chose not to shortlist such

Offers.

<u>Market Valuation</u>. PG&E's valuation methodology has several advantages over methods used by other utilities. It is rooted in a comparison to market forward prices rather than to model outputs for hypothetical future market price based on inputs such as forecast demand, modeled supply increases, and fuel price scenarios. It is relatively rapid to turn around several valuations, in contrast to the burdensome nature of running multiple cases of traditional utility production cost models. Net Market Value is a valuation concept that is generally accepted in the electric power industry. It provides an intuitive valuation based on the degree to which generating units are "in the money" with respect to market price. There are some drawbacks with this approach, some of which are common to any valuation methodology for long-term PPAs. The methodology must rely on extrapolation of market forward curves rather than on direct observation of traded prices for power two decades hence. Such extrapolated prices are unlikely to be accurate forecasts. A certain degree of interpolation or projection is required to achieve hourly granularity in price assumptions. The diurnal shape of California power market pricing is changing in response to the addition of new renewable resources, and it is difficult to forecast with accuracy how hourly price profiles might evolve over three decades.

In the absence of functioning, liquid, transparent markets in California for Resource Adequacy, the valuation relied on fundamental forecasts for the value of capacity rather than on traded forward curves. These forecasts peg the value of RA at rather high and monotonically increasing levels in future years, whereas the record so far in deregulated wholesale power markets is one of boom and bust cycles.

There are challenges in estimating what Net Qualifying Capacity the CAISO will assign to a project that does not yet exist, when changes to the currently approved methodology are anticipated but not fully confirmed. PG&E's approach to estimating NQC in the 2012 RPS RFO relied on its own assumptions about what the CAISO and CPUC will adopt.

PG&E's LCBF methodology took into account both proposed price and estimated net value of each Offer, in the narrow sense that price is a key input to the utility's valuation model. However, PG&E ranked Offers by Portfolio-Adjusted Value to make a primary screening for selection purposes, and does not construct or review a separate ranking by contract price. As a result, the methodology did not systematically select the lowest-priced Offers, particularly when those projects would incur large upgrade costs.

PG&E's LCBF methodology included the costs of transmission upgrades in its value calculations of all Offers involving projects that propose to interconnect directly to the CAISO. PG&E proposed used estimates of network upgrade costs from interconnection studies including CAISO Cluster 4 Phase II studies and Cluster 5 Phase I studies.

Arroyo believes that the LCBF methodology for the 2012 RPS RFO did not appropriately count congestion charges between peripheral CAISO delivery points, such as the Palo Verde hub, and hubs internal to CAISO service territories. Arroyo recommends that PG&E develop estimates of LMP multipliers appropriate for these delivery points as it has done for zones within the main body of the CAISO grid. Arroyo's concern is that the methodology overvalues Offers for delivery at Palo Verde because it does not take into consideration the difference between the value of power delivered at the periphery of the CAISO and the value of power delivered in the core of Edison's territory;

<u>Transmission costs.</u> The valuation methodology assigned estimated transmission costs to the contract price of generation in order to compare Offers fairly, taking into account the full cost of generating power including both the price paid for the PPA and the cost of upgrades required to achieve reliable deliverability for new generation. This approach

provided a view of full costs of a project rather than only the energy procurement cost. This is a truer representation of the full cost to society of a new project.

The transmission cost methodology also had some drawbacks. The process of estimating transmission adders can be analytically burdensome. CAISO Phase I studies have been known to provide gross early overestimates of the actual network upgrade costs. In such a case, the methodology may disadvantage projects that have received a Phase I study but not yet a Phase II study, even though the analysis in hand is the best currently available estimate of project-specific upgrade requirements. This seems less than fully fair to some projects caught in that early stage of analysis, but is likely to be unavoidable when relying on project-specific information.

Arroyo expressed a concern in its IE report on PG&E's 2011 RPS RFO that PG&E applied transmission adders to projects that interconnect to the CAISO but did not include any estimate of network upgrade costs for projects that interconnect to the Imperial Irrigation District's grid. Arroyo believes that excluding network upgrade costs when valuing Offers located in California within IID's territory could unfairly bias selection towards IID-interconnecting projects. In those cases California ratepayers would end up bearing the upgrade costs in their rate base, but they happen to be businesses and households whose transmission rate base is outside the CAISO grid, so these costs were not taken into account when PG&E estimated the value of the contract offer.³

In its Decision approving PG&E's 2012 RPS procurement plan, the CPUC stated that "the Commission agrees with PG&E that no preferences should be given to CAISOinterconnected projects or to projects otherwise interconnected." By loading the valuation of CAISO-interconnected projects with network upgrade costs but not considering them when valuing IID-interconnected projects, the methodology created a potentially systematic preference for the latter. In Arroyo's opinion, PG&E's calculation of net value is not a neutral metric for comparing CAISO- and non-CAISO-interconnected projects. This resulted in a selection bias which is the opposite of the concern previously expressed by stakeholders including IID, fearing discrimination against IID-interconnected projects.

Not only did PG&E's method for calculating transmission adders omit network upgrades on the IID grid that are caused by new projects, it also omitted the cost of network upgrades that could or would be required in the CAISO grid for new generation built in IID's territory. Specifically, SDG&E estimated the impact of new "external" generation built to interconnect onto IID's grid upon SDG&E's network reliability. At some level of new build within IID's territory, SDG&E would have to construct new 69-kV transmission lines in its territory in order to accommodate flows from those projects into its Imperial

³ Developers have objected that they paid, up front, the full cost of the required network upgrades. However, IID's practice is to provide the project with transmission service credits equivalent to that payment; the credits can be used to reduce the operating cost of transmitting the project's output to an IID-CAISO intertie point (though the project earns no interest for upfront financing the upgrades). To the extent that these credits reduce the project's expenses and reduce IID's transmission revenues, IID's customers make up the loss of revenues through rates. On that basis Arroyo's opinion is that IID ratepayers end up bearing some or all of the cost of network upgrades, and that these grid costs should be counted in evaluating whether a project should be built or not.

Valley substation and westward into its territory without overloads. Because projects that interconnect to IID's grid did not obtain an analysis of such reliability network upgrades to SDG&E's grid in their interconnection studies, PG&E was unable to obtain project-specific information about how to estimate CAISO upgrade costs driven by such effects.

<u>Project viability.</u> The implementation of the Project Viability Calculator as a screening tool in the evaluation of Offers brought several advantages. The Calculator is a step in the direction of more standardized evaluation of viability across all three IOUs. It provides a broader set of criteria by which projects are assessed than was the case with PG&E's prior approach to scoring viability. The range of scores from zero to 100 gives more visibility to differences between projects than prior methods that use single-digit scores.

There are still opportunities to improve the use of the Calculator. It is a somewhat crude screening tool with noise in the scoring process; differences of only two or three points between projects should not be regarded as determinative in selecting one and rejecting the other, because the difference falls within the error of the analysis. Some Participants chose to self-score their proposals in grossly inflated ways that overstate the Offer's viability beyond any reasonable measure. Arroyo believes this renders the self-scored Calculators submitted with offer packages too unreliable to use without review and correction.

PG&E's protocol stated that the utility "will evaluate the project viability of each offer" using the Project Viability Calculator, and that "PG&E will review all submissions and adjust self-scores as appropriate." Similarly, PG&E's presentation in its Participants' Webinar indicated that "All offers will be scored" using the Calculator.

D. FAIRNESS OF HOW PG&E ADMINISTERED THE OFFER EVALUATION AND SELECTION PROCESS

Arroyo's opinion is that PG&E's process for evaluating and selecting Offers for its 2012 RPS RFO short list was, overall, conducted in a fair and generally consistent manner. Arroyo disagreed with some of PG&E's choices.

FARINESS OF REJECTION OF OFFERS FOR NON-CONFORMANCE

After Offers were received, PG&E performed a detailed review of the packages in order to identify deficiencies that needed to be addressed and to assess which Offers deviated from the requirements of the solicitation protocol.

Some Participants submitted Offers for full-capacity PPAs, but the interconnection applications and studies showed that their projects had applied for energy-only interconnections. PG&E communicated the need for correct classification of interconnections and gave Participants an opportunity to reprice their Offers.

were rejected by PG&E for nonconformance with the RFO's requirements; this is a relatively small number compared to rejections in PG&E's prior RPS solicitations. Most did not meet the requirement that new projects must have at least a CAISO Phase I interconnection study or its equivalent. The projects that proposed to interconnect to non-CAISO balancing authority areas outside California did not have means of delivering their energy to a CAISO intertie point as Category 2 resources nor a proposal to arrange to be managed using a pseudo-tie or dynamic transfer agreement. In each case Arroyo agreed with PG&E's judgment that these proposals did not meet the RFO's requirements.

Short-term Offers. PG&E accepted Control of the public solicitation protocol that "PG&E is seeking offers with a term of at least 10 years. Short-term offers will not be considered." These Control of the public solicitation protocol that "PGWE" and "PG

PG&E's motivation for imposing the minimum 10-year delivery term was to ensure that the RPS-eligible energy would qualify as Category 1 deliveries and be "bankable" for purposes of counting towards PG&E's future compliance needs. However, if proposals were to qualify as extensions of existing contracts rather than as new contracts, PG&E proposals were to qualify as extensions of existing contracts rather than as new contracts, PG&E proposals believed that the energy sold during the contract extension would receive grandfathered treatment and be available to use to meet later RPS compliance needs. On that basis PG&E chose to accept proposal offers.



Overall, Arroyo's opinion is that PG&E's decisions to reject Offers for failure to meet the stated requirements of the solicitation protocol were fair both to Participants submitting non-conforming proposals and those submitting conforming Offers.

REASONABLENESS OF PARAMETERS AND INPUTS

Nearly all parameters and inputs that PG&E used in its evaluation of the 2012 RPS RFO Offers were reasonably and fairly chosen, in Arroyo's opinion. Arroyo identified only one issue regarding the choices PG&E made about parameters and inputs that merits discussion.

PG&E chose inputs to its valuation of the buyer curtailment option using its business judgment about the size of the CAISO imbalance charges, ancillary services costs, and similar costs that would be avoided by exercising the option. The inputs are based on assumptions requiring subjective judgment. PG&E later assumed that the curtailment option would be more valuable for projects in NP-15 than elsewhere, which would imply that the adjustment to NMV for these benefits should be higher for NP-15 projects.

TRANSMISSION COST ADDERS AND INTEGRATION COSTS

PG&E closely followed its public and nonpublic protocols in administering its procedures for transmission adders. The team relied on data from interconnection studies or interconnection agreements to estimate the cost of network upgrades for new projects.

As stated in the discussion of PG&E's LCBF methodology, there is a narrow subset of cases in which Arroyo disagrees with how PG&E applies transmission cost adders. In Arroyo's opinion, transmission cost adders should be calculated and applied when valuing projects that interconnect within California outside the CAISO's balancing authority area, using the estimates of network upgrade costs provided in those other Transmission Owners' interconnection studies. PG&E ignored network upgrade costs that are borne by ratepayers of other balancing authority areas and that do not affect rates of PG&E customers.

PG&E's protocols did not specifically address how to calculate transmission adders for new projects with non-CAISO delivery points, and did not explicitly call for excluding these transmission costs. However, the non-public protocol for market valuation specified that transmission network upgrade costs would be subtracted in calculating Net Market Value. In future RFOs it would be better for the procurement plan and solicitation protocol to state explicitly that transmission adders will be set to zero for non-CAISO-interconnecting projects so that this element of the methodology is transparent to regulators and developers.

Arroyo would have applied transmission adders to projects that will interconnect to IID's grid, using IID facility studies as the basis for network upgrade cost adders.

With the exception of projects outside the CAISO, Arroyo's opinion is that PG&E properly assessed and applied transmission adders to Offers. PG&E applied no integration cost adder, consistent with the Decision approving the 2012 RPS procurement plans.

USE OF ADDITIONAL CRITERIA IN CREATING A SHORT LIST

PG&E's overall approach to creating a short list was to rank PPA Offers for delivery of bundled energy by Portfolio-Adjusted Value and to select highest-valued Offers. Short list selection was also strongly influenced by PG&E applying its seller concentration criterion, and placing an extra emphasis on the buyer curtailment option value component of PAV.

<u>Seller concentration.</u> In an initial pass, the highest-ranked Offers were selected for the short list (regardless of technology)

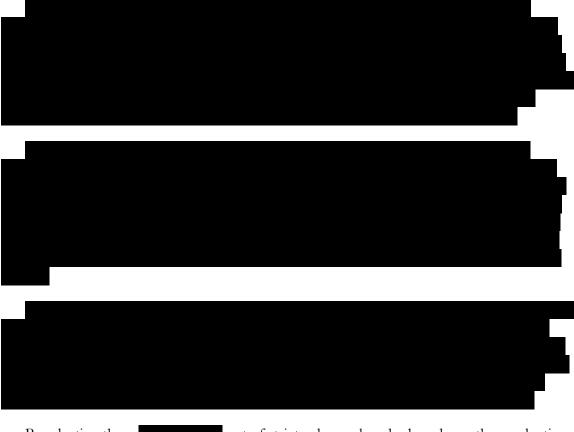
The seller

concentration criterion was applied to screen out Offers that would lead to shortlisting a total from any individual developer or development consortium.

The implementation of the seller concentration criterion had some uneven effects.



<u>Resource diversity and buyer curtailment option as other criteria.</u> After the initial selection of the highest-PAV Offers (as constrained by avoiding excess seller concentration), PG&E selected lower-valued Offers outside of strict economic ranking, in two categories.



By selecting these out of strict value rank order based on other evaluation criteria, PG&E increased the size of its initial short list

Project viability. Overall, PG&E followed the methodology stated in its RFO protocol:

"PG&E will evaluate the project viability of each offer using the June 2, 2011 CPUC adopted version of the PVC. Participants are requested to self-score each of their offers using the PVC...PG&E will review all submissions and adjust self-scores as appropriate."

The PG&E team used the Project Viability Calculator to score the projects considered for selection as well as some others; PG&E did not score every single Offer variant for project viability, and left the self-scores intact for lower-valued Offers that were rejected based on lower value.

<u>RPS Goals and environmental risks.</u> Appendix K to PG&E's 2012 solicitation protocol stated three specific subcomponents of the RPS Goals evaluation criterion. These included adherence to legislative direction, consistency with the CPUC's Water Action Plan, and support for Executive Order S-06-06 regarding biomass-fueled generation.

In the 2012 RFO, PG&E initially reviewed and scored **constant** for consistency with RPS goals and for environmental risks based on information in offer packages, focusing on projects considered for shortlisting. These Offers were deemed to be consistent with RPS goals. Two shortlisted Offers were categorized by PG&E's environmental subteam as "lacking information" based on offer packages, sufficiently incomplete that it was difficult to assess environmental risks:

PG&E did not judge the risks associated with the incompleteness of the profile of these projects as sufficient to warrant their Offers' rejection.

<u>Delivery point</u>. PG&E stated in its 2012 solicitation protocol a preference for projects that deliver in PG&E's service territory. The calculation of Portfolio-Adjusted Value for each Offer included adjustments that reduce the value of projects located in SP-15 or outside the CAISO. PG&E justified its selection of

out of value ranking in part because of their siting in NP-15.

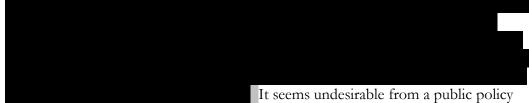
<u>Commercial operation date.</u> The protocol clearly stated PG&E's preference to select Offers that begin delivery term in 2019-2020. With <u>Exceptions</u>, shortlisted Offers proposed initial delivery in 2019 or 2020. The exceptions are projects currently contracted with PG&E that proposed to commence deliveries for new PPAS on the termination of the current PPAs, including

<u>Supplier diversity.</u> An element of the RPS Goals evaluation criterion is whether an Offer will contribute towards PG&E's supplier diversity goals. Among developers submitting to the 2012 RPS RFO, none were CPUC-certified WMDVBEs. This compares unfavorably to prior years in which PG&E received Offers from diverse business enterprises.

ANALYSIS OF PG&E'S SHORT LIST SELECTION

Arroyo disagreed with one aspect of how PG&E applied its methodology and with a few of the choices made in the selection process.

• <u>Imperial Irrigation District Transmission Adders.</u> In Arroyo's opinion it would have been fairer to apply transmission adders for upgrade costs in IID's grid, even though those costs are not directly borne by PG&E ratepayers. In Arroyo's opinion, the methodology advantages projects within IID's territory whose net valuations are uncompetitive when full costs, including required grid upgrades, are taken into account. This disparate treatment seems less than fully fair.



standpoint to select projects that are not the least-cost alternatives when all costs to society, including costs to IID customers residing in California, are considered.

Offer Ranked Low for Project Viability. Arroyo ranked
 in the bottom quartile among all Offers for project viability. Arroyo
 would not have selected such a project for the short list



• creates

an appearance that PG&E has violated the principle of technology-neutral evaluation and selection that the regulator has suggested in its IE template.

• <u>Screening for Seller Concentration</u>. In Arroyo's opinion, it would have been preferable if PG&E had set the MW cutoff for any developer or consortium to

as within the latitude for PG&E to exercise its

business judgment.

• <u>Maximum Buyer Curtailment</u>. PG&E chose to select in NP-15 that offered the maximum hours of buyer curtailment. Arroyo is uncertain whether PG&E's belief that NP-15 project curtailments offer the most benefit to its ratepayers is accurate, or whether ZP-26 projects might provide comparable benefits.

Although Arroyo disagreed with these particular choices that PG&E made, the basis for most of these disagreements centers on differences in business judgments about relative priorities, not on choices made contrary to the solicitation protocol. Arroyo believes that PG&E's selections, based on its subjective business judgment, are reasonable.

<u>Overall fairness of administration.</u> Despite a handful of disagreements, Arroyo Seco Consulting's overall judgment is that PG&E's decisions to select or reject Offers to arrive at a short list for the 2012 RPS RFO were reasonable and justifiable, overall. Most disagreements between Arroyo and PG&E were about choices Arroyo would have not made if it were administering the RFO, but that Arroyo agrees are choices a reasonable person could make if she had different priorities or emphases regarding weights assigned to evaluation criteria. Arroyo believes that PG&E's choices are within the realm of "reasonable business judgment" that the CPUC allows IOUs to exercise in energy procurement.

While Arroyo believes that PG&E may be justified in omitting transmission adders for IID-interconnecting projects because those costs do not directly affect PG&E ratepayers, in Arroyo's opinion the practice is not particularly fair. Nothing in the solicitation protocols suggests that upgrade cost will <u>not</u> be applied for such projects; this choice lacks transparency. Arroyo's opinion is that PG&E's administration of its methodology was overall reasonable but that treatment of IID-interconnecting projects was less than fully fair.

Imperial Valley. PG&E received for projects operating in or proposed to be sited in the Imperial Valley, 14% of the total number of conforming Category 1 Offers. Projects sited in the Imperial Valley comprise

Overall, developers' response to propose Imperial Valley projects was robust and PG&E's selection of Imperial Valley Offers was representative of that strong response.

2. FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

This chapter provides an independent review of the extent to which PG&E's negotiations with Diablo Winds, LLC for a power purchase agreement were conducted fairly with respect to competitors and to ratepayers.

PG&E notified NEER that its Offer for Diablo Winds had been shortlisted in mid-April 2013. The parties began negotiations in early June 2013. Arroyo telephonically observed two negotiation sessions between PG&E and the NEER team (many of the discussions took place through e-mail exchanges). Arroyo was also able to review multiple draft versions of the contract in order to identify specific proposals and counterproposals the parties made in the course of discussions. The original starting point for the negotiations was PG&E's 2012 RPS Form Agreement published with the 2012 RPS solicitation protocol in December 2012. PG&E revised and updated some subsections of its Form Agreement (changes that applied to draft PPAs with all shortlisted parties) during the course of negotiations.⁴

Arroyo's opinion is that PG&E's negotiations with the NEER commercial team for the Diablo Winds contract were conducted in a manner that was less than fully fair to ratepayers and competitors in one narrow respect, based on findings described in the following sections.

A. BACKGROUND INFORMATION

NextEra Energy Resources, LLC is a Florida-based developer and acquirer of energy generation projects. NEER owns and operates more than 17,000 MW of generation, including unregulated wind generation, regulated nuclear power, gas-fired generation, and some solar generation. NEER owns and operates more than 1,600 MW of wind generation in the Western Electricity Coordination Council (WECC) region outside California. NEER owns and operates more than 1,000 MW of wind generation in California, including projects that are contracted to deliver RPS-eligible energy to PG&E, such as Montezuma I and II Wind Energy Centers, North Sky River Wind Energy Center, and Vasco Wind Energy Center. The scale of its operations makes NEER the largest wind generation operator in the U.S.

⁴ For example, the revised Form prevents PG&E from paying sellers for "surplus delivered energy", deliveries that exceed contract capacity in any settlement interval. It requires the seller to install equipment needed to implement buyer curtailments. The annual threshold for "excess energy", beyond which payments to the seller is reduced, was tightened to a trigger level at 115% of contract quantity from the previous trigger level of 120%. These changes and others had the general effect of enhancing ratepayer protections in the contracts resulting from the 2012 RPS RFO. Most of the changes were included in PG&E's Form Agreement for its 2013 RPS solicitation.

The Diablo Winds project is an 18-MW facility sited in the Altamont Pass Wind Resource Area. PG&E and the project company executed a PPA in 2004 and the facility commenced commercial operation in mid-2005; it was a repower of previously contracted wind generators at the site that had delivered energy to PG&E under a Qualifying Facilities contract since the late 1980s. The existing, operating Diablo Winds project employs thirty-one Vestas V-47 580-kW turbine-generators. Publicly reported data suggest that the project has performed quite well with an average capacity factor of about 36% over the past several years.

The negotiations between PG&E and NEER for the Diablo Winds contract continued from June through November 2013 and resulted in an agreement that was executed on December 16, 2013.

B. PRINCIPLES FOR EVALUATING THE FAIRNESS OF NEGOTIATIONS

Arroyo took into account several principles to evaluate the degree of fairness with which PG&E handled negotiations with NEER.

- Were sellers treated fairly and consistently by PG&E during negotiations? Were all sellers given equitable opportunities to advance their Offers towards final PPAs? Were individual sellers given unique opportunities to move their proposals forward or concessions to improve their contracts' commercial value, opportunities not provided to others?
- Was the distribution of risk between seller and buyer in the PPAs distributed equitably across PPAs? Did PG&E's ratepayers take on a materially disproportionate share of risks in some contracts and not others? Were individual sellers given opportunities to shift their commercial risks towards ratepayers, opportunities that were not provided to others?
- Was non-public information provided by PG&E shared fairly with all sellers? Were individual sellers uniquely given information that advantaged them in securing contracts or realizing commercial value from those contracts?
- If any individual seller was given preferential treatment by PG&E in the course of negotiations, is there evidence that other sellers were disadvantaged by that treatment? Were other proposals of comparable value to ratepayers assigned materially worse outcomes?

C. NEGOTIATIONS BETWEEN PG&E AND DIABLO WINDS

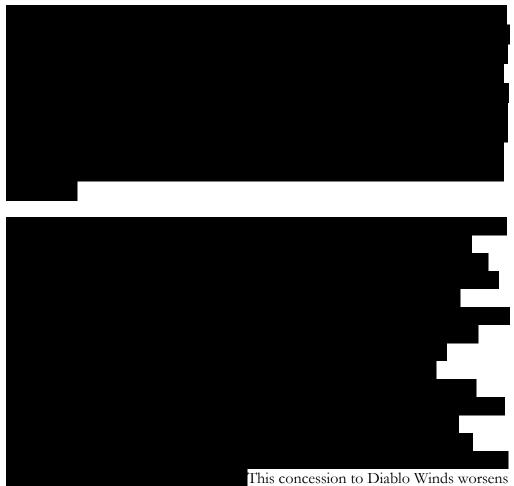
Some of the issues addressed in the negotiation included:

• <u>Curtailment limit</u>. When PG&E updated and revised its 2012 Form Agreement in May 2013, it removed the limit on the number of hours per contract year that the utility may invoke buyer curtailment. In other words, PG&E can choose to

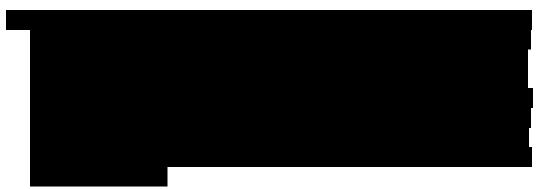
require a seller to shut off production for the entire contract year.	

- <u>Price.</u>
- <u>Pre-delivery term security</u>.
- <u>Contract quantity</u>





ratepayer protections compared to the Form Agreement and shifts the loss of the project's benefits on PG&E's customers in this narrowly defined scenario, rather than on the seller.



Relinquishment •



- <u>Weather station repair</u>.
- <u>Credit</u>.
- <u>Supplier diversity obligation</u>.





D. DEGREE OF FAIRNESS OF PROJECT-SPECIFIC NEGOTIATIONS

Overall, NEER requested few changes from the revised version of PG&E's 2012 RPS Form Agreement provided to the seller in May 2013. Of the requested changes, PG&E granted few concessions.

Some of the edits from the Form Agreement enhanced ratepayer protections; one clearly detracted from them. NEER's willingness to

In some
scenarios this could help protect ratepayers from the risk of
. However, the concession that PG&E provided to Diablo Winds
regarding has the
effect of relieving the seller from paying damages in other scenarios, placing more of the
burden of the loss of on ratepayers than would be the case under the standard
terms of the Form Agreement. This treatment of the specific risk differs from how PG&E's
PPAs allocate risk between buyer and seller for all other wind farm owners, at least for
modern RPS contracts.

In Arroyo's opinion it is undesirable for utilities to excuse wind generators from

and in Arroyo's view a fairer outcome would be fo	r the
---	-------

seller to bear all the consequences of

not the ratepayers.⁵ Arroyo acknowledges that other observers or policymakers might agree with NEER and PG&E that it is fair and reasonable for PG&E's customers to take this risk rather than the wind generation project.

Arroyo believes that while this variance from PG&E's Form Agreement has a clear precedent, it is a feature of a very few contracts with only NextEra's subsidiaries and might be viewed as less than fully fair both to ratepayers and to NEER's direct competitors who do not enjoy the benefit of PG&E's disparate treatment. PG&E did not provide this concession to other shortlisted Participants in the 2012 RPS RFO who negotiated PPAs (both executed contracts and drafts that were never signed) with wind generation projects, including another facility in Altamont Pass. That being said, Arroyo acknowledges that the likelihood that

under the Form Agreement's terms seems low, so that actual risk of losses to ratepayers is not yet a serious concern.



Arroyo did not observe PG&E providing Diablo Winds with non-public information that advantaged it against competing sellers. With the exception of the concessions regarding Winds' treatment by PG&E during negotiations was roughly comparable with the treatment of its competitors in the 2012 RPS RFO.

Arroyo considers PG&E's concessions in

compared to those of its direct competitors who also obtained PPAs in the RFO to be a modest or negligible concern about fairness. It seems to Arroyo quite unlikely that PG&E would force a renewable energy generator into an event of default based solely on

On that basis, the disparate treatment that PG&E accorded Diablo Winds vs. other PG&E-contracted wind projects seems unlikely to convey a real, palpable disadvantage to the latter. Also, Arroyo agrees with NEER that there are limited opportunities to for a wind generation facility that has already been built and has been in operation for years.

America - sinis - that DC & E's and sticking - side Diskla Winds ----

Arroyo's opinion is that PG&E's negotiations with Diablo Winds were, for the most part, conducted fairly, but that the choice by PG&E to grant a concession

was less

than fully fair to ratepayers and to NEER's direct competitors. Arroyo's opinion is that this treatment is not so inequitable, and the risk of loss that it poses to ratepayers is not so large, that the PPA would deserve disapproval.

3. MERIT FOR CPUC APPROVAL

This chapter provides an independent review of the merits of the contract between PG&E and Diablo Winds against criteria identified in the Energy Division's 2012 RPS IE template.

A. CONTRACT SUMMARY

On December 16, 2013, PG&E and Diablo Winds, LLC executed a power purchase agreement for delivery of RPS-eligible energy from the existing wind generation facility.

The contract quantity for the Diablo Winds PPA is 62 GWh/year. Because it is an operating facility currently under contract with PG&E, the start of deliveries is expected to take place immediately after the expiry of the existing contract, on July 1, 2016. The project is located within the Altamont Pass Wind Resource Area, spread over several square miles of ridgelines, a few miles west and southwest of Bethany Reservoir (on the California Aqueduct) or four miles west of the community of Mountain House. The facility includes 31 turbines of 580 kW each. Contract capacity is 18 MW.

B. NARRATIVE OF EVALUATION CRITERIA AND RANKING

The 2012 RPS template for IEs provided by the Energy Division calls for a narrative of the merits of the proposed project on the criteria of contract price, portfolio fit, and project viability.

CONTRACT PRICE AND MARKET VALUATION

Arroyo has compared the net value of the Diablo Winds contract to relevant peer groups of previously and currently offered competing sources of RPS-eligible energy, using the results of both PG&E's analysis and a simpler but independent model. Based on those comparisons, Arroyo opines that the valuation of the contract ranks as moderate to high compared to relevant peer groups of competing proposals, and the contract price ranks low.

Contract Price. Diablo Winds' deliveries to PG&E would be priced

Diablo Wind's contract fell into the lowest-priced decile of all Category 1 Offer variants received in PG&E's 2012 RPS RFO when ranked on levelized pre-TOD price. When comparing levelized price after applying TOD factors, Diablo Wind's Offer was the **second** of all proposals received. On that basis, Arroyo's opinion is that the Diablo Winds pricing ranks as quite low.

Market Valuation. In presenting the Diablo Winds PPA to its Procurement Review Group in November 2013, the utility estimated the "portfolio-adjusted value" (PAV) of the contract for the Diablo Winds contract as among the remaining shortlisted proposals from the 2012 RPS RFO.⁷

When PG&E selected a short list in March 2013, it estimated PAV for all Offer variants. At that time the Diablo Winds Offer ranked as among all proposals to the 2012 RPS RFO.

Arroyo performed a valuation of all Offers to the 2012 RPS solicitation using a much simpler but independent methodology with independently determined input parameters. Using that approach, Arroyo ranked the Diablo Winds Offer in the second highest-valued quartile among Offers. The higher ranking that PG&E's PAV methodology assigns to the contract than Arroyo's independent methodology does is largely caused by the various adjustments that the PAV method applies, additions and subtractions that

Arroyo does not apply such adjustments or preferences to its net market value method, so an unadjusted value for the Diablo Winds contract falls below that of some southern California solar projects. Arroyo acknowledges that a regulated utility should be allowed to translate its locational preferences regarding the siting of new generation into inputs to its valuation methodology.

Based on these comparisons, Arroyo's opinion is that the Diablo Winds contract ranks moderate to high in valuation.

PORTFOLIO FIT

Deliveries from the Diablo Winds PPA would begin upon expiry of the project's existing contract with PG&E, in mid-2016. The utility currently anticipates a net long RPS compliance position through 2020; thus, the contract is expected to exacerbate PG&E's overprocurement of RECs for the first few years of its term, contributing further to a build-

At the margin Arroyo believes

that the alteration changed which PPAs were selected for execution. However, Arroyo believes that the Diablo Winds PPA would have been selected for execution even if this change in inputs had not been made.

⁷ Of the Offers shortlisted in March 2013, two were withdrawn	; one was
withdrawn	,
and one was withdrawn by	. PG&E
eventually ceased further negotiations with	

⁶ PG&E altered the input parameters to its PAV methodology when ranking proposed contracts for selection for execution in November 2013.

compared to the overall set of input parameters it previously used to select a short list in March 2013. While PG&E routinely updates input parameters such as market forward curve data when analyzing PAV,

up of banked RECs for future use in the 2020s. In that sense the contract fits poorly into the utility's portfolio needs.

In its 2012 RPS RFO, PG&E eliminated its prior use of a stand-alone metric for portfolio fit and developed an adjustment used in calculating Portfolio-Adjusted Value that measures RPS Portfolio Need

The adjustment to PAV is based on the levelized value of annual adjustments. It is in a sense an upwards adjustment to valuation for the degree to which RPS deliveries from a proposed contract provide a good fit with time periods in which the utility's portfolio is expected to have a net compliance need.

PG&E reports that the RPS Portfolio Need adjustment in the case of the Diablo Winds PPA is

In contrast, the average RPS Portfolio Need adjustment for Offers received in the 2012 RPS RFO was **Contracts**. The RPS Portfolio Need adjustment for Diablo Winds ranks in the bottom decile when compared to all Offer variants submitted to the RFO; most of the proposals to PG&E were for contracts whose delivery terms would start in 2019 or 2020, as stated as the utility's preference in the solicitation protocol. Relatively few Participants proposed delivery terms beginning prior to the start of 2019, as NEER did with Diablo Winds based on the expiry of the facility's existing contract.

On that basis, using PG&E's metric that reflects fit of the timing of deliveries with the utility's portfolio in compliance need, the Diablo Winds PPA ranks low in portfolio fit. This apparent mismatch between PG&E's RPS portfolio need and the timing of contract deliveries is mitigated by the fact that the RECs provided by the 15-year Diablo Winds contract should be bankable for later use by PG&E in meeting future compliance needs. The mismatch between contract deliveries and portfolio need will likely result in a buildup in PG&E's bank of RECs intended to later use; PG&E will incur some carrying costs for incrementally purchasing Category 1 energy and the RECs associated with Diablo Winds well in advance of using those RECs for compliance years later.

In Arroyo's opinion the mismatch between Diablo Winds' initial deliveries and PG&E's portfolio needs will likely not incur sufficient costs or risks to ratepayers to cause the contract to merit disapproval, within the context of the PPA's other merits.

PROJECT VIABILITY

As an existing, operating facility which has been selling renewable energy to PG&E for less than a decade, Diablo Winds is more viable a resource than any of the proposed new projects offered to PG&E in the RFO that are yet to be constructed.

The Energy Division's Project Viability Calculator lists several attributes of projects on which viability may be measured.

<u>Project development experience.</u> While NEER initially entered the wind generation business by buying projects from other developers and owners (such as the Flowinds turbines that previously occupied the Diablo Winds site before repowering), the company has subsequently developed dozens of wind farms larger than the 18-MW Diablo Winds project.

<u>Ownership/O&M experience</u>. NEER's business model involved retaining ownership of, operating, and maintaining wind generation projects it develops and builds, and it has thousands of megawatts of such projects under management.

<u>Technical feasibility.</u> The V47 wind turbine has been one of Vestas' more popular models and thousands of units have been installed worldwide since the 1990s.

<u>Resource quality.</u> Wind turbines have been operated at the Diablo Winds site for decades. The current turbines have experienced capacity factors in the mid- to high thirty percent range in the last several years according to public data, roughly consistent with a contract quantity equivalent to a capacity factor of about 39%.

<u>Manufacturing supply chain.</u> The wind turbine-generators are already installed at the site and have operated for years; manufacturing capacity poses no constraint. Vestas is one of the leading global wind turbine manufacturers.

Site control. NEER has secured full site control for Diablo Winds for beyond the contract term.

<u>Permitting.</u> The Diablo Winds project obtained permitting, including a conditional use permit from Alameda County, for its repowered facility in 2003.

<u>Project financing status.</u> Diablo Winds has already been financed and constructed; continued performance under a new PPA does not require incremental project financing.

Interconnection progress. Diablo Winds is interconnected to PG&E's grid at the Elworthy substation and has an existing Large Generator Interconnection Agreement.

<u>Transmission requirements.</u> Diablo Winds is interconnected to the grid with a Large Generator Interconnection Agreement in place; no further network upgrades are required.

<u>Reasonableness of COD.</u> Because the project is existing, operating, and delivering successfully to PG&E under its current contract it seems reasonable to assume that it can begin delivery under a new PPA immediately upon expiry of that old contract.

In summary, Arroyo ranks the Diablo Winds project as quite high in project viability.

RPS GOALS

In PG&E's 2012 RPS RFO, the utility applied an evaluation criterion for consistency with and contribution to California's goals for the RPS program. Offers were evaluated on three dimensions:

- California-based projects providing benefits to communities afflicted with poverty, high unemployment, or high emission levels;
- Impact of the project on California's water quality and use;
- Contribution to the biomass goal of Executive Order S-06-06.

Diablo Winds is located near the cities of Livermore and Tracy; both cities have median household incomes above that of the state of California as a whole, and percentages of population living in poverty below that of the state, as estimated by the U.S. Census Bureau. Tracy has an unemployment rate estimated at 12.7% for 2012 that is somewhat above that of the state as a whole. Alameda County is a non-attainment area for the 8-hour ozone standard and the PM-2.5 particulate standard. As a wind generation facility, Diablo Winds has nil to minimal impact on water quality and use. It does not contribute to the state's biomass goal. On that basis Arroyo would rank Diablo Winds as moderate on the RPS Goals criterion as defined by PG&E for its 2012 solicitation.

C. DISCUSSION OF MERIT FOR APPROVAL

In Arroyo's opinion, the Diablo Winds contract merits CPUC approval:

- The contract price (both before and after adjustment for time-of-delivery factors) ranks quite low when compared to all Offers received in PG&E's 2012 RPS solicitation or to the proposals that PG&E selected for its short list.
- PG&E's estimate of Portfolio-Adjusted Value ranks the contract high compared to all 2012 Offers and to shortlisted Offers. Arroyo's independent analysis ranks the contract as moderate in net market value compared to all 2012 Offers.
- The Diablo Winds facility ranks quite high in project viability given that it is already constructed, operating, and delivering renewable energy to PG&E.
- While the PPA ranks low in portfolio fit when compared to all 2012 Offers when using PG&E's metric for adjusting PAV for timing of contribution to RPS compliance needs, this mismatch is mitigated by the expectation that contract deliveries in the early years of the contract will contribute to a build-up of PG&E's bank of RECs that will used for RPS compliance in later years.

Strictly as a matter of opinion, Arroyo considers the outcome of contract negotiations to be somewhat less than fully fair to PG&E's ratepayers and NEER's competitors. PG&E granted Diablo Winds a concession that was not granted to other wind generators in its 2012 RPS solicitation; the utility previously established a precedent in granting the same concession to another project subsidiary of NextEra's in bilateral negotiations. The effect of the concession is to shift a narrowly defined category of risk of performance failure to ratepayers from the project. While Arroyo views NEER's competitors as having been disadvantaged by receiving disparate, unequal treatment, the likelihood that this contract provision will actually benefit Diablo Winds and disadvantage ratepayers at some point in the delivery term seems small enough that Arroyo does not consider the fairness issue sufficient for the PPA to merit rejection, in the context of the contract's other attractive attributes.

Overall, Arroyo's opinion is that the Diablo Winds contract merits CPUC approval based on superior pricing, value, and viability.

PG&E Gas and Electric Advice Filing List General Order 96-B, Section IV

1st Light Energy AT&T Alcantar & Kahl LLP Anderson & Poole BART Barkovich & Yap, Inc. Bartle Wells Associates

Braun Blaising McLaughlin, P.C. **CENERGY POWER** California Cotton Ginners & Growers Assn California Energy Commission California Public Utilities Commission California State Association of Counties Calpine Casner. Steve Center for Biological Diversity City of Palo Alto City of San Jose **Clean Power** Coast Economic Consulting **Commercial Energy** County of Tehama - Department of Public Works Crossborder Energy **Davis Wright Tremaine LLP** Day Carter Murphy Defense Energy Support Center

Dept of General Services Division of Ratepayer Advocates

Douglass & Liddell Downey & Brand Ellison Schneider & Harris LLP G. A. Krause & Assoc. GenOn Energy Inc. GenOn Energy, Inc. Goodin, MacBride, Squeri, Schlotz & Ritchie Green Power Institute Hanna & Morton In House Energy International Power Technology Intestate Gas Services, Inc. K&L Gates LLP Kelly Group Linde Los Angeles Dept of Water & Power MRW & Associates Manatt Phelps Phillips Marin Energy Authority McKenna Long & Aldridge LLP McKenzie & Associates Modesto Irrigation District

Morgan Stanley NLine Energy, Inc. NRG Solar Nexant, Inc.

North America Power Partners Occidental Energy Marketing, Inc. OnGrid Solar Pacific Gas and Electric Company Praxair Regulatory & Cogeneration Service, Inc. SCD Energy Solutions SCE SDG&E and SoCalGas

SPURR

San Francisco Public Utilities Commission Seattle City Light Sempra Utilities SoCalGas Southern California Edison Company Spark Energy Sun Light & Power Sunshine Design Tecogen, Inc. Tiger Natural Gas, Inc. TransCanada Utility Cost Management Utility Power Solutions Utility Specialists

Verizon

Water and Energy Consulting Wellhead Electric Company Western Manufactured Housing Communities Association (WMA)