

PUBLIC UTILITIES COMMISSION  
505 Van Ness Avenue  
San Francisco CA 94102-3298



**Pacific Gas & Electric Company**  
**ELC (Corp ID 39)**  
**Status of Advice Letter 6477E**  
**As of April 27, 2022**

Subject: Request for Approval of Mid-Term Reliability Procurement Pursuant to D.21-06-035 and D.21-12-015

Division Assigned: Energy

Date Filed: 01-21-2022

Date to Calendar: 01-26-2022

Authorizing Documents: D0606064

Authorizing Documents: D1906026

<b>Disposition:</b>	<b>Signed</b>
<b>Effective Date:</b>	<b>04-21-2022</b>

Resolution Required: Yes

Resolution Number: E-5202

Commission Meeting Date: None

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**PUBLIC UTILITIES COMMISSION**  
505 Van Ness Avenue  
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter

From: Energy Division PAL Coordinator

Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
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- Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

The Energy Division has made no changes to your copy of the Advice Letter Filing; please review your Advice Letter Filing with the information contained in the AL status certificate, and update your Advice Letter and tariff records accordingly.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

Energy Division's Tariff Unit by e-mail to  
**[edtariffunit@cpuc.ca.gov](mailto:edtariffunit@cpuc.ca.gov)**



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January 21, 2022

**Advice 6477-E**

Pacific Gas and Electric Company (U 39 E)

Public Utilities Commission of the State of California

**Subject: Request for Approval of Mid-Term Reliability Procurement Pursuant to D.21-06-035 and D.21-12-015**

**I. Purpose**

Pursuant to Decision (D.) 21-06-035, Pacific Gas and Electric Company (PG&E) submits this Tier 3 advice letter (Advice Letter) seeking California Public Utilities Commission (Commission or CPUC) approval of nine (9) agreements (Agreements) resulting from PG&E's Mid-Term Reliability Request for Offers – Phase 1 (MTR RFO – Phase 1). Additionally, as described below, PG&E pursued agreements for facilities that could come online earlier and in excess of PG&E's specific yearly minimum procurement obligations to support Commission directives for summer reliability adopted in D.21-12-015.<sup>1</sup>

Accordingly, the contracts for approval included in this Advice Letter are intended to meet the August 1, 2023, and June 1, 2024, incremental September Net Qualifying Capacity (NQC) requirements mandated in D.21-06-035, as well as a portion of the revised summer reliability procurement targets for 2023 adopted in D.21-12-015.

Table 1 below summarizes the project name, technology type, expected initial delivery date (IDD) and the term of the Agreements.

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<sup>1</sup> D.21-12-015, *Phase 2 Decision Directing Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company to Take Actions to Prepare for Potential Extreme Weather in the Summers of 2022 and 2023.*

**TABLE 1: SUMMARY OF EXECUTED LONG TERM RESOURCE ADEQUACY AGREEMENTS (LTRAA) IN NAMEPLATE MEGAWATTS**

Line No.	Counterparty (Project Name)	Agreement	Technology	Initial Delivery Date <sup>2</sup>	Term (Years)	Size (MW)
1	Beaumont ESS I, LLC (Beaumont Energy Storage Project)	LTRAA w/Energy Settlement	Lithium Ion Batteries	8/1/2023	15	100
2	Sanborn ESS I, LLC (Edwards Sanborn Energy Storage Project)	LTRAA w/Energy Settlement	Lithium Ion Batteries	8/1/2023	15	169
3	Canyon Country ESS I, LLC (Canyon Country Energy Storage Project)	LTRAA w/Energy Settlement	Lithium Ion Batteries	10/1/2023	15	80
4	Moss Landing Energy Storage 3, LLC (MOSS350 Energy Storage)	LTRAA w/Energy Settlement	Lithium Ion Batteries	8/1/2023	15	350
5	Poblano Energy Storage, LLC (Inland Empire Energy Storage)	LTRAA w/Energy Settlement	Lithium Ion Batteries	4/1/2024	15	100
6	NextEra Energy Resources Development, LLC (Corby Energy Storage)	LTRAA w/Energy Settlement	Lithium Ion Batteries	6/1/2024	15	125
7	NextEra Energy Resources Development, LLC (Kola Energy Storage)	LTRAA w/Energy Settlement	Lithium Ion Batteries	6/1/2024	15	275
8	Nighthawk Energy Storage, LLC (Nighthawk Storage)	LTRAA w/Energy Settlement	Lithium Ion Batteries	6/1/2024	15	300
9	Caballero CA Storage, LLC (Caballero Energy Storage)	LTRAA	Lithium Ion Batteries	6/1/2024	15	<u>99.7</u>
10	Total MW					1,598.7

PG&E will submit subsequent advice letters for approval of additional contracts executed to meet its portion of the 2,500 MW of zero-emitting resources required to be online by June 1, 2025 and the long-lead-time resource procurement required to be online by June 1, 2026.

## II. Background

### A. Mid-Term Reliability Needs

On June 30, 2021, the Commission issued D.21-06-035, which takes a number of steps to address the mid-term reliability needs of the electricity system within the California Independent System Operator Corporation's (CAISO) operating system beginning in 2023 due to the pending retirement of the Diablo Canyon Power Plant and the planned

<sup>2</sup> "Initial Delivery Date" is a contractual term. Per the contract, facilities are required to be operational prior to the Initial Delivery Date.

retirement of once-through-cooling (OTC) thermal plants in Southern California. In D.21-06-035, the Commission requires incremental procurement of 11,500 MWs of additional NQC resources, of which PG&E is responsible for 2,302 MWs for its bundled service customer portion. Further, the procurement required by D.21-06-035 are expected to deliver at least 2,000 MW to be online by August 1, 2023, an additional 6,000 MW by June 1, 2024, an additional 1,500 MW by June 1, 2025, and an additional 2,000 MW by June 1, 2026. In addition, D.21-06-035 requires that at least 2,500 MW of the resources procured by the LSEs collectively, between 2023 and 2025, be from zero-emission resources that generate electricity, or generation resources paired with storage, or demand response, to replace the current supply of energy from the Diablo Canyon Power Plant and ensure there is no resultant increase in GHG emissions upon its retirement.

Additionally, the D. 21-06-035 and subsequent Energy Division memorandum with the guidance for incremental effective load carrying capacity (ELCC) values to use for mid-term reliability procurement compliance,<sup>3</sup> affirms that the investor-owned utilities (IOU) are to continue to act as the backstop procurement agent under the framework adopted in D.20-12-044 for Community Choice Aggregators (CCAs) and Energy Service Providers (ESPs) that fail to meet their procurement responsibilities of incremental system resources under the D. 21-06-035.

D. 21-06-035 outlined eligibility requirements for resources to meet the procurement obligations and requirements for the solicitation, including types of resources eligible (e.g., eligibility of imports) and minimum contract lengths.

In anticipation of the D. 21-06-035 being adopted by the Commission, PG&E issued the MTR RFO – Phase 1 on June 18, 2021.

## **B. Summer Reliability OIR Decisions**

Over the past year, the Commission took action to specifically support summer reliability through the procurement directives D.21-02-028<sup>4</sup>, D.21-03-056<sup>5</sup>, and D.21-12-015. During the MTR RFO – Phase 1 solicitation, the Commission deliberated what ultimately

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<sup>3</sup> Energy Division staff e-mailed parties on October 22, 2021, with an updated Incremental ELCC Study for Mid-term Reliability Procurement, by E3 and Astrapé. The materials can be found on CPUC's webpage, "IRP Procurement Track"; hyperlink at: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/more-information-on-authorizing-procurement/irp-procurement-track>.

<sup>4</sup> D.21-02-028, *Decision Directing Pacific Gas And Electric Company, Southern California Edison Company, And San Diego Gas & Electric Company To Seek Contracts For Additional Power Capacity For Summer 2021 Reliability*.

<sup>5</sup> D.21-03-056, *Decision Directing Pacific Gas And Electric Company, Southern California Edison Company, And San Diego Gas & Electric Company To Take Actions To Prepare For Potential Extreme Weather In The Summers Of 2021 And 2022*.

became D.21-12-015, directing the IOUs to procure additional system summer reliability resources for summers 2022 and 2023, and providing a target of 2,000 – 3,000 megawatts (MW). This expanded upon prior direction in D.21-03-056 for the IOUs to collectively procure 1,000 MW – 1,500 MW of resources for summers 2021 and 2022.

To support the procurement order contained in these summer reliability decisions, PG&E pursued agreements in the MTR RFO – Phase 1 requirement that could come online earlier and in excess of PG&E’s specific yearly minimum procurement obligations.<sup>6</sup> To the extent that projects are intended to be operational by August 1, 2023, and are in excess of the PG&E yearly procurement obligation set forth in the D. 21-06-035, PG&E may count this accelerated and excess capacity towards PG&E’s summer reliability targets on behalf of all customers in the PG&E distribution service territory prior to application to PG&E’s Mid-Term Reliability Procurement targets benefitting bundled customers.<sup>7</sup> When applied to PG&E’s Mid-Term Reliability Procurement targets, capacity will not be counted toward PG&E’s summer reliability targets nor receive corresponding Cost Allocation Mechanism (CAM) cost recovery treatment.

### **III. Overview of Mid-term Reliability Request for Offers – Phase 1**

#### **A. RFO Structure and Process**

PG&E issued its MTR RFO – Phase 1 on June 18, 2021, to solicit offers to procure incremental NQC resources with an expected online date of August 1, 2023, and June 1, 2024, which will count towards PG&E’s procurement requirement of a total of 1,601 MWs by June 1, 2024. Table 2 below outlines PG&E’s reliability procurement compliance requirement taking into account previous procurement that can count towards the requirement. In Row 4 of Table 2, the incremental NQC MW requirement is converted into a nameplate requirement utilizing the Incremental ELCC Study for Mid-Term Reliability Procurement.<sup>8</sup>

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<sup>6</sup> See Table 2: PG&E Procurement Requirement & Progress.

<sup>7</sup> D.21-06-035, *Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026)*, clarified that capacity procured after June 30, 2020, including that which was procured for emergency reliability purposes in Rulemaking 20-11-003 is eligible to count towards the procurement requirements under D.21-06-035. Ordering Paragraph 89 of D.21-12-015 further clarified the ability of capacity to comply with both Emergency Reliability and Mid-Term Reliability IRP requirements.

<sup>8</sup> Table ES1, “Incremental ELCC Study for Mid-Term Reliability Procurement by E3 and Astrapé”, updated 10/22/2021; hyperlink at: [https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/20211022\\_irp\\_e3\\_astrape\\_incremental\\_elcc\\_study\\_updated.pdf](https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/20211022_irp_e3_astrape_incremental_elcc_study_updated.pdf).

**TABLE 2: PG&E PROCUREMENT REQUIREMENT & PROGRESS**

Line No.	MTR Compliance Requirement (in incremental September NQC MW)	2023	2024	Total
1	Requirements from D. 21-06-035	400	1,201	1,601
2	Forecasted Excess from Previous Procurement <sup>(a)</sup>	-303.25 <sup>(b)</sup>	N/A	-303.25
3	Updated Incremental NQC Requirement	96.75	1,201	1,297.75
4	Incremental NQC to Nameplate MW Conversion (using ELCC for 4-hour Battery)	96.75/ 96.3%	1,201/ 90.7%	
5	Remaining MTR Nameplate Requirement of 4-hour Battery	100.47	1,324.15	1,424.62
6	Nameplate Under Contract of 4-hour Battery from MTR RFO- Phase 1	699	899.7	<b>1,598.7</b>

- (a) Procurement in excess of PG&E's minimum requirement from D.19-11-016. Conclusion of Law 29 in the Decision states: It is reasonable to allow resources procured to support the requirements of D.19-11-016 that are in excess of the compliance requirements to be used to satisfy the requirements of this order if they otherwise qualify.
- (b) Forecasted excess procurement executed by PG&E under the 2019 System Reliability RFO and for Summer 2022 under Decision 21-02-028 and Decision 21-03-056 (314.9 MW total, representing 303.25 MW with an incremental ELCC of 96.3%).

In its MTR RFO – Phase 1 materials, PG&E provided detailed guidance on project requirements to prospective participants. Participants could submit offers for Third-Party Owned projects utilizing the following four agreement types: (1) Long Term Resource Adequacy Agreement (LT RAA), (2) Long Term Resource Adequacy Agreement with Energy Settlement (LT RAA w/ES), (3) Behind-the-Meter Resource Adequacy Agreement (BTM RAA), and (4) Zero-Emitting Resource Agreement. Participants could submit an offer for PG&E ownership using the Engineering, Procurement, and Construction (EPC) Agreement. The MTR RFO – Phase 1 requested initial delivery dates between August 1, 2023 and June 1, 2024, and a minimum size requirement of 10 MWs for all agreement types. All projects are required to come online seventy-five days in advance of their scheduled contractual start per the form LT RAA. Participants were required to demonstrate site control, that the project is on track to receive Full Capacity Deliverability Status in order to support delivery of product, and that the project would be incremental to the 2019-2020 Integrated Resource Planning Resolve/SERVM baseline used in need determination. Offers had to meet the applicable CPUC and CAISO requirements for deliverability, as well as any other requirements that will enable PG&E to receive the RA benefits associated with the agreements.

## **B. Participant Outreach**

PG&E announced the issuance of the MTR RFO – Phase 1 by email notification and provided six e-mail update notifications to PG&E’s mailing list, which included approximately 2,500 recipients. The issuance email provided potential participants with information on the location of solicitation documents, participant webinar information, and important action items.

MTR RFO – Phase 1 documents were finalized for release on June 18, 2021, and remain available on the PG&E website.<sup>9</sup> The documents include the MTR RFO – Phase 1 solicitation protocol which includes information, requirements, and directions to submit a conforming offer. In addition to the MTR RFO – Phase 1 dedicated website, PG&E established a MTR RFO – Phase 1 mailbox ([MidTermRFO@pge.com](mailto:MidTermRFO@pge.com)) for participants and other interested parties to submit questions.

On June 25, 2021, PG&E conducted a participants’ conference via webinar to explain the MTR RFO – Phase 1 solicitation protocol, form agreements, and the offer submittal process as well as answer questions from potential participants. About 65 individuals attended the webinar via phone or WebEx. PG&E posted the presentation to the MTR RFO – Phase 1 website after the webinar.

PG&E requested offers for the MTR RFO – Phase 1 by July 23, 2021, and notified participants via e-mail of their status regarding the shortlist on September 23, 2021. Shortlisted participants were notified in their email letter of additional requirements to remain on the shortlist and be eligible for negotiations.

## **C. Offers Received**

In response to the MTR RFO – Phase 1, PG&E received 73 offers consisting of 223 offer variations from 29 counterparties. Of the 73 offers, three offers were non-conforming for the following reasons:

1. Did not meet the site control requirement.
2. Did not meet the interconnection requirement.

PG&E provided participants an opportunity to revise offers that were missing information or required clarification by sending deficiency notices requesting further information by a specified date. Some participants were not able to rectify their non-conforming issues. Where 1) an offer was non-conforming and subsequent modification by the participant did not result in a conforming offer, or 2) where PG&E determined that an offer was in violation of the terms of the MTR RFO – Phase 1 participation, that offer or variation was considered non-conforming and eliminated from further evaluation.

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<sup>9</sup> See PG&E solicitation webpage; hyperlink at: [www.pge.com/rfo/midtermrfo-phaseone](http://www.pge.com/rfo/midtermrfo-phaseone) .



#### **D. Mid-Term Reliability RFO – Phase 1 Evaluation Protocol and Shortlist**

PG&E evaluated offers based on Net Market Value (NMV). The evaluation methodology used to select shortlisted offers is described in Appendix L.

PG&E shortlisted offers based on a combination of NMV and other qualitative factors included in the solicitation protocol to achieve a shortlisted portfolio that could provide incremental NQC MW consistent with D.21-06-035. The shortlisted projects represented four different agreement types: LT RAA, LT RAA w/ES, BTM, and EPC.

Consistent with Public Utilities Code Section 454.52(a)(1)(I),<sup>10</sup> PG&E also considered resources located in Disadvantaged Communities (DACs) as a qualitative factor when evaluating offers

#### **E. Negotiations**

PG&E initiated negotiations with each participant that had a shortlisted offer. The negotiations began with a review of the counterparty's offer and a discussion of any updates to the projects since the offer was submitted. PG&E also confirmed with participants if they would be able to accept the agreement as-is, noting that, per the Solicitation Protocol, PG&E did not intend to entertain substantive modifications to the form. All shortlisted participants were told that discussions would not necessarily result in an executed agreement.

#### **F. Procurement Review Group Outreach**

On September 22, 2021, PG&E presented a solicitation overview, offer summary, and shortlist materials to the Procurement Review Group (PRG).<sup>11</sup> The presentation was sent to the PRG on September 20, 2021 and included: the MTR RFO – Phase 1 requirements, offers received, and PG&E's proposed shortlist. This timing was to ensure that PG&E could incorporate any PRG feedback before participants were to be updated of their shortlist status on September 23, 2021.

#### **G. CAM Group Outreach**

On January 18, 2022, PG&E emailed the CAM an overview of the MTR RFO – Phase 1 procurement required under D.21-06-035. PG&E noted during MTR RFO – Phase 1, the

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<sup>10</sup> The former Section 454.52(a)(1)(H) providing that LSEs shall minimize localized air pollutants and other greenhouse gas ("GHG") emissions, with early priority on DACs, is now Section 454.52(a)(1)(I).

<sup>11</sup> The public meeting summary may be viewed at:  
[https://www.pge.com/pge\\_global/common/pdfs/for-our-business-partners/energy-supply/procurement-review-group/PRG-092221.pdf](https://www.pge.com/pge_global/common/pdfs/for-our-business-partners/energy-supply/procurement-review-group/PRG-092221.pdf)

CPUC issued D.21-12-015, which directed the IOUs to procure additional system summer reliability resources for summers 2022 and 2023.

#### **H. Independent Evaluator**

PG&E engaged an Independent Evaluator (IE) from the Commission's approved list of IEs for the MTR RFO – Phase 1. The IE for this solicitation was Merrimack Energy, represented by Wayne Oliver and Keith Oliver.

The IE's involvement is outlined below:

- Reviewed and provided feedback on the MTR RFO – Phase 1 documentation.
- Reviewed and evaluated offers received and assisted in shortlist development.
- Discussed with PG&E the reasons the offers were considered non-conforming.
- Participated in feedback calls with participants that were not selected to be on the shortlist.
- Participated in contract negotiations that were held for each shortlisted participant.

The confidential version of the IE report is provided in Appendix J1, and the public version of the IE report is provided in Appendix J2.

#### **IV. Selected Projects**

PG&E is requesting approval of the nine Agreements resulting from PG&E's MTR RFO – Phase 1 described below. The final executed Agreements can be found in Confidential Appendices A – I, and additional contract terms can be found in Confidential Appendices K1 – K2. The nine Agreements together total 1,598.7 MW of nameplate capacity.

##### **A. Beaumont ESS I, LLC – Beaumont Energy Storage Project**

PG&E executed a LT RAA with Energy Settlement for the Beaumont Energy Storage Project. Beaumont ESS I, LLC is a wholly owned subsidiary of Terra-Gen, LLC. Terra-Gen has financed over \$5 billion in new assets and owns over 1.6 GW of wind, geothermal, solar and storage generating capacity in operation across 30 projects throughout the United States. In Q1 2021, Terra-Gen started construction in California on the nation's largest solar and storage project (891 MW solar and 2.1 GW batteries). Terra-Gen ownership is split equally between Energy Capital Partners (ECP) and First Sentier Investors (FSI). ECP has managed 8.8 GW across seven renewable platforms spanning solar, hydro, geothermal, waste-to-energy, and wind and they are the largest owner of renewable assets in the U.S. over the past ten years, plus they are majority owner of Calpine. FSI is a global asset manager based in Australia that manages direct infrastructure investments across multiple sectors.

The project is a 100 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in Riverside County. Terra-Gen expects that

the Beaumont Energy Storage Project will execute a Large Generator Interconnection Agreement (LGIA) with Southern California Edison Company (SCE) and CAISO in January 2022. Appendix K2 provides additional project and LT RAA w/ES detail.

Term	Provision
Counterparty and Project	Beaumont ESS I, LLC – Beaumont Energy Storage Project
Technology	Lithium Ion Batteries
Location	Beaumont, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2023
Nameplate Capacity	100 megawatt (MW)
Discharge Duration	4 hours

#### **B. Sanborn ESS I, LLC – Edwards Sanborn Energy Storage Project**

PG&E executed a LT RAA with Energy Settlement for the Edwards Sanborn Energy Storage Project. Sanborn ESS III, LLC is a wholly owned subsidiary of Terra-Gen, LLC. Reference Section A above for counterparty summary.

The project is a 169 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in Kern County. The Edwards Sanborn Energy Storage Project has a LGIA executed with SCE and CAISO. Appendix K2 provides additional project and LT RAA w/ES detail.

Term	Provision
Counterparty and Project	Sanborn ESS I, LLC – Edwards Sanborn Energy Storage Project
Technology	Lithium Ion Battery
Location	Mojave, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2023
Nameplate Capacity	169 megawatt (MW)
Discharge Duration	4 hours

### **C. Canyon Country ESS I, LLC – Canyon Country Energy Storage Project**

PG&E executed a LT RAA with Energy Settlement for the Canyon Country Energy Storage Project. Canyon Country ESS I, LLC is a wholly owned subsidiary of Terra-Gen, LLC. Reference Section A above for counterparty summary.

The project is a 80 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in Los Angeles County. Terra-Gen expects that the Canyon Country Energy Storage Project will execute a LGIA with SCE and CAISO in February 2022. Appendix K2 provides additional project and LT RAA w/ES detail.

Term	Provision
Counterparty and Project	Canyon Country ESS I, LLC – Canyon Country Energy Storage Project
Technology	Lithium Ion Battery
Location	Santa Clarita, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	October 1, 2023
Nameplate Capacity	80 megawatt (MW)
Discharge Duration	4 hours

### **D. Moss Landing Energy Storage 3, LLC – MOSS350 Energy Storage**

PG&E executed a LT RAA with Energy Settlement for the MOSS350 Energy Storage project. Moss Landing Energy Storage 3, LLC is a wholly owned subsidiary of Vistra Corp. Vistra Corp is a leading, Fortune 275 integrated retail electricity and power generation company. Vistra combines an innovative, customer-centric approach to retail with safe, reliable, diverse, and efficient power generation. The company brings its products and services to market in 20 states and the District of Columbia, including six of the seven competitive wholesale markets in the U.S. and markets in Canada and Japan, as well. Serving nearly 4.3 million residential, commercial, and industrial retail customers with electricity and natural gas, Vistra is one of the largest competitive electricity providers in the country and offers over 50 renewable energy plans. The company is also the largest competitive power generator in the U.S. with a capacity of approximately 39,000 megawatts powered by a diverse portfolio, including natural gas, nuclear, solar, and battery energy storage facilities. In addition, Vistra is a large purchaser of wind power.

The project is a 350 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in Monterey County. The MOSS350 Energy

Storage project has a LGIA executed with PG&E and CAISO. Appendix K2 provides additional project and LT RAA w/ES detail.

Term	Provision
Counterparty and Project	Moss Landing Energy Storage 3, LLC – MOSS350 Energy Storage
Technology	Lithium Ion Battery
Location	Moss Landing, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2023
Nameplate Capacity	350 megawatt (MW)
Discharge Duration	4 hours

#### **E. Poblano Energy Storage, LLC – Inland Empire Energy Storage**

PG&E executed a LT RAA with Energy Settlement for the Inland Empire Energy Storage project. Poblano Energy Storage, LLC is a wholly owned subsidiary of Strata Clean Energy, LLC (“Strata”). Strata and its affiliates (collectively “Strata”) are a vertically integrated solar and storage development, EPC, and operation/maintenance (O&M) company. Strata has more than 170 projects in operation and nearly 7 gigawatts (GW) in development across the United States. With over 4.7GWhs in their storage pipeline, Strata is among the energy industry leaders in battery-based energy storage solutions

The project is a 100 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in San Bernardino County. The Inland Empire Energy Storage project has a LGIA executed with SCE and CAISO. Appendix K2 provides additional project and LT RAA with ES detail.

Term	Provision
Counterparty and Project	Poblano Energy Storage, LLC – Inland Empire Energy Storage
Technology	Lithium Ion Battery
Location	Rialto, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	April 1, 2024
Nameplate Capacity	100 megawatt (MW)
Discharge Duration	4 hours

#### **F. NextEra Energy Resources Development, LLC – Corby Energy Storage**

PG&E executed a LT RAA with Energy Settlement for the Corby Energy Storage project. NextEra Energy Resources Development, LLC (NEER) is a wholly owned subsidiary of NextEra Energy Inc., the largest wholesale generator of clean power in the United States. NEER, together with its affiliated entities, is the world's largest generator of renewable energy from the wind and sun. NEER is one of the largest wholesale generators of electric power in the U.S., with approximately 20,700 MW of net generating capacity across 36 states. Through its subsidiaries, NEER currently owns, develops, constructs, manages and operates electric generation facilities.

The project is a 125 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in Solano County. The Corby Energy Storage project has a LGIA executed with PG&E and CAISO. Appendix K2 provides additional project and LT RAA w/ES detail.

Term	Provision
Counterparty and Project	NextEra Energy Resources Development, LLC – Corby Energy Storage
Technology	Lithium Ion Battery
Location	Vacaville, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	June 1, 2024
Nameplate Capacity	125 megawatt (MW)
Discharge Duration	4 hours

### **G. NextEra Energy Resources Development, LLC – Kola Energy Storage**

PG&E executed a LT RAA with Energy Settlement for the Kola Energy Storage project. Reference Section F above for counterparty summary.

The project is a 275 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in Alameda County. The Kola Energy Storage project has a LGIA executed with PG&E and CAISO. Appendix K2 provides additional project and LT RAA w/ES detail.

Term	Provision
Counterparty and Project	NextEra Energy Resources Development, LLC – Kola Energy Storage
Technology	Lithium Ion Battery
Location	Tracy, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	June 1, 2024
Nameplate Capacity	275 megawatt (MW)
Discharge Duration	4 hours

### **H. Nighthawk Energy Storage, LLC – Nighthawk Storage**

PG&E executed a LT RAA with Energy Settlement for the Nighthawk Storage project. Nighthawk Energy Storage, LLC is an affiliate of Arevon Energy. Arevon Energy will manage construction and operation, and Tenaska, Inc. is Arevon's development partner and is leading project development activities. Arevon is based in Scottsdale, Arizona and manages more than 100 projects around the world from small to utility scale sizes. Arevon has 30 employees responsible for managing commercial, financial and administrative requirements of investments during development/construction and throughout commercial operations. Tenaska, Inc. has over 30 years and 10,000 MW of successful utility-scale development experience across a variety of technologies.

The project is a 300 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in San Diego County. The Nighthawk Storage project has a LGIA executed with San Diego Gas & Electric (SDG&E) and CAISO. Appendix K2 provides additional project and LT RAA w/ES detail.

Term	Provision
Counterparty and Project	Nighthawk Energy Storage, LLC – Nighthawk Storage
Technology	Lithium Ion Battery
Location	Poway, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	June 1, 2024
Nameplate Capacity	300 megawatt (MW)
Discharge Duration	4 hours

### I. Caballero CA Storage, LLC – Caballero Energy Storage

PG&E executed a LT RAA for the Caballero Energy Storage project. Caballero CA Storage, LLC is a wholly owned subsidiary of Origis USA, LLC. Origis USA, LLC focuses on developing, building, and operating utility-scale solar and storage assets, as well as distributed generation. Founded in 2008, Origis Energy has successfully developed 130 solar and storage projects and currently operates 2 GW of solar and storage capacity. Headquartered in Miami, with regional offices in Austin and San Diego, Origis has 105 employees across its development, engineering, procurement, construction, operations, maintenance, financing and accounting teams. The majority owner of Origis Energy is Antin Infrastructure Partners, an independent private equity firm focused on infrastructure investments in the energy and environment, telecom, transport and social infrastructure sectors.

The project is a 99.7 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in San Luis Obispo County. The Caballero Energy Storage project has a LGIA executed with PG&E and CAISO. Appendix K1 provides additional project and LT RAA detail.



Term	Provision
Counterparty and Project	Caballero CA Storage, LLC – Caballero Energy Storage
Technology	Lithium Ion Battery
Location	Nipomo, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	June 1, 2024
Nameplate Capacity	99.7 megawatt (MW)
Discharge Duration	4 hours

## V. **Safety**

As with PG&E’s previous RFOs with energy storage projects, PG&E included safety as a qualitative evaluation criterion. As a condition of remaining on PG&E’s shortlist for negotiations, PG&E required all shortlisted participants to provide information about their technology as well as the safety history of the participant and/or contractors (if known). Prior to Agreement execution, PG&E also used its Contractor Safety Program prequalification standards to assess safety performance and practices of each seller’s organization. This process required all participants with projects proposed for execution to complete PG&E’s safety registration and prequalification process with ISNetworld, PG&E’s safety prequalification administrator, prior to Agreement execution. One parent company, Terra-Gen LLC, received a failing grade for safety in PG&E’s Contractor Safety Program prequalification requirements, primarily due to recurring muscular and joint strain injuries in the company’s wind turbine operations and maintenance division. Terra-Gen’s solar and energy storage division has had no reportable safety incidents. In accordance with PG&E’s Contractor Safety Program, a safety mitigation plan was added to the Terra-Gen agreements in order to address safety deficiencies.”

To reduce, manage, and address the potential safety risks with respect to the proposed energy storage projects, PG&E used enhanced safety provisions within the proposed agreements similar to those previously included in PG&E’s RFOs with storage contracts, such as the 2020 System Reliability RFO – Phase 1, the 2016 Energy Storage RFO, and the 2018 Local Sub Area Energy Storage RFO agreements. The safety provisions require sellers to practice responsible safety management enforced by contractual terms and conditions based on 1) standards for Prudent Electrical Practices, 2) all applicable laws and regulations, and 3) requirements of PG&E’s Contractor Safety Program (Safety Requirements).

Under these enhanced safety provisions, all sellers are required to provide a project safety plan that demonstrates responsible safety management during all phases of the project lifecycle—including project design, construction, operation, and maintenance.

Each project safety plan references the applicable safety-related codes and standards and the seller's current safety programs and policies. It includes a summary of the project design and description of key safety-related systems. The seller must also describe potential hazards and include risk mitigations and safeguards, such as operating procedures, incident response, and recovery plans. In addition, the seller is required to demonstrate and enforce its contractors' and subcontractors' compliance with the Safety Requirements.

As additional project details become available during project development, PG&E will continue to monitor and perform additional safety checks of each seller's project safety plans for consistency with the Safety Requirements. Agreement terms provide PG&E with the ability to enforce those requirements or, in certain cases, terminate the Agreements in the case of non-compliance.

## **VI. Cost Recovery**

As described above, the procurement of the nine (9) Agreements is to: (1) meet the requirement ordered in D.21-06-035 for August 1, 2023, and June 1, 2024, and also (2) meet a portion of the revised summer reliability procurement targets for 2023 adopted in D.21-12-015 (Summer Reliability Target).<sup>12</sup>

When used to meet the D.21-06-035 Mid-Term Reliability requirements, the Agreements and associated costs for capacity presented in this Advice Letter are PCIA-eligible with an assigned vintage of 2021 for the duration of the the contract term and the costs recovered shall be net of any CAISO charges and market revenues, and net of any retained RA capacity value for bundled service customers.

When used to meet the Summer Reliability Target and prior to application towards the D.21-06-035 Mid-Term Reliability requirements, the Agreements and associated costs are eligible for cost recovery under the existing CAM and shall be recovered from all benefiting customers through the New System Generation Charge (NSGC), net of revenues and costs received in the CAISO energy and ancillary services market or net revenues and costs for energy and ancillary services' payments/charges received by the buyer from the seller as defined in the contract terms and conditions associated with the LT RAA w/ES and pursuant to D.21-03-056 and D.21-12-015.<sup>13</sup>

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<sup>12</sup> See D.21-12-015, OP 3 indicating the procurement target for 2022 and 2023 is between 900 and 1350 MW each for PG&E and SCE.

<sup>13</sup> See D.21-12-015, OP 86 - 89, indicating procurement procured pursuant to the order may be recovered through CAM from all retail customers if used to meet the revised summer reliability targets, or would be recovered under authority granted in D.21-06-035, which would be PCIA-eligible, if used to meet Mid-Term Reliability targets.

## **VII. Compliance with the Commission Decisions**

PG&E's RFO and the resulting incremental system RA agreements meet the requirements and goals set forth in the D. 21-06-035 as follows:

**1. All load-serving entities named in Table 6 of D.21-06-035, plus the individual electric service providers who will receive their individual allocations confidentially from Commission staff, shall procure the September net qualifying capacity amounts given in Table 6, and shall file and serve on the service list of this proceeding or any successor proceeding compliance filings according to the schedule given in Table 7 of this order.**

As required, PG&E is complying with D.21-06-035 by submitting this Tier 3 advice letter seeking Commission approval of agreements to satisfy its procurement obligations for 1,598.7 MW of zero GHG-emitting resources towards the 2,302 MW required in Table 6 for PG&E in the D. 21-06-035. The Agreements for approval included in this advice letter are intended to meet the August 1, 2023 and June 1, 2024 incremental September NQC requirements of this order, as well as the revised summer reliability procurement targets for 2022 and 2023 adopted in D.21-12-015.

**2. To ensure that the capacity retiring at the Diablo Canyon Power Plant is replaced entirely with zero-emitting resources, all load-serving entities shall collectively procure a minimum of 2,500 megawatts (MW) of incremental zero-emissions capacity out of the total of 11,500 MW required in D. 21-06-035.**

PG&E will submit subsequent advice letters for approval of additional contracts executed to meet its portion of the 2,500 MW of zero-emitting resources required to be online by June 1, 2025 and the long lead-time resource procurement required to be online by June 1, 2026.

**3. All contracts for resources, including imports, used to satisfy the requirements of this procurement order shall have a minimum duration of 10 years.**

All nine of the executed agreements presented in this advice letter are for a 15-year term.

**4. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall each file Tier 3 advice letters to request cost recovery for any procurement conducted as a result of this order, except if the procurement is associated with a pumped storage resource or a utility-owned resource, a full application is required.**

The procurement of the nine Agreements is to: (1) meet the Mid-Term Reliability requirement ordered in D.21-06-035 for August 1, 2023, and June 1, 2024, and (2) meet

a portion of the revised summer reliability procurement targets for 2023 adopted in D.21-12-015 (Summer Reliability Target).<sup>14</sup>

PG&E requests that, when used to meet the D.21-06-035 Mid-Term Reliability requirements, the Agreements and associated costs for capacity presented in this Advice Letter be deemed PCIA-eligible with an assigned vintage of 2021 for the duration of the the contract term and the costs recovered shall be net of any CAISO charges and market revenues, and net of any retained RA capacity value for bundled service customers.

PG&E requests that, when used to meet the Summer Reliability Target and prior to application towards the D.21-06-035 Mid-Term Reliability requirements, the Agreements and associated costs be deemed eligible for cost recovery under the existing CAM and shall be recovered from all benefiting customers through the NSGC, net of revenues and costs received in the CAISO energy and ancillary services market or net revenues and costs for energy and ancillary services' payments/charges received by the buyer from the seller as defined in the contract terms and conditions associated with the LT RAA w/ES and pursuant to D.21-03-056 and D.21-12-015.<sup>15</sup>

No pumped storage technology or utility-owned resource is included in this advice letter.

**5. Any load-serving entity (LSE) that procures a resource for purposes of the requirements of this order or D.19-11-016 and subsequently shows or sells the attributes of the resource to the resource adequacy central procurement entity may still count the resource for purposes of compliance with this order and D.19-11-016 if the resource otherwise qualifies. Any resource (or a portion thereof) may only be used to show compliance with this order or D.19-11-016 once by one LSE.**

As LSE and CPE, PG&E-LSE may transact excess RA deliveries associated with this procurement to the CPE with such transactions showing in the utility's annual Energy Resource Recovery Account Compliance Review Application for 2023 and 2024 record period activity.

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<sup>14</sup> See D.21-12-015, OP 3 indicating the procurement target for 2022 and 2023 is between 900 and 1350 MW each for PG&E and SCE.

<sup>15</sup> See D.21-12-015, OP 86 - 89, indicating procurement procured pursuant to the order may be recovered through CAM from all retail customers if used to meet the revised summer reliability targets, or would be recovered under authority granted in D.21-06-035, which would be PCIA-eligible, if used to meet Mid-Term Reliability targets.

**6. Any load-serving entity that procured resources to comply with D.19-11-016 in excess of their minimum requirements that otherwise qualify under D.21-06-035 may use those resources to satisfy the requirements of this decision, as long as the resources are contracted, approved, and come online after June 30, 2020.**

Excess resources associated with procurement under D.19-11-016 that otherwise qualifies under D.21-06-035 and such resources are contracted, approved, and brought online after June 30, 2020, PG&E may apply them towards the D.21-06-035 procurement requirements.

**7. In D.19-11-016, OP 7, PG&E was directed to conduct all-source solicitations to procure the obligations set forth in OP 3 with a requirement to present the results of the solicitation in one or more Tier 3 advice letters.**

D.21-06-035 does not explicitly require PG&E to present the results of the solicitation for the MTR RFO – Phase 1 procurement. However, PG&E has complied with the requirements under its Bundled Procurement Plan and includes the Merrimack Energy IE Report developed by Wayne Oliver and Keith Oliver in this advice letter. The confidential version of the IE report is provided in Appendix J1, and the public version of the IE report is provided in Appendix J2.

#### **VIII. Request for Commission Approval**

PG&E requests that the Commission issue a Resolution by no later than 90 days from the submittal of this Advice Letter that contains the following findings, conclusions, and orders:

1. Approves the storage projects and associated Agreements resulting from PG&E's 2021 MTR RFO – Phase 1.
2. Finds that the Agreements identified and executed by PG&E pursuant to the MTR RFO – Phase 1 are consistent with the requirements of D.21-06-035 and that PG&E's MTR RFO -- Phase 1 solicitation was consistent with the Bundled Procurement Plan.
3. Pursuant to Ordering Paragraphs 3 of D.21-06-035, finds that the energy storage Agreements executed by PG&E, totaling 1,598.7 MW of zero GHG-emitting resources counts towards satisfying PG&E's incremental procurement obligations.
4. Finds that PG&E may apply Agreements with facilities that are intended to be brought online on or before August 1, 2023 toward its summer reliability procurement target of 900 MW to 1,350 MW as established in D.21-12-015, and recover the costs associated with such Agreement through CAM, net of revenues,

for the period that such Agreements are applied toward the summer reliability procurement targets.

5. Finds that the energy storage Agreements, and PG&E's entry into the Agreements, are reasonable and prudent for all purposes, and that any payments to be made by PG&E pursuant to the Agreements are recoverable in full by PG&E.
6. Any other and further relief as the Commission finds just and reasonable.

## **IX. Confidentiality Treatment**

In support of this advice letter, PG&E has provided the confidential information listed below. This information is being submitted in the manner directed by Commission D.08-04-023 to demonstrate the confidentiality of the material and to invoke the protection of confidential utility information provided under Public Utilities Code section 454.5(g) or the IOU Matrix, Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023. The Declaration of Don Howerton Seeking Confidential Treatment is submitted concurrently with this advice letter.

### **Confidential Appendices**

- Appendix A: Beaumont ESS I, LLC – Beaumont Energy Storage Project (LT RAA w/ES) Agreement
- Appendix B: Sanborn ESS III, LLC – Edwards Sanborn Energy Storage Project (LT RAA w/ES) Agreement
- Appendix C: Canyon Country ESS I, LLC – Canyon Country Energy Storage Project (LT RAA w/ES) Agreement
- Appendix D: Moss Landing Energy Storage 3, LLC – MOSS350 Energy Storage (LT RAA w/ES) Agreement
- Appendix E: Poblano Energy Storage, LLC – Inland Empire Energy Storage (LT RAA w/ES) Agreement
- Appendix F: NextEra Energy Resources Development, LLC – Corby Energy Storage (LT RAA w/ES) Agreement
- Appendix G: NextEra Energy Resources Development, LLC – Kola Energy Storage (LT RAA w/ES) Agreement
- Appendix H: Nighthawk Energy Storage, LLC – Nighthawk Storage (LT RAA w/ES) Agreement
- Appendix I: Caballero CA Storage, LLC – Caballero Energy Storage (LT RAA) Agreement
- Appendix J1: Independent Evaluator Report (Confidential)
- Appendix K1: Summary of Key Long-Term Resource Adequacy Agreement Terms
- Appendix K2: Summary of Key Long-Term Resource Adequacy Agreement with Energy Settlement Terms
- Appendix M: Quantitative Evaluation Results Workbook

**Public Appendices**

Appendix J2: Independent Evaluator Report (Redacted)

Appendix L: Evaluation Methodology

**X. Protests**

**\*\*\*Due to the COVID-19 pandemic and the shelter at home orders, PG&E is currently unable to receive protests or comments to this Advice Letter via U.S. mail or fax. Please submit protests or comments to this Advice Letter to EDTariffUnit@cpuc.ca.gov andPGETariffs@pge.com\*\*\***

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile, or E-mail, no later than **February 10, 2022**, which is 20 days after the date of this submittal. Protests must be submitted to:

CPUC Energy Division  
ED Tariff Unit  
505 Van Ness Avenue, 4<sup>th</sup> 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:

Sidney Bob Dietz II  
Director, Regulatory Relations  
c/o Megan Lawson  
Pacific Gas and Electric Company  
77 Beale Street, Mail Code B13U  
P.O. Box 770000  
San Francisco, California 94177

Facsimile: (415) 973-3582  
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 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, Section 3.11).

#### **XI. Effective Date**

PG&E requests that this Tier 3 advice submittal become effective upon a Resolution by the Commission.

#### **XII. Notice**

In accordance with General Order 96-B, Section IV, a copy of this Advice Letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list **R.20-05-003**. Address changes to the General Order 96-B service list should be directed to PG&E at email address [PGETariffs@pge.com](mailto: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](mailto:Process_Office@cpuc.ca.gov). Send all electronic approvals to [PGETariffs@pge.com](mailto:PGETariffs@pge.com). Advice letter submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.

\_\_\_\_\_  
/S/

Sidney Bob Dietz II  
Director, Regulatory Relations

cc: Merideth Sterkel, CPUC Energy Division  
Nathan Barcic, CPUC Energy Division  
Radu Ciupagea, Public Advocates Office  
Karin Hieta, Public Advocates Office  
Paul Worchach, Public Advocates Office  
Service List R.20-05-003





# ADVICE LETTER SUMMARY

## ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (U 39 E)

Utility type:

- ELC       GAS       WATER  
 PLC       HEAT

Contact Person: Stuart Rubio

Phone #: (415) 973-4587

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: SHR8@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric      GAS = Gas      WATER = Water  
 PLC = Pipeline      HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 6477-E

Tier Designation: 3

Subject of AL: Request for Approval of Mid-Term Reliability Procurement Pursuant to D.21-06-035 and D.21-12-015

Keywords (choose from CPUC listing): Compliance

AL Type:  Monthly  Quarterly  Annual  One-Time  Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.06-06-064 and D.19-06-026

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Confidential treatment requested?  Yes  No

If yes, specification of confidential information: See Confidential Declaration and Matrix  
 Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information: Don Howerton, DPHk@pge.com, 415-973-7276.

Resolution required?  Yes  No

Requested effective date: No. of tariff sheets: 0

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed<sup>1</sup>: N/A

Pending advice letters that revise the same tariff sheets: N/A

<sup>1</sup>Discuss in AL if more space is needed.

**Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:**

CPUC, Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue  
San Francisco, CA 94102  
Email: [EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

Name: Sidney Bob Dietz II, c/o Megan Lawson  
Title: Director, Regulatory Relations  
Utility Name: Pacific Gas and Electric Company  
Address: 77 Beale Street, Mail Code B13U  
City: San Francisco, CA 94177  
State: California Zip: 94177  
Telephone (xxx) xxx-xxxx: (415)973-2093  
Facsimile (xxx) xxx-xxxx: (415)973-3582  
Email: [PGETariffs@pge.com](mailto:PGETariffs@pge.com)

Name:  
Title:  
Utility Name:  
Address:  
City:  
State: District of Columbia Zip:  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
Email:

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

**PACIFIC GAS AND ELECTRIC COMPANY  
ADVICE LETTER FOR APPROVAL OF CONTRACTS  
RESULTING FROM ITS MID-TERM RELIABILITY -  
PHASE 1 REQUEST FOR OFFERS PURSUANT TO  
DECISION 21-06-035 & DECISION 21-12-015**

**DECLARATION OF DON HOWERTON  
SEEKING CONFIDENTIAL TREATMENT  
FOR CERTAIN DATA AND INFORMATION  
CONTAINED IN PG&E'S ADVICE LETTER**

I, Don Howerton, declare:

1. I am a Director in the Energy Procurement and Policy Organization at Pacific Gas and Electric Company (PG&E). In this position, I am responsible for procurement of various electric resources and products including energy storage and renewable energy. This declaration is based on my personal knowledge of PG&E's practices and my understanding of the Commission's decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with the Decisions 06-06-066, 08-04-023, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in PG&E's Advice Letter pursuant to Decision 21-06-035 and Decision 21-12-015.

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 seeking to protect constitutes confidential market sensitive data and information covered by D.06-06-066, Appendix 1, and Public Utilities Code §454.5(G). The matrix also specifies why confidential protection is justified. Further, the data and information: (1) is not already public; and (2) 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 that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed on January 20, 2022 at San Francisco, California.

A handwritten signature in black ink that reads "Donald P. Howerton". The signature is written in a cursive style with a large, prominent "D" and "H".

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Don Howerton

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

**ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS  
MID-TERM RELIABILITY REQUEST FOR OFFERS – PHASE 1 PURSUANT TO DECISION 21-06-035 and  
DECISION 21-12-015  
JANUARY 21, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

<b>Redaction Reference</b>	<b>Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To</b>	<b>PG&amp;E’s Justification for Confidential Treatment</b>	<b>Length of Time</b>
<b>Confidential Appendices</b>			
Appendix A: Beaumont ESS I, LLC – Beaumont Energy Storage Project (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.
Appendix B: Sanborn ESS III, LLC – Edwards Sanborn Energy Storage Project (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

**ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS  
MID-TERM RELIABILITY REQUEST FOR OFFERS – PHASE 1 PURSUANT TO DECISION 21-06-035 and  
DECISION 21-12-015  
JANUARY 21, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

<b>Redaction Reference</b>	<b>Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To</b>	<b>PG&amp;E's Justification for Confidential Treatment</b>	<b>Length of Time</b>
Appendix C: Canyon Country ESS I, LLC – Canyon Country Energy Storage Project (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRAA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.
Appendix D: Moss Landing Energy Storage 3, LLC – MOSS350 Energy Storage (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRAA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.
Appendix E: Poblano Energy Storage, LLC – Inland Empire Energy Storage (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRAA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

**ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS  
MID-TERM RELIABILITY REQUEST FOR OFFERS – PHASE 1 PURSUANT TO DECISION 21-06-035 and  
DECISION 21-12-015  
JANUARY 21, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

<b>Redaction Reference</b>	<b>Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To</b>	<b>PG&amp;E's Justification for Confidential Treatment</b>	<b>Length of Time</b>
Appendix F: NextEra Energy Resources Development, LLC – Corby Energy Storage (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRAA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.
Appendix G: NextEra Energy Resources Development, LLC – Kola Energy Storage (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRAA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.
Appendix H: Nighthawk Energy Storage, LLC – Nighthawk Storage (LT RAA w/ES) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement with Energy Settlement (LTRAA w/ES) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

**ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS  
MID-TERM RELIABILITY REQUEST FOR OFFERS – PHASE 1 PURSUANT TO DECISION 21-06-035 and  
DECISION 21-12-015  
JANUARY 21, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

<b>Redaction Reference</b>	<b>Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To</b>	<b>PG&amp;E's Justification for Confidential Treatment</b>	<b>Length of Time</b>
Appendix I: Caballero CA Storage, LLC – Caballero Energy Storage (LT RAA) Agreement	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Long-Term Resource Adequacy Agreement (LTRAA) presented in this appendix are generally confidential. The terms of this contract that are public pursuant to Item VII. B. are publicly disclosed in Section IV. Selected Projects.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.



**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

**ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS  
MID-TERM RELIABILITY REQUEST FOR OFFERS – PHASE 1 PURSUANT TO DECISION 21-06-035 and  
DECISION 21-12-015  
JANUARY 21, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

<b>Redaction Reference</b>	<b>Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To</b>	<b>PG&amp;E's Justification for Confidential Treatment</b>	<b>Length of Time</b>
Appendix J1: Independent Evaluator (IE) Report (Confidential)	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS));  Item VIII. B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	The IE Report contains extensive discussion of the specific terms of the LTRAA, and LTRAA w/ES Contracts. All contract terms, except for the 8 contract characteristics noted as public in Matrix VII.B, are confidential.  The IE Report also contains information on the shortlist, which constitutes the confidential results of bid scoring and evaluation.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.  Information under Item VIII. B is confidential for three years from the date winning contracts are submitted for CPUC approval.
Appendix K1: Summary of Key Long-Term Resource Adequacy Agreement Terms	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	Contract specific terms between PG&E and the counterparty and between the counterparty and suppliers are confidential terms as they are not identified as public by Matrix term VII.B.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

**ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS  
MID-TERM RELIABILITY REQUEST FOR OFFERS – PHASE 1 PURSUANT TO DECISION 21-06-035 and  
DECISION 21-12-015  
JANUARY 21, 2022**

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

<b>Redaction Reference</b>	<b>Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To</b>	<b>PG&amp;E's Justification for Confidential Treatment</b>	<b>Length of Time</b>
Appendix K2: Summary of Key Long-Term Resource Adequacy Agreement with Energy Settlement Terms	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	Contract specific terms between PG&E and the counterparty and between the counterparty and suppliers are confidential terms as they are not identified as public by Matrix term VII.B.	Contract documents and terms of contracts are confidential for three years from the date that the contract states that deliveries are to begin, or until one year following expiration, whichever comes first.
Appendix M: Quantitative Evaluation Results Workbook	Item VIII. B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	The appendix contains information on the offers received, which constitutes the confidential results of bid scoring and evaluation.	Information under Item VIII. B is confidential for three years from the date winning contracts are submitted for CPUC approval.

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix A**

**Beaumont ESS I, LLC – Beaumont Energy Storage  
Project (LT RAA w/ES) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix B**

**Sanborn ESS III, LLC – Edwards Sanborn Energy  
Storage Project (LT RAA w/ES) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix C**

**Canyon Country ESS I, LLC – Canyon Country Energy  
Storage Project (LT RAA w/ES) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix D**

**Moss Landing Energy Storage 3, LLC – MOSS350  
Energy Storage (LT RAA w/ES) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix E**

**Poblano Energy Storage, LLC – Inland Empire Energy  
Storage (LT RAA w/ES) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix F**

**NextEra Energy Resources Development, LLC – Corby  
Energy Storage (LT RAA w/ES) Agreement**

**(Confidential)**



Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix G**

**NextEra Energy Resources Development, LLC – Kola  
Energy Storage (LT RAA w/ES) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix H**

**Nighthawk Energy Storage, LLC – Nighthawk Storage  
(LT RAA w/ES) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix I**

**Caballero CA Storage, LLC – Caballero Energy Storage  
(LT RAA) Agreement**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix J1**

### **Independent Evaluator Report**

**(Confidential)**

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix J2**

### **Independent Evaluator Report**

**(Public)**

***Pacific Gas and Electric Company  
Mid-Term Reliability Request for Offers  
Phase 1***

***Confidential Version***

***Independent Evaluator Report on  
PG&E's Mid-Term Reliability RFO – Phase 1***

***January, 2022***

***Final Report***

***Prepared by  
Merrimack Energy Group, Inc.  
26 Shipway Place  
Charlestown, Mass. 02129***



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## **Appendices**

Appendix A – Offer Summary

Appendix B – Contract and Operational Summary of each Contracted Resource

## **I. Introduction**

### **A. Overview of the 2021 Mid-Term Reliability RFO – Phase 1**

On June 18, 2021<sup>1</sup>, Pacific Gas & Electric Company (“PG&E” or “Company”) issued its Mid-Term Reliability RFO – Phase 1 (“Mid-Term Reliability RFO – Phase 1” or “RFO”) pursuant to California Public Utilities Commission (“CPUC”) “Final Decision” in Rulemaking 20-05-003 issued on June 30, 2021 (Decision Requiring Procurement to Address Mid-Term Reliability (2023-2026)). Under the Final Decision PG&E is seeking offers from Participants for the purchase of eligible system resource adequacy (“RA”) to come online by August 1, 2023, June 1, 2024, or June 1, 2025 (for zero emission resources). The Final Decision requires PG&E to procure at least 2,302 MW of additional net qualifying capacity (“NQC”).<sup>2</sup> Procurement in the RFO will qualify towards PG&E’s minimum cumulative procurement responsibility, per the Final Decision in Rulemaking 20-05-003. PG&E indicated it would issue a subsequent Mid-Term Reliability Request for Offers – Phase 2, seeking offers from Participants for the purchase of eligible system resources that intend to come online after August 1, 2023 and on or before June 1, 2026. The Final Decision requires PG&E to procure and have online 400 MW by August 1, 2023, 1,201 MW by June 1, 2024, 300 MW by June 1, 2025, and 400 MW by June 1, 2026.

Through the Mid-Term Reliability RFO – Phase 1, PG&E has executed nine Long-Term Resource Adequacy Agreements (“LTRAA”)<sup>3</sup> for stand-alone Battery Energy Storage System (“BESS”) projects with six counterparties scheduled on line in 2023 and prior to June 1, 2024. The total capacity of the nine projects is 1,598.7 MW, which is 99.86% of the amount of capacity required for PG&E in the Final Decision.<sup>4</sup> PG&E is seeking CPUC approval of the nine contracts through their Advice Letter filing. The contracts were executed during the December 20-30, 2021 period.

### **B. Regulatory Background**

The CPUC’s Final Decision Requiring Procurement to Address Mid-Term Reliability (2023 – 2026) in Rulemaking 20-05-003 addresses the mid-term reliability needs of the electricity system within the California Independent System Operator’s (CAISO’s)

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<sup>1</sup> PG&E issued the Mid-Term Reliability RFO – Phase 1 on June 18, 2021 and a revised Mid-Term Reliability RFO on June 25, 2021 that primarily clarified the capacity requirements and the requirements for zero-emission resources. PG&E issued a Revised RFO on August 17, 2021 that included a revision in the schedule.

<sup>2</sup> Compliance would be measured based on September NQC calculations using marginal ELCCs calculated by the Commission for each resource type for each future online year.

<sup>3</sup> PG&E included both a Long-Term Resource Adequacy Agreement and a Long-Term Resource Adequacy Agreement with Energy Settlement on the webpage for the Mid-Term Reliability RFO – Phase 1. All but one of the Agreements executed was for a Long-Term Resource Adequacy Agreement with Energy Settlement.

<sup>4</sup> It is the IEs understanding that the total procurement from this solicitation as well as other eligible procurement efforts result in PG&E procuring in excess of the capacity requirements listed above for 2023 and 2024.



operating system by requiring at least 11,500 MW of additional net qualifying capacity (NQC) to be procured by all of the load serving entities (“LSEs”) subject to the Commission’s integrated resource planning (IRP) authority. The overall capacity requirements are adopted annually beginning with 2,000 MW by 2023, an additional 6,000 MW by 2024, an additional 1,500 MW by 2025, and an additional 2,000 MW by 2026. The resources required in the 2023-2025 timeframe are designed for purposes of replacing the capacity being retired from the Diablo Canyon nuclear power plant, as well as several thermal power plants complying with the once-through-cooling (“OTC”) regulations of the State Water Resources Control Board. The CPUC specifically ordered that the resources from Diablo Canyon be replaced with at least 2,500 MW of zero-emitting generation, generation paired with storage, or demand response resources.

The Final Decision also stated that the CPUC expects that all of the resources procured pursuant to this order will be zero-emitting, unless they otherwise qualify under the renewable portfolio standard eligibility requirements. The 2026 resources are required to be long-lead time resources,<sup>5</sup> with half coming from long-duration storage and the other half from firm zero-emitting resources or those that otherwise qualify as eligible under the renewable portfolio standard program and have at least an 80 percent capacity factor. Incremental capacity from fossil-fueled resources will not be eligible to qualify under this order.

LSE’s will be required to submit procurement information twice yearly, consistent with Decision D.20-12-044 requirements, to show progress toward the capacity procurement requirements in this decision. Backstop procurement to be conducted by the IOUs may be ordered by the Commission once yearly, with the costs allocated to the deficient LSEs and/or their customers. In addition, deficient LSEs will be subject to penalties for failing to deliver the capacity required in 2023 – 2025 at the level of the net cost of new entry (CONE). The Final Decision also identified the estimated annual procurement amounts that would be required from all LSE. Cumulative capacity requirements totaled 11,500 MW from 2023 to 2026, including 2000 MW in 2023, 6,000 MW additional in 2024, 1,500 MW additional in 2025 and 2,000 additional MW in 2026.

In terms of eligible resources, the Final Decision proposed that at least 1,000 MW of geothermal resources and 1,000 MW of long-duration storage (defined as providing 8 hours of storage or more) should be required as part of the overall procurement requirement by no later than 2026. The Final Decision also identified obligations for each LSE. PG&E’s bundled obligations included 400 MW in 2023, 1,201 MW in 2024, 300 MW in 2025, and 400 MW in 2026. Of this total, the minimum capacity for zero-emitting resources<sup>6</sup> by 2025 was set at 500 MW.

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<sup>5</sup> Long lead-time resources required by this order by June 1, 2026 shall be defined as: (a) at least 1,000 MW of long-duration storage (able to deliver at maximum capacity for at least eight hours from a single resource); and (b) at least 1,000 MW of generation capacity that has no on-site emissions or is eligible under the requirements of the renewable portfolio standard program, and has at least 80 percent capacity factor. The resource must not be use limited or weather dependent. No storage projects shall qualify under this provision.

<sup>6</sup> Zero-emitting capacity shall have the following characteristics: (a) be from a generation resource, a generation resource paired with storage (physically or contractually), or a demand response resource; (b) be

Other provisions of the Final Decision include the following:

- Demand-side and/or distributed energy resources shall be eligible as a priority to qualify for the capacity requirements, as long as they meet the incrementality qualifications described in Decision 19-11-016, and otherwise meet the qualifications laid out for the various categories of capacity specified in this decision;
- Any imports used to show compliance with the procurement required by this order shall follow the eligibility and counting rules of the resource adequacy program in place at the time of contract execution and shall be associated with a new resource or an increase of capacity from an existing resource with a commercial online date that is after the date of this order;
- The IOU's may propose to meet a portion of their capacity required by this order with utility-owned resources under the terms set in Decision 19-11-016, and must file a full application with any such proposal, for the Commission's consideration;
- All contracts for resources, including imports, used to satisfy the requirements of this procurement order shall have a minimum duration of 10 years;
- Any excess procurement from one compliance year in this decision may be used to satisfy an obligation in a future year;
- The Commission shall use marginal ELCC values provided by Commission staff to estimate the reliability contributions of various resources to be procured in response to this order;
- Requiring 2,500 MW of incremental procurement of capacity from zero-emissions generation, generation paired with storage, or demand response resources by 2025 will further ensure that there is no increase in GHG emissions as a result of the closure of Diablo Canyon;
- The Reference System Plan adopted in D.20-03-028 did not show a requirement for new natural gas capacity by 2030, but did not analyze whether replacement of existing, inefficient natural gas capacity with newer, more efficient gas would contribute to system reliability and renewables integration;
- Acceleration of some procurement requirements one year ahead can help mitigate cost and reliability risks.

### **C. Mid-Term Reliability RFO – Phase 1 Solicitation Protocol**

As noted, PG&E made two revisions to the original Mid-Term Reliability RFO – Phase 1 and posted the Solicitation Protocol document and other associated documents on its website. In the Mid-Term Reliability RFO – Phase 1 Protocol document, PG&E listed a number of requirements and preferences to inform prospective Participants of the requirements for competing in the procurement process. In addition, to meet the CPUC's requirements, PG&E will execute agreements in two phases:

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available every day from 5 p.m. to 10 p.m. (the beginning of hour ending 1800 through the end of hour ending 2200), Pacific time, at a minimum; and (c) be able to deliver at least 5 MWh of energy during each of these daily periods for every MW of incremental capacity claimed.

- Phase 1 is for projects that intend to meet the August 1, 2023 and June 1, 2024 online dates, and qualifying zero-emissions generating resources to come online on or before June 1, 2025;
- Phase 2 is for projects that intend to come online after August 1, 2023 and on or before June 1, 2026. PG&E is planning to issue a subsequent Mid-Term Reliability Request for Offers - Phase 2, in Q4 2021.<sup>7</sup>

The Mid-Term Reliability RFO Phase 1 Solicitation Protocol sets for the terms and conditions by which PG&E will seek offers to meet system-level NQC needs starting on August 1, 2023. A summary of the key provisions of the final Mid-Term Reliability RFO – Phase 1 Solicitation Protocol is provided in Table 1.

**Table 1: Provisions of the Mid-Term Reliability RFO – Phase 1 Protocol**

<b>Mid-Term Reliability RFO – Phase 1</b>	<b>Description of Key Provisions</b>
Resource Needs	<p>PG&amp;E is required to procure at least 2,302 MWs of additional net qualifying capacity (“NQC”). Compliance would be measured based on September NQC calculations using marginal ELCC values calculated by the Commission for each resource type for each future online year. The additional MWs are to come online between August 1, 2023 and June 1, 2026. The Proposed Decision requires PG&amp;E to procure and have online 400 MW by August 2023, 1,201 MW by June 1, 2024, 300 MW by June 1, 2025 and 400 MW by June 1, 2026.</p> <p>PG&amp;E proposed to execute Agreements in two phases. Phase 1 was for projects that intend to meet the August 2023 and June 1, 2024 online dates and qualifying zero-emissions generating resources to come online on or before June 1, 2025. Phase 2 would be for projects that intend to come online after August 1, 2023 and or before June 1, 2026. All resources would be expected to be considered incremental in counting towards PG&amp;E’s procurement responsibilities, as specified in the Decision.</p>
Products Solicited	<p>Through this RFO, PG&amp;E sought third-party owned projects and utility-owned projects for Phase 1. Third-party owned options included Resource Adequacy (system and local RA) for RA only, RA with Energy Settlement, Behind the Meter Resource Adequacy, and a Zero- Emitting Resource Agreement for Zero-Emission Resources<sup>8</sup>. Eligible resources for the first two options included Energy Storage and Behind the Meter Resources. PG&amp;E also sought Engineering, Procurement and Construction Agreements for energy storage systems to be located at identified PG&amp;E sub-stations. Delivery terms were generally 10 or 15 years for Resource Adequacy products and 20 years</p>

<sup>7</sup> PG&E has pushed back the issuance date for the Mid-Term Reliability RFO – Phase 2 until early in 2022.

<sup>8</sup> PG&E did not develop the Zero-Emitting Resource Agreement in time for this Phase 1 RFO.

	for EPC Agreements. Minimum size was 10 MW for third-party options. The RFO is akin to an All-Source solicitation process within the eligibility provisions listed in the Revised Proposed Decision.
Proposed Schedule	<p>The Schedule for the Phase 1 solicitation included the following key dates for the RFO:</p> <ul style="list-style-type: none"> <li>• June 18, 2021 – PG&amp;E issues the RFO;</li> <li>• June 25, 2021 - Participants Webinar;</li> <li>• July 23, 2021 – Deadline for Participants to submit offers via PowerAdvocate by 1:00 PM PPT;</li> <li>• August 25, 2021 – PG&amp;E notifies selected Participants that their offers will be included on a list of offers (“Shortlist”) for which PG&amp;E may seek to enter into or negotiate an Agreement related to the offer;</li> <li>• August 30, 2021 – Deadline for notified shortlisted Participants to accept shortlist status and to post the Shortlist Offer Deposit;</li> <li>• September 15, 2021 – Shortlisted Participants are required to have completed safety prequalification with ISNet;</li> <li>• Late October, 2021 – Target Agreement Execution;</li> <li>• Early November, 2021 – Target Advice Letter filing with the CPUC.</li> </ul>
Agreement Types <sup>9</sup>	<p>PG&amp;E sought both third-party owned and utility-owned projects for Phase 1. PG&amp;E preferred to execute agreements that are substantially similar to the form agreements provided. Agreement types by Product<sup>10</sup> included:</p> <ol style="list-style-type: none"> <li>1. <b><u>Long-Term Resource Adequacy Agreement (LT RAA)</u></b> – PG&amp;E would consider offers for RA products provided by in-front-of-the-meter projects through a Long-Term Resource Adequacy Agreement;</li> <li>2. <b><u>Long-Term Resource Adequacy Agreement with Energy Settlement (LT RAA w/ES)</u></b> – PG&amp;E would consider offers for RA products offering energy value provided by In-Front-of-the-Meter projects through a Long-Term Resource Adequacy Agreement with Energy Settlement;</li> <li>3. <b><u>Behind-the-Meter Resource Adequacy Agreement (BTM RAA)</u></b> – PG&amp;E would consider offers for RA products provided by behind-the-meter projects through a Behind-the-Meter Resource Adequacy Agreement, including demand response resources;</li> <li>4. <b><u>Zero-Emitting Resource Agreement</u></b> – PG&amp;E would consider offers for RA products offering energy value provided by zero-emission projects once the term sheet</li> </ol>

<sup>9</sup> For the Phase 1 process, PG&E included the following agreements: (1) Long-term RA Agreement; (2) BTM RA Agreement; (3) RA Confirm; and (4) DRAM contract for Demand Response. The other Agreements included were incorporated specifically for the Phase 2 process.

<sup>10</sup> For offers that include zero-emission resources, PG&E is developing term sheets that will be provided to eligible Participants. These Participants will be able to refresh their offers once the terms are provided.

	<p>and Agreement are developed;</p> <p>5. <b><u>Engineering, Procurement, and Construction (EPC) Agreement</u></b> – PG&amp;E would consider offers for the engineering, procurement, and construction of an energy storage system that could participate in the CAISO market at a substation site provided by PG&amp;E. PG&amp;E would provide proposed EPC contract structures to all shortlisted participants.</p>
<p>Eligibility Requirements</p>	<p>Phase 1 of this solicitation was for resources providing net qualifying capacity that was incremental to the baseline list, and for projects that were expected to be online by August 1, 2023, June 1, 2024, or for zero-emitting resources by June 1, 2025. Offers must meet the minimum requirements listed below:</p> <p><b><u>1) Eligible Resources</u></b> – Resources must be incremental to the Integrated Resource Planning Baseline used in the need determination model that was posted on the Commission’s website on February 22, 2021, but with the added detail of in-development resources, meaning the resources would need to be contracted and approved by the Commission after June 30, 2020. A description of eligible resources includes:</p> <p><b><i>Third-Party Agreements for Transmission or Distribution Connected Projects:</i></b></p> <ul style="list-style-type: none"> <li>• <b><u>Energy Storage Resources</u></b> – can be in-front-of-the-meter or behind-the-retail-meter. The energy storage resource must be at least 4-hours in duration and meet all applicable rules to count for Resource Adequacy;</li> <li>• <b><u>Zero-Emitting Resources</u></b> – (a) can be from a generation resource, a generation resource paired with storage (physically or contractually), or a demand response resource; (b) be available every day from 5 p.m. to 10 p.m., Pacific time, at a minimum; and (c) be available to deliver at least 5 MWh of energy during each of these daily periods for every MW of incremental capacity claimed.</li> </ul> <p><b><i>EPC (Utility-Owned) Projects:</i></b></p> <ul style="list-style-type: none"> <li>• <b><u>Energy Storage Resources</u></b> – can be in-front-of-the-meter resources that meet specifications defined in the Protocol and other documents on the website. The energy storage resource must be at least 4-hours in duration and meet all the applicable rules to count for RA. The projects will be located at identified PG&amp;E sub-station sites.</li> </ul> <p><b><u>2) Project Size</u></b> – For third-party agreements for transmission or distribution-connected projects the minimum size is 10 MW. For EPC utility-owned projects, the project sizes are specified by sub-station</p>

location.

**3) Site Control** – Third-party agreements for transmission or distribution-connected projects - For in-front-of-the-meter resources, Participants must demonstrate site control at the time of offer submission. Examples of acceptable forms of site control are: (1) Fee title, (2) Recorded Exclusive Easement, (3) Executed Option Agreement, (4) Lease (Non-revocable), (5) Lease Option (Non-revocable);

EPC (utility-owned) projects - Participants submitting offers for EPC projects do not need to establish site control as the project will be constructed on PG&E owned land;

**4) Performance and Operational Requirements** – Third-party agreements for transmission or distribution-connected projects - Offers in this Solicitation must provide RA. Products must meet the applicable CPUC RA requirements, CAISO requirements for deliverability, as well as any other requirements that will enable PG&E to receive all of the RA benefits associated with the project;

EPC (utility-owned) projects – Participants are required to refer to the performance and operational requirements defined in the additional documents located on the Utility-Owned PowerAdvocate website.

**5) Electric Interconnection** – Third-party agreements for transmission or distribution-connected projects – At the time of Offer submittal, Participants must have Participating Transmission Operator (PTO) or Utility Distribution Company (UDC) documentation showing that the Resource is expected to receive Full Capacity Deliverability Status (FCDS) in order to support delivery of the product, including RA, per the obligations of the corresponding agreement. Participants must remain active in the applicable interconnection queue until the project’s required network upgrades have been completed. At a minimum, resources must have an interconnection report or agreement as a result of an interconnection request demonstrating evidence of a construction schedule that can meet the proposed Initial Delivery Date;

EPC (utility-owned) projects – Participants submitting Offers for EPC projects do not need to establish a valid and active interconnection application by the time of Offer submittal.

**6) Incrementality** – Per the Proposed Decision, the resources must be incremental to the 2019 – 2020 IRP RESOLVE/SERVM baseline used in need determination, meaning they would need to be contracted and approved by the Commission after June 30, 2020. The 2019-2020 IRP

	<p>RESOLVE/SERVM baseline generator list that includes all online and in-development resources will be made available and serve as the baseline for the procurement proposed.</p> <p><b>7) Complete Offer Package</b> – Each Participants Offer must be complete at the time of submission. Participant’s failure to provide all required information may prevent PG&amp;E from being able to evaluate and rank the Offer, which means that the Offer may not be considered for the Shortlist.</p> <p><b>8) Safety</b> – In order to be eligible for execution of an Agreement, shortlisted RFO Participants were required to complete PG&amp;E’s safety registration and prequalification process with ISNetwork, PG&amp;E’s primary contractor safety management system.</p>
Pricing	Participants were required to provide a complete Offer package and include pricing in their Offer Form depending on the Agreement type.
Number of Offers and Variations Allowed	Participants may submit up to 5 offer variations at a specific interconnection point. Participants may vary any attributes of the Offer provided the total Offers submitted for a single project does not exceed this limit.
Evaluation Process and Evaluation of Offers Received	<p>PG&amp;E would apply “least-cost, best-fit” principles using quantitative and qualitative criteria to evaluate offers submitted. The quantitative evaluation compares an offer’s costs to its benefits. Costs may consist of the contract fixed cost, variable cost and transmission network upgrade cost. Benefit may consist of capacity value and energy value, to the extent provided in the agreement. PG&amp;E may also consider Qualitative factors that could impact the value of an offer including, but not limited to, the following: interconnection status, site control, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date, Supply Chain Responsibilities Status, and completeness of Offers.</p> <p>PG&amp;E would also consider resources located in Disadvantaged Communities as a qualitative factor when evaluating offers.</p>
Offer Submittal Process	All Offers must be received by July 23, 2021 at 1:00 P.M. (PPT). All offers for this RFO must be submitted electronically through PowerAdvocate.
Offer Package <sup>11</sup>	<p>Offers must contain all required information and must be organized in accordance with the instructions listed in the RFO Protocol. Information required includes:</p> <ol style="list-style-type: none"> <li>1. Introductory Letter</li> <li>2. Offer Form (Appendix A1 – A2)</li> <li>3. Supplemental RFO Documents - Project Description – Appendices B-1 – B-3</li> </ol>

<sup>11</sup> Offer Packages for Energy Storage Resources for Utility-Owned Offers and Zero-Emitting Resource Offers require similar documents but fewer in most cases.

	<ol style="list-style-type: none"> <li>4. FERC 717 Waiver Appendix C</li> <li>5. Form Agreement or Term Sheet - Appendix E1 – E3</li> <li>6. Letter of Credit – Appendix G1</li> <li>7. Request for Taxpayer ID – Appendix G2</li> <li>8. Safety Review Questionnaire</li> <li>9. Map of Facilities</li> <li>10. Interconnection Report or Agreement</li> </ol>
Credit	<p>Upon execution of an Agreement with PG&amp;E, the Participant must post collateral to PG&amp;E. Each of the Agreements requires that the Participant post collateral with PG&amp;E following commercial operation of the facility in varying amounts and form, as provided in the applicable Agreement.</p> <p>For third-party projects, for Pre-Delivery Term Security the Participant was required to post credit of \$15/k within 5 days of execution and an additional \$25/kW within 5 days of CPUC approval for a total of \$40/kW. For Delivery Term Security third-party projects were required to post the greater of (a) \$40/kW or (b) 10% of the highest three consecutive years of estimated monthly payments.</p> <p>For utility-owned projects, the EPC contractor was required to post \$15/kW within 5 days of execution and an additional \$45/kW within 5 days of CPUC Approval (total of \$60/kW). There was no Delivery Term Security required since PG&amp;E would own the project.</p>
CPUC Approval	<p>Whether an Agreement goes into effect or not was expressly conditioned on PG&amp;E’s receipt of Approvals, which were more specifically defined in each of the Agreements or Term Sheets. At a minimum, PG&amp;E would require a finding from the CPUC that PG&amp;E’s entry into the Agreement satisfies PG&amp;E’s compliance with the Final Decision, that the terms were reasonable, and that PG&amp;E would recover the costs incurred under the Agreement in its rates. Additionally, most Agreements would be subject to a no-fault termination if Approval does not occur within a specified period, as set forth in each of the applicable Agreements. CPUC approval typically required the approval of the Agreement by the CPUC to be final and non-appealable without any modifications that were unacceptable to either of the parties.</p>

#### **D. Issues Addressed in This Report**

This report addresses Merrimack Energy’s assessment and conclusions regarding the following issues identified in the CPUC’s IE Report Template:

1. Describe the role of the IE throughout the solicitation process;



2. How did the IOU conduct outreach to bidders? Was the solicitation robust?
3. Evaluate the administration of the solicitation process including the fairness of the investor-owned utility's ("IOU's") bid evaluation and selection process (i.e., quantitative and qualitative methodology used to evaluate and select offers, and consistency of evaluation and selection methods with criteria specified in bid documents, etc.);
4. Describe PG&E's Least Cost Best Fit ("LCBF") methodology for evaluating offers. Was the LCBF process fairly administered? Evaluate the strengths and weaknesses of the IOU's methodology;
5. Describe the applicable project specific negotiations. Highlight any areas of concern including unique terms and conditions;
6. If applicable, describe safeguards, code of conduct and methodologies employed by the IOU to compare affiliate bids or utility-owned generation ownership offers. If a utility selected an offer from an affiliate or an offer that would result in utility asset ownership, explain whether the IOU's selection of such offer was appropriate;
7. Do the contract(s) merit CPUC approval? Is the contract reasonably priced and does it reflect a functioning market?
8. Based on the complete bid process, was the RFO acceptable?

## **II. Description of the Role of the IE**

### **A. Regulatory Requirements For the IE**

The requirements for participation by an IE in utility solicitations are outlined in CPUC Decisions ("D").04-12-048 (Findings of Fact 94-95, Ordering Paragraph 28), D.06-05-039 (Finding of Fact 20, Conclusion of Law 3, Ordering Paragraph 8) of the CPUC, D.09-06-050 and D.10-07-042.

The role of IEs in California IOU procurement processes has evolved over the past fifteen plus years. In D.04-12-048 (December 16, 2004), the CPUC required the use of an IE by investor-owned utilities (IOUs) in resource solicitations where there is an affiliated bidder or bidders, or where the utility proposed to build a project or where a bidder proposed to sell a project or build a project under a turnkey contract that would ultimately be owned by a utility. The CPUC generally endorsed the guidelines issued by the Federal Energy Regulatory Commission ("FERC") for independent evaluation where an affiliate of the purchaser is a bidder in a competitive solicitation, but stated that the role of the IE would not be to make binding decisions on behalf of the utilities or administer the entire

process.<sup>12</sup> Instead, the IE would be consulted by the IOU, along with the Procurement Review Group (“PRG”) on the design, administration, and evaluation aspects of the Request for Proposals (“RFP”). The Decision identifies the technical expertise and experience of the IE with regard to industry contracts, quantitative evaluation methodologies, power market derivatives, and other aspects of power project development. From a process standpoint, the IOU could contract directly with the IE, in consultation with its PRG, but the IE would coordinate with the Energy Division.

In D.06-05-039 (May 25, 2006), the CPUC required each IOU to employ an IE regarding all RFPs issued pursuant to the RPS, regardless of whether there are any utility-owned or affiliate-owned projects under consideration. This was extended to any long-term contract for new generation in D.06-07-029 (July 21, 2006). In addition, the CPUC directed the IE for each RFP to provide separate reports (a preliminary report with the shortlist and final reports with IOU advice letters to approve contracts) on the entire bid, solicitation, evaluation and selection process, with the reports submitted to the utility, PRG, and CPUC and made available to the public (subject to confidential treatment of protected information). The IE would also make periodic presentations regarding its findings to the utility and the utility’s PRG consistent with preserving the independence of the IE by ensuring free and unfettered communication between the IE and the CPUC’s Energy Division, and an open, fair, and transparent process that the PRG could confirm.

In 2007, the use of an IE was required for any competitive solicitation seeking products for a term of more than three months in D.07-12-052 (December 21, 2007). Also, the process for retaining IEs was modified substantially, with IOUs developing a pool of qualified IEs, subject to feedback and any recommendations from the IOU’s PRG and the Energy Division, an internal review process for IE candidates, and final approval of IEs by the Energy Division.

In 2008, in D.08-11-008, the CPUC changed the minimum term requirement from three months to two years and reiterated that an IE must be utilized whenever an affiliate or utility bidder participates in the RFO, regardless of contract duration.

In D.09-06-050 issued on June 18, 2009 in Rulemaking 08-08-009, Order Instituting Rulemaking to Continue Implementation and Administration of California Renewable Portfolio Standard Program, the CPUC required that bilateral contracts should be reviewed according to the same processes and standards as contracts that come through a solicitation. This includes review by the utility’s PRG and its IE, including a report filed by the IE.

In D.10-07-042 issued on July 29, 2010, the Commission reaffirmed the role of the IE and required the Energy Division to revise the IE Template to ensure that the IEs focus on their core responsibility of evaluating whether an IOU conducted a well-designed, fair, and transparent RFO for the purpose of obtaining the lowest market prices for ratepayers, taking into account many factors (e.g., project viability, transmission access, etc.).

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<sup>12</sup> Decision 04-12-048 at 129-37. The FERC guidelines are set forth in Ameren Energy Generating Company, 108 FERC ¶ 61,081 (June 29, 2004).

This IE report is submitted in conformance with the above requirements.

## **B. Description of Key IE Roles**

In compliance with the above requirements, PG&E selected Merrimack Energy to serve as IE for the Mid-Term Reliability RFO in May 2021. The overall objective of the role of the IE is to ensure that the solicitation process is undertaken in a fair, consistent, unbiased, and objective manner and that the best resources are selected and acquired for the benefit of customers consistent with the solicitation requirements. This role generally involves a detailed review and assessment of the evaluation process and the results of the quantitative and qualitative analysis.

In addition to the requirements identified in CPUC Orders, the Scope of Work included in the Contract Work Authorization (“CWA”) between Merrimack Energy and PG&E clearly identified the tasks to be performed by the IE. These included the following tasks:

- Advise on the consistency of solicitation activities with the CPUC’s procurement-related rules and procedures and PG&E’s Commission-approved procurement authority;
- Assist in the development, design, and review of the Solicitation. Promptly submit any recommendations to PG&E and/or CPUC, consistent with the objective of ensuring a competitive, open and transparent process, and to ensure that the overall scope of the solicitation process is not unnecessarily broad or too narrow;
- Monitor all communications and/or negotiations between PG&E and counterparties, as required by the solicitation’s objectives as outlined in the solicitation Protocol and approved by the CPUC;
- Provide recommendations and reports, if required by PG&E and/or the CPUC, concerning the definition of products sought and price and non-price evaluation criteria; so that all aspects of the products are clearly understood, and all bidders may effectively respond to the solicitation, as applicable;
- Review the comprehensive quantitative and qualitative bid evaluation criteria and methodologies applied to the Mid-Term Reliability RFO and assess whether these are applied to all bids in a fair and non-discriminatory manner. The Consultant will be provided access to PG&E’s personnel, modeling tools, and meeting documentation in order to credibly evaluate the bid evaluation and selection processes;
- Report on the outcome of a solicitation using the appropriate CPUC-approved Independent Evaluator Report Template, which may be amended from time to time, for inclusion in any Advice Letter, Application, and/or Quarterly Compliance Report filings;
- Monitor the solicitation, bilateral negotiation and/or contract amendment processes and promptly submit recommendations to PG&E’s management to ensure that no bidder has an information advantage and that all bidders or counterparties, if applicable, receive access to relevant communications in a non-

- discriminatory manner. This task may include monitoring contract negotiations and/or keeping apprised of negotiation status and major issues;
- Provide presentations to PG&E’s management, the Procurement Review Group (PRG), and the CPUC Energy Division (“ED”), if requested, regarding the Consultant’s findings or status. Communicate periodically with the ED as a check on the solicitation process;
  - Provide a written assessment as to whether the solicitation process was open, transparent and fair, and whether any bidder received material information that gave them a competitive advantage or disadvantage relative to other bidders;
  - Provide a final written assessment as to whether or not PG&E’s evaluation criteria and methodologies were reasonable and appropriate and were applied in a fair and non-discriminatory manner for all offers received;
  - Prepare or assist in the preparation of direct and/or rebuttal testimony, and participate as a witness or in an advisory capacity during administrative hearings, as required, before the CPUC and/or FERC in any associated proceedings;
  - Perform other duties as may be further defined in subsequent relevant regulatory proceedings or required by PG&E’s senior management.

### **C. Description of IE Oversight Activities**

As noted, Merrimack Energy was retained as the IE by PG&E in May 2021 for the Mid-Term Reliability RFO. For this Mid-Term Reliability RFO – Phase 1 process, in performing its oversight and evaluation role, the IE participated in and undertook a number of activities in connection with the solicitation process including reviewing the protocol documents, monitoring communications between PG&E and the Participants, reviewing and commenting on internal RFO Evaluation Protocol documents, organizing and summarizing the offers received, reviewing, questioning and commenting on the evaluation results, shortlisting and final selection, monitoring the status of short-listed offers, participating in meetings with Participants after receipt of offers and during contract negotiations, regular communications with PG&E’s Project Manager, project team, and transactors on a regular basis to discuss RFO and contract issues, participation in meetings with the PRG, , and monitoring the contract discussion and negotiation process with shortlisted Participants.

This report provides an assessment and review of PG&E’s Mid-Term Reliability RFO – Phase 1 procurement process, undertaken during the second half of 2021 from development of the RFO through execution of the final Agreements. The role of the IE is also discussed as it pertains to specific activities in Section V of this report.

### **III. Did PG&E Do Adequate Outreach to Bidders and Was the Solicitation Robust?**

This section of the Report focuses on the adequacy of outreach activities of PG&E and the robustness of the response of bidders with regard to the solicitation process.

## **A. Describe the IOU outreach to potential bidders (e.g., sufficient publicity, emails to expected interested firms)**

Outreach activities are important to the success of a competitive solicitation process. PG&E's outreach efforts targeted a large number of potential Participants based on PG&E's contact lists of energy companies and individuals. These efforts likely played a role in the robust response to the RFO in terms of number of Participants and specific offers or projects.

PG&E maintains a detailed list of potential Participants with approximately 2,600 contacts that serves as the database for Seller contact and outreach. PG&E sent emails to all potential Participants on this list informing them of the Mid-Term Reliability RFO – Phase 1 process and the issuance of the RFO. The list includes Diverse Suppliers. PG&E notified contacts on the mailing list for the issuance of the 2020 System Reliability RFO – Phase 1 and Phase 2 processes and Summer 2021/2022 procurement processes and also provided several email notifications and updates to the Participants email list during the solicitation process. In addition, while the notification of the Mid-Term Reliability RFO – Phase 1 and timing for receipt of offers was fairly short, Participants were at least aware that PG&E had a mandated procurement target and planned to issue a Phase 2 process and could therefore pre-plan for participation in such an RFO based on the CPUC Decision process.

PG&E initiated a comprehensive process for communicating with bidders for the Mid-Term Reliability RFO process. PG&E utilized the PowerAdvocate Platform as the means for Participants to submit their offers. In addition, PG&E also established a section on its public website for distribution of information to prospective Participants and other interested parties early on to notify Participants of the RFO. The public website also included the CPUC Revised Proposed Decision in Rulemaking 20-05-003 and contact information for PG&E should prospective Participants wish to ask any questions or request follow-up information.

The PG&E public website for the Mid-Term Reliability RFO – Phase 1 contained general information to bidders to help bidders determine if they wanted to participate as a bidder in the process.<sup>13</sup> The following documents and information were included on the public website for Participant review and utilization:

- CPUC Revised Proposed Decision on Rulemaking 20-05-003 issued on June 22, 2021;
- Solicitation Schedule for the Mid-Term RFO – Phase 1 process;
- RFO Documents including the Mid-Term Reliability RFO – Phase 1 Solicitation Protocol and associated Appendices including:
  - Appendix A1 – 3<sup>rd</sup> Party Owned Offer Form
  - Appendix A2 - Utility Owned Offer Form

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<sup>13</sup> Participants would need to register with PowerAdvocate using the links included on the public website to gain access to the data room and applicable RFO documents and back-up information which would allow a participant to submit a bid into this solicitation.

- Appendix B1 – Supplemental Project Information
- Appendix B2 - Supplemental Project Information - Utility Owned Resources
- Appendix B3 - Supplemental Project Information – Zero-Emitting Resources
- Appendix C – FERC Order 717
- Appendix D1 – 3<sup>rd</sup> Party Owned Confidentiality Agreement
- Appendix D2 – Utility Owned Confidentiality Agreement
- Appendix E1 - Long-Term Resource Adequacy Agreement with Energy Settlement
- Appendix E2 - Long-Term Resource Adequacy Agreement
- Appendix E3 – Behind-the-Meter Resource Adequacy Agreement
- Appendix G1 – Letter of Credit
- Appendix G2 - Request for Taxpayer ID (W-9) Form
- Appendix H – Safety Review Questionnaire
- Mid-Term Reliability RFO – Phase 1 Participants Webinar Presentation
- Mid-Term Reliability RFO – Phase 1 Participants Webinar Audio Recording
- Contact Information for PG&E and the IE

No questions were received from prospective Participants. The IE found the website easy to access and navigate. All documents associated with the Mid-Term Reliability RFO – Phase 1 were included on the website and were easy to identify, access, and download.

**B. Identify Principles Used to Determine Adequate Robustness of a Solicitation (e.g. number of proposals submitted, number of MWhs associated with submitted proposals).**

With regard to assessing whether the response to the solicitation was adequately robust, there are several criteria to consider:

- Was the response to the solicitation commensurate with the level of outreach?
- Did the solicitation encourage a diverse response from Participants in terms of products requested, project structure, pricing options, etc.?
- Was the response large with respect to the number of proposals and megawatts (“MW”) offered relative to the amount requested?
- Was the process a competitive process based on the amount of MW submitted by Bidders relative to the number of MW requested?
- Were the Solicitation Documents clear and concise such that Participants could clearly assess how to structure a competitive offer?

**C. Did the IOU Do Adequate Outreach? If Not, Explain in What Ways it Was Deficient**

There are several criteria generally applied for assessing the performance of the utility in its outreach and marketing activities:

- Did the utility contact a large number of prospective Participants?
- Were the utility's outreach efforts active or passive?
- Did the utility adequately market the solicitation?
- Could prospective bidders easily access information about the RFP?
- Did any prospective bidders complain about the process or access to information?

As noted above, PG&E contacted a large number of prospective Participants to inform them of the issuance of the Mid-Term Reliability RFO – Phase 1 process. The outreach activities of PG&E can be classified as “active” given that emails about the solicitation process were directly sent to prospective Participants. In addition, PG&E held a Participants webinar to provide information on the solicitation process, and to allow the Participants to ask questions and seek information about the solicitation process.

#### **D. Was the Solicitation Adequately Robust**

The overall result of this outreach activity was a high-level interest in the Mid-Term Reliability RFO – Phase 1 from the market and a robust response from Participants, even given the relatively short turn-around time (shortly over one month) for submission of offers into the RFO. Offers were also received from a range of eligible Sellers, several of whom competed with the same projects in other recent PG&E system reliability solicitations. The vast majority of the products submitted were for battery energy storage projects either offered under the Long-Term Resource Adequacy Agreement or Long-Term Resource Adequacy with Energy Settlement Agreement.

PG&E received a total of 213 offer variants from twenty-eight (27) counterparties representing sixty-three (63) unique projects with a total capacity of approximately 6,700 MW. PG&E also received [REDACTED] offers from [REDACTED] counterparties for EPC options at PG&E sub-station sites for a total of [REDACTED]. Appendix A includes a summary of all offers submitted. The IE found the response from the market to be robust and competitive, particularly for battery energy storage resources.

In conclusion, the response of the market to PG&E's Mid-Term Reliability RFO – Phase 1 provides evidence that the outreach and Participant engagement activities of PG&E were effective, and Participants felt they had an adequate opportunity to receive a contract from the process.

#### **E. Did the IOUs Seek Adequate Feedback About the Bidding/Bid Evaluation Process from All Bidders After the Solicitation Was Complete?**

PG&E's project team members were involved in regular communications with prospective Participants, primarily after submission of the offers for purposes of clarifying offers and initiating the contract negotiation process with selected bidders. The IE participated in calls with Participants during offer review and evaluation and after offer selection through final contract negotiations. PG&E also notified Participants who had submitted offers that were not selected of the opportunity to request a follow-up call to discuss the offer or process.

#### **F. Was the Outreach Sufficient and Materials Clear Such That the Bids Received Meet the Needs the Solicitation Was Intending to Fill?**

PG&E prepared initial versions of the Protocol Document and Offer Forms and issued the documents in an expedited manner to solicit interest from bidders. The IE reviewed the documents to ensure the documents were clear and concise.

The IE also found that PG&E's project team was particularly responsive to the needs of and comments provided by prospective Participants and also responded to questions in a reasonable timeframe.

#### **G. Any Other Relevant Information or Observations**

The majority of the Participants provided reasonably complete proposals with a moderate amount of clarification questions or information requirements after submission. After submission of the Offers, PG&E's project team also worked diligently to ensure that the Participant Offer's conformed to the requirements of the RFO. Team members were in contact with the Participants within a day after submission of the Offers. PG&E's project team made every attempt to allow Participants to cure any deficiencies and conform their offers to RFO requirements within reason and subject to RFO requirements, in recognition of the short timeframe for preparing offers.

### **IV. Appropriateness of the Mid-Term Reliability RFO – Phase 1 Bid Evaluation and Selection Methodology and Design**

#### **A. Identification of Principles for Evaluating PG&E's Bid Evaluation Methodology**

This section of the report addresses the principles and framework underlying the IE's review of PG&E's evaluation and selection methodology for the Mid-Term Reliability RFO – Phase 1 solicitation process. One of the important questions in this regard is whether the bid evaluation and selection methodology was fair and appropriate for this type of solicitation. Key areas of inquiry by the IE and the underlying principles used by the IE to evaluate the methodology included the following:



- Were the procurement targets, products solicited, principles and objectives clearly defined in PG&E's Mid-Term Reliability RFO – Phase 1 Solicitation Protocol and other materials?
- Is the IOU bid evaluation based on those criteria specified in the bid documents? In cases where bid evaluation goes beyond the criteria specified in the bid documents, the IE should note the criteria and comment on the evaluation process.
- Do the IOU bid documents clearly define the type and characteristics of products desired and what information the bidder should provide to ensure that the utility can conduct its evaluation?
- Does the methodology identify how qualitative and quantitative measures were considered and were consistent with an overall metric?
- Are there differences in the evaluation method for different technologies that cannot be explained in a technology-neutral manner?
- Was the bid evaluation and selection process and criteria reasonably transparent such that Participants would have a reasonable indication as to how they would be evaluated and selected?
- Was the bid evaluation methodology consistent with CPUC direction?
- Was PG&E's bid evaluation based on and consistent with the information requested in the RFO to be submitted by Participants in their proposal documents?
- Were the bid evaluation criteria consistently applied to all offers?
- Does the quantitative evaluation methodology allow for consistent evaluation of bids of different sizes and in-service dates? Are there differences in the evaluation method for different technologies that cannot be explained in a technology-neutral manner?
- Did the bid evaluation criteria and evaluation process contain any undue or unreasonable bias that might influence project ranking and selection results or in any way favor affiliate bids?
- Was the Mid-Term Reliability RFO - Phase 1 clear and concise to ensure that the information required by PG&E to conduct its evaluation was provided by project sponsors?
- Did the IOU bid evaluation criteria change after the bids were received? Explain the rationale for the changes.

In the view of the IE, the Mid-Term Reliability RFO – Phase 1 Solicitation Protocol Document and related Appendices provide a reasonable amount of information on which Participants could base their offers. The documents contain detailed information on the products sought, the information required of Participants for offer submission, contract provisions, proposal documents and offer forms.

PG&E held a Participants Webinar on June 25, 2021 to further describe the solicitation process. For the Phase 1 process, PG&E did not hold a separate webinar for Participants to specifically review the offer form and information required of bidders but instead addressed information related to Offer Form Instructions in the Participants Webinar.

PG&E included Offer Forms for both utility-owned EPC offers and 3<sup>rd</sup>-Party Offers. For example, PG&E included Appendix A1 – 3<sup>rd</sup> Party Owned Offer Form for non-EPC offers. The Offer Form contained a number of drop-down menu options. The drop-down menu options allowed Participants to select an Agreement type and Resource type. The information provided by Participants for these two fields would trigger the Offer Form applicable for that Participant given its selection and for which the Participant is required to complete as part of its offer. The Offer Form also solicited information on the Participant, resource attributes and pricing, project description and operational characteristics, electrical interconnection information, developer experience, site control status, and project financing. During the discussion regarding completion of the Offer Forms during the Participant Webinar, PG&E informed Participants to carefully review the Agreement type they were bidding to since the information provided in the offer form would serve to populate the Agreement.

Overall, the IE concluded that the products solicited, procurement targets, protocol information and documents required to be provided with the offer were generally clearly defined and applied. PG&E also provided the IE with internal evaluation protocol documents for quantitative and qualitative factors prior to submission of Offers. Furthermore, the IE and PG&E's quantitative evaluation team did hold discussions prior to submission of offers to generally lock-down the evaluation methodology, input assumptions, and evaluation criteria. PG&E also provided documentation to the IE with regard to the evaluation results that allowed the IE to fully review and verify the inputs for each offer and the outputs based on the assessment of specific cost and benefit categories for each offer.

PG&E generally followed its evaluation criteria and methodology in undertaking the evaluation of the offers. Furthermore, the methodologies applied to the different types of products were fair, reasonable and consistent and did not unduly bias any technologies or product types. Also, PG&E did apply consistent evaluation methodologies and models to the various proposals or project structures sought. The methodologies applied were consistent with the project structures evaluated as described in this section of the report.

To address the other issues identified, the IE will first present a detailed description of PG&E's bid evaluation methodology and process implemented by PG&E to undertake

the Mid-Term Reliability RFO – Phase 1 evaluation process. This includes both the quantitative and qualitative criteria used in the evaluation. Subsequently, the IE then discusses the strengths and weaknesses of the methodology relative to the issues identified above.

## **B. Overview Description of PG&E’s Least Cost Best Fit (“LCBF”) Evaluation Methodology**

This section of the report provides an overall description of PG&E’s bid evaluation methodology, procedures, and criteria applicable to the Mid-Term Reliability RFO – Phase 1 process. The methodology selected is designed to conform to the Least Cost Best Fit (“LCBF”) procedures applied in other solicitations. For this report, the IE is providing a general summary of the overall methodology and criteria used in the evaluation in this section of the report.

The solicitation protocol for the Mid-Term Reliability RFO – Phase 1 bid evaluation procedure and methodology states that PG&E will evaluate each offer using both quantitative and qualitative criteria, which includes, but was not limited to: interconnection status, site control, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date (“IDD”), supply chain responsibility status, and completeness of the offer. The evaluation procedure protocol describes how to combine the criteria to determine the ranking and the shortlist.

The quantitative valuation compares an offer’s cost to its benefits. The cost may consist of the contract fixed cost, variable cost, and transmission network upgrade costs. The benefits may consist of capacity value and energy value to the extent provided in the agreement. From a quantitative perspective, an evaluation will be performed on all offers by first calculating each project’s Net Market Value (“NMV”). An Adjusted Net Market Value for each project will be measured in present value [REDACTED] and then projects will be ranked from highest to lowest.

The following describes the general evaluation process flow envisioned by PG&E for undertaking the evaluation process once the Evaluation Team commenced formal reviews of offers submitted<sup>14</sup>:

- All offers will be downloaded from PowerAdvocate. Offers utilizing the Utility Owned – Engineering, Procurement, Construction (“EPC”) Agreement will be placed on a secure SharePoint site that will be assessed only by members of the Utility Ownership team;

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<sup>14</sup> PG&E’s Evaluation Teams reviewed the offers when received to ensure the Participants provided the requested information and to identify any inconsistencies in the offer forms and other offer information. In addition, the Evaluation Team also identified cases where the data appeared inconsistent or where further clarification of the information was required. In such cases, PG&E contacted the Participants to seek to clarify or correct the data prior to conducting the offer evaluation process.

- All offers will be reviewed to determine whether or not they meet the applicable eligibility requirements for consideration in the RFO. Conforming and non-conforming offers will be identified at this stage;
- Offers will be reviewed by the Solicitation Team and Utility Ownership team for an assessment of several Project Viability criteria and assigned a score. The review may consist of, but will not be limited to the following factors:
  - Counterparty Experience
  - Site Control
  - Equipment Availability
  - Electric Grid Interconnection status
  - Location

The review team conducting the viability assessment will provide qualitative results in the form of [REDACTED]

- A Net Market Value assessment will be performed on all offers by first calculating each project’s Net Market Value. An Adjusted Net Market Value for each project will be measured in present value [REDACTED] and then projects will be ranked from highest to lowest
  - PG&E noted that valuations will be updated if and when offers are updated during the negotiation process.<sup>15</sup>;
  - To develop the shortlist, PG&E will evaluate the results of the quantitative and qualitative scores for each project.
- After shortlisting, the following additional criteria will be considered before executing an agreement:
  - Adjusted Net Market Value (to account for changes in value which might occur during negotiations);
  - Project Viability;
  - Credit;
  - Agreement Modifications;
  - Safety;
  - Agreement Term and Initial Delivery Date;
  - Location in Disadvantaged Communities (“DACs”).

### **C. Detailed Description of the Evaluation Process**

The following section of the report provides a more in-depth discussion of the components of the quantitative evaluation methodology and process used by PG&E and describes in general how the various types of offers would be evaluated. In addition, this section includes a description of the input assumptions utilized for evaluation purposes.

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<sup>15</sup> PG&E classifies its negotiation and evaluation process as a “continually competitive process.” This means that Participants can revise or lower pricing to become more competitive. PG&E will then value and rank offers based on the revisions to project pricing submitted by Participants.

## **Valuation Components Overview**

PG&E's evaluation protocol specifies how the Market Valuation criterion will be applied to the individual offers received in the Mid-Term Reliability RFO. The protocol also includes confidential assumptions that will be used in shortlisting the Offers.

In the solicitation process, a Participant submits an Offer detailing the costs and operational characteristics of the energy generation facility. For each Offer, NMV is calculated based on the summation of several components as follows:

Net Market Value:  $NMV = E + A + C - (V + F + T)$  where

C = Capacity Value

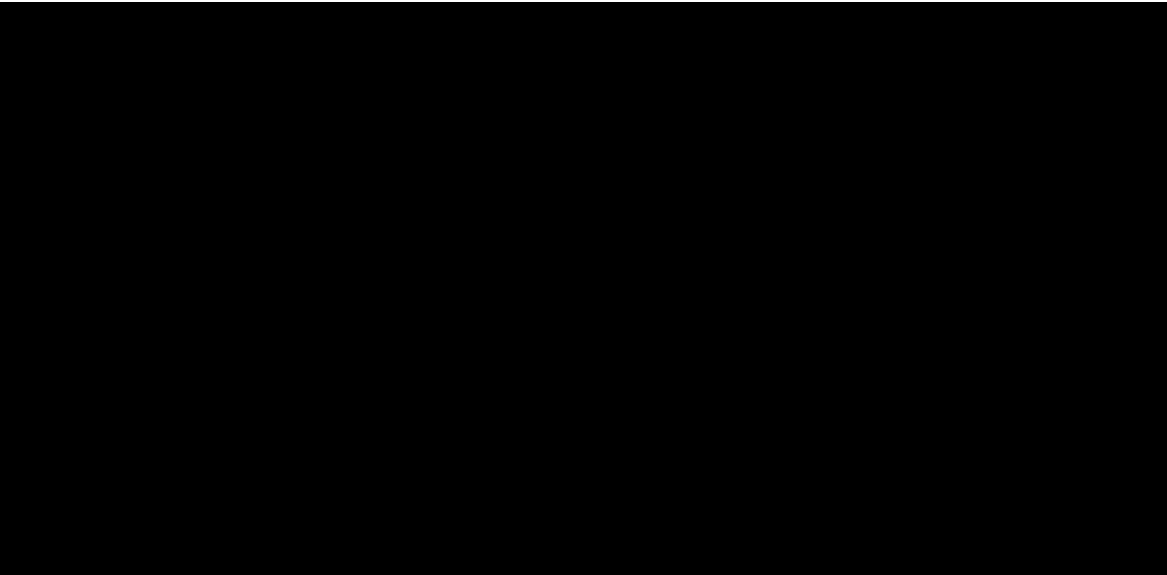
E = Energy Value

A = Ancillary Service (A/S) Value

V = Variable Cost

F = Fixed Cost

T = Transmission Network Upgrade Cost



The [REDACTED] market curves will be used for shortlisting Offers received. Valuations may be refreshed with later curves after shortlisting.

## **Valuation Summary by Contract Type**

Table 2 below summarizes the various products accepted for this RFO:

**Table 2: Eligibility Requirements for Product and Agreement Types**

	<b>Agreement</b>	<b>Eligible Resource</b>	<b>Delivery Term (Years)</b>	<b>Minimum Size (MW)</b>
Resource Adequacy (System, Local)				
	Long-Term Resource Adequacy Agreement with Energy Settlement	Energy Storage	10 or 15	10
	Long-Term Resource Adequacy Agreement	Energy Storage	10 or 15	10
	Behind-the-Meter Resource Adequacy Agreement	BTM Resources	10 or 15	10
	TBD	Zero-Emissions Resources <sup>16</sup>	10 or 15	10
All Market Attributes (Utility Ownership)	Engineering, Procurement, Construction Agreement	Energy Storage	20	Requirements vary by Sub-station

For this RFO, PG&E is seeking approximately 1,600 MW (NQC MWs) in total to meet the Mid-Term Procurement requirements for 2023 and 2024.

PG&E prepared its evaluation methodologies to be consistent with the products and contract types requested. There are four product types which bidders may offer:

- Resource Adequacy – System and Local (Existing Resources, In-Front-of-the-Meter Resources from new projects, and Incremental Demand Response)
- Resource Adequacy (System and Local) with Energy Settlement - In-front-of-the-meter Long-Term RA (new projects) with Energy Settlement and Behind the Meter Resource Adequacy Agreement with Energy Settlement – new projects only;
- To be Determined - Zero-Emission Resources
- Engineering, Procurement, and Construction Agreement -

Table 3 below provides a summary of the NMV components for each agreement type along with a description of how the various components are applied.

<sup>16</sup> The Zero Emissions Resources do not have a defined agreement type at this point and will be updated later when more information is available

**Table 3: Valuation Summary by Agreement Type**

Resource/Contract Type	Components	Explanation
Resource Adequacy	The NMV includes the components: $NMV = C - (F + T)$	[REDACTED]
Resource Adequacy with Energy Settlement	$NMV = E + C - (F + T)$	
Utility Owned EPC Agreement	$NMV = E + A + C - (V + F + T)$	

**Valuation Components**

The following sections describe in more detail how the costs and benefit values of each component are included for each Agreement type.

**Energy Value**

As noted above, [REDACTED]

For BTM options, [REDACTED]

For Long-Term RA Agreements with Energy Settlement, [REDACTED]

For utility-owned projects, [REDACTED]

[REDACTED]

Similarly, [REDACTED]

[REDACTED]

**Capacity Value**

The Capacity Value component is applicable for all Product types listed in Table 2. Capacity value is the net present value of monthly capacity values across all months during the delivery period. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] NQC for Energy Storage offers is, in general, based on the maximum discharge power that ES can continuously sustain for 4 hours in 3 consecutive days. EFC for Dispatchable Energy Storage offers will be determined based on Appendix B of CPUC Decision 14-06-050 dated June 26, 2014. The calculations are implemented in the Offer Form.

**Ancillary Service (A/S) Value**

Ancillary Service Value is applicable only to Utility-Owned EPC Agreements. To the extent that the resource is certified by CAISO to provide Regulation and/or Spin. [REDACTED]





**Fixed Cost**

Fixed Cost is applicable for all product types.

For Utility-Owned Generation EPC product,



**Transmission Network Upgrade Costs**

This component is applicable for all product types.

For all offers that submit a Phase II interconnection study, PG&E uses the network upgrade cost included in the interconnection study to determine the transmission network upgrade cost adder. For all offers that do not submit a Phase II interconnection study,



**Hedge Value and Adjusted Net Market Value**

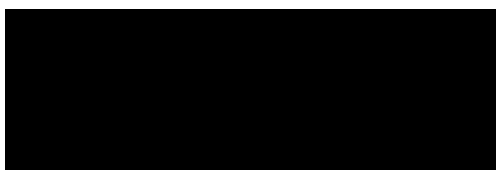
The formula used to derive the financial settlement for energy in the Long-Term Resource Adequacy Agreement with Energy Settlement is premised on expected energy prices, where the seller pays PG&E based on the day-ahead CAISO index price, the difference between the highest four hours and the lowest four plus hours for every day, adjusted for the contractual variable O&M and roundtrip efficiency.

PG&E noted that some offers provide hedge value in addition to their energy value.



**Input Assumptions**

An important aspect of the offer evaluation process is the development of input assumptions to use in the evaluation of the Participant's pricing formulas and other evaluation parameters. The key input prices for the evaluation include RA price curves and hourly energy prices. This includes the following components:



[REDACTED]

[REDACTED]

**Qualitative Factors – Project Viability**

In addition to the quantitative factors previously discussed, PG&E proposed to evaluate each offer using qualitative attributes to assess project viability as well. Project viability is defined as the likelihood that any resource associated with an offer can (1) be successfully developed and (2) provide the product and services required for the duration under the contract. This assessment is based on a review of the status and plans for key project activities (e.g., experience, site access, permitting, procurement, construction, interconnection, environmental impact, Participant experience and track record, project schedule/critical path, etc.). For assessment of the qualitative criteria, PG&E proposed to use subject matter experts to review and evaluate the offers relative to their criteria of expertise. PG&E applies project viability criteria to both third-party projects as well as Utility-Owned projects which may vary based on the nature of the projects being contracted. A brief description of the qualitative factors to be considered for third-party offers and utility-owned generation offers is provided below.

**Third-Party Offers**

PG&E may use any of the seven assessment criteria below to evaluate a project. PG&E proposed to develop a single composite rating for Project Viability based on the criteria listed below and any additional relevant project information. Applicable criteria include: (1) Financing - PG&E may evaluate the financial viability of an offer; (2) Environmental Characteristics - PG&E may also evaluate the environmental characteristics and environmental impacts of a project; (3) Development Plan – PG&E may evaluate the development plan of a project including site control and access, commercial viability of the technology, availability of equipment, reasonableness of the project schedule and interconnection status; (4) Safety – PG&E may screen project proposals to assess whether there are safety risks associated with their particular technology; (5) Prior Experience – PG&E may consider previous adverse commercial experience with a Participant; and (6) Disadvantaged Communities – PG&E may give preference to projects located in Disadvantaged Communities with similar quantitative rankings to projects not located in DACs; and (7) Location – PG&E may give preference to projects located in PG&E’s service territory.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The inputs to determine scoring in these categories are provided in the Offer Form (Appendix A) and Supplemental Project Information (Appendix B).

**Utility-Owned Generation**

For utility-owned generation options, PG&E proposed to undertake a phased approach for the qualitative evaluation.

In the initial screening phase, PG&E considers two factors:

1. Eligibility – the eligibility review will determine if the submittal has met the primary intent of the RFO. This includes whether the project meets eligibility requirements associated with project size and connection criteria, and meets the timelines and other administrative conditions of the RFO. [REDACTED]
2. Technology and Safety – this review evaluates the technology proposed to determine its viability, reliability and safety under the conditions of the RFO. PG&E would also determine if the technology is acceptable to PG&E for ownership. [REDACTED]

Projects that pass the above two initial evaluation screens would then be comprehensively evaluated using the balance of the scoring criteria including environmental assessment, siting criteria, permitting, and contractor safety.

PG&E will then develop a single composite score for Project Viability based on the status and plans for key project activities. The qualitative criteria evaluated at this stage includes:

- Technology – is the energy storage technology component a single commercially proven energy storage technology type from a manufacturer regularly engaged in the manufacture, assembly, start-up, and service of the Energy Storage System in

the US for a minimum of two years. In addition, technology relevant experience of the Participant, constructability of the project, operations history, and complexity of the storage system;

- Safety – initial review of technology safety as well as a review of contractor/developer safety records;
- Schedule – risk of schedule slippage including timing for interconnection, permitting and other governmental reviews (input from environmental team), financing, construction and commissioning time expectations;
- Financial Status of Bidder – PG&E will evaluate the Offer’s construction and term financing viability.

[REDACTED]

All inputs are provided by the Participants in response to the information requested in the Protocol for each type of offer. This includes Offer Form (Appendix A2), Project Description (Appendix B2), Organizational and Finance Information (Appendix B2), Project Milestone Schedule (Appendix B2), Experience Qualifications (Appendix B2), Organizational and Finance information (Appendix B2), Utility Ownership Additional Information (Appendix B2), and comments to the Utility Ownership Term Sheets.

#### **D. Revisions to Bid Evaluation Criteria**

The CPUC IE Report Template requests the IE to address whether the bid evaluation criteria changed after the bids were received and to explain the rationale for the changes. In general, PG&E maintained the same proposed methodology as described in the Mid-Term Reliability RFO – Phase 1 protocol. PG&E developed an internal Market Valuation Protocol that provided a more detailed description and explanation of the evaluation methodology. The IE found that PG&E generally maintained a consistent evaluation methodology based on the details described in the internal Market Valuation Protocol. PG&E did indicate that it intended to apply a hedge value [REDACTED]

[REDACTED] The Market Valuation Protocol explained the methodology and basis for calculating the adjustment. The hedge value was applied to each offer for RA with Energy Settlement in the same manner. The evaluation protocol also indicates that offers received would initially be reviewed by the evaluation teams relative to five factors.

[REDACTED]

#### **E. Evaluation of the Strengths and Weaknesses of PG&E’s Methodology in This Solicitation**

PG&E has implemented a methodology for evaluating the eligible offers received in response to the Mid-Term Reliability RFO – Phase 1 that generally includes all resource options for resource eligibility. PG&E used a combination of existing methodologies used in previous solicitations as well as expansion to traditional methodologies to address the requirements of this solicitation. Since the solicitation is seeking Resource Adequacy capacity, the focus on the evaluation methodology is designed to assess the cost and benefits of each offer. Furthermore, since the vast majority of offers were for energy storage options (from both third-party and utility-owned options), [REDACTED]

### **Strengths of Evaluation and Ranking Methodology**

The following represents the IEs perspective regarding the strengths associated with the evaluation and ranking methodology implemented by PG&E for the Mid-Term Reliability RFO – Phase 1 which is primarily seeking RA capacity. These include:

- The methodology used by PG&E takes into consideration all reasonable costs and benefits associated with the various types of offers, project structures, and contract structures. Since PG&E is seeking RA capacity, the evaluation methodology is relatively straightforward with few cost and benefit components (although the Long-Term RA with Energy Settlement agreement adds complexity to the evaluation process);
- The overall evaluation methodology is capable of effectively and consistently evaluating a range of different types of resources, project structures with different terms, product sizes, and operating parameters. The IE does not view the methodology as having a direct bias toward any product solicited in this RFO with respect to contract structure;
- PG&E uses consistent input assumptions for undertaking the evaluation of all offers;
- PG&E’s offer forms were transparent and interactive with drop down menus for a number of fields. The structure of the offer forms served to reduce or eliminate errors in completing the offer forms;
- PG&E developed an internal integration model to compile all input and output data for each of the Offers and provides a detailed summary of the components of the costs and benefits for each Offer, on a monthly basis including nominal and discounted dollars, and provides other pertinent data for each offer to allow the IE to undertake a detailed review of the evaluation results for each offer. The model is structured to allow the IE to key in an offer number for each offer and the input and output data for each offer requested is provided for review and assessment. This model has proven to be a very valuable tool to allow the IE to

easily and quickly assess the reasonableness of PG&E's evaluation results and to identify any questions or comments about the results;

- PG&E's evaluation methodology is consistent with Least Cost Best Fit principles by incorporating quantitative and qualitative factors to determine a shortlist of projects;
- PG&E prepared detailed internal evaluation protocol documents that clearly describes the evaluation methodologies and criteria, which facilitates review by the IE;
- The key inputs and assumptions (i.e., capacity price forward curve, discount rate, and a forward curve for power prices) were locked down prior to receipt of offers, which serves to minimize any potential evaluation bias;
- The results of the evaluation illustrated that [REDACTED] were selected for the shortlist and contract award based on economic rank illustrates that the evaluation methodology is generally fair and unbiased toward different contract structures.

### **Weaknesses of the Evaluation and Ranking Methodology**

Based on the historical evolution of the evaluation methodology over several similar solicitations undertaken by PG&E, Merrimack Energy has raised only a few minor potential weaknesses.

- PG&E may want to consider if it should provide a signal to Participants if PG&E has any preferences related to offer selection or contract structure. For example, if PG&E prefers shorter term offers (i.e., 10 years as opposed to 15 years) perhaps it should state so in the Protocol document;
- Alternatively, if PG&E intends to select a portfolio of resources and contract types to hedge risk, Participants should probably be informed of this consideration;

### **G. Future LCBF Improvements**

There are several issues that should be considered as potential future improvements in the evaluation and ranking process for future solicitations of this nature<sup>17</sup>. These include:

- [REDACTED]

<sup>17</sup> Given the CPUC specified requirements regarding the amount of MWs to be targeted by each utility, the IE viewed project viability and critical path schedule for each proposal to be a critical element associated with project success and risk.

[REDACTED] More detailed scoring factors and scoring systems, such as scoring relative to the highest and lowest performance on a given factor, can be developed and fully disclosed in the RFP documentation. In this way, bidders' pre-bid efforts could be concentrated on qualitative factors important to PG&E to ensure with a higher probability that the project will be successful in meeting the target online date. Instead, the IE's impression was [REDACTED]

[REDACTED] Alternatively, PG&E could establish thresholds that all offers would have to meet. The IE would expect that as more new projects are proposed, qualitative criteria will be more important for screening out non-viable or risky projects, that would have little chance of meeting the proposed online date;

- While it is challenging to undertake a reasonable project viability assessment for all offers submitted outside the general approach undertaken by PG&E to identify any potential fatal flaws, it may be worthwhile to include a more formal and detailed project viability assessment prior to shortlisting, particularly if a number of the projects selected through this solicitation fail to go forward;
- The timing of interconnection for recent Cluster processes [REDACTED]  
[REDACTED];
- The IE noted in [REDACTED]  
[REDACTED]

#### **H. Additional Information or Observations Regarding PG&E's Evaluation Methodology**

No additional information or observations are provided.

#### **V. Administration of the Mid-Term Reliability Phase 1 RFO Solicitation Process**

In performing its oversight role, the IE participated in and undertook a number of activities in connection with the Mid-Term Reliability RFO – Phase 1 including reviewing the RFO documents, participating in conference calls with the PG&E project teams given the expedited nature of the solicitation, participating in the Participants



Webinar, participating in discussions on the offer submission, evaluation methodology and selection process, organizing and summarizing the offers received, reviewing and commenting on the evaluation and selection process and results at each step of the process, and participating in calls with bidders (including shortlisted bidders) throughout the evaluation, selection and negotiation processes.

A list of the key milestone events which occurred during the solicitation process as well as the activities of the IE during the procurement process consistent with the important activities and milestones for the Mid-Term Reliability - Phase 1 solicitation process are described below.

### **Issuance of the Mid-Term Reliability RFO – Phase 1**

PG&E launched its Mid-Term Reliability RFO – Phase 1 solicitation on June 18, 2021. PG&E announced issuance of the RFO via an email blast to its contact list. The email distributed identified the web address for PG&E’s website<sup>18</sup> for the Mid-Term Reliability RFO – Phase 1 and also provided information on the basis for and requirements of the RFO, schedule for the upcoming Participants Webinar on June 25, 2021, and deadline for Participants to submit offers on July 23, 2021.

Prior to issuance of the RFO, PG&E provided a draft of the RFO to the IE for review and comment. The IE had several questions and comments on the RFO Protocol and Appendices associated with the Offer Form and Supplemental Project information.

The RFO Protocol document originally issued on June 18, 2021 was subsequently revised and updated and reposted to the website on August 17, 2021, with minor revisions to the schedule for the RFO beginning with a one-week delay in notification of selected Participants that would be included on the shortlist from August 18, 2021 to August 25, 2021. The IE felt that a four-week turnaround to review the offers for conformance with the RFO, clarify offers, if necessary, conduct the quantitative and qualitative evaluation, and select a shortlist was very short and suggested an extension in the schedule of up to two-weeks. In the IE’s view, adding one additional week to the schedule would certainly assist in meeting the proposed shortlisting schedule.

The Solicitation Protocol provided an overview of the RFO including the solicitation goals, project types/agreements, eligibility requirements, and submission requirements. The RFO also contained several appendices, several of which Participants had to submit as part of their proposal. Appendices included:

- Appendix A1 – 3<sup>rd</sup> Party Owned Offer Form
- Appendix A2 - Utility Owned Offer Form
- Appendix B1 – Supplemental Project Information
- Appendix B2 - Supplemental Project Information - Utility Owned Resources
- Appendix B3 - Supplemental Project Information – Zero Emitting Resources
- Appendix C – FERC Order 717

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<sup>18</sup> The website address for the solicitation is <http://www.pge.com/rfo/midtermrfo-phaseone>.

- Appendix D1 - Confidentiality Agreement - 3rd Party Owned Offers
- Appendix D2 – Confidentiality Agreement – Utility Owned Offers
- Appendix E1 – Long-Term Resource Adequacy Agreement with Energy Settlement
- Appendix E2 - Long-Term Resource Adequacy Agreement
- Appendix E3 – Behind-the-Meter Resource Adequacy Agreement
- Appendix G1 – Letter of Credit
- Appendix G2 - Request for Taxpayer ID (W-9) Form
- Appendix H – Safety Review Questionnaire

PG&E used two websites for the Mid-Term Reliability RFO – Phase 1. PG&E maintained a webpage on its company website devoted to the Mid-Term Reliability RFO – Phase 1. The website contained information to assist bidders primarily on the front-end of the solicitation process including RFO documents, PowerAdvocate Registration information, Participant’s Webinar information, and contact information for the RFO to allow Participants to seek information or ask questions about the Mid-Term Reliability RFO – Phase 1.

PG&E also utilized the PowerAdvocate Platform, which was used as a repository for the bidders to submit their proposals. PG&E established two separate Events on PowerAdvocate – one for third-party offers and the other for Participants submitting offers for energy storage resources via and Engineering, Procurement, and Construction Agreement on PG&E-owned substation sites which would be owned by PG&E as a utility-owned resource. This served to ensure that Participants could only have access to the Event for which they registered and served to ensure that the teams associated with the Utility-Owned resources would have no access to third-party offer information.

### **Participants Webinar**

PG&E held its Participants Webinar for the Mid-Term Reliability RFO – Phase 1 on June 25, 2021. The IE called into and monitored the Webinar. Topics addressed at the Webinar included:

- Solicitation Schedule;
- Role of the Independent Evaluator;
- Overview of CPUC Revised Proposed Decision in Rulemaking 20-05-003;
- Overview of the Solicitation;
- Eligibility Requirements;
- Overview of the Agreements;
- Offer Submittal;
- Application of PowerAdvocate;
- Offer Form Instructions;<sup>19</sup>

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<sup>19</sup> PG&E has, at times, included a separate webinar to walk through the offer forms to ensure bidders are informed regarding the offer form documents and the information requested. Given the short time to submit an offer, PG&E combined the Offer Form Instructions into the Participants webinar. There were a number of slides devoted specifically to the Offer Form instructions.

- Q&A;

A total of approximately 75 individuals attended the Participants Webinar.

### **Questions and Answers**

PG&E did not include a separate Frequently Asked Questions document on the website due to the limited number of questions asked during the Participants conference and subsequent to the Participants Conference.

### **Reviewed and Commented on Internal Evaluation Protocols and Evaluation Methodology**

The IE had the opportunity to review the draft RFO protocols and Evaluation Methodology for the Mid-Term Reliability RFO - Phase 1 process prior to submission of offers and provided comments and questions to PG&E associated with the draft evaluation protocols. The IE had limited comments since the protocol document and evaluation methodology were similar to the recent PG&E System Reliability RFOs for which Merrimack Energy served as IE. The parties did have a discussion regarding the application of the Incremental Effective Load Carrying Capability (“ELCC”) values and supporting studies used by the Energy Division to prepare these values.

### **Receipt of Offers – July 23, 2021**

The deadline for PG&E to receive offers was July 23, 2021. Participants were required to submit all required forms and documents to the PowerAdvocate Platform. Upon receipt of offers on PowerAdvocate, the IE reviewed the offers and prepared a summary table which contained pricing, operational information, commercial and other pertinent information associated with each offer. For third-party offers, PG&E received a total of 213 offer variations from twenty-seven counterparties, representing sixty-three unique projects with a total capacity of approximately 6,700 MW. PG&E also received [REDACTED] offers for a total of [REDACTED] each from [REDACTED] counterparties for EPC contracts for battery energy storage projects at PG&E utility-owned substation sites. PG&E received offers for a range of products [REDACTED] and contract structures (i.e., Long-Term RA Agreement, Long-Term RA Agreement with Energy Settlement, BTM RA Agreement, and Utility-Owned EPC Agreement).

The IE and PG&E team also reviewed the offers for conformance with eligibility requirements and completeness of the offers.

Appendix A to this report contains a summary list of all offers submitted into the Mid-Term Reliability RFO – Phase 1, including the initial valuation results for each offer. As illustrated in Appendix A, the vast majority of the eligible offers submitted were for battery energy storage options via a Long-Term Resource Adequacy Agreement or Long-Term Resource Adequacy with Energy Settlement Agreement. Many of the Participants

submitted offers under both contract structures. PG&E received [REDACTED] Behind-the-Meter storage offer, and [REDACTED] solar combined with storage resources. In addition, [REDACTED]

### *Communications with Bidders*

Upon receipt of the offers, the PG&E Mid-Term Reliability RFO – Phase 1 team immediately began to review the offers submitted and identified either information that was missing from an offer, errors in submission, or sought clarification regarding information included in the offers. The initial round of communications to conform offer requirements took place within a few days after offer submission.

PG&E submitted questions to bidders with clarifying questions relating to missing information in the offer form, operational characteristics, site control documentation, interconnection details, etc.

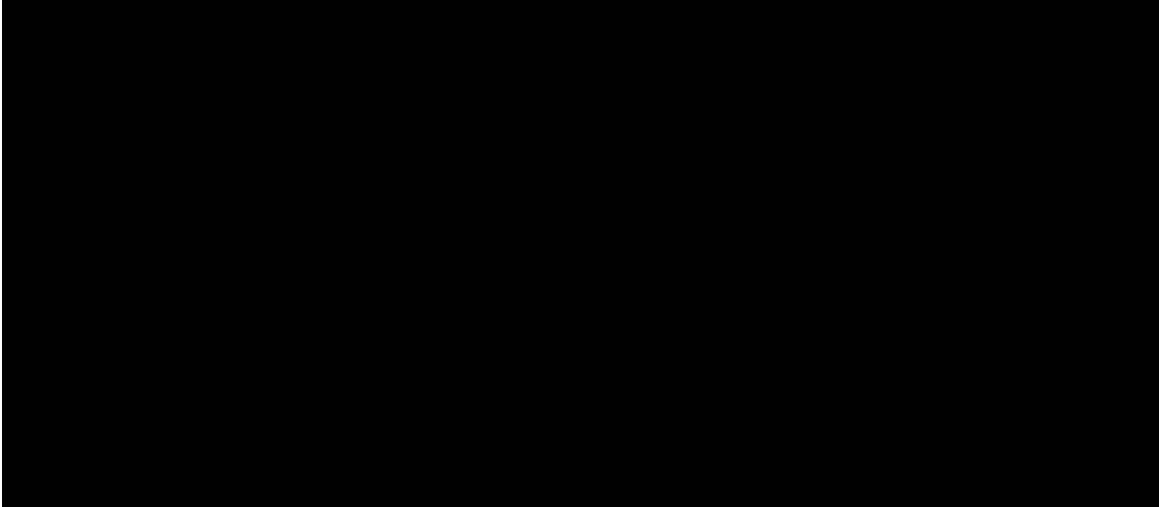
PG&E worked diligently on the initial offer review and communicated actively and consistently with all counterparties. All bidders were able to cure all data requests in order to be evaluated properly.

[REDACTED]

### *Evaluation of the Offers Submitted*

Subsequent to the initial conformance review, PG&E began to evaluate the offers from a quantitative and qualitative perspective and prepare evaluation files with the offer evaluation results. PG&E submitted initial evaluation output files to the IE on August 6, 2021.

PG&E's evaluation files, which were provided to the IE, served as the basis for the review of the evaluation results. The file contained the following tabs:



In the process of reviewing the quantitative evaluation results the IE team identified several follow-up questions regarding quantitative evaluation results and network upgrade costs. The PG&E's Quant team was able to reconcile the answers to the questions through the use of the [REDACTED].

PG&E also provided the IE with the project viability assessment conducted on each offer by PG&E's qualitative evaluation team. The project viability assessment included a score for overall project viability for each offer as well as scores for project viability categories including interconnection, site control, technology score, Disadvantaged Community score, location score, land use permits and safety review. In addition, notes were provided for each score described above as the basis for awarding such a score. In addition, PG&E provided the detailed evaluation notes prepared for the Environmental Review undertaken on each offer. Overall, the qualitative evaluation was thorough and well documented.

**Shortlist Selection**

Prior to the PRG meeting, PG&E provided the IE with a draft of the slide deck for the PRG meeting that contained the proposed shortlist for the solicitation as well as the back-up quantitative evaluation results for each proposal. [REDACTED]



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20 [REDACTED]

21 [REDACTED]

[Redacted]

[Redacted]

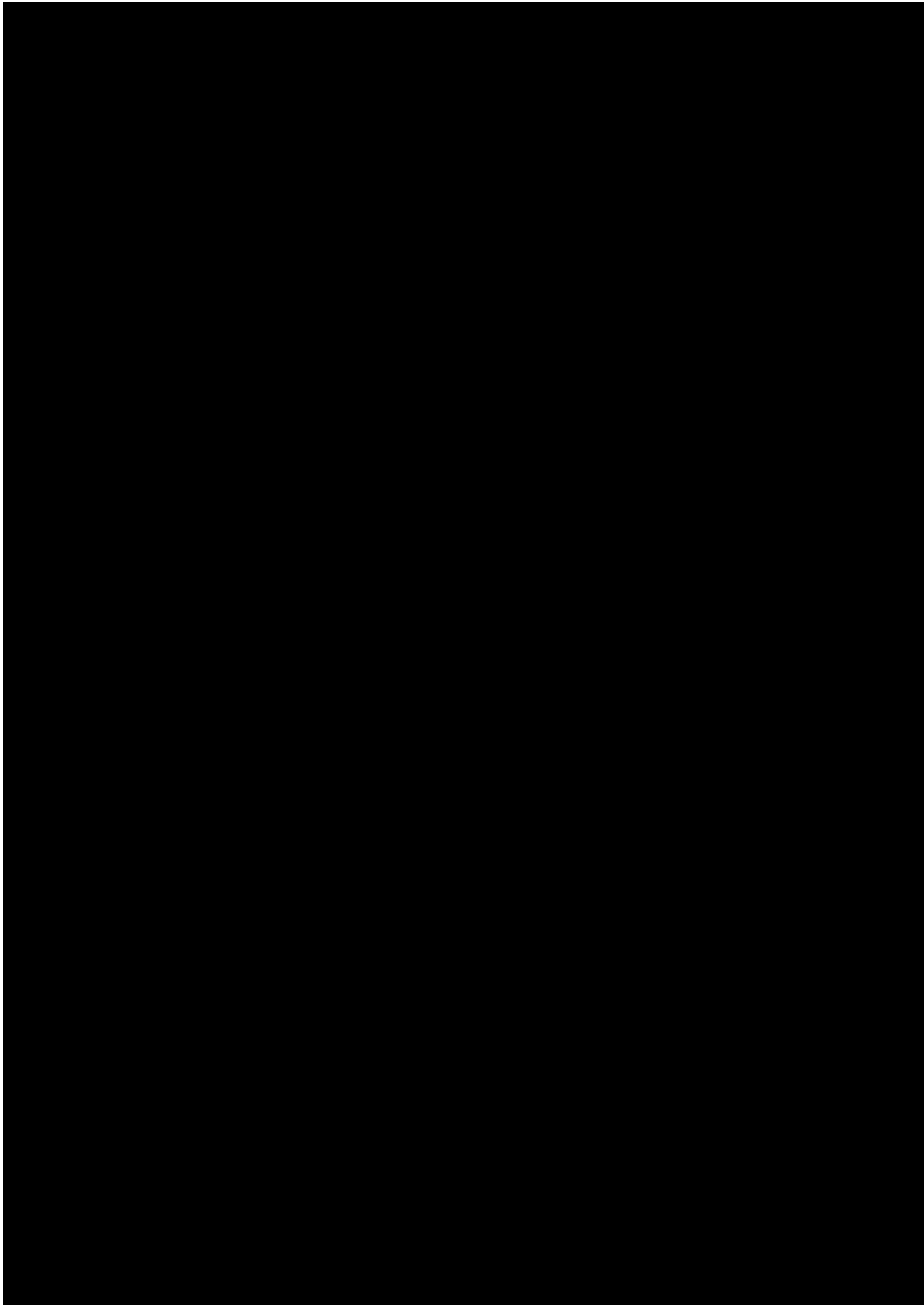
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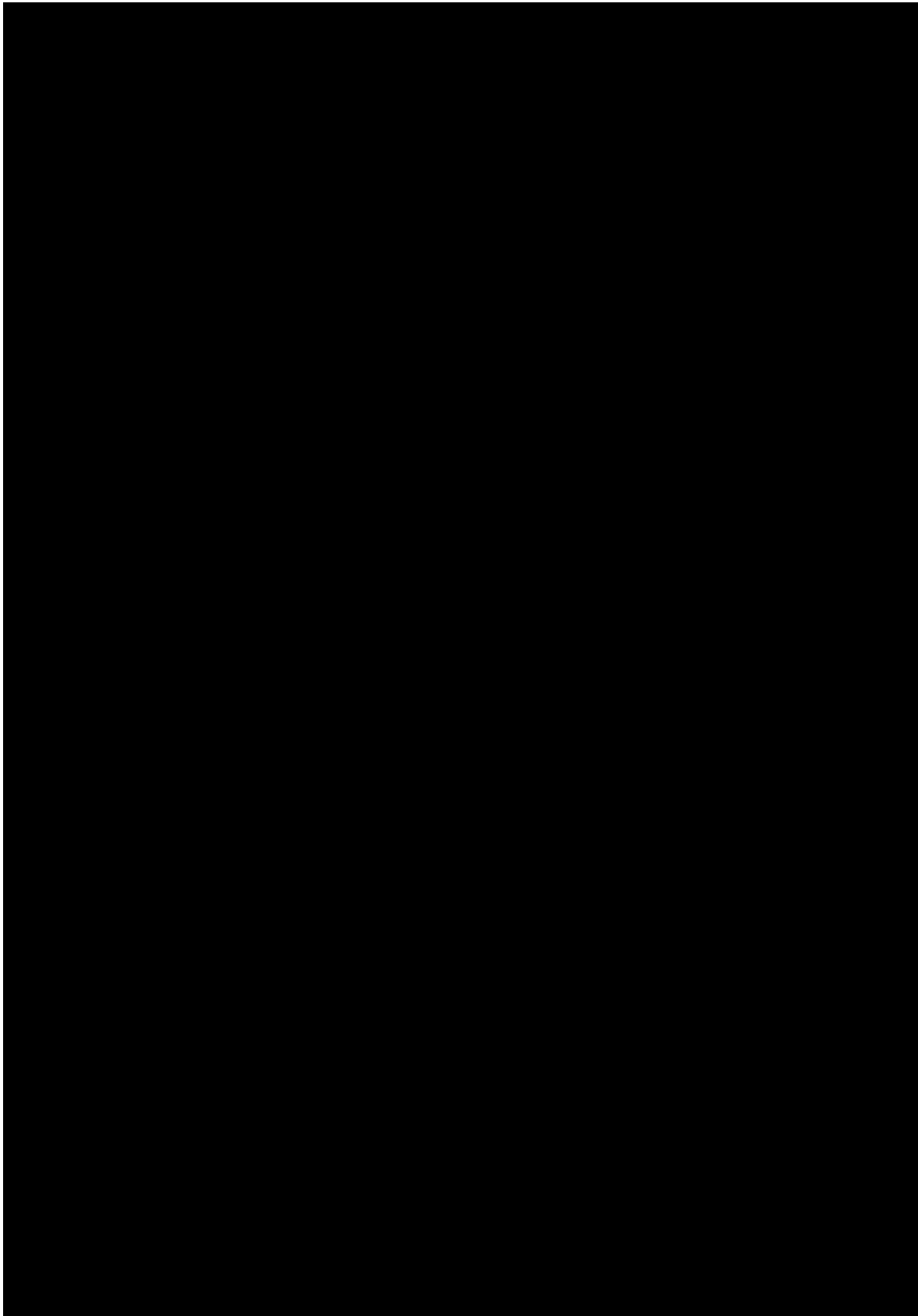
[Redacted]

[Redacted]

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22 [Redacted]  
23 [Redacted]







[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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<sup>24</sup>PG&E's NQC target for 2023 and 2024 was 1,444 MW of NQC requirements due to ELCC values such that PG&E's nameplate target is greater than the Decision NQC requirements.

[Redacted text block]

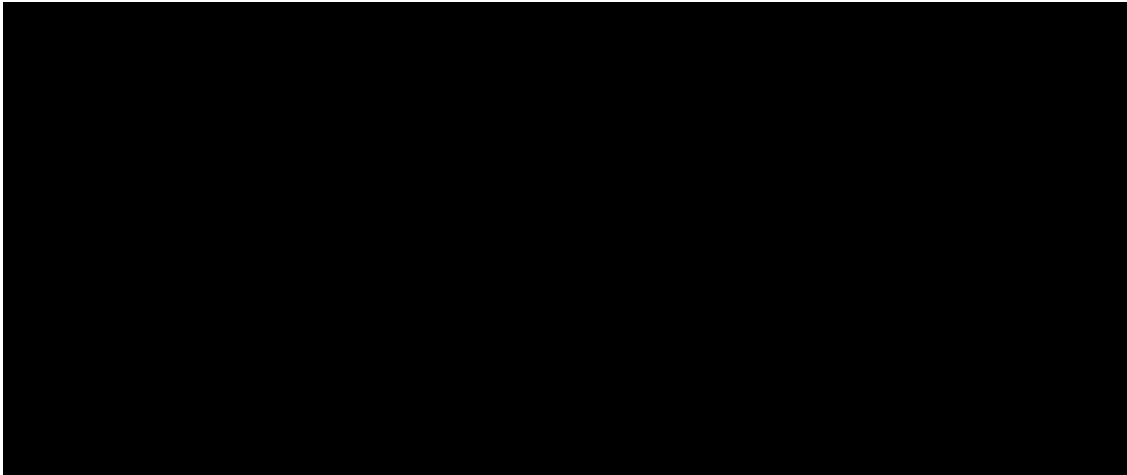
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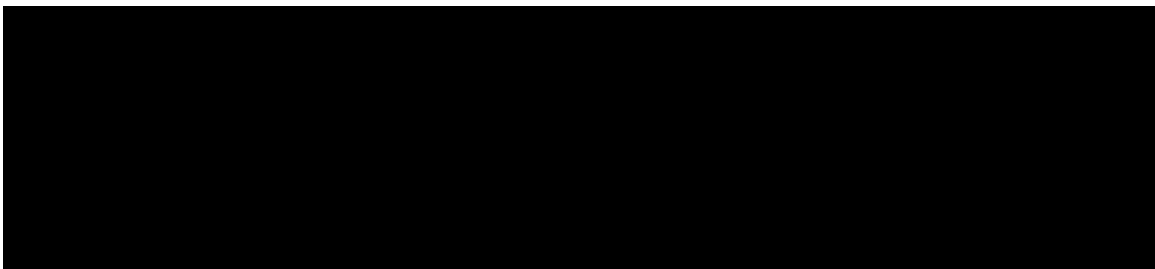
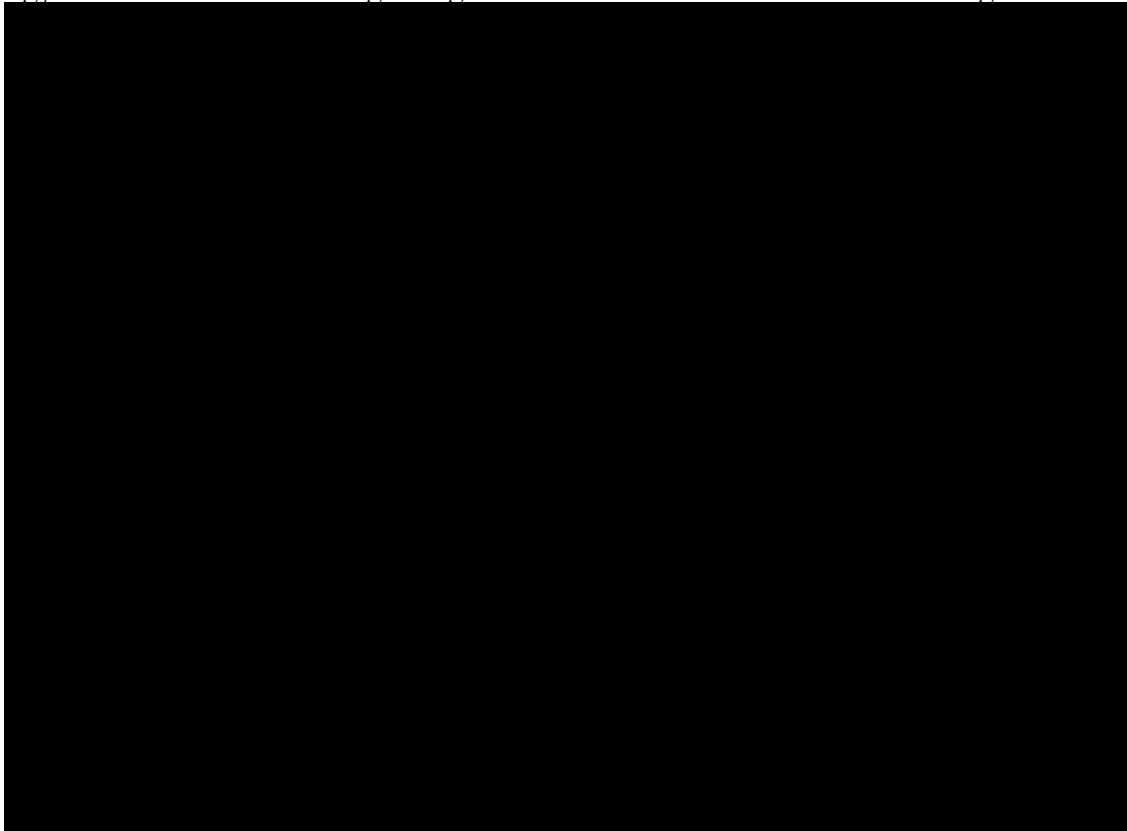
*IE Comments on Shortlist*

[Redacted text block]

[Redacted text block]



The IE reviewed the shortlist proposed and evaluation results generated by PG&E. The IE and PG&E team participated in two meetings to discuss shortlist selection. Merrimack Energy's overall conclusions regarding shortlist selection included the following:



[REDACTED]

**Notification to Bidders**

On September 23, 2021 PG&E notified bidders of their status in the Mid-Term Reliability RFO – Phase 1 solicitation process. PG&E notified Participants who had projects selected for the shortlist. [REDACTED]

[REDACTED]

[REDACTED]

**Initiation of Contract Negotiations**

PG&E scheduled initial meetings with shortlisted Participants in late September, 2021 to discuss their projects and the next steps in the negotiation process. [REDACTED]

[REDACTED]

PG&E also provided several clear messages to counterparties regarding the process going forward.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

---

<sup>25</sup> [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**Final Contracts**

PG&E ultimately executed nine contracts as a result of the Mid-Term Reliability RFO – Phase 1 for a total of 1,598.70 MW. The contracts executed are listed in Table 5. Appendix B contains a summary of each contracted resources with regard to the key contract provisions and operational characteristics included in the contract. All but one of the contracts executed was for Long-Term Resource Adequacy (RA) with Energy Settlement.

[REDACTED]

**Table 5: Summary of Contracts Executed by PG&E**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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26 [REDACTED]



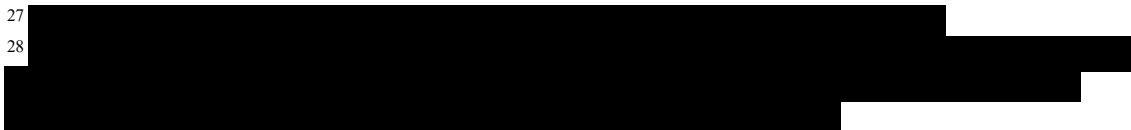


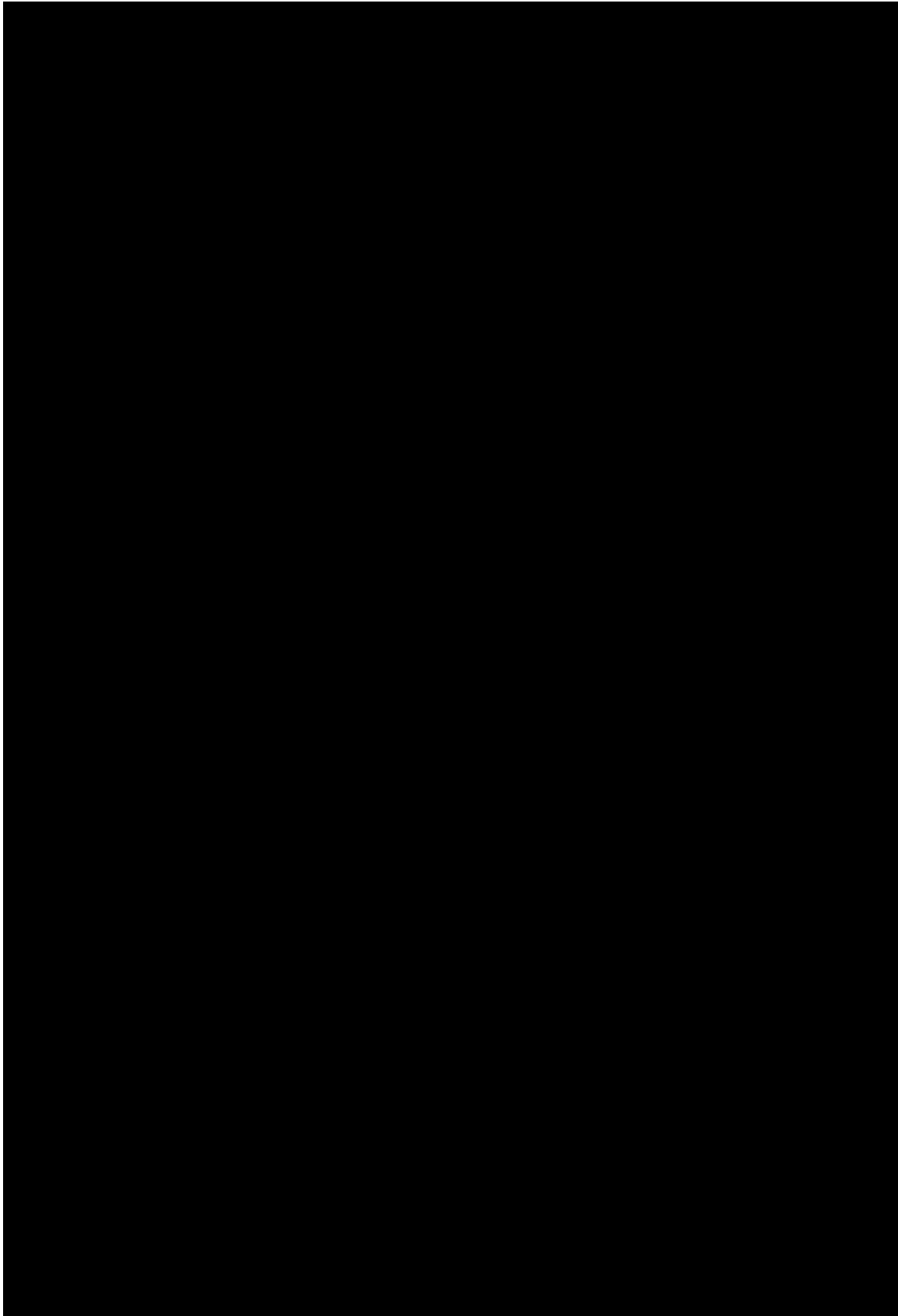
Table 6 contains a contract summary of the key provisions of the LTRAA with Energy Settlement Agreement based on PG&E's updated pro forma Long-Term RA with Energy Settlement Agreement. It should be noted that while most of the contract provisions were the same, some contracts did include specific revisions to sections of the contract to reflect specific project issues. However, the IE did not view these adjustments as have material impacts on all projects but affected only the project in question and did not change the risk profile among the agreements in a material way.

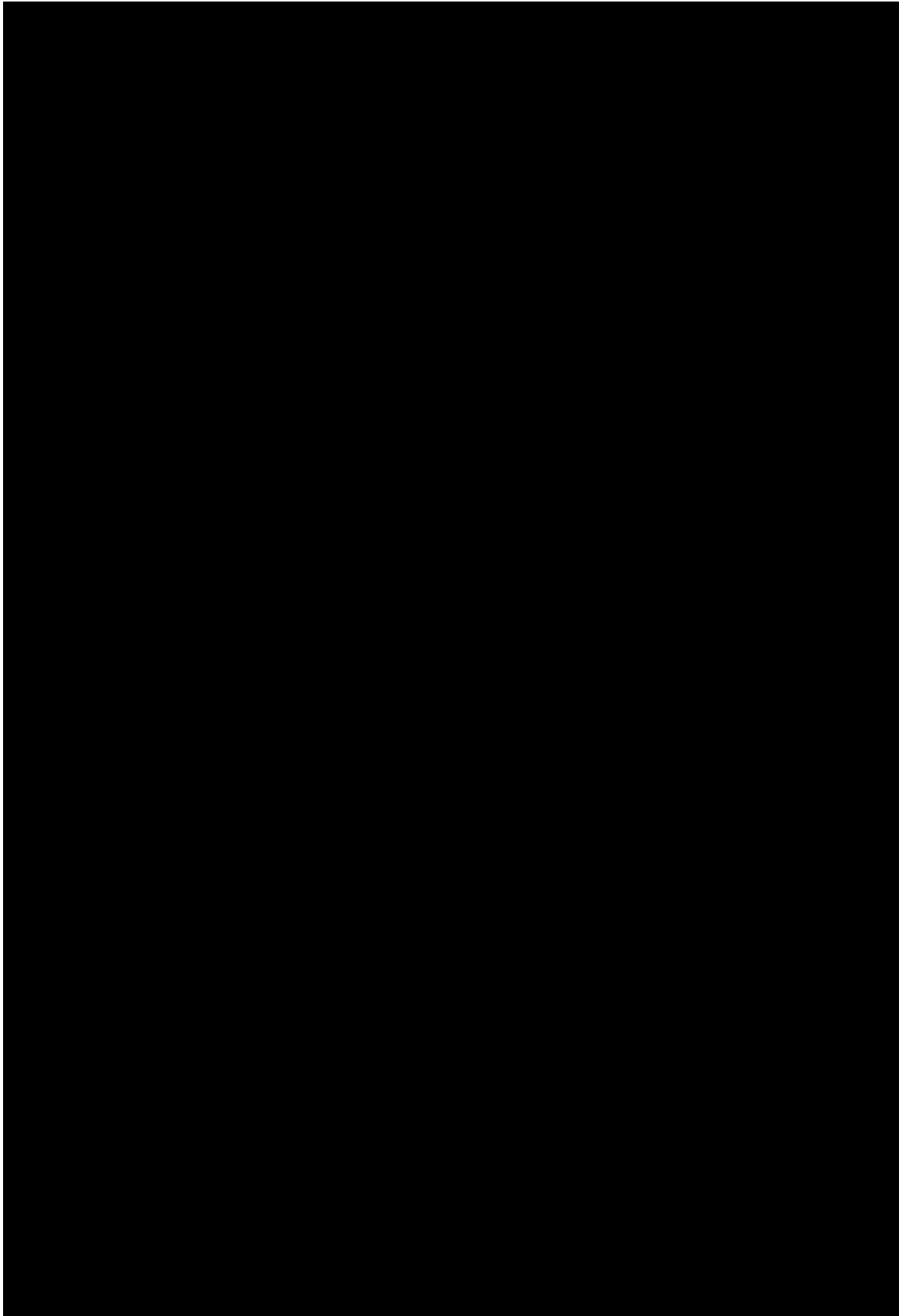
**Table 6: Final Contract Key Provisions**

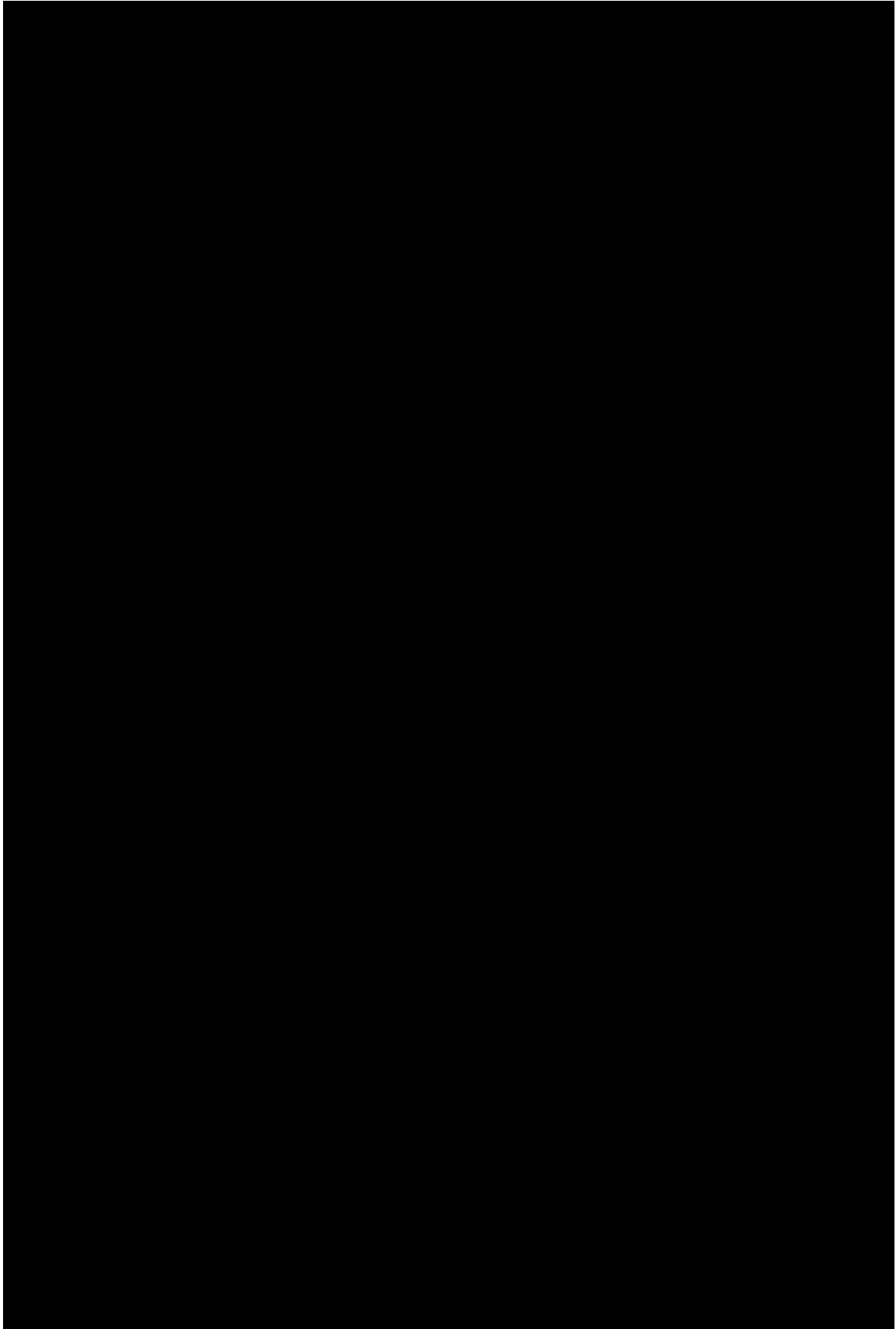
<b>Contract Provisions</b>	<b>Inclusion in Final Contract</b>

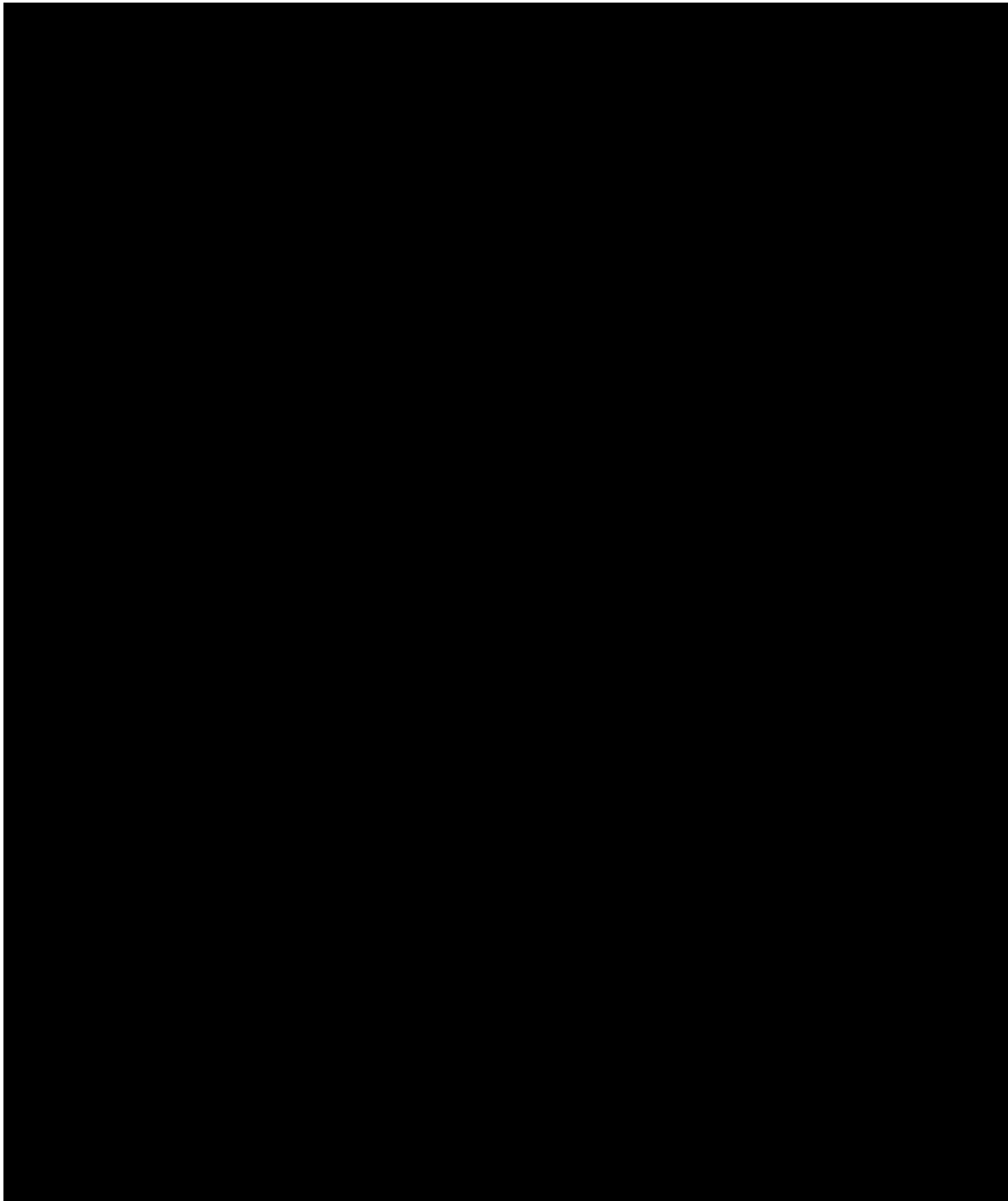
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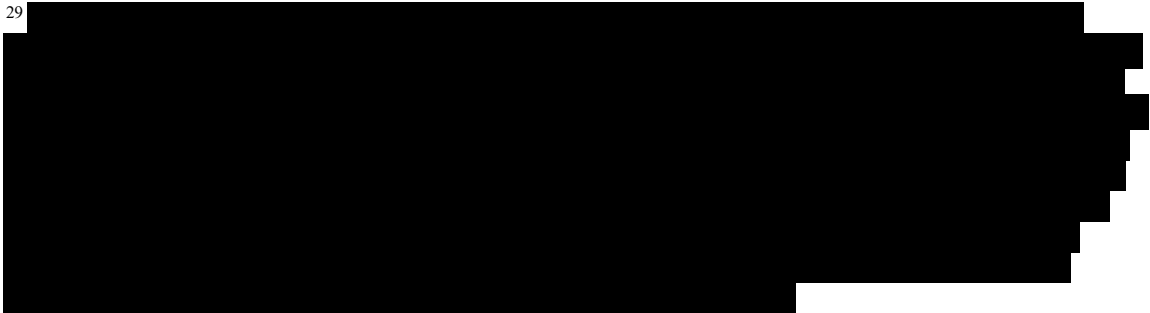


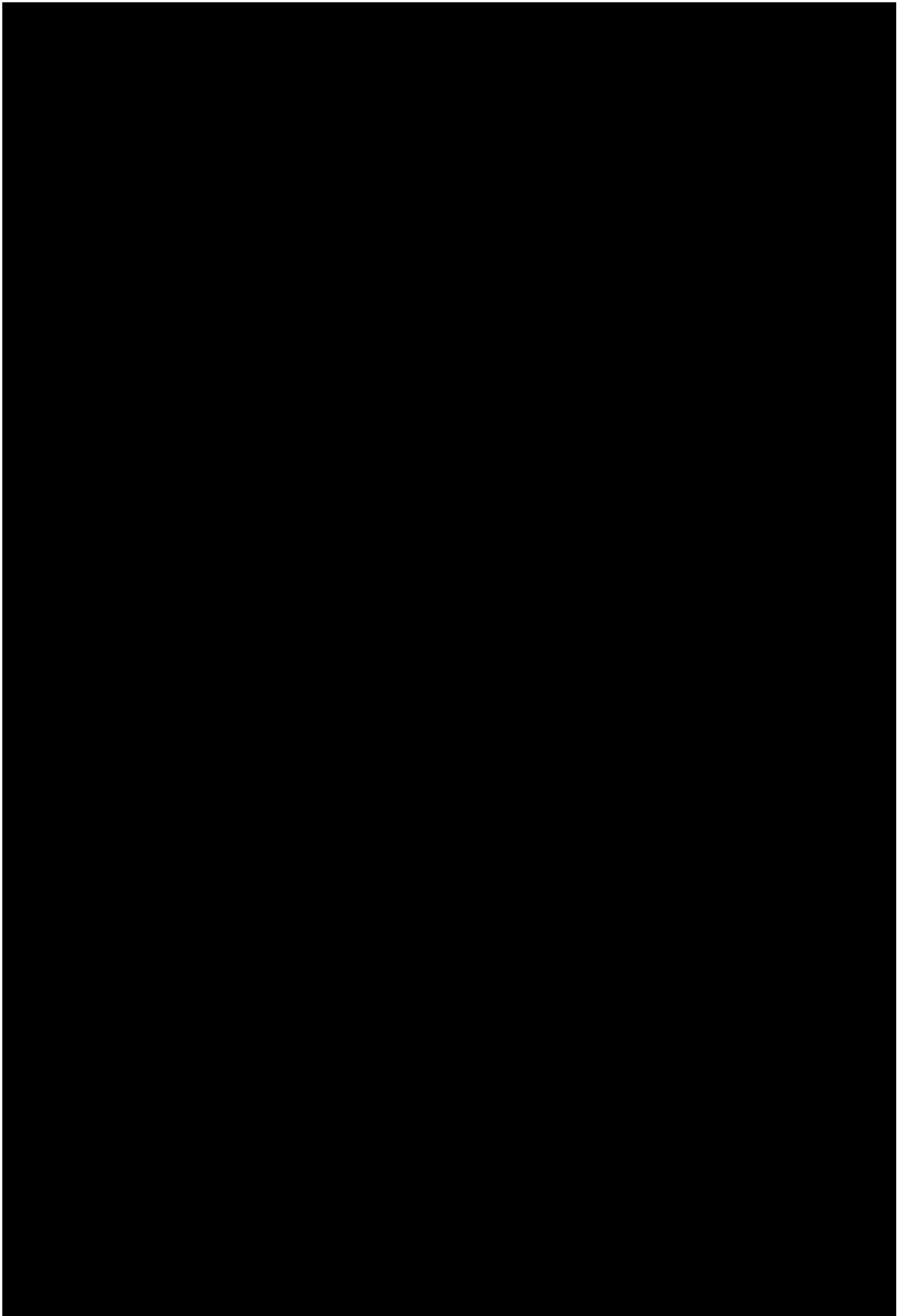


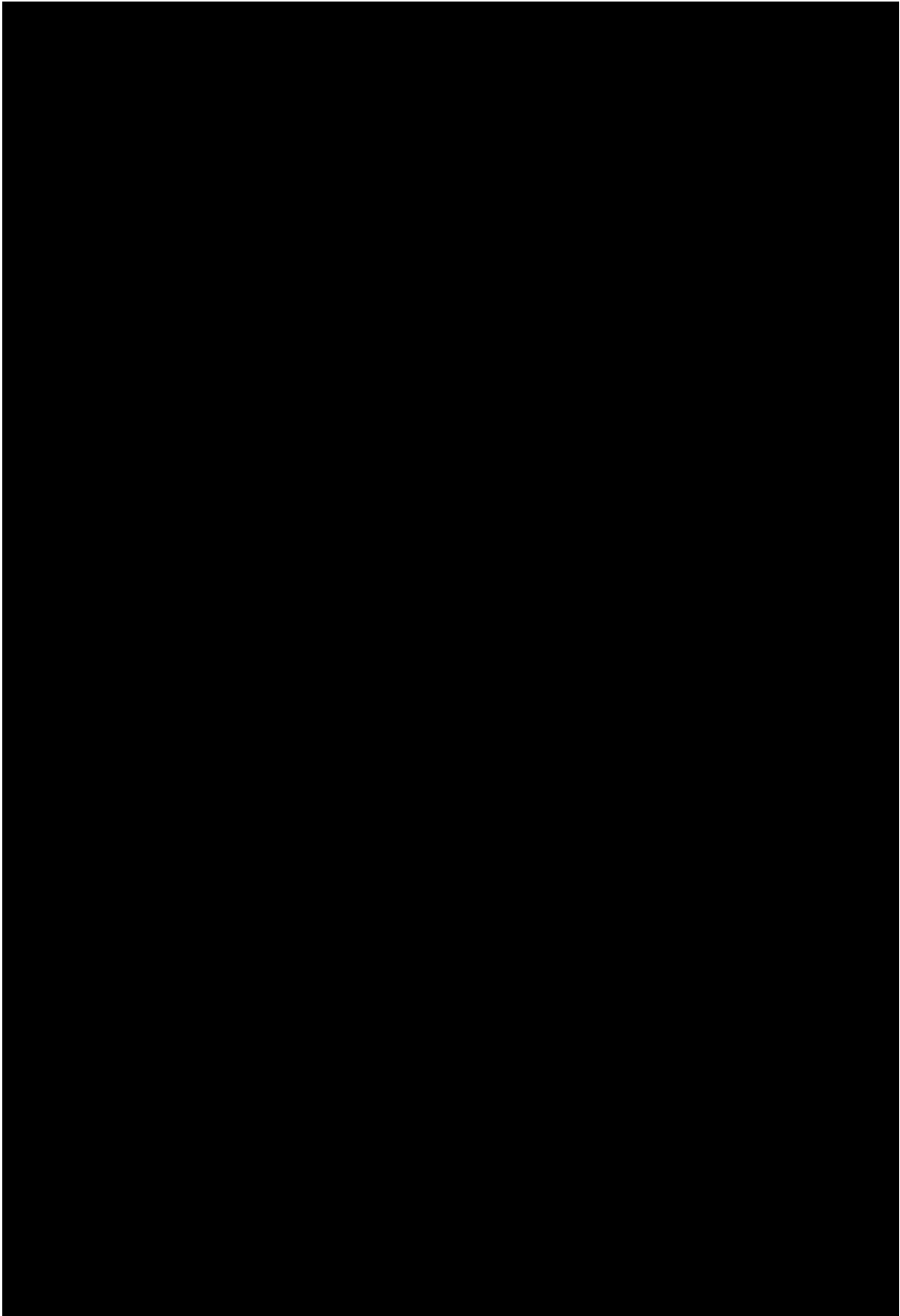




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## **VI. Did PG&E Fairly Administer the Evaluation Process?**

### **A. Principles and Guidelines Used to Determine Fairness of Process**


In evaluating PG&E's performance in implementing the Mid-Term Reliability RFO – Phase 1 solicitation process, the IE has applied a number of principles and factors, which incorporate those suggested by the Commission's Energy Division in previous Templates as well as additional principles that the IE has used in its oversight of other competitive bidding processes. These include:

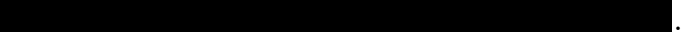
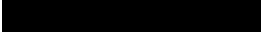
- What qualitative and quantitative factors were used to evaluate offers?
- If applicable, were affiliate offers treated the same as non-affiliate offers?
- Were economic evaluations consistent across offers?
- Was there a reasonable justification for any fixed parameters that enter into the methodology?
- Were all Participants treated the same regardless of the identity of the Participants?
- Were Participants questions answered fairly and consistently and the answers made available to all?
- Did the utility ask for "clarifications" from Participants, and what was the effect, if any, of these clarifications?


As described in detail in the previous sections of this report, PG&E evaluated the offers received based on both quantitative and qualitative factors.

In the opinion of the IE, PG&E assessed all offers in a similar manner although the components of the evaluation methodology and elements of the contract negotiation process varied appropriately by resource type. As previously noted, PG&E used reasonable methodologies for assessing each type of offer. 





The IE felt that the economic evaluations were consistent across all types of offers, with the objective of the evaluation to assess the benefits and costs of each offer based on Net Market Value  .



PG&E's project team was very actively engaged in the process from the very beginning. This included responding to bidder questions and seeking clarification from Participants when required. The IE was copied on all Questions and Responses to Participants. We found no cases where PG&E favored a specific Participant over another. PG&E responded consistently to all Participants throughout the process.

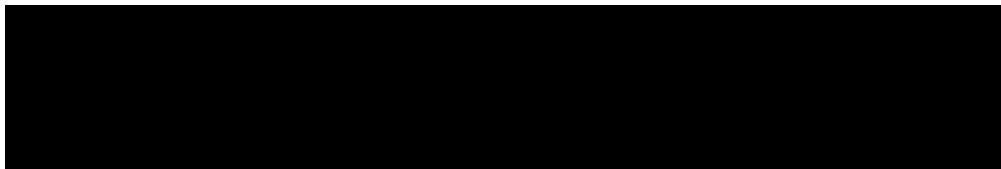
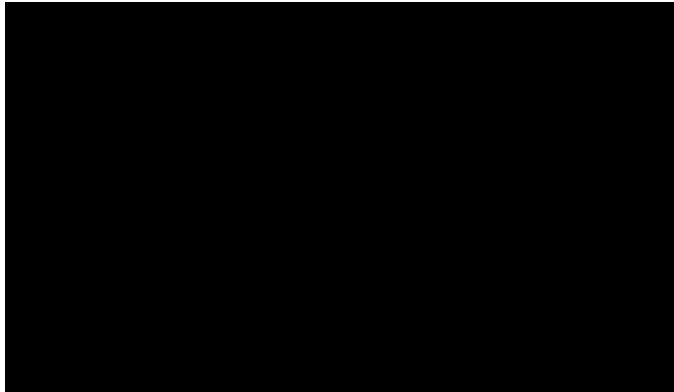
#### **B. Description of IE Methodology Used to Evaluate Administration of PG&E's Solicitation Process, Notably the LCBF Process**

As previously discussed, the IE was actively involved in all phases of the process. The IE was copied on all emails exchanged between PG&E and Participants. The IE was also invited and attended the calls with Participants wherein PG&E sought to clarify any uncertainties about the offers or inconsistencies associated with submission of offer information.

The IE also compiled summaries of all offers and the results of the bid evaluation and was fully engaged in the process throughout the solicitation. In addition, the IE and PG&E evaluation and transaction teams held regular conference calls to discuss the progress of the solicitation and any issues that arose during the process as new evaluation results were generated when shortlisted counterparties updated offer pricing.

With regard to the quantitative evaluation, the IE held discussions with the quantitative evaluation team to discuss the bid evaluation methodology prior to submission of bids to ensure the IE had an understanding of the evaluation methodology and presentation of evaluation results. PG&E provided copies of the evaluation results generated by the quantitative evaluation team to the IE on several occasions during the evaluation process, including prior to shortlisting as well as results associated with final offers and selection.

At the request of the IE, PG&E prepared an integration model for use by the IE to review and validate the results of PG&E's LCBF evaluation process.<sup>30</sup> The Integration Model provided input and output results for each offer by integrating several spreadsheet tabs to organize all relevant data for a specific project/offer. The model allows the IE to enter the number of a specific offer in a specific cell in the workbook. Once the project number was entered, the integration model provided an array of information about each offer including the following data:



The integration model results allowed the IE to conduct a thorough review and assessment of the valuation results for each offer. In addition, the IE was able to use the integration model results to review and evaluate important metrics for each of the offers submitted. In addition, the IE used the model to review the calculation of the Energy Settlement values based on the contract provisions to ensure the evaluation methodology was consistent with the contract provisions.

For evaluating the LCBF process, the IE initially reviewed the evaluation results included in the spreadsheets submitted by PG&E to the IE to assess whether there appeared to be any inconsistencies or unexplained outliers in the results. The spreadsheets prepared by PG&E included both an input file and an output file. The output file included Net Market Value by component for all cost and benefit components.

After review of the bid evaluation methodology and testing of the results of the evaluation provided by PG&E, the IE concluded that the evaluation methodology was reasonable for this type of RA assessment and effectively evaluated offers for different products, and different terms, and contract structures. The IE found no evidence of undue

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<sup>30</sup> PG&E had previously developed such a methodology for the CHP 2 and CHP 3 processes and the Energy Storage solicitations to allow Merrimack Energy to access all inputs and output results for each offer in an organized fashion to be able to verify the reasonableness of the offer evaluation results. Merrimack Energy requested expansion of the integration model for the first two Energy Storage solicitations. The model was again used for this solicitation.

bias in the evaluation methodology that favored one type of product over another. [REDACTED]

Based on the IE’s active involvement throughout the solicitation process, the IE concluded that PG&E reasonably followed the criteria outlined in the Mid-Term Reliability RFO – Phase 1.

### **C. Identification of Non-Conforming Bids**

After the offers were received, the initial task undertaken by PG&E’s project team was to review the offers to assess if the offers conformed to the eligibility provisions listed in the Protocol. Although PG&E’s objective was to be more inclusive, PG&E did follow its eligibility and threshold requirements when classifying offers as non-conforming. The non-conforming offers were identified in the appropriate section of this report.

### **D. Utility Evaluation and Outsourced Evaluation**

This section of the IE Template asks the IE to identify those parts of the process conducted by the utility, and to opine on how the parameters and inputs were used and whether they were reasonable. In addition, the Template asks the IE to identify any parts of the process that were outsourced to either the IE or a third party, what information did the utility communicate to that party and what controls did the utility exercise over the quality or specifics of the outsourced analysis.

In short, PG&E was primarily responsible for all aspects of the solicitation process, including all the evaluations of the offers received. The IE did not have any direct requirement to lead or conduct any specific aspect of the evaluation, except to validate the evaluation results compiled by PG&E. Instead, the IE’s role was to primarily review and assess whether the results of the analysis undertaken by PG&E were accurate and whether the process was fair and consistent for all Participants.

Outside of noting that PG&E established three teams to undertake the solicitation process consistent with the Internal Confidentiality Protocol established, the IE is not aware of PG&E outsourcing any aspects of the evaluation process to a third-party.

### **E. Transmission Analysis Procedures**

The Mid-Term Reliability RFO – Phase 1 Solicitation Protocol requires that at the time of offer submittal, Participants must have Participating Transmission Operator (PTO) or Utility Distribution Company (UDC) documentation showing that the resource is expected to receive Full Capacity Deliverability Status (FCDS) in order to support delivery of the product, including RA, per the obligation of the corresponding agreement.<sup>31</sup> Participants must remain active in the applicable interconnection queue

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<sup>31</sup> Participants must demonstrate that the project is on track to receive Full Capacity Deliverability Status (FCDS) and provide RA by August 1 2023 or June 1, 2024.

until the resource’s required network upgrades have been completed. At a minimum, resources must have an interconnection report or agreement as a result of an interconnection request demonstrating evidence of a construction schedule that can meet the proposed Initial Delivery Date.

For all offers that submit a Phase II interconnection study, [REDACTED]

In addition to the transmission cost analysis, [REDACTED]

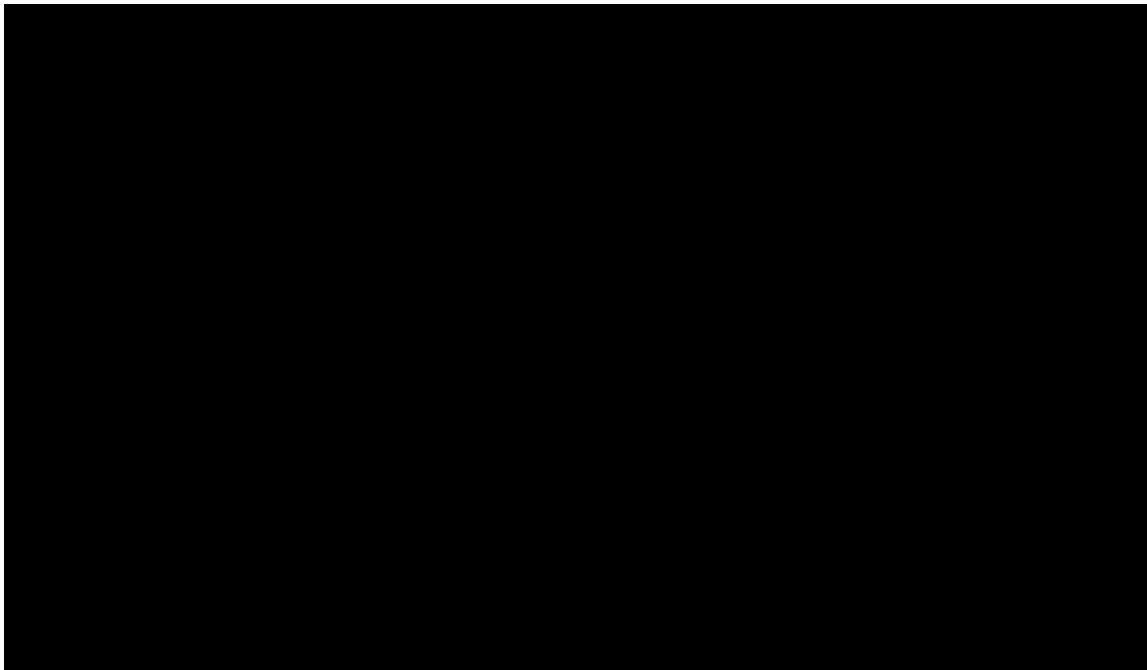
#### **F. Criteria or Analysis Used to Create the Short-List**

PG&E included a description of its offer evaluation methodology and approach in both the Mid-Term Reliability RFO – Phase 1 Protocol and the Participants Webinar presentation. PG&E noted its evaluation methodology will apply “least-cost, best-fit” principles, using quantitative and qualitative criteria to evaluate the submitted Offers. PG&E stated that the final Net Market Value calculation would be used as the basis for ranking and selection. [REDACTED]

#### **G. Offer Evaluation Results and Shortlist Assessment**

As noted, PG&E included both quantitative and qualitative factors in the evaluation. PG&E project teams conducted detailed evaluations for each of the quantitative and qualitative factors and created reasonably detailed documentation of the evaluation results for both factors.

The offers received were evaluated based on the methodology described in the previous section of this report. [REDACTED]



## **H. Conclusions Regarding Administration of the Bid Evaluation Process**

The IE has concluded that the bid evaluation process was fairly administered with respect to all Offers. The IE felt that PG&E's project team performed their function in communicating with Participants throughout the process in an exemplary manner, including communications with Participants to clarify offer forms and information about each specific offer after submission and prior to evaluation, and with regard to follow-up conference calls with Participants that were selected for the shortlist and contract negotiation. PG&E generally provided thorough and informative responses to Participant questions and did so in a reasonably timely manner. In addition, the IE found PG&E to be very inclusive of all potential Participants.

The IE felt that PG&E's evaluation methodology was effective in evaluating a range of potential products eligible for the solicitation and agreement structures in a consistent and fair manner. In addition, the quantitative evaluation methodology allowed for consistent evaluation of bids of different sizes and was designed to be technology neutral.

## **I. Any Other Relevant Information**

None at this time.

## **VII. Treatment of Affiliate Bids and UOG Ownership Proposals**

For the Mid-Term Reliability RFO – Phase 1, PG&E made slight modifications to its existing Internal Confidentiality Protocol that was implemented in previous System Reliability RFOs with utility-owned options eligible to bid. The Mid-Term Reliability

RFO – Phase 1 seeks offers from third parties for both third party-owned and utility-owned projects via an EPC contract that will provide system-level net qualifying capacity (“NQC”). Prior CPUC decisions require PG&E to ensure the unbiased evaluation of all offers and to avoid providing an unfair advantage to Utility-owned offers when such offers compete for selection and execution in an RFO with third-party offers. PG&E is not submitting or reserving the right to submit its own bid into this RFO. Therefore, there are no PG&E employees involved in preparing bids for projects that would be owned by the utility. Instead, PG&E is seeking offers for EPC options for projects that would be constructed by a third-party on PG&E’s own sub-station sites that will be owned by the utility. The utility-ownership team is responsible for developing the project specifications and evaluating, selecting, and negotiating third-party off-take offers.

The Internal Confidentiality Protocol is designed to ensure that an appropriate internal level of confidentiality of confidential RFO information is maintained. With this Confidentiality Protocol, PG&E is focusing on the type of information that PG&E employees must keep confidential in order to avoid external perceptions of any unfair advantages afforded to Utility-Owned Offers.<sup>32</sup> This Confidentiality Protocol shall be in place from June 18, 2021 until the date executed contracts are filed with the CPUC for approval. Confidentiality of confidential RFO information continues.

This Section of the Report addresses the Internal Confidentiality Protocol implemented by PG&E to undertake the Mid-Term Reliability RFO – Phase 1. The preparation of a Code of Conduct document is required by the CPUC for investor-owned utility (“IOU”) participation in the IOU’s own competitive procurement of electric energy resources. The CPUC’s 2008 LTTP Decision (D.07-12-052) included several references with regard to the requirements for utilities to develop a Code of Conduct for solicitations seeking utility ownership options.<sup>33</sup> PG&E developed an Internal Confidentiality Protocol for this solicitation to ensure appropriate safeguards are in place to define the roles and responsibilities of the project teams and protect the confidentiality of sensitive confidential information. PG&E required all employees supporting the Mid-Term Reliability RFO – Phase 1 that require use of Confidential RFO information to

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<sup>32</sup> Examples of the type of information considered confidential RFO information includes: (1) Participant’s confidential information as described in the RFO Protocol; (2) Internal Evaluation Protocols including quantitative models, scoring and selection criteria, and actual input assumptions such as price curves; (3) Offer data including evaluation results and selection of Offers for the shortlist and execution, including deliberations and reasons for selections. This would include information on how many offers were received, how many MWs were offered and which Participants made offers; and (4) Status of PG&E’s negotiations and execution of agreements with shortlisted Participants.

<sup>33</sup> On page 206 of D.07-12-052, the CPUC stated “As a precondition for conducting an RFO seeking utility ownership options, the IOU shall develop a strict code of conduct to be signed by any and all IOU personnel involved in the RFO process to prevent sharing of sensitive information between staff involved in developing utility bids and staff who create the bid evaluation criteria and select winning bids”. On page 236 the CPUC stated “If a utility were soliciting turnkey bids or EPC contracts as well as PPAs in a given solicitation, the individuals performing the bid evaluation would have to be functionally separated from the individuals preparing the bids (or the cost estimates) for projects that would ultimately be utility-owned. Under this restriction, the employees developing the utility-owned project would be barred from access to any evaluation protocols, input assumptions, or bid information not made generally available to outside bidders.”

acknowledge the Confidentiality Protocol. According to the IE Report Template, two issues are to be addressed in this Section of the Report:

**Describe the design and implementation of the required Code of Conduct used by the IOU to prevent sharing of sensitive information between staff working with developers who submitted UOG bids and staff who create the bid evaluation criteria and select winning bids.**

**Describe any violation(s) of that code**

As a precondition of holding a competitive solicitation in which offers resulting in partially or wholly utility-owned energy storage projects compete against third-party offers, a utility (in conjunction with the IE, PRG, and Energy Division Staff) must develop and adopt a strict Code of Conduct, to be signed by any and all IOU personnel in the RFO process, to prevent the sharing of sensitive information between staff involved in evaluating, selecting, and negotiating utility ownership offers (“Utility Ownership (UO) Employees”) and staff who evaluate, select and negotiate third-party off-take offers and prepare information for Decision-Makers, including the evaluation and selection of any type of offer (“Solicitation Employees”). PG&E’s Internal Confidentiality Protocol also includes a third category of employees referred to as Decision-Makers. These are employees who approve the selection of the offers submitted in response to PG&E’s RFO for shortlisting and and/or final execution. Only Decision-Makers and Solicitation Employees have full access to all confidential RFO information. Utility Ownership Employees can only have access to confidential RFO information with respect to UO offers. However, all Utility Ownership employees, Decision-Makers, and Solicitation employees must keep confidential RFO information confidential.

As noted, the Internal Confidentiality Protocol was designed to maintain an appropriate internal level of confidentiality of Confidential RFO Information and to avoid external perceptions of unfair advantage of utility ownership offers. The Confidentiality Protocol is being adopted because PG&E is evaluating utility-owned offers via a third-party EPC contract for a project at a utility-owned sub-station site and third-party offers in the RFO with both types of offers ultimately competing for the selection by PG&E and CPUC approval. Some of the key elements of the Confidentiality Protocol include:

A. Teams

- Utility-Owned (UO) – Employees evaluating, selecting and negotiating Utility-Owned offers;
- Solicitation Employees – Employees (a) evaluating, selecting, and negotiating third-party offers, and (b) preparing information for Decision Makers, including evaluation and selection of all offers;
- Decision Makers – Employees approving the selection of offers for shortlisting and/or final execution.<sup>34</sup>

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<sup>34</sup> In addition to the above teams, to evaluate offers teams may engage Subject Matter Experts (“SME”) from within PG&E to assist with the evaluation of Offers. Such SMEs are subject to this Confidentiality Protocol and shall review and evaluate Offers using and accessing the Confidential RFO information only

B. Confidential RFO Information includes:

- Participants confidential information;
- Internal Evaluation Protocols: quantitative models, scoring and selection criteria, actual input assumptions;
- Offer data, evaluation results and selection of offers for shortlisting and execution; deliberations and reasons for selections;
- Status of PG&E's negotiations and agreements with shortlisted participants

C. Teams' Obligations to Confidential RFO Information

- Solicitation and Decision Maker team members shall not disclose or share Confidential RFO information outside of their teams; provided that,
- UO offer team members may use, have access to or knowledge of Confidential RFO information with respect to the Utility-owned offers only.

D. Functional Separation of Information and Teams:

- Confidential RFO information – to be kept functionally separate per team type, with all electronic information to be located on separate shared drives or internal sites that can only be accessed by the respective team members. To the extent possible, Confidential RFO information should not be emailed even internally;
- Employees and Contractors for the RFO – Physical separation of teams is not required.
- Internal Subject Matter Experts: To evaluate offers, teams may engage SMEs from other LOBs to assist with the evaluation of offers. Such SMEs are subject to this Protocol and shall review and evaluate offers using and accessing the Confidential RFO information only to the extent necessary to perform their review and evaluation. SMEs must not act as conduits of Confidential RFO Information between teams;
- The Solicitation team will update the list of UO employees on a regular basis and send a reminder to the Solicitation team not to share information with UO team members.

E. Acknowledgement of Protocol – Required by employees and contractors on the RFO actively participating in the RFO process and/or who have a need to access the Confidential RFO Information through:

- Written verification of completion of review of and understanding of the training materials.

F. Duration of the Internal Confidentiality Protocol – From the date that offers are submitted to PG&E until selected offers are submitted for CPUC Approval. Following submission of executed offers for CPUC Approval, the Confidential RFO Information should remain confidential in accordance with Section A-E above, but is no longer subject to the restrictions of this Internal Protocol.

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to the extent necessary to perform their review and evaluation for the respective team. Such SMEs should not be conduits for Confidential RFO information.



The Mid-Term Reliability RFO – Phase 1 included [REDACTED] in which PG&E would own the project via a Engineering, Procurement, Construction agreement at a PG&E-owned sub-station site using PG&E’s Scope of Work. As a result, the IE Report Template requires the IE to address the following issues:

1. Describe other safeguards and methodologies implemented by the IOU including those stipulated in Commission decisions (e.g. D.04-12-048 and D.07-12-052) for head-to-head competition between utility ownership and independent ownership bids, to ensure that affiliate and UOG bids were analyzed and considered on as comparable a basis as possible to other bids, that any negotiations with such bids’ proponents were conducted as comparably as possible to negotiations with other proponents, and that the utility’s final selections in such cases did not favor an affiliate or UOG bid.
2. Describe compliance with the safeguards
3. If a utility selected a bid from an affiliate or a bid that would result in utility asset ownerships, explain and analyze whether the IOU’s selection of such bid(s) was appropriate.

In terms of the safeguards implemented, as noted in the previous section of the report, PG&E implemented an Internal Confidentiality Protocol which included detailed information regarding the roles and responsibilities of the various teams involved in the solicitation and the type of information considered confidential. As noted, PG&E formed three separate teams for the process. Employees who evaluate, select and negotiate utility-owned EPC offers are classified as Utility Ownership Employees while employees who evaluate, select and negotiate third-party off-take offers and prepare information for Decision Makers, including the evaluation and selection of all Offers are classified as Solicitation Employees. The third team is Decision Makers who are employees approving the selection of offers for shortlisting and/or final execution.

In its Internal Confidentiality Protocol, PG&E also identified how during each step in the Energy Storage RFO process, Ownership Employees should perform different functions and be separated from Solicitation Employees involved in the evaluation of offers to avoid the sharing of sensitive information.

For this RFO, [REDACTED]

As we have previously noted, Merrimack Energy as IE was sensitive to comparability issues regarding the treatment of utility-owned and third-party offers from the beginning of the process since we view fairness and comparability of treatment of these different resource options to be one of the more challenging issues associated with undertaking a fair and equitable evaluation and selection process. We have had meetings and discussions with PG&E prior to release of the past few Energy Storage and System Reliability RFOs to discuss comparability associated with both the evaluation methodology and contract provisions. We were satisfied that the evaluation methodology


and contract provisions should ensure a fair and equitable process without the presence of bias for one type of resource over another.

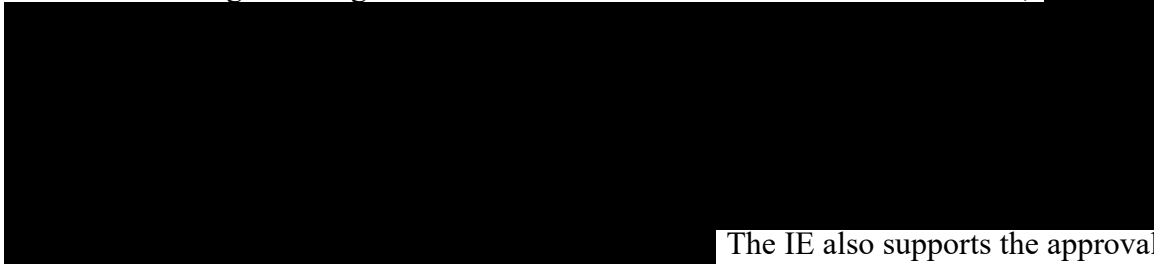
## **VIII. Was the RFO Acceptable**

1. Overall was the RFO conducted in a fair and competitive process, free of real or perceived conflict of interest?
2. Based on the complete bid process, should some component(s) be changed to ensure future RFOs are fairer or provide a more efficient, lower cost option?
3. Any other relevant information

The IE concludes that PG&E has implemented the Mid-Term Reliability RFO – Phase 1 in a fair and consistent manner, marked by an overall objective to maintain a reasonably transparent and competitive solicitation process designed to be inclusive for all Participants. PG&E worked closely with the Participants to ensure they fully understood the requirements of the process and were able to submit all the necessary information to allow for a thorough and consistent evaluation process.

As noted in this report, PG&E’s outreach activities were designed to encourage a wide range of participants, including those who had competed in recent solicitations. PG&E’s interaction with Participants before and following submission of offers to clarify offers submitted facilitated participation by a broader supplier base.

The IE was in general agreement with PG&E’s overall shortlist selection, 



The IE also supports the approval of all nine contracts executed by PG&E with six counterparties.

## **IX. Conclusions and Recommendations**

### **A. Conclusions and Observations**

Merrimack Energy has the following conclusions and observations regarding the Mid-Term Reliability RFO – Phase 1 solicitation process based on its role as IE in this process:

1. PG&E implemented the Mid-Term Reliability RFO – Phase 1 solicitation process consistent with CPUC Final Decision in Rulemaking 20-05-003 issued on June 30, 2021 (Decision Requiring Procurement to Address Mid-Term Reliability

(2023-2026)) which requires PG&E to procure at least 2,302 MW of additional net qualifying capacity, including to procure and have online 1,601 MW by June 1, 2024. The Final Decision requires PG&E to procure and have online 400 MW by August 1, 2023, 1,201 MW by June 1, 2024, 300 MW by June 1, 2025, and 400 MW by June 1, 2026. In response to the Proposed Decision, PG&E issued its Mid-Term Reliability RFO – Phase 1 on June 18, 2021. Through the Mid-Term RFO – Phase 1, PG&E has executed nine Long-Term Resource Adequacy Agreements for battery energy storage system (“BESS”) resources with six counterparties scheduled on line in 2023 and prior to or on June 1, 2024. The total capacity of the nine projects is 1,598.7 MW or 99.86% of PG&E’s requirements. All contracts are for Battery Energy Storage projects, with all but one Agreement executed via a Long-Term Resource Adequacy Agreement with Energy Settlement;

2. PG&E’s Mid-Term Reliability RFO – Phase 1 resulted in a robust response from the market, with a large number of offers to meet both the 2023 and 2024 target IDD dates. PG&E received a total of 213 offer variants from twenty-seven counterparties, representing sixty-three unique projects with a total capacity of approximately 6,700 MW for third-party offers. In addition, [REDACTED]; [REDACTED];
3. PG&E’s outreach activities and interaction with Participants prior to and after submission of offers was designed to provide a significant base of information for Participants. This included holding a Participants Webinar, with a portion of the Webinar devoted to a walk-through of the Offer Form for potential Participants. PG&E engaged in discussions and email exchanges on a daily basis to ensure the Participants were in line with the schedule and process. The IE monitored these communications and felt that all Participants were treated fairly and equitably. In addition, PG&E sent emails to all contacts on its email list for solicitations, which totals nearly 2,700 contacts. Overall, PG&E’s outreach activities were extensive;
4. PG&E developed the evaluation methodologies and process to reflect the products being solicited, and to conform to the “Least Cost Best Fit” methodology used for other recent similar RFOs. In accordance with the solicitation protocol, PG&E evaluated the offers using both quantitative and qualitative criteria, with the evaluation protocol identifying how the criteria would be used to determine offer ranking and shortlisting. In addition, PG&E prepared an integration model for use by the IE to review and verify the quantitative results of the evaluation process;
5. The IE found the solicitation documents to be reasonably transparent and well-structured to allow potential Participants to effectively decide whether and how they wished to compete. The Mid-Term Reliability RFO – Phase 1 Solicitation documents clearly defined the procurement targets, products solicited, eligibility requirements, evaluation process and criteria, information required of Participants and company objectives. In addition, PG&E included proforma contracts for most

of the eligible projects to allow Participants to review the contracts prior to submission. There were two exceptions. One exception was that PG&E did not include a Zero-Emitting Resource Agreement for this Phase 1 process. A second exception was that PG&E also did not include an EPC Agreement for Participants to review in preparation of their offers;

6. PG&E undertook both a quantitative and qualitative evaluation of the offers submitted consistent with the evaluation process identified in the Mid-Term Reliability RFO – Phase 1 Solicitation Protocol and Participants Webinar.

[REDACTED]

7. Based on the evaluation process, PG&E selected an initial shortlist comprised of

[REDACTED]

8. [REDACTED]

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<sup>35</sup> Sunnova stated in its proposal that it's behind the meter resource adequacy systems are comprised of residential roof-top PV solar systems that include onsite behind the meter energy storage systems (ESS).

<sup>36</sup> NextEra submitted two variants for Proxima: one was for a solar plus storage project and the second was for a standalone storage project.

[REDACTED];

9. [REDACTED];

10. PG&E ultimately executed nine contracts as a result of the Mid-Term Reliability RFO – Phase 1 for a total of 1,598.70 MW. Four projects have an IDD date in 2023 for a total of 699 MW, while five projects have an IDD prior to or on June 1, 2024 for a total of 899.7 MW. As a result, PG&E should meet its target amount for 2023 and meet 99.86% of its 2023-2024 target via this solicitation only;

11. The IE found no evidence of any preference toward any bidder or type of project;

12. The IE concludes that the process was undertaken in a fair and equitable manner and all Participants were treated equally. The IE received no complaints or criticisms about the process;

13. The contracts executed were all with [REDACTED];

14. Based on the need for capacity over the 2023-2024 timeframe and the quality of the projects selected, the IE recommends approval of all contracts executed by PG&E

## **B. Recommendations**

- For the Mid-Term Reliability RFO – Phase 2 process, the IE expects that the solicitation process is likely to be more complex and a more protracted process, particularly given the requirements for zero emitting resources, long duration storage, demand response and Firm zero-emitting resources. Upfront planning will be very important as well as constant communications with participants to effectively evaluate the offers. From a planning perspective, pro forma contracts will be important as will the operational characteristics of the resources being sought and the requirement to reflect this information in the evaluation and selection process;

- Given the nature of the resources to be acquired, the IE believes that more refined project viability criteria should be included in the qualitative evaluation. As we noted on pages 33 and 34 of this report, while the [REDACTED] [REDACTED] for each qualitative criterion has been reasonable for recent PG&E RFO's, largely based on competition between BESS projects, the Phase 2 solicitation will include competition among resources that are not standard resources and which are likely to be more complicated to assess and evaluate.

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix K1**

### **Summary of Key Long-Term Resource Adequacy Agreement Terms**

**(Confidential)**

Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix K2**

### **Summary of Key Long-Term Resource Adequacy Agreement with Energy Settlement Terms**

**(Confidential)**



Confidential Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g) and D.06-06-066

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix M**

### **Quantitative Evaluation Results Workbook**

**(Confidential)**

# **PACIFIC GAS AND ELECTRIC COMPANY**

## **Appendix L**

### **Evaluation Methodology**

**(Public)**

## Appendix L: Evaluation Methodology

PG&E's quantitative evaluation criteria included Net Market Value (NMV). PG&E's evaluation also included qualitative criteria. These criteria are listed below:

### Quantitative Criteria

1. NMV
  - a. Benefits (Energy, Ancillary Services, Capacity)
  - b. Fixed and Variable Costs

### Qualitative Criteria

2. Financing
3. Environmental Characteristics
4. Development Plan
5. Safety
6. Prior Experience
7. Disadvantaged Communities
8. Location

Evaluation of the offers included the above criteria. For each of the criteria, a team of subject matter experts was formed to perform the evaluation. The evaluation teams consisted of PG&E employees. The teams met periodically to review progress and exchange information.

PG&E applied the quantitative and qualitative criteria to each conforming offer or offer variation as follows:

**TABLE J-1  
EVALUATION CRITERIA, SCORING UNIT, AND APPLICATION**

Line No.	Evaluation Criteria	Application
1	Net Market Value	Shortlist Development
2	Prior Experience	Shortlist Development
3	Disadvantaged Communities	Shortlist Development
4	Location	Shortlist Development
5	Development Plan	Shortlist Development
6	Safety	Post Shortlist Development
7	Financing	Post Shortlist Development
8	Environmental Characteristics	Post Shortlist Development

### **1. Net Market Value**

For each Offer, Net Market Value (NMV) is calculated based on the summation of several components as follows:

Net Market Value:  $NMV = C + E - F - T$

Where:

C = Capacity Value

E = Energy Value (financial)  
F = Fixed Cost  
T = Transmission Network Upgrade Cost

PG&E solicited the four agreement types below:

- Long-term Resource Adequacy Agreement (LT RAA);
- Long-term Resource Adequacy Agreement with Energy Settlement (LT RAA with ES);
- Behind-the-Retail Meter Resource Adequacy Agreement (BTM RAA);
- Engineering, Procurement, and Construction (EPC) Agreement

The NMV calculations were applied consistently for all the agreement types listed above, with variations depending on agreement option. Sections 1.a to 1.d below describe the NMV calculations component by component, detailing the variations by agreement type.

#### **a. Capacity Value (C)**

Capacity Value is the net present value of monthly capacity values across all months during the delivery period.

The monthly Capacity value (C) is computed as the sum of two components: 1) the monthly Net Qualifying Capacity multiplied by the Local or System capacity price, and 2) the monthly Effective Flexible Capacity (EFC in MWs) provided by the project multiplied by the flexible RA price. These values are then discounted back by the discount factor for the month.

The amounts of NQC and EFC are specified in each Offer, and will held constant for the term of the Offer unless otherwise specified.

Operational characteristics will be used to check that the NQC and EFC supplied by the bidder are reasonable.

#### **b. Energy Value (E)**

The Energy Value component applies to Long-Term Resource Adequacy with Energy Settlement agreements and Behind the Meter agreements. These agreements have an Energy Settlement component, which is a financial reduction in the capacity payment from PG&E to the counterparty as defined in the LT RAA with ES and BTM RAA.

#### **c. Fixed Cost (F)**

Fixed Costs are determined by the net present value of monthly contract payments made under the contract. The monthly contract payments were based on the Payment Quantity Price (\$/kilowatt-month) multiplied by the monthly Payment Quantity specified in the offer.

#### **d. Transmission Network Upgrade Cost**

For all offers PG&E used the network upgrade cost included in the interconnection documentation to determine the transmission network upgrade cost adder. Network upgrades include all facilities necessary to: (i) reinforce the transmission system after the point where a project's electricity first interconnects with and enters the utility's transmission grid; and (ii) transmit or deliver the full amount of generation to or from the project. Transmission cost adders reflect the reimbursed portion of the cost of network upgrades potentially borne by customers.

### **2. Prior Experience**

PG&E may consider previous adverse commercial experience with a Participant. When evaluating Offers, Participants with previous adverse commercial experience may receive a lower score in this category.

### **3. Disadvantaged Communities**

PG&E may give preference to projects located in Disadvantaged Communities ("DACs") with similar quantitative rankings to projects not located in DACs.

### **4. Location**

PG&E may give preference for projects located in PG&E's service territory.

### **5. Development Plan**

PG&E may evaluate the development plan of a project. The evaluation will consider: site access (i.e., whether a project site has been identified and the status of the developer's access through ownership, lease, option or other arrangement), engineering (e.g., whether the technology has been proven in commercial operation or otherwise demonstrated to be viable, the thoroughness and level of detail in the description of the design package), procurement (e.g., to what extent the project equipment is commercially available, evidence of the developer's ability to manufacture or procure non-standard equipment, reasonableness of the proposed procurement schedule), construction (e.g., history of developer's other projects, if any, reasonableness of the proposed

construction schedule), and interconnection (e.g., the status of the project's interconnection application and whether the project has a firm interconnection schedule, or the reasonableness of the projected interconnection schedule if the interconnection agreement has not yet been finalized).

## **6. Safety**

PG&E may screen project proposals to assess whether there are safety risks associated with their particular technology. Projects that fail the safety screen will not be considered and the remainder of the viability evaluation will not be conducted.

## **7. Financing**

PG&E may evaluate the financing viability of an Offer. The financial viability evaluation may include review of lender or investor commitment letters, the overall financing package, project pro-forma, and other relevant documents. Existing facilities will generally receive high scores unless there are identifiable on-going financing risks.

## **8. Environmental Characteristics**

PG&E may evaluate the environmental characteristics and environmental impacts of a project. The evaluation will consider: permitting (e.g., identification of required permits, schedule for acquisition of all necessary permits and a reasonable demonstration of its ability to comply with all applicable environmental laws and regulations through contract term) and environmental resource reviews and approvals (including CEQA/NEPA review, endangered species and water resources).

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

AT&T  
Albion Power Company

Alta Power Group, LLC  
Anderson & Poole

Atlas ReFuel  
BART

Barkovich & Yap, Inc.  
California Cotton Ginners & Growers Assn  
California Energy Commission

California Hub for Energy Efficiency  
Financing

California Alternative Energy and  
Advanced Transportation Financing  
Authority  
California Public Utilities Commission  
Calpine

Cameron-Daniel, P.C.  
Casner, Steve  
Center for Biological Diversity

Chevron Pipeline and Power  
City of Palo Alto

City of San Jose  
Clean Power Research  
Coast Economic Consulting  
Commercial Energy  
Crossborder Energy  
Crown Road Energy, LLC  
Davis Wright Tremaine LLP  
Day Carter Murphy

Dept of General Services  
Don Pickett & Associates, Inc.  
Douglass & Liddell

East Bay Community Energy Ellison  
Schneider & Harris LLP Energy  
Management Service  
Engineers and Scientists of California

GenOn Energy, Inc.  
Goodin, MacBride, Squeri, Schlotz &  
Ritchie  
Green Power Institute  
Hanna & Morton  
ICF  
International Power Technology

Intertie

Intestate Gas Services, Inc.  
Kelly Group  
Ken Bohn Consulting  
Keyes & Fox LLP  
Leviton Manufacturing Co., Inc.

Los Angeles County Integrated  
Waste Management Task Force  
MRW & Associates  
Manatt Phelps Phillips  
Marin Energy Authority  
McKenzie & Associates

Modesto Irrigation District  
NLine Energy, Inc.  
NRG Solar

OnGrid Solar  
Pacific Gas and Electric Company  
Peninsula Clean Energy

Pioneer Community Energy

Public Advocates Office

Redwood Coast Energy Authority  
Regulatory & Cogeneration Service, Inc.  
SCD Energy Solutions  
San Diego Gas & Electric Company

SPURR  
San Francisco Water Power and Sewer  
Sempra Utilities

Sierra Telephone Company, Inc.  
Southern California Edison Company  
Southern California Gas Company  
Spark Energy  
Sun Light & Power  
Sunshine Design  
Tecogen, Inc.  
TerraVerde Renewable Partners  
Tiger Natural Gas, Inc.

TransCanada  
Utility Cost Management  
Utility Power Solutions  
Water and Energy Consulting Wellhead  
Electric Company  
Western Manufactured Housing  
Communities Association (WMA)  
Yep Energy