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

Pacific Gas & Electric Company
ELC (Corp ID 39)
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As of April 20, 2021

Subject: System Reliability Contracts Toward Procurement Requirements Under D.19-11-016

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STATE OF CALIFORNIA **GAVIN NEWSOM,** *Governor*

PUBLIC UTILITIES COMMISSION
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From: Energy Division PAL Coordinator

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December 22, 2020

Advice 6033-E
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: **System Reliability Contracts Toward Procurement Requirements Under D.19-11-016**

I. Purpose

Pursuant to Decision (D.) 19-11-016 (Decision), Pacific Gas and Electric Company (PG&E) respectfully submits this Tier 3 Advice Letter seeking California Public Utilities Commission (Commission or CPUC) approval of six agreements resulting from PG&E's 2020 System Reliability Request for Offers – Phase 2 (SR RFO – Phase 2). The table below summarizes the project name, technology type, expected initial delivery date (IDD) and the term of the Agreement.

Counterparty (Project Name)	Technology	Initial Delivery Date	Term (Years)	Size (MW)
Nexus Renewables U.S. INC (AMCOR)	Lithium Ion Batteries	8/1/2022	15	27
Lancaster Battery Storage, LLC (Lancaster Battery Storage)	Lithium Ion Batteries	8/1/2022	15	127
LeConte Energy Storage, LLC (LeConte Energy Storage)	Lithium Ion Batteries	8/1/2022	15	40
North Central Valley Energy Storage, LLC (North Central Valley Energy Storage)	Lithium Ion Batteries	8/1/2023	15	132
Daggett Solar Power 2, LLC (Daggett 2 BESS)	Lithium Ion Batteries	8/1/2023	15	46
Daggett Solar Power 3, LLC (Daggett 3 BESS)	Lithium Ion Batteries	8/1/2023	15	15

II. Background

On November 13, 2019, the Commission issued D.19-11-016, which takes a number of steps to address the potential for system resource adequacy (RA) shortages beginning in 2021, including ordering incremental electric system reliability procurement by all load-serving entities (LSEs) operating within the California Independent System Operator's (CAISO) balancing area to meet system RA needs for the period 2021-2023. The Decision requires incremental procurement of system-level qualifying RA capacity of 3,300 megawatts (MWs), of which PG&E is responsible for 716.9 MWs for its bundled customer portion. Further, the Decision requires that at least 50 percent of LSE resource responsibilities come online by August 1, 2021, at least 75 percent by August 1, 2022, and the remaining by August 1, 2023.

Additionally, the Decision affirms that the investor-owned utilities (IOUs) are to act as the backstop procurement agent for Community Choice Aggregators (CCAs) and Energy Service Providers (ESPs) that choose not to voluntarily self-procure or that fail to meet their procurement responsibilities after electing to self-provide their assigned MWs of system RA capacity under the Decision. On April 15, 2020, Administrative Law Judge (ALJ) Fitch issued a ruling in Rulemaking 16-02-007 that informed PG&E that it must procure 48.2 MWs of system RA resources for LSEs that chose to opt-out of voluntarily self-providing their required portion.

Furthermore, the Decision outlined eligibility requirements for resources to meet the procurement obligations and requirements for the solicitation, including evaluation criteria and information that the IOUs need to include in advice letters presenting the results of their solicitation and approval of contracts.

In compliance with the Decision, PG&E issued the System Reliability Request For Offers (SR RFO) – Phase 1 on February 28, 2020, and executed seven cost-effective system RA agreements for approximately 423 MWs, of which 250 MWs provide Local RA, to meet its procurement responsibilities for the August 1, 2021 requirement. PG&E filed a Tier 3 Advice Letter with the Commission for approval of those contracts on May 18, 2020. The Commission approved the contracts on August 27, 2020.[1]

PG&E issued Phase 2 of the SR RFO on July 10, 2020. SR RFO – Phase 2 provided PG&E the opportunity to procure the approximately 350 MWs of residual capacity that was required to meet the procurement target for 2022 and 2023 but that was not procured within Phase 1.

[1] CPUC Resolution E-5100.

III. Overview of 2020 System Reliability Request for Offers – Phase 2

A. RFO Structure and Process

PG&E issued its SR RFO – Phase 2 on July 10, 2020, to solicit offers from participants for the purchase of eligible system RA to come online by August 1, 2022, and August 1, 2023, which will count towards PG&E's requirement of 765.1 MWs.[2]

In its SR RFO – Phase 2 materials, PG&E provided detailed guidance on project requirements to prospective participants. Participants could submit offers for Third-Party Owned projects utilizing the following six 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), (4) Resource Adequacy Confirm (RA Confirm), (5) Demand Response Agreement (DRA), and (6) Energy Efficiency Agreement (EE). Participants could submit an offer for PG&E ownership using the Build Own Transfer Agreement (BOT). The RFO required an initial delivery date of August 1, 2022, or August 1, 2023, 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 IDD per the 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 Integrated Resource Planning baseline resources list.[3] Offers for existing resources, aggregated behind-the-meter resources, and energy efficiency resources did not need to show proof of site control. 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 2020 SR RFO – Phase 2 by email notification and provided six e-mail update notifications to PG&E's mailing list, which included approximately 2,700 recipients. The issuance email provided potential participants with information on the location of solicitation documents, participant webinar information, and important action items.

2020 SR RFO – Phase 2 documents were finalized for release on July 10, 2020, and remain available on the PG&E website.[4] The documents include the 2020 SR RFO – Phase 2 solicitation protocol which includes information, requirements, and directions to

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[2] As noted above, PG&E was informed on April 15, 2020, via ALJ Ruling that it is required to procure an additional 48.2 MW for CCAs and ESPs in its TAC area that chose not to self-provide their required portion of incremental system RA. 765.1 MW is inclusive of the original 716.9 MW and additional 48.2 MW of backstop procurement.

[3] CPUC IRP Website with Baseline List of resources for procurement ordered in D.19-11-016: https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442463663

[4] *See* www.pge.com/rfo/systemreliabilityrfo-phasetwo.

submit a conforming offer. In addition to the 2020 SR RFO – Phase 2 dedicated website, PG&E established a 2020 SR RFO – Phase 2 mailbox (SystemReliabilityRFO@pge.com) for participants and other interested parties to submit questions. PG&E received questions in the mailbox throughout the solicitation and posted the questions and corresponding answers that might have been useful to all participants in a frequently asked questions (FAQ) document on the website.

On July 16, 2020, PG&E conducted a participants' conference via webinar to explain the 2020 SR RFO – Phase 2 solicitation protocol, form agreements, and the offer submittal process as well as answer questions from potential participants. About 120 individuals attended the webinar via phone or WebEx. PG&E posted the presentation to the 2020 SR RFO – Phase 2 website after the webinar.

PG&E requested offers for the 2020 SR RFO – Phase 2 by August 19, 2020, and notified participants via e-mail of their status regarding the shortlist on September 18, 2020. 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 2020 SR RFO – Phase 2, PG&E received 38 offers consisting of 137 offer variations from 20 counterparties. Of the 38 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 with 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 RFO participation, that offer or variation was considered non-conforming and eliminated from further evaluation.

D. 2020 System Reliability RFO – Phase 2 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 J.

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 system RA consistent with D.19-11-016. The shortlisted projects represented three different agreement types: LT RAA, LT RAA with Energy Settlement, and BTM.

Consistent with Public Utilities Code Section 454.52(a)(1)(I),[5] 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 counterparties' offer and a discussion of any updates to the project 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. Cost Allocation Mechanism Group and Procurement Review Group Outreach

On September 15, 2020, PG&E presented shortlist materials at a joint meeting of PG&E's Cost Allocation Mechanism (CAM) Group and the Procurement Review Group (PRG).[6] The shortlist materials included: the 2020 SR RFO – Phase 2 requirements, offers received, and PG&E's proposed shortlist. This timing was to ensure that PG&E could incorporate any CAM group and PRG feedback before participants were to be updated of their shortlist status on September 18, 2020.

G. Independent Evaluator

PG&E engaged an independent Evaluator (IE) from the Commission's approved list of IEs for the 2020 SR RFO – Phase 2. 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 RFO 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.

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[5] 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).

[6] 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-Joint-091520.pdf.

- Participated in contract negotiations that were held for each shortlisted participant.

The confidential version of the IE Report is provided in Appendix G1, and the public version of the IE Report is provided in Appendix G2.

IV. Selected Projects

PG&E is requesting approval of six agreements resulting from PG&E's SR RFO – Phase 2 as described below. The final executed agreements can be found in Confidential Appendices A – F, and additional contract terms can be found in Confidential Appendices H1 – H3. The six agreements together total 387 MW of incremental system RA, of which 132 MWs provide Local RA, which exceeds PG&E's minimum procurement responsibility of 765.1 MW to be online by August 1, 2023. Of the 387 MW, 194 MW is planned to come online by August 1, 2022, which, combined with the 423 MW procured in PG&E's Phase 1 solicitation, totals 617 MW and exceeds PG&E's minimum procurement responsibility of 573.83 MW to be online by August 1, 2022.[7]

Target Dates for Compliance	Compliance Requirement	Procured/Proposed Procurement	Procurement Above Compliance Obligation
August 1, 2021	382.55 MW	423 MW	40.45 MW
August 1, 2022	+191.28 MW	+194 MW	+2.72 MW
August 1, 2023	+191.27 MW	+193 MW	+1.73MW
Total	765.1 MW	810 MW	44.9 MW

A. Nexus Renewables U.S. INC – AMCOR

PG&E executed a BTM RAA for the AMCOR project. The project will be owned by Nexus Renewables U.S. Inc. (Nexus). Nexus manages a portfolio of 48.5 MW of energy storage and solar PV projects in Canada and the United States.

The project will be a behind-the-meter project comprised of lithium-ion battery storage resources located across a portfolio of sites in PG&E's service area. The project is a 27 MW, four-hour duration project. Appendix H1 provides additional project and LT RAA detail.

Term	Provision
Counterparty and Project	Nexus Renewables U.S. INC, AMCOR

[7] The 573.83 MW procurement responsibility is inclusive of the minimum 36.15 MW for opt-out LSEs that needs to be online by August 1, 2022.

Technology	BTM Lithium Ion Batteries
Location	Behind-the-Retail Meter
Type of Interconnection	Behind-the-Retail Meter
Term	15 years
Initial Delivery Date	August 1, 2022
Capacity	27 megawatt (MW)
Discharge Duration	4 hours

B. Lancaster Battery Storage, LLC – Lancaster Battery Storage

PG&E executed a LT RA Agreement with Energy Settlement for the Lancaster Battery Storage project. Lancaster Battery Storage, LLC, LLC is a wholly owned subsidiary of sPower Development Company, LLC. sPower is a wind and solar developer with over 150 solar and wind projects in operation across the United States, 1.65 GW in operating assets, 480 MW in construction, and approximately 13 GW of projects under development. In July 2017, the AES Corporation ("AES"), a Fortune 200 global power company, and Alberta Investment Management Corporation ("AIMCo"), an institutional investment manager with more than $95 billion in assets under management, entered into a joint venture agreement to acquire sPower. sPower remains as a joint venture operating company with its current management and staff still in place, and this transaction further solidified sPower's position as a developer and long-term owner and operator of renewable energy projects. In November 2020, sPower and AES announced a planned merger.

The project is a 127 MW, four-hour duration transmission-connected, stand-alone lithium ion battery energy storage resource located in Los Angeles County. The Lancaster Battery Storage project has a Large Generator Interconnection Agreement (LGIA) executed with SCE and CAISO. Appendix H3 provides additional project and LT RA Agreement with Energy Settlement detail.

Term	Provision
Counterparty and Project	Lancaster Battery Storage, LLC, Lancaster Battery Storage
Technology	Lithium Ion Battery
Location	Lancaster, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2022
Capacity	127 MW
Discharge Duration	4 hours

C. LeConte Energy Storage, LLC – LeConte Energy Storage

PG&E executed a LT RAA for the LeConte Energy Storage project. LeConte Energy Storage, LLC is a wholly owned subsidiary of Bolt Energy, LLC ("Bolt"), which is a subsidiary and affiliate of LS Power Associates, L.P. (LS Power). Bolt was formed on January 30, 2019 with $215 million of equity commitments from its members for the express purpose of building, financing and operating a portfolio of four California battery energy storage projects in operation, under construction, or in development, including the LeConte Energy Storage project. LS Power personnel will be responsible for all services required for the Project, including engineering services, development support, financial support, and other services. The LS Power group has a successful history of developing and operating battery storage, power generation, and electric transmission lines and substations serving the CAISO market.

The project will be a transmission-connected, stand-alone lithium ion battery energy storage resource located in Imperial County. The project is a 40 MW, four-hour duration project. The LeConte Energy Storage project has a Large Generator Interconnection Agreement (LGIA) executed with SDG&E and CAISO. Appendix H2 provides additional project and LT RAA detail.

Term	Provision
Counterparty and Project	LeConte Energy Storage, LLC, LeConte Energy Storage
Technology	Lithium Ion Battery
Location	Calexico, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2022
Capacity	40 MW
Discharge Duration	4 hours

D. North Central Valley Energy Storage, LLC – North Central Valley Energy Storage

PG&E executed a LT RA Agreement with Energy Settlement for the North Central Valley Energy Storage project. North Central Valley Energy Storage, LLC is a wholly owned subsidiary of NextEra Energy Resources Development, LLC (NEER), which 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 will be a transmission-connected, lithium ion battery energy storage resource located in San Joaquin County. The project is a 132MW, four-hour duration project. The North Central Valley Energy Storage Project has a Large Generator Interconnection Agreement (LGIA) executed with PG&E and CAISO. Appendix H3 provides additional project and LT RA Agreement with Energy Settlement detail.

Term	Provision
Counterparty and Project	North Central Valley Energy Storage, LLC, North Central Valley Energy Storage
Technology	Lithium Ion Battery
Location	Linden, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2023
Capacity	132 MW
Discharge Duration	4 hours

E. Daggett Solar Power 2, LLC – Daggett 2 BESS

PG&E executed a LT RAA for the Daggett 2 BESS project. Daggett Solar Power 2, LLC is a wholly owned subsidiary of Clearway Renew, LLC, which is a wholly owned subsidiary of Clearway Energy Group LLC. Clearway Energy Group, LLC is wholly owned by Global Infrastructure Partners (GIP), a New York-based independent fund manager that invests in infrastructure assets and businesses globally, with approximately $9 billion of equity invested or committed in the sector and over 20 GW of operating, construction, and development assets.

The project will be a transmission-connected, lithium ion battery energy storage resource located in San Bernardino County. The project is a 46MW, four-hour duration project. The Daggett 2 BESS project is co-located with the Daggett 3 BESS project, also executed with PG&E under this RFO. The Daggett 2 BESS project has a Large Generator Interconnection Agreement (LGIA) executed with SCE and CAISO. Appendix H2 provides additional project and LT RAA detail.

Term	Provision
Counterparty and Project	Daggett Solar Power 2, LLC, Daggett 2 BESS
Technology	Lithium Ion Battery
Location	Daggett, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2023
Capacity	46 MW
Discharge Duration	4 hours

F. Daggett Solar Power 3, LLC – Daggett 3 BESS

PG&E executed a LT RAA for the Daggett 3 BESS project. Daggett Solar Power 3, LLC is a wholly owned subsidiary of Clearway Renew, LLC, which is a wholly owned subsidiary of Clearway Energy Group LLC. Clearway Energy Group, LLC is wholly owned by Global Infrastructure Partners (GIP), a New York-based independent fund manager that invests in infrastructure assets and businesses globally, with approximately $9 billion of equity invested or committed in the sector and over 20 GW of operating, construction, and development assets.

The project will be a transmission-connected, lithium ion battery energy storage resource located in San Bernardino County. The project is a 15MW, four-hour duration project. The Daggett 3 BESS project is co-located with the Daggett 2 BESS project, also executed with PG&E under this RFO. The Daggett 3 BESS project has a Large Generator Interconnection Agreement (LGIA) executed with SCE and CAISO. Appendix H2 provides additional project and LT RAA detail.

Term	Provision
Counterparty and Project	Daggett Solar Power 3, LLC, Daggett 3 BESS
Technology	Lithium Ion Battery
Location	Daggett, CA
Type of Interconnection	Transmission
Term	15 years
Initial Delivery Date	August 1, 2023
Capacity	15 MW
Discharge Duration	4 hours

V. Safety

As with PG&E's previous RFOs with energy storage projects, including the 2020 System Reliability RFO – Phase 1, 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 contract 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 contract execution.

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. Contract terms provide PG&E with the ability to enforce those requirements or, in certain cases, terminate the contracts in the case of non-compliance.

VI. Cost Recovery

Consistent with the interim cost recovery mechanism adopted by the Commission in Resolution E-5100, PG&E will recover contract costs and administrative expenses associated with bundled customers through generation rates in 2021, and will track costs

that are not currently recovered in rates—including costs associated with opt-out LSE customers—through the approved Incremental Resource Adequacy Procurement Memorandum Account (IRAPMA) until the Commission adopts a decision on a modified CAM mechanism in Rulemaking (R.) 20-05-003.

D.19-11-016 requires the IOUs to act as a "central procurement entity" in the event that CCAs or ESPs in the IOU's territory choose not to self-procure. Pursuant to the April 15, 2020 Ruling of Administrative Law Judge Fitch in R.16-02-007, PG&E is required to procure, at minimum, an additional 48.2 MWs (6.3 percent of overall procurement obligation) for the CCAs and ESPs that have opted out of their procurement (Opt-Out Participants). As such, PG&E will allocate 6.3 percent of the 194 MW to be online August 1, 2022, and 193 MW to be online August 1, 2023, to the opt-out LSEs in its TAC-area. That is, 12.22 MW to be online in 2022 and 12.16 MW to be online in 2023, will be assigned to the Opt-Out Participants minimum procurement obligations.

VII. Compliance with the Decision

PG&E's RFO and the resulting incremental system RA agreement meet the requirements and goals set forth in the Decision as follows:

1. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company should present the results of their solicitations required in Ordering Paragraph 7 of D.19-11-016 in one or more Tier 3 advice letters filed no later than January 1, 2021.

As required, PG&E is complying with D.19-11-016 by submitting this Tier 3 Advice Letter seeking Commission approval of agreements to meet its procurement obligations for August 1, 2022 and August 1, 2023 by no later than January 1, 2021. PG&E's 2020 SR RFO – Phase 1 agreements to meet the August 1, 2021 procurement obligation were submitted in May 2020 and approved by the Commission in August 2020.

2. PG&E is to conduct one or more all-source solicitations to procure its obligation.

PG&E issued the SR RFO – Phase 1 on February 28, 2020, to address its 2021 procurement obligation under D.19-11-016. Subsequently, PG&E issued the SR RFO – Phase 2 on July 10, 2020 to meet its 2022 and 2023 procurement obligations under the Decision.

3. PG&E's solicitation(s) must consider existing as well as new resources, demand-side resources, combined heat and power, and storage, as long as all resources are shown to be incremental to the baseline resource list issued by an Administrative Law Judge Ruling.

In the 2020 System Reliability RFO – Phase 1 and Phase 2 Solicitation protocols, PG&E solicitated offers for new and existing energy resources to provide system-level qualifying resource adequacy.

4. PG&E should utilize the Demand Response Auction Mechanism contract as a starting point for negotiations with any demand response resources that bid into the solicitations. For any demand-side resources, the incrementality principles adopted in D.16-12-036 should be used as a starting point for negotiations.

Since the agreements submitted in this advice letter are not for demand response resources, PG&E did not utilize the Demand Response Auction Mechanism contract as a starting point in negotiations.

5. PG&E must procure at least 75 percent of its responsibility for incremental system RA (716.9 MWs) and have it delivered by August 1, 2022. PG&E must also then 100 percent of its responsibility online and delivered by August 1, 2023.

Through this advice letter, PG&E is seeking Commission approval of six system RA agreements. The three agreements with online dates of August 1, 2022, sum to 194 MW of procured resources, which when combined with the 423 MW approved from PG&E's SR RFO – Phase 1, exceeds the 75 percent minimum requirement to be delivered by August 1, 2022.

The three system agreements with online dates of August 1, 2023, sum to 193 MW of procured resources, which when combined with the previous two tranches of procurement, exceeds the 100 percent minimum requirement to be delivered by August 1, 2023.

6. For the Customer Choice Aggregators (CCAs) and Energy Service Providers (ESPs) in PG&E's TAC area that opted-out of procuring the capacity required by the Decision for their own customers, PG&E must act as the "central procurement entity" and procure at least 75 percent of those LSEs incremental requirement and have it delivered by August 1, 2022, and the remaining by August 1, 2023.

Pursuant to the April 15, 2020, ALJ Ruling in R.16-02-007, PG&E is required to procure an additional 48.2 MWs for the CCAs and ESPs that opted-out of self-providing their incremental procurement responsibilities, of which 26.65 MWs were procured in the SR RFO - Phase 1 solicitation. As noted above, PG&E will allocate 6.3% of the contracted system RA, or 24.38 MW, from SR RFO – Phase 2 to the Opt-Out Participants.

Entity	SR RFO – Phase 1 (MW)	SR RFO – Phase 2 (MW)	Total MW Online by August 1, 2023
PG&E	396.35	362.62	758.97

Opt-Out LSEs (PG&E TAC Area)	26.65	24.38	51.03

7. PG&E may use imported power to satisfy up to 20 percent of its incremental procurement requirement, if the imported power is under a contract of at least three years in length, is associated with an identified specific resource and dynamically transferred or pseudo tied, and meets all other resource adequacy requirements for imports.

Since PG&E is not seeking approval of any contracts for imported power in this Advice Letter, the requirement is not applicable.

8. For any procurement of resources that are new after the date of the Decision, load serving entities with procurement obligations under this Decision shall enter into contracts of at least ten years in length except for energy efficiency resources, which shall be at least five years in length. For any procurement of existing resources, contracts shall be of at least three years in length.

Each of the agreements PG&E is seeking approval for is a new resource and the delivery term for each agreement is at least ten years.

9. PG&E should in its Tier 3 advice letter(s) presenting the results of its solicitation(s) include information on the metrics used to compare bids received in the solicitation(s).

As seen in Appendix K, the market valuations of the six agreements are all positive. Appendix J, Evaluation Methodology, provides further detail on how the market valuation was calculated and how offers were evaluated.

10. PG&E should in its Tier 3 advice letter(s) presenting the results of its solicitation(s) demonstrate the incrementality of the resources procured to the finalized baseline resource list.

Each of the agreements PG&E is seeking approval for in this advice letter is for new battery storage resources that would be either: (1) built and co-located with solar plants that currently have no existing battery storage onsite, (2) new build at existing battery storage projects that had available capacity to expand,[8] or (3) at an existing planned project that had available system RA capacity and is not in the baseline resources list. Additionally, in the solicitation protocol and offer form, PG&E required participants to attest that their proposed project was incremental to the baseline resource list.

[8] D.19-11-016 OP 7 states that “modifications and augmentations to existing facilities are eligible for the incremental capacity addition, even if the facility is in the baseline [resources list].”

11. PG&E should in its Tier 3 advice letters presenting the results of its solicitation(s) include information on the project development milestones suggested, including dates for site control, environmental application "deemed complete" or data adequate, and CAISO interconnection study completed.

In the solicitation protocol, PG&E required participants to demonstrate site control and provide the status of applicable permits, and they must have documentation showing that the project is on track to be fully deliverable by August 1, 2022, or August 1, 2023. See Appendix I for additional information.

VIII. Request for Commission Approval

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

1. Approves the storage project and associated contract resulting from PG&E's 2020 System Reliability Request for Offers – Phase 2 Solicitation.

2. Finds that the agreements are consistent with D.19-11-016.

3. Pursuant to Ordering Paragraphs 3 and 6 of D.19-11-016, finds that the energy storage contracts, totaling 387 MWs, counts towards satisfying PG&E's incremental procurement obligations and incremental procurement required for CCAs and ESPs that opted out of self-providing their required portion and for which PG&E is required to procure on their behalf.

4. Pursuant to Ordering Paragraphs 3 and 5 of D.19-11-016, finds that 362.62 MWs count towards satisfying PG&E's incremental procurement obligation and 24.38 MWs of the incremental procurement count towards satisfying the incremental procurement of the CCAs and ESPs that opted out of self-providing their required portion and for which PG&E is required to procure on their behalf.

5. Finds that the energy storage contracts, and PG&E's entry into the agreements, is reasonable and prudent for all purposes, and that any payments to be made by PG&E pursuant to the contract is 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 Decision (D.) 08-04-023 and the August 22, 2006, Administrative Law Judge's Ruling Clarifying Interim Procedures for Complying with D.06-06-066 to demonstrate the

confidentiality of the material and to invoke the protection of confidential utility information provided under Public Utilities Code section 454.5(g) or the Investor Owned Utility Matrix, Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023. A separate Declaration Seeking Confidential Treatment is being submitted concurrently with this Advice Letter.

Confidential Appendices

Appendix A: Nexus Renewables U.S. INC - AMCOR (BTM) Agreement
Appendix B: Lancaster Battery Storage, LLC – Lancaster Battery Storage (LT RAA w/ES) Agreement
Appendix C: LeConte Energy Storage, LLC – LeConte Energy Storage (LT RAA) Agreement
Appendix D: North Central Valley Energy Storage, LLC – North Central Valley Energy Storage (LT RAA w/ES) Agreement
Appendix E: Daggett Solar Power 2, LLC – Daggett 2 BESS (LT RAA) Agreement
Appendix F: Daggett Solar Power 3, LLC – Daggett 3 BESS (LT RAA) Agreement
Appendix G1: Independent Evaluator (IE) Report (Confidential)
Appendix H1: Summary of Key Behind The Retail Meter Resource Adequacy Agreement Terms
Appendix H2: Summary of Key Long-Term Resource Adequacy Agreement Terms
Appendix H3: Summary of Key Long-Term Resource Adequacy Agreement with Energy Settlement Terms
Appendix I: Project Development Milestones
Appendix K: Quantitative Evaluation Results and Price Comparison
Appendix L: Quantitative Evaluation Results Workbook

Public Appendices

Appendix G2: Independent Evaluator Report (Public)
Appendix J: 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 January 11, 2021, 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, 4th Floor
San Francisco, California 94102

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

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

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

Erik Jacobson
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 Commission approval.

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 lists R.16-02-007 and 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. 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. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: http://www.pge.com/tariffs/.

/S/
Erik Jacobson
Director, Regulatory Relations

cc: Service Lists R.16-02-007 and R.20-05-003
Nick Dahlberg – Energy Division

Attachments

California Public Utilities Commission

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 (ID 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) #: 6033-E

Tier Designation: 3

Subject of AL: System Reliability Contracts Toward Procurement Requirements Under D.19-11-016

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.19-11-016

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 Confidentiality 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[1]: N/A

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

[1]Discuss in AL if more space is needed.

Clear Form

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

Name: Erik Jacobson, 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

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

Clear Form

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
ADVICE LETTER FOR APPROVAL OF CONTRACTS
RESULTING FROM ITS 2020 SYSTEM RELIABILITY -
PHASE 2 REQUEST FOR OFFERS PURSUANT TO
DECISION 19-11-016

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 19-11-016.

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 December 22, 2020 at San Francisco, California.

Donald P. Howerton

Don Howerton

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS SYSTEM RELIABILITY REQUEST FOR OFFERS – PHASE 2 PURSUANT TO DECISION 19-11-016

DECEMBER 22, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	PG&E's Justification for Confidential Treatment	Length of Time
Confidential Appendices			
Appendix A: Nexus Renewables U.S. INC – AMCOR BTMRAA	Item VII.B (Contracts and Power Purchase Agreements between utilities and non-Affiliated Third Parties (except RPS)).	The terms of the Behind The Meter Resource Adequacy Agreement (BTMRAA) 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: Lancaster – Lancaster Battery Storage LTRAA w/ES	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 C: LeConte – LeConte Energy Storage LTRAA	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 SYSTEM RELIABILITY REQUEST FOR OFFERS – PHASE 2 PURSUANT TO DECISION 19-11-016

DECEMBER 22, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	PG&E's Justification for Confidential Treatment	Length of Time
Appendix D: North Central Valley – North Central Valley Energy Storage LTRAA w/ES	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: Daggett Solar Power 2 – Daggett 2 BESS LTRAA	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.
Appendix F: Daggett Solar Power 3 – Daggett 3 BESS LTRAA	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 SYSTEM RELIABILITY REQUEST FOR OFFERS – PHASE 2 PURSUANT TO DECISION 19-11-016

DECEMBER 22, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	PG&E's Justification for Confidential Treatment	Length of Time
Appendix G1: 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 BTMRAA, 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 H1: Summary of Key Behind The Meter 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 SYSTEM RELIABILITY REQUEST FOR OFFERS – PHASE 2 PURSUANT TO DECISION 19-11-016

DECEMBER 22, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	PG&E's Justification for Confidential Treatment	Length of Time
Appendix H2: 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.
Appendix H3: 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.

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

ADVICE LETTER FOR APPROVAL OF CONTRACTS RESULTING FROM ITS SYSTEM RELIABILITY REQUEST FOR OFFERS – PHASE 2 PURSUANT TO DECISION 19-11-016

DECEMBER 22, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	PG&E's Justification for Confidential Treatment	Length of Time
Appendix I: Project Development Milestones	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 K: Quantitative Evaluation Results and Price Comparison	Item VIII. B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	The appendix contains information on the shortlist, 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.
Appendix L: 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.

PACIFIC GAS AND ELECTRIC COMPANY

Appendix A

Nexus Renewables U.S. INC - AMCOR (BTM) Agreement

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Appendix B

Lancaster Battery Storage, LLC – Lancaster Battery Storage (LT RAA w/ES) Agreement

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Appendix C

LeConte Energy Storage, LLC – LeConte Energy Storage (LT RAA) Agreement

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Appendix D

North Central Valley Energy Storage, LLC – North Central Valley Energy Storage (LT RAA w/ES) Agreement

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Appendix E

Daggett Solar Power 2, LLC –
Daggett 2 BESS (LT RAA) Agreement

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Appendix F

Daggett Solar Power 3, LLC –
Daggett 3 BESS (LT RAA) Agreement

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Appendix G1

Independent Evaluator (IE) Report

(Confidential)

PACIFIC GAS AND ELECTRIC COMPANY

Appendix G2

Independent Evaluator Report

(Public)

Pacific Gas and Electric Company

2020 System Reliability Request for Offers

Public Version

Independent Evaluator Report on

PG&E's 2020 System Reliability RFO – Phase 2

December, 2020

FINAL REPORT

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

Table of Contents

Attachments

Appendices

I. Introduction

A. Overview of the 2020 System Reliability Request for Offers – Phase 2

On July 10, Pacific Gas & Electric Company ("PG&E" or "Company") issued its 2020 System Reliability Request for Offers – Phase 2 ("2020 System Reliability RFO – Phase 2" or "RFO") seeking offers from Participants for the purchase of resources that provide resource adequacy ("RA") or load reductions that meet the objectives of California Public Utilities Commission ("CPUC") Decision D.19-11-016.[1] The RFO requires that all offers must have an Initial Delivery Date ("IDD") of either August 1, 2022 or August 1, 2023.

Decision D.19-11-016 requires PG&E to undertake incremental procurement of system-level qualifying resource adequacy capacity in the amount of 716.9 MW to come on-line between August 1, 2021 and August 1, 2023[2]. With the backstop procurement included, PG&E's new target is 765.1 MW. Decision D.19-11-016 requires PG&E to procure and have online 75% (573.83 MW) of the target capacity by August 1, 2022 and 100% online by August 1, 2023. In its System Reliability RFO – Phase 1, PG&E contracted for 423 MWs, and is therefore targeting a minimum of 342.1 MWs for Phase 2.

On July 10, 2020 PG&E launched the 2020 System Reliability RFO – Phase 2 and posted the Solicitation Protocol document and other associated documents on its website. In the 2020 System Reliability RFO – Phase 2 Protocol document, PG&E listed a number of requirements and preferences to inform prospective Participants of the requirements for competing in the procurement process. A summary of the key provisions of the Phase 2 Solicitation Protocol is provided in Table 1.

Table 1: Provisions of the 2020 System Reliability RFO – Phase Two

2020 System Reliability RFO – Phase Two Requirements or Characteristics	Description of Key Provisions
Resource Needs	PG&E is seeking energy resources or energy efficiency resources that are incremental procurement of system-level qualifying RA capacity in the minimum amount of 150.83 MW to have an IDD of August 1, 2022 and an additional 191.27 MWs with an IDD of August 1, 2023.
Products Solicited	Through this RFO, PG&E is seeking third-party owned projects and utility-owned projects for Phase 2. Third-party owned options include Resource Adequacy (system and local RA) for RA only or RA with Energy Settlement as well as demand response, energy efficiency and

[1] PG&E posted an updated version of the RFO on August 5, 2020 which split Table VI.1 into two tables and clarified shortlisting requirements.

[2] On April 15, 2020, Administrative Law Judge Fitch issued a ruling in Rulemaking 16-02-007 that informed PG&E that it must procure 48.2 MWs of system RA for LSEs that chose to opt-out of voluntarily self-providing their required portion. As a result, PG&E's new target was increased to 765.1 MW.

	other products available from the project. Eligible Resources include: (1) All Resources (existing projects only) with delivery terms of 3 or 5 years; (2) In-Front-of-the-meter resources (new projects only) with delivery terms of 10 or 15 years; (3) Incremental Demand Response with a delivery term of ten years; (4) Behind the Meter and incremental demand response resources (New projects only) with a delivery term of 10 or 15 years; (5) Energy Efficiency Resources with a delivery term of 5 years; and (6) Utility-owned in-front-of-the-meter energy storage resources with delivery terms of 10-20 year.[3] All resources must meet the minimum size requirement of 10 MWs.
Proposed Schedule	The Schedule contained in the 2020 System Reliability RFO – Phase 2 Protocol document includes the following key dates for the RFO: • July 10, 2020 – PG&E issues the RFO; • July 16, 2020 - Participants Webinar; • August 19, 2020 – Deadline for Participants to submit offers by 1:00 PM PPT; • September 18, 2020 – PG&E notifies selected Participants that their offers will be included on a list of offers for which PG&E may seek to enter into or negotiate an Agreement related to the offer; • September 22, 2020 – Deadline for notified shortlisted Participants to accept shortlist status; • September 24, 2020 – Deadline for notified shortlisted Participants to post Shortlist Offer Deposit; • Early December, 2020 – Target Agreement Execution: • Mid-December, 2020 – Target Filing with the CPUC.
Agreement Types[4]	PG&E is seeking both third-party owned and utility-owned projects for Phase 2. PG&E prefers to execute agreements that are substantially similar to the form agreements provided. Agreement types by Product include: 1. ***Resource Adequacy Confirmation (RA Confirm)*** – PG&E will consider offers for RA products provided by existing projects of any resource type in the CAISO network or dynamically transferred or pseudo-tied into the CAISO through the Resource Adequacy Confirm; 2. ***Long-Term Resource Adequacy Agreement (LTRAA)*** – PG&E will consider offers for RA products provided by in-front-of-the-meter projects through a Long-Term Resource Adequacy Agreement; 3. ***Demand Response Agreement (DR Agreement)*** – PG&E will consider offers for RA products provided by demand response

[3] The products to be provided via a utility-owned Build-Own-Transfer Agreement include energy, resource adequacy, ancillary services, and any other products available from the project.

[4] 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.

	resources through a Demand Response Agreement. The Demand Response Agreement will use the draft 2021 Demand Response Auction Mechanism Purchase Agreement as a starting point; 4. ***Long-Term Resource Adequacy Agreement with Energy Settlement –*** PG&E will 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; 5. ***Behind-the-Meter Resource Adequacy Agreement (BTM RAA)*** – PG&E will consider offers for RA products offering energy value provided by behind-the-meter projects through a Behind-the-Meter Resource Adequacy Agreement, including demand response resources; ***6. Energy Efficiency Agreement (EE Agreement) –*** PG&E will consider offers for energy efficiency deployed at customer sites through an Energy Efficiency Agreement. PG&E will only accept offers for the EE Agreement: (i) where energy efficiency customers are a bundled customer of PG&E and (ii) that are not already receiving incentives for the same product. ***7. Build Own Transfer (BOT) Agreement –*** PG&E will consider offers for an energy storage resource that will provide energy, resource adequacy, ancillary services and other products available from the project. The project will be constructed on a third-party owned site. PG&E will take ownership of the project once it has been constructed to the specifications in the BOT Agreement. For the BOT Agreement, PG&E requires entering into a long-term agreement to support the ongoing maintenance and performance of the energy storage resource.
Eligibility Requirements	Phase 2 of this solicitation is for new and existing resources providing system RA, or in the case of an EE Agreement, load reductions. For the Phase 2 Solicitation PG&E has defined eligibility requirements for In-Front-of-the-Meter Resources, Behind-the-meter Resources, and Energy Efficiency Resources. PG&E is seeking projects in Phase 2 that have an Initial Delivery Date of August 1, 2022 or August 1, 2023: Offers must meet the minimum requirements listed below: ***1) Eligible Resources*** – Resources must be incremental to the Integrated Resource Planning Baseline Resource List: ***2) Project Size*** – For all resource types, the minimum project size is 10 MW. For BTM resources, PG&E will consider offers where multiple resources are aggregated to meet the minimum size; ***3) Site Control*** – 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). BTM

	resources, demand response and energy efficiency resources are not required to provide this demonstration; ***4) Performance and Operational Requirements*** – 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. Offers that include Energy Efficiency resources must provide the following: (i) Verifiable load reduction during the peak hours of 4 pm to 9 pm using a meter-based approach; (ii) all projects must be installed and completed by August 1, 2022 or August 1, 2023 and provide the minimum capacity of 10 MW during the peak hours; and (iii) the Effective Useful Life for each energy efficiency measure must be a minimum of 5 years from the Initial Delivery Date; ***5) Electric Interconnection*** – For In-front-of-the-meter resources, at the time of offer submittal, Participants must have documentation showing that the project is on track 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, projects, 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. BTM, Demand response, and energy efficiency resources are not required to provide this demonstration; ***6) Incrementality*** – Sellers must provide evidence that their offers are incremental to existing system reliability resources. For in-front-of-the-meter and BTM resources, an offer will be considered fully incremental if it does not appear on the final CPUC Baseline List of resources approved by CPUC ruling on January 3, 2020. For Energy Efficiency resources, incrementality cannot be determined by reference to the CPUC Baseline list of resources. Demand Response offers will be considered incremental on a case by case basis. EE offers will be considered incremental if (i) the proposed program is not currently offered by PG&E or PG&E's third-party vendors; and (ii) the offer can demonstrate the method by which the program obtains savings is separate and distinct from an existing program.
Pricing	Participants are 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 mutually exclusive offer variations at a specific interconnection point.
Evaluation	PG&E will apply "least-cost, best-fit" principles using quantitative

Process and Evaluation of Offers Received	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&E may also consider Qualitative factors that could impact the value of an offer including, but not limited to, the following: project viability, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date, previous adverse commercial experience between PG&E and Participant, Participant's supply chain responsibility status, and completeness of the offer. PG&E will also consider resources located in Disadvantaged Communities as a qualitative factor when evaluating offers.
Offer Submittal Process	All Offers must be received by August 19, 2020 at 1:00 P.M. (PPT). All offers for this RFO must be submitted electronically through PowerAdvocate.
Offer Package	Offers must contain all required information and must be organized in accordance with the instructions listed in the RFO Protocol. Information required includes: 1. Offer Form (Appendix A1 – A2) 2. Supplemental Project Information - Project Description – Appendices B-1 – B-3 3. FERC 717 Waiver Appendix C 4. Form Agreement or Term Sheet - Appendix E1 – E8 5. Letter of Credit – Appendix G1 6. Request for Taxpayer ID – Appendix G2 7. Map of Facilities
Credit	Upon execution of an Agreement with PG&E, the Participant must post collateral to PG&E. Each of the Agreements requires that the Participant post collateral with PG&E prior to and following the Initial Delivery Date of the facility in varying amounts and form, as provided in the applicable Agreement. For projects with delivery term options of 3 or five years and existing resources only, for both the Pre-Delivery Security and the Delivery Term Security, the Participant is required to provide 10% of the highest 2 consecutive years of estimated monthly payments within 5 days of Execution. For projects with delivery terms greater than 10 years and for new resources only, for Pre-Delivery Security the Participant is required to post credit in the amount of $15/kW within 5 days of execution, and an additional $25/kW within 5 days of CPUC approval (total posted Pre-Delivery security of $40/kW). For Delivery Term security, Participants are required to post the greater of (A)

	$40/kW or (B) 10% of the highest 3 consecutive years of estimated monthly payments. For Energy Efficiency resources both pre-delivery term and delivery term security is 4% of the estimated total contract payments within 5 business days of execution.
CPUC Approval	Whether an Agreement goes into effect or not is expressly conditioned on PG&E's receipt of Approvals, which are more specifically defined in each of the Agreements or Term Sheets. At a minimum, PG&E will require a finding from the CPUC that PG&E's entry into the Agreement satisfies PG&E's compliance with the Decision, that the terms are reasonable, and that PG&E will recover the costs incurred under the Agreement in its rates. Additionally, most Agreements will 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. Approvals typically require the approval of the Agreement by the CPUC to be final and non-appealable without any modifications that are unacceptable to either of the parties.

B. 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?

PG&E and the IE held discussions with respect to the best approach for presenting the IE's findings regarding the overall 2020 System Reliability RFO – Phase 2 solicitation process and assessment of contract negotiations and final contract execution. It was agreed that organizationally it would be preferable to include the issues listed in point 5 above regarding the description of contract negotiations and point 7 regarding CPUC approval of the contract in a separate Attachment to this report for each contract executed associated with the 2020 System Reliability RFO – Phase 2 solicitation process as we did for the Phase 1 process. Attachments A through E to this report include a description and assessment of each of the contracts executed by PG&E through this 2020 System Reliability RFO – Phase 2 solicitation.[5]

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 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.[6] 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

[5] A total of six contracts were executed with five counterparties. PG&E executed two contracts with Daggett Solar Power for the same facility but with different contract amounts. For the Daggett Solar Power 2, LLC and Daggett Solar Power 3, LLC contract, Merrimack Energy has submitted one report to address the two contracts since they are both exactly the same.

[6] 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).

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.).

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 System Reliability RFOs in November 2019.[7] 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 identifies the tasks to be performed by the IE. These include 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 any 2020 System Reliability – Phase 2 Solicitation 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-

[7] Merrimack Energy was retained to initially serve as IE for the 2019 System Reliability Request for Offers – Distributed Generation Enabled Microgrid Services (DGEMS) Phase, which was initiated in November 2019. PG&E cancelled the DGEMS RFO on June 19, 2020 via a Market Notice.

discriminatory manner. This task may include monitoring contract negotiations and/or keeping appraised 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 Energy Division ("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 November 2019[8]. For this System Reliability RFO – Phase 2 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 the evaluation results and shortlist and final selection, monitoring the status of short-listed offers, participating in meetings with Participants after receipt of offers and during contract negotiations, communicating with PG&E's Project Manager, project team, and transactors on a regular basis to discuss RFO and contract issues, participating in meetings with the PRG, PG&E's Evaluation Committee and PG&E's Advisory Committee, as held and as required, and monitoring the contract negotiation process with shortlisted Participants.

This report provides an assessment and review of PG&E's 2020 System Reliability RFO – Phase 2 procurement process 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.

[8] Merrimack Energy served as IE for PG&E's DGEMS RFO as well as the 2020 System Reliability RFO – Phase 1 process.

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 reasonably 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 2,700 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 2020 System Reliability RFO – Phase 2 process and the issuance of the RFO. The list includes Diverse Suppliers. PG&E notified contacts on the mailing list of the issuance of the 2020 System Reliability RFO – Phase 1 and Phase 2 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 RFO and timing for receipt of offers was very short, Participants were at least aware that PG&E had a procurement target and planned to issue multiple solicitations and could therefore pre-plan for participation in such an RFO going back to 2019 based on the CPUC Decision process.

PG&E initiated a comprehensive process for communicating with bidders for the 2020 System Reliability RFO – Phase 2 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 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 2020 System Reliability RFO – Phase 2 contained general information for bidders to help bidders determine if they wanted to participate as a bidder in the process.[9] The following documents and information were included on the public website for Participant review and utilization:

- CPUC Decision D.19-11-016;
- Solicitation Schedule for the 2020 System Reliability RFO – Phase 2 process;

[9] 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.

- RFO Documents including the 2020 System Reliability RFO – Phase 2 Solicitation Protocol and associated Appendices including:
    - Appendix A1 – 3rd Party Offer Form
    - Appendix A2 - Utility Ownership Offer Form
    - Appendix B1 – Supplemental Project Information
    - Appendix B2 - Supplemental Project Information - Utility Owned Projects
    - Appendix B3 - Supplemental Project Information - Energy Efficiency
    - Appendix C – FERC Order 717
    - Appendix D1 - Confidentiality Agreement - 3rd Party Owned Offers
    - Appendix D2 – Confidentiality Agreement – Utility Owned Offers
    - Appendix E1 – Resource Adequacy Confirm
    - Appendix E2 - Long-Term Resource Adequacy Agreement
    - Appendix E3 – Demand Response Agreement
    - Appendix E4 - Long-Term Resource Adequacy Agreement with Energy Settlement
    - Appendix E5 – Behind-the-Meter Resource Adequacy Agreement
    - Appendix E6 - Energy Efficiency Agreement
    - Appendix E7 – Term Sheet for Utility Owned Build Owned Transfer Agreement
    - Appendix E8 - Term Sheet for Long Term Performance and Maintenance Agreement
    - Appendix G1 – Letter of Credit
    - Appendix G2 - Request for Taxpayer ID (W-9) Form
- System Reliability RFO – Phase 2 Participants Webinar
- Contact Information for PG&E and the IE

A total of 20 questions and answers were posted on the website. The IE found the website easy to access and navigate. All documents associated with the 2020 System Reliability RFO – Phase 2 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 Phase 2 RFO. 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 RFO from the market and a robust response from Participants, even given the short turn-around time for the RFO. Offers were also received from a range of eligible Sellers who offered proposals for all products/contract structures requested.

PG&E received a total of [redacted] offers from [redacted] counterparties representing [redacted] projects. Based on the largest eligible offer submitted, a total of [redacted] MW of capacity was submitted which included 134 third-party offers and three BOT options. Appendix A includes a summary of all offers submitted. The IE found the response from the market to very robust and competitive for each resource and product category, particularly given the short lead time allotted to submit offers.

In conclusion, the response of the market to PG&E's 2020 System Reliability RFO – Phase 2 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.

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 2020 System Reliability RFO – Phase 2 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 2020 System Reliability RFO – Phase 2 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 "all source" solicitation. Key areas of inquiry by the IE and the underlying principles used by the IE to evaluate the methodology include the following:

- Were the procurement targets, products solicited, principles and objectives clearly defined in PG&E's 2020 System Reliability RFO – Phase 2 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 2020 System Reliability RFO - Phase 2 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 2020 System Reliability RFO – Phase 2 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 July 16, 2020 to further describe the solicitation process. Unlike 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 BOT offers and 3rd-Party Offers. For example, PG&E included Appendix A – 3rd Party Owned Offer Form for non-BOT 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. 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 concludes 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 evaluation for Phase 2 offers[10]. 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 2020 System Reliability RFO – Phase 2 process. The methodology selected is designed to generally 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 2020 System Reliability RFO – Phase 2 bid evaluation procedure and methodology states that PG&E will evaluate each offer using both quantitative and qualitative criteria, which includes, but is not limited to: Market Valuation and Project Viability. The evaluation procedure protocol describes how to combine the criteria to determine the ranking and the shortlist.

From a quantitative perspective, an evaluation will be performed on all offers by first calculating each project's Net Market Value ("NMV"). Net Market Value 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.[11]

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[12]:

- All offers will be downloaded from Power Advocate. Offers utilizing the Utility Owned – Build Own Transfer Agreement will be placed on a secure SharePoint site that will be assessed only by members of the Utility Ownership team;

- 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;

[10] As previously noted in this report, the Phase 2 process included more Agreement and Resource types which required enhancements to the evaluation methodology.

[11] [redacted]

[12] 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.

- 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

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
  - Valuations will be updated when new information is received from Participants;
  - 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.

Valuation Components Overview

PG&E's evaluation protocol specifies how the Market Valuation criterion will be applied to the individual offers received in the 2020 System Reliability RFO – Phase 2.

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

[redacted][13]

The [redacted] market curves will be used for shortlisting Offers received.

Valuation Summary by Contract Type

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;
- Energy Efficiency;
- Energy, Resource Adequacy, Ancillary Services, and any other Products available from the Project (Utility Owned Build Own Transfer Agreement – In-front-of-the-meter Energy Storage Resource).

[13] For hybrid offers, where storage is added to an existing project and just the RA of the storage is purchased, the incremental kW will be used, consistent with Commission Decision D.20-06-031. This is calculated as the difference between the NQC of the storage projects and lost NQC of the original project. The lost NQC is calculated as the Effective Load Carrying Capability (ELCC) for the technology times the capacity needed to charge the battery, which is calculated as the ELCC for the technology times the capacity needed to charge the battery, which is calculated as the battery size divided by the number of hours assumed to be needed to charge it. Mathematically, Counting kW = Battery NQC – ELCC * (Battery kWh/number of charging hours).

Table 2 below provides a summary of the NMV components for each agreement type along with a description of how the various components are applied.

Table 2: 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 + V)	
Energy Efficiency	NMV = E + C – (F + T)	
Utility Owned Build Own Transfer 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 Energy Efficiency resources the Energy Value for each hour of delivery is estimated by [redacted]

For utility-owned projects, [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]

The amount of NQC and EFC are determined by the particular asset operating characteristics as specified in its Offer. 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 Build Own Transfer 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. [redacted]

For Energy Efficiency product types, [redacted]

For Utility-Owned Generation BOT product, [redacted]

[redacted]

Transmission Network Upgrade Costs

This component is applicable for Long-Term Resource Adequacy Agreement (LTRAA), Long-Term Resource Adequacy with Energy Settlement, and Utility-Owned Build Own Transfer Agreement. For Energy Efficiency, Behind the Meter offers, Demand Response RA Agreement, or existing resources under the RA confirm that are already interconnected, [redacted].

For all offers that submit a Phase II interconnection study to CAISO, 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, [redacted]

Hedge Value and Adjusted Net Market Value

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

[redacted]

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]

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 period stated in the offer. 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. A brief description of the qualitative factors to be considered includes:

PG&E may use any of the six assessment criteria below to evaluate a project. PG&E will 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, 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.

[redacted]

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

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 2020 System Reliability RFO – Phase 2 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 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]

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 2020 System Reliability RFO – Phase 2 that generally includes all source

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.

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 2020 System Reliability RFO – Phase 2 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;

- 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;

- At the request of Merrimack Energy during the development of PG&E's 2014 Energy Storage RFO, 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 is 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 proposed methodology is generally consistent with Least Cost Best Fit principles by incorporating quantitative and qualitative factors to determine a shortlist of projects;

- PG&E prepared a 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 simplicity of the evaluation methodology, 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 resource and contract types to hedge risk, Participants should probably be informed;

- PG&E rolled out the Long-Term Resource Adequacy Agreement with Energy Settlement for the first time for In-Front-of-the-Meter resources in this solicitation. While there was a lot of interest in this structure by Participants and PG&E had included a pricing mechanism in the contract to address its proposed methodology, [redacted]

G. Future LCBF Improvements

There are several issues that should be considered as potential future improvements in the evaluation and ranking process. These include:

- [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. 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. Qualitative factors proved to be important criteria for this solicitation [redacted]

- 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;

- The timing of interconnection for recent Cluster processes [redacted]

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

No additional information or observations are provided.

V. Administration of the System Reliability Phase 2 RFO Solicitation Process

In performing its oversight role, the IE participated in and undertook a number of activities in connection with the 2020 System Reliability RFO – Phase 2 including reviewing the RFO documents, participating in frequent 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 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 Phase 2 solicitation process are described below.

Issuance of the 2020 System Reliability RFO – Phase 2

PG&E launched its 2020 System Reliability RFO – Phase 2 solicitation on July 10, 2020. 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[14] for the RFO and also provided information on the basis for and requirements of the RFO, schedule for the upcoming Participants Webinar on July 16, 2020, and deadline for Participants to submit offers on August 19, 2020.

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. The PG&E team and the IE met prior to issuance of the RFO to discuss the IE questions and comments as well as questions and comments on the Internal Evaluation Protocols and Methodology.

The RFO Protocol document originally issued on July 10, 2020 was subsequently revised and updated and reposted to the website on July 28, 2020, with minor revisions to a table in the document.

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 – 3rd Party Offer Form
- Appendix A2 - Utility Ownership Offer Form
- Appendix B1 – Supplemental Project Information
- Appendix B2 - Supplemental Project Information - Utility Owned Projects
- Appendix B3 - Supplemental Project Information - Energy Efficiency
- Appendix C – FERC Order 717
- Appendix D1 - Confidentiality Agreement - 3rd Party Owned Offers
- Appendix D2 – Confidentiality Agreement – Utility Owned Offers
- Appendix E1 – Resource Adequacy Confirm
- Appendix E2 - Long-Term Resource Adequacy Agreement
- Appendix E3 – Demand Response Agreement
- Appendix E4 - Long-Term Resource Adequacy Agreement with Energy Settlement
- Appendix E5 – Behind-the-Meter Resource Adequacy Agreement
- Appendix E6 - Energy Efficiency Agreement
- Appendix E7 – Term Sheet for Utility Owned Build Owned Transfer Agreement
- Appendix E8 - Term Sheet for Long Term Performance and Maintenance Agreement
- Appendix G1 – Letter of Credit
- Appendix G2 - Request for Taxpayer ID (W-9) Form

[14] The website address for the solicitation is http://www.pge.com/rfo/systemreliabilityrfo-phasetwo.

PG&E used two websites for the RFO. PG&E maintained a webpage on its company website devoted to the 2020 System Reliability RFO – Phase 2. The website contained information to assist bidders primarily on the front-end of the solicitation process including RFO documents, Q&As, and other information to assist the bidders. PG&E also utilized the PowerAdvocate Platform, which was used as a repository for the bidders to submit their proposals.

Participants Webinar

PG&E held its Participants Webinar on July 16, 2020. The IE called into and monitored the Webinar. Topics addressed at the Webinar included:

- Solicitation Schedule;
- Role of the Independent Evaluator;
- Overview of CPUC Decision D.19-11-016;
- Overview of the Solicitation;
- Eligibility Requirements;
- Overview of the Agreements;
- Offer Submittal;
- Application of PowerAdvocate;
- Offer Form Instructions;
- Offer Form Instructions Q&A;

A total of approximately 120 participants attended the Participants Webinar.

Questions and Answers and Posted Documents for Bidders

PG&E provided responses to a total of twenty questions from prospective Participants. The Q&As were posted to PG&E's website under Frequently Asked Questions.

Reviewed and Commented on Internal Evaluation Protocols and Evaluation Methodology

The IE had the opportunity to review a draft of the RFO protocol for the Phase 2 RFO prior to submission and provided comments and questions to PG&E associated with the draft evaluation protocols. The PG&E and IE held a conference call to discuss the IEs comments and questions prior to completing the final evaluation protocol for the Phase 2 process. The IE had several questions associated with PG&E's proposed energy settlement hedge value methodology and implementation.

Receipt of Offers – August 19, 2020

The deadline for PG&E to receive offers was August 19, 2020. 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. PG&E received a total of [redacted] offer variations

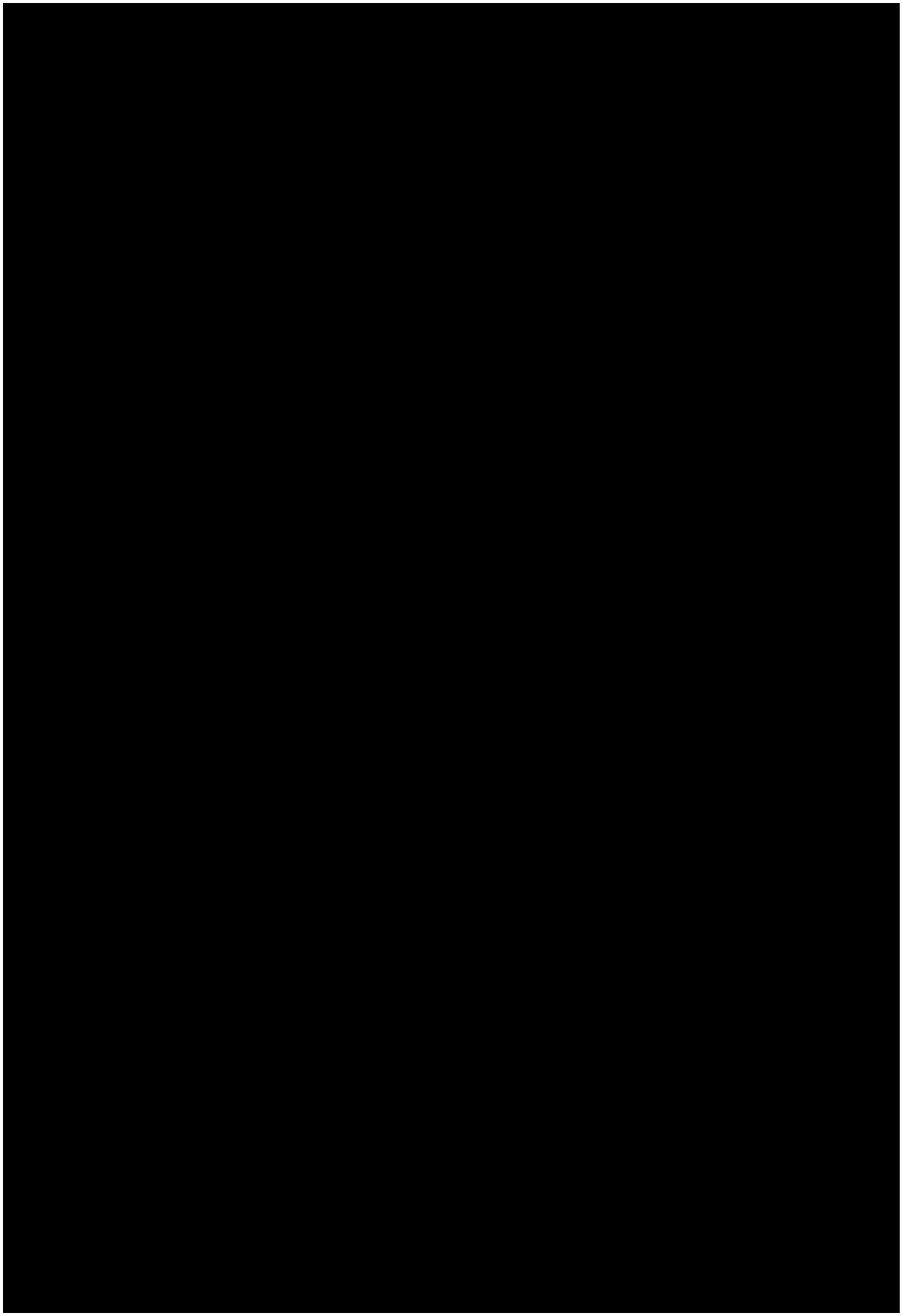
from [redacted] counterparties, representing [redacted] projects. PG&E received offers for a range of products [redacted] and contract structures (i.e. Long-Term RA Agreement, Long-Term RA Agreement with Energy Settlement, BTM RA Agreement, Demand Response Agreement, Energy Efficiency Agreement and Utility-Owned Build Own Transfer Agreement).

The IE and PG&E team also reviewed the offers for conformance with eligibility requirements and completeness of the offers. After review and discussions, it was determined that offers from [redacted] bidders, representing [redacted] projects and [redacted] options were non-conforming. [redacted]

Table 3 provides a list of all offers submitted by Participants. Additional details for each offer variation submitted are provided in the Appendix A to this report.

[redacted]

[redacted]



[redacted]

As illustrated in the above table, [redacted]

While the majority of offers submitted had an Initial Delivery Date ("IDD") of [redacted]

Communications with Bidders

Upon receipt of the offers, the PG&E Phase 2 RFO 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 (besides the offers deemed non-conforming as described earlier) in order to be evaluated properly.

As noted, [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 31, 2020.

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:

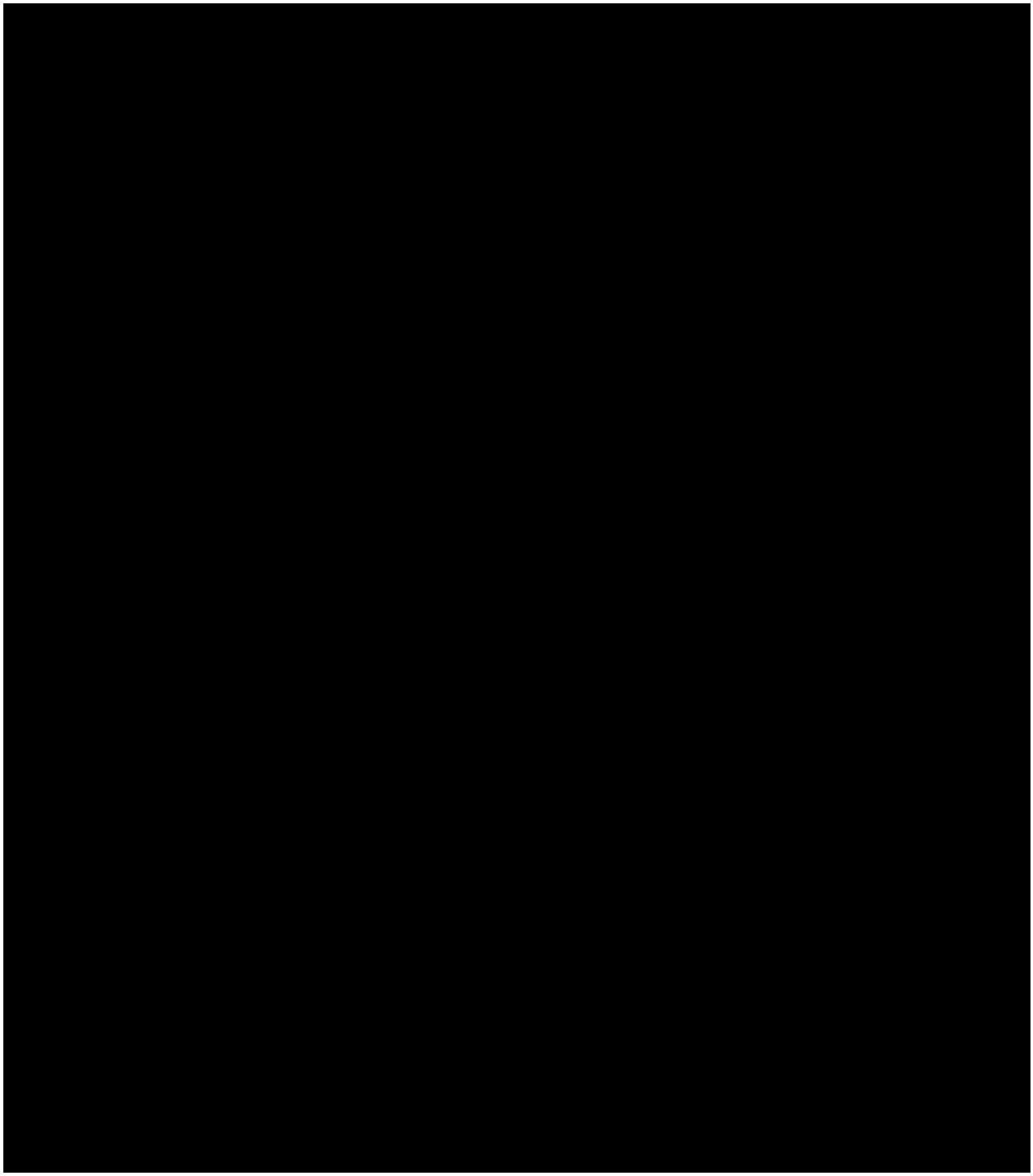
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

In the process of reviewing the quantitative evaluation results the IE team identified several follow-up questions and issues. 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 the project viability scores for interconnection, site control, counterparty experience, and technology. 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. PG&E identified the procurement needs of 151 MW in 2022 and 191.1 MW in 2023. [redacted]



[redacted]

[redacted][15]

[redacted]

[redacted]

[redacted]

IE Comments on Shortlist

[redacted]

[redacted]

- [redacted]
- [redacted]

[15] [redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted][16]
- [redacted]
- [redacted]
- [redacted]

The IE reviewed the shortlist proposed and evaluation results generated by PG&E and was in general agreement with shortlist selection. [redacted]

Notification to Bidders

On September 18, 2020 PG&E notified bidders of their status in the 2020 System Reliability RFO – Phase 2 process. PG&E also sent notices to bidders that were not selected to the shortlist and offered the opportunity to schedule a follow-up meeting to discuss the non-selection. [redacted]

[16] [redacted]

[redacted]

Initiation of Contract Negotiations

PG&E scheduled initial meetings with shortlisted Participants to discuss their projects and the next steps in the negotiation process. [redacted]

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

[redacted]

[redacted]

[redacted]

Final Contracts

PG&E executed six[17] contracts as a result of the 2020 System Reliability RFO – Phase 2 for a total of 387 MW. The contracts executed are listed in Table 5. The contracts executed represent a balanced portfolio of both LTRAA for RA only, LTRAA with

[17] PG&E executed two separate contracts with Clearway for the Daggett Solar Power 2 and 3 projects: (1) Daggett Solar Power 2, LLC for 46 MW and (2) Daggett Solar Power 3, LLC for 15 MW. The contract provisions were identical.

Energy Settlement, and a Behind-the-Meter RA agreement. The BTM agreement also includes energy settlement provisions.

Table 5: Summary of Contracts Executed by PG&E

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 2020 System Reliability RFO – Phase 2 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. [redacted]

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 [redacted]. Also, [redacted]

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. With regard to Bidder questions, PG&E both responded to questions from Participants about the solicitation process and posted the appropriate responses for all Participants to review on its website. 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.[18] 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:

- [redacted]

[18] 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.

- [redacted]

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 calculate 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 with different products, terms, and contract structures. The IE found no evidence of undue bias in the evaluation methodology that favored one type of product over another.

Based on the IE's active involvement throughout the solicitation process, the IE concluded that PG&E reasonably followed the criteria outlined in the 2020 System Reliability RFO – Phase 2.

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.

The IE is not aware of PG&E outsourcing any aspects of the evaluation process to a third-party.

E. Transmission Analysis Procedures

The RFO protocol requires that at the time of offer submittal, Participants must have documentation showing that the project is on track to receive Full Capacity Deliverability Status (FCDS) in order to support delivery of the product, including RA, per the obligation 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, projects 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 submitted a Phase II interconnection study[19] or Interconnection Agreement, [redacted] 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. [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 2020 System Reliability RFO – Phase 2 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]

[19] PG&E used Phase I interconnection study results in some cases.

[redacted]

G. Offer Evaluation Results and Shortlist Assessment

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

PG&E generally selected projects in rank order based on NMV [redacted] ranking [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 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 2020 System Reliability RFO – Phase 2, PG&E made slight modifications to its existing Code of Conduct that was implemented in previous Energy Storage RFOs with utility-owned options eligible to bid. PG&E's objective was to update the Code of Conduct to make it more concise and understandable. The new document is now called Internal Confidentiality Protocol. While the 2020 System Reliability RFO – Phase 2 seeks both offers by third parties to provide Resource Adequacy resources and offers for

In-Front-of-the-Meter Energy Storage Resources through a Utility-Owned Build Own Transfer Agreement, 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 Build Own Transfer ("BOT") options for projects that would be constructed by a third-party on its own site and eventually owned by PG&E. The utility-ownership team is responsible for developing the project specifications and evaluating, selecting, and negotiating any 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 unfair advantage to Utility-Owned Offers.[20] This Confidentiality Protocol shall be in place from July 10, 2020 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 2020 System Reliability RFO – Phase 2. 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 LTPP 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.[21] 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 2020 System Reliability RFO – Phase 2 that requires use of Confidential RFO information to acknowledge the Confidentiality Protocol. According to the IE Report Template, two issues are to be addressed in this Section of the Report:

[20] 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, actual input assumptions such as price curves; (3) Evaluation results and selection of Offers for the shortlist and execution, including deliberations and reasons for selections; and (4) Status of PG&E's negotiations with shortlisted Participants.

[21] 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."

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.

As a precondition of holding a competitive solicitation in which offers resulting in partially or wholly utility-owned energy projects competing 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 third-party BOT off-take Offers in this RFO, with these offers potentially competing for selection with third-party owned projects. Some of the key elements of the Confidentiality Protocol include:

A. Teams

- Utility-Owned (UO) – Employees evaluating, selecting and negotiating UO offers;
- Solicitation Employees – Employees (a) evaluating, selecting, and negotiating third-party offers, and (b) preparing information for Decision Makers, including evaluation and selection of offers;
- Decision Makers – Employees approving the selection of offers for shortlisting and/or final execution.[22]

B. Confidential RFO Information includes:

- Participants confidential information;

[22] 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 SME's are subject to this Confidentiality 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 for the respective team. Such SME's should not be conduits for Confidential RFO 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;
- 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 such as locating the information electronically on separate shared drives or internal sites that can only be accessed by the respective team members. Confidential RFO information should not be emailed even internally;
- Employees – Physical separation of teams is not required.
- To evaluate offers, teams may engage SMEs from other Lines of Business ("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;
- 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 – 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 or completion of review of and understanding of the training materials.

The 2020 System Reliability RFO – Phase 2 included one eligible option in which PG&E would own the project, which is a Build, Own, Transfer Agreement at a third-party Participant site. 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 two separate teams for the process. Employees who evaluate, select and negotiate utility-owned BOT 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.

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 previous 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.

Describe any violation(s) of that code

There were no violations reported

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 2020 System Reliability RFO – Phase 2 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 given the short time available to conduct the solicitation.

As noted in this report, PG&E's outreach activities were designed to encourage a wide range of participants. 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, [redacted] The IE also supports the approval of all contracts executed by PG&E with five counterparties.

IX. Conclusions and Recommendations

A. Conclusions and Observations

Merrimack Energy has the following conclusions and observations regarding the 2020 System Reliability RFO – Phase 2 solicitation process based on its role of IE in this process:

1. PG&E implemented the 2020 System Reliability RFO – Phase 2 solicitation process consistent with CPUC Decision D.19-11-016 which requires PG&E to make incremental procurement of system-level qualifying resource adequacy (RA) capacity in the amount of 716.9 MW to come on line between August 1, 2021 and August 1, 2023. With the backstop procurement included, PG&E's new target is 765.1 MW. Decision D.19-11-016 requires PG&E to procure and have online 50% (358.45 MW) of the target capacity by August 1, 2021, 75% (573.83 MW) of the target capacity by August 1, 2022 and 100% online by August 1, 2023. In its System Reliability RFO – Phase 1, PG&E contracted for 423 MWs expected on-line by August 1, 2021, and is therefore targeting a minimum of 342.1 MWs for Phase 2, including 150.83 MWs for August 1, 2022 and 191.27 additional MWs by August 1, 2023. Through this Phase 2 RFO, PG&E has contracted for 387 MW via six contracts, including 194 MWs with an IDD of August 1, 2022 and an additional 193 MWs by August 1, 2023. Total procurement for both the Phase 1 and Phase 2 processes total 810 MWs, exceeding the targets established in D.19-11-016. All contracts are for Battery Energy Storage projects, including one Behind the Meter project, with viable projects and experienced counterparties;

2. PG&E's 2020 System Reliability RFO – Phase 2 resulted in a robust response from the market, with a large number of offers to meet both the 2022 and 2023 target IDD dates. PG&E received [redacted] offer variations, which represented [redacted] projects and [redacted] counterparties. for a total of [redacted] [23] total MW;

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 participated in 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, consistent with the "Least Cost Best Fit" methodology used for other recent similar RFOs. In addition, at the IE's request, PG&E prepared an integration model for use by the IE to review the detailed results of each component of the evaluation process for each offer;

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 2020 System Reliability RFO – Phase 2 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 the eligible projects to allow Participants to review the contracts prior to submission;

6. PG&E undertook both a quantitative and qualitative evaluation of the offers submitted consistent with the evaluation process identified in the 2020 System Reliability RFO – Phase 2 Solicitation Protocol and Participants Webinar. The quantitative evaluation provided a rank order of offers based on a Net Market Value ("NMV") evaluation metric [redacted]. The output files also included individual cost and benefit components for each offer on a [redacted] basis as well as total Net Market Value based on [redacted]

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

[23] [redacted]

8. [redacted]

9. The IE found no evidence of any preference toward any bidder or type of project including utility-owned BOT offers. [redacted]

10. 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;

11. The contracts executed were all with [redacted]

12. As a result, the IE recommends approval of all contracts executed by PG&E

Pacific Gas and Electric Company

2020 System Reliability Request for Offers – Phase 2

Independent Evaluator Report

Public Version

Attachment A

Behind the Meter Resource Adequacy Agreement with Nexus Renewables U.S. Inc.

December, 2020

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

Table of Contents

I. Introduction

A. Overview

Pacific Gas and Electric Company ("PG&E) is seeking approval of a Behind the Meter Resource Adequacy Agreement ("BTM RAA") from the AMCOR 27 MW Battery Energy Storage System located at three sites in Fairfield, California.[1] [redacted] [2] The project includes the installation of 27 MW/108 MWh lithium-ion batteries and power conversion systems across a portfolio of sites. For this project, Nexus has secured [redacted] host sites to facilitate installation. The project has an Expected Initial Delivery Date ("IDD") of August 1, 2022.

The term of the BTM RAA between PG&E and Nexus Renewables is for 15 years commencing on the Initial Delivery Date, which is expected to be August 1, 2022.

The BTM RAA with Nexus Renewables was executed by PG&E pursuant to the Company's 2020 System Reliability Request for Offers – Phase 2 ("2020 System Reliability RFO – Phase 2"). Through this RFO, PG&E is seeking offers from Participants for the purchase of resource adequacy ("RA") or load reduction that meet the objectives of California Public Utility Commission ("CPUC") Decision D.19-11-016. The Decision requires PG&E to undertake incremental procurement of system-level qualifying resource adequacy capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023. With the backstop procurement included, PG&E's new target is 765.1 MW. Decision D.19-11-016 requires PG&E to procure and have online 75% (573.83 MW) of the target capacity by August 1, 2022 and 100% online by August 1, 2023. In its System Reliability RFO – Phase 1, PG&E contracted for 423 MWs expected on-line by August 1, 2021, and is therefore targeting a minimum of 342.1 MWs for Phase 2.

PG&E launched the 2020 System Reliability RFO – Phase 2 on July 10, 2020 and received offers on August 19, 2020. PG&E executed six Agreements for eligible products as a result of the solicitation, representing a total of 387 MW, including 27 MW of energy storage capacity under the BTM RAA with Nexus Renewables U.S. Inc.

This Attachment A to the Independent Evaluator Report on PG&E's 2020 System Reliability RFO – Phase 2 process ("IE Report on 2020 System Reliability RFO – Phase 2") focuses on the two sections of the CPUC IE Report Template associated with discussions of project-specific negotiations (Section E of the Report Template) and of the contract approval issue (Section H of the Report Template) – does the contract merit CPUC approval? Is the contract reasonably priced and does it reflect a functioning market? A separate Attachment is provided for each Agreement executed by PG&E with eligible resource providers vis this solicitation. Accordingly, the IE Report on PG&E's 2020 System Reliability RFO – Phase 2 will contain Attachment A through Attachment E, which address each contract executed through this solicitation.

[1] [redacted]

[2] The proposal was submitted by Nexus Renewables ("Nexus") as developer and owner of Participant Entity or Project.

II. Offer Submission and Evaluation

Nexus Renewables initially submitted [redacted] for the AMCOR Storage project into the 2020 System Reliability RFO – Phase 2.

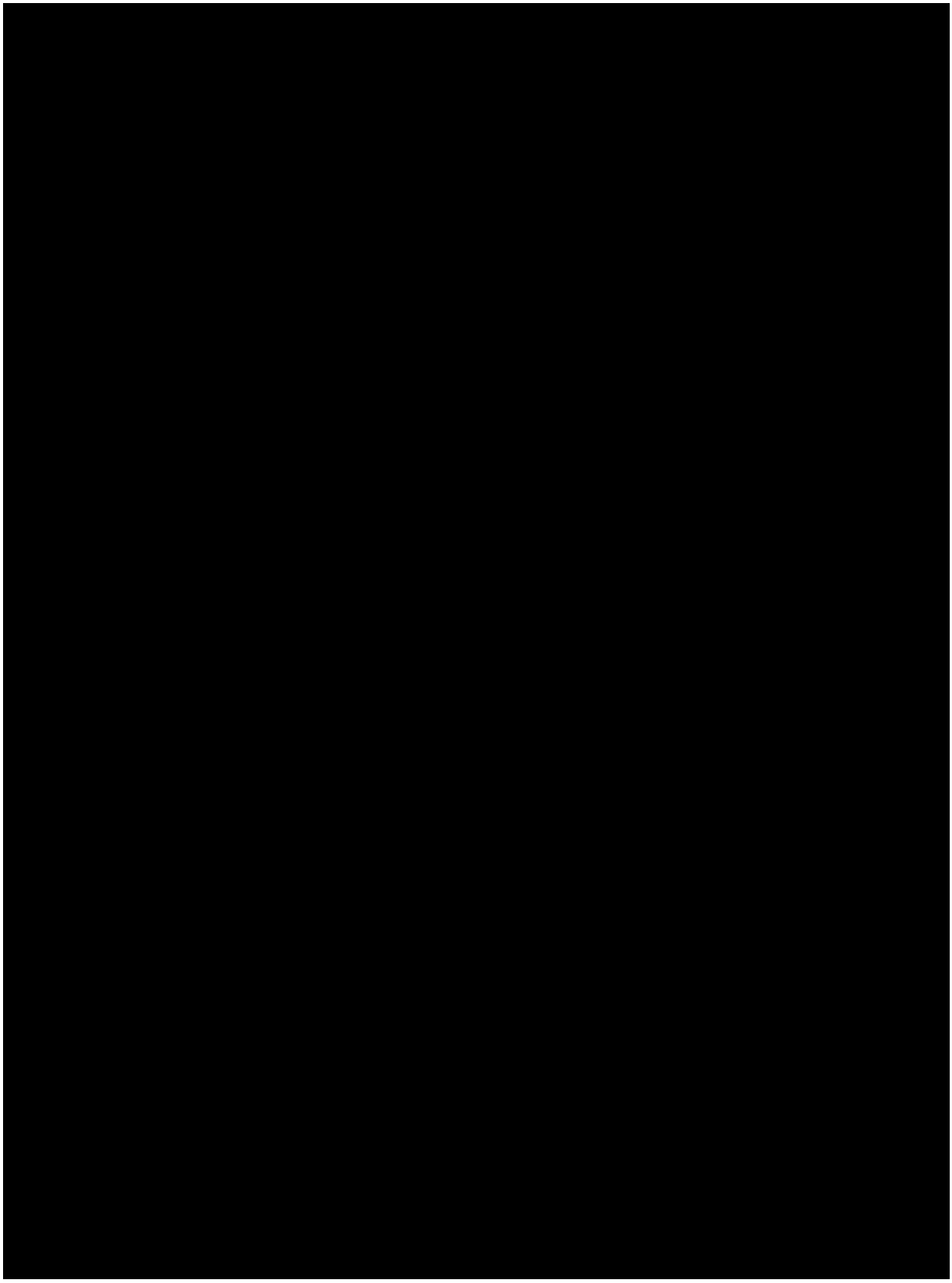
- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted] Merrimack Energy's report on the entire solicitation process includes more details on the variants submitted by each Participant.

[redacted][3]

[redacted]

[3] [redacted]



[redacted]

On September 18, 2020, PG&E notified Nexus Renewables that its offer had been selected for the shortlist and asked for the company to notify PG&E if they would accept their shortlist position. [redacted]

III. Project Specific Contract Negotiations

For reviewing and evaluating the performance of the utility with regard to specific contract negotiations, the IE has addressed the issues raised in the CPUC Independent Evaluator Report Template. These include:

1. Identify the principles the IE used to evaluate negotiations;

2. Using the above principles, evaluate the project specific negotiations. Highlight any issues of interest/concern including unique terms and conditions;

3. Was similar information/options made available to other bidders when appropriate (i.e. if a bidder was told to reduce its price, was the same information made available to others?);

4. Describe and explain any differences of opinion between the IE and utility. If resolved, describe the reasonableness of the outcome;

5. Any other information relevant to negotiations not asked above but important to understanding the IOU's process.

Principles Used to Evaluate Negotiations

The general principles followed by the IE in evaluating contract negotiations include assurance that the risk allocation provisions in the contract are reasonably balanced between the counterparties and that the utility customers are not placed at undue risk as a result of the contracting process. The IE generally "monitors" but does not actively participate in the contract negotiation process but will identify issues to the utility transactors if negotiations are moving off track or there are potential biases or inconsistencies in the process. The IE also attempts to ensure that similarly situated counterparties are treated the same or similarly and that all counterparties are provided with the same message. For example, [redacted]

[redacted]

However, given the lead times associated with completion of this RFO, PG&E essentially used a "standard" contract approach.[4] [redacted]

Revisions to the Pro Forma Behind the Meter Resource Adequacy Agreement

PG&E included a pro forma Behind the Meter Resource Adequacy Agreement in its 2020 System Reliability RFO – Phase 2 solicitation for Participants to review and redline.[5] As an aggregated Behind the Meter energy storage project with a proposed fifteen-year term, [redacted] Given the timeframe for undertaking this solicitation, PG&E noted that it had a preference for projects that can agree to terms in an expedited fashion. In the RFO Protocol, PG&E informed Participants that they must submit applicable Form Agreements with their offer and must include all edits necessary to accurately describe the proposed project at the time of offer submittal. [redacted]

Merrimack Energy reviewed the redlines to the pro forma agreements prepared by the shortlisted Participants. [redacted]

[4] [redacted]

[5] PG&E included seven pro forma agreements in the RFO: (1) Resource Adequacy Confirm (3-5 year delivery term); (2) Long Term Resource Adequacy Agreement (10 or 15 year term); (3) Long Term Resource Adequacy Agreement with Energy Settlement; (4) Behind the Meter Resource Adequacy Agreement for new projects (10 or 15 year terms); (5) Demand Response Agreement (up to 10 year terms); (6) Energy Efficiency Agreement; and (7) Build-Own-Transfer Agreement.

[redacted]

PG&E held a meeting with Nexus Renewables on September 23, 2020 [redacted]

[redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]

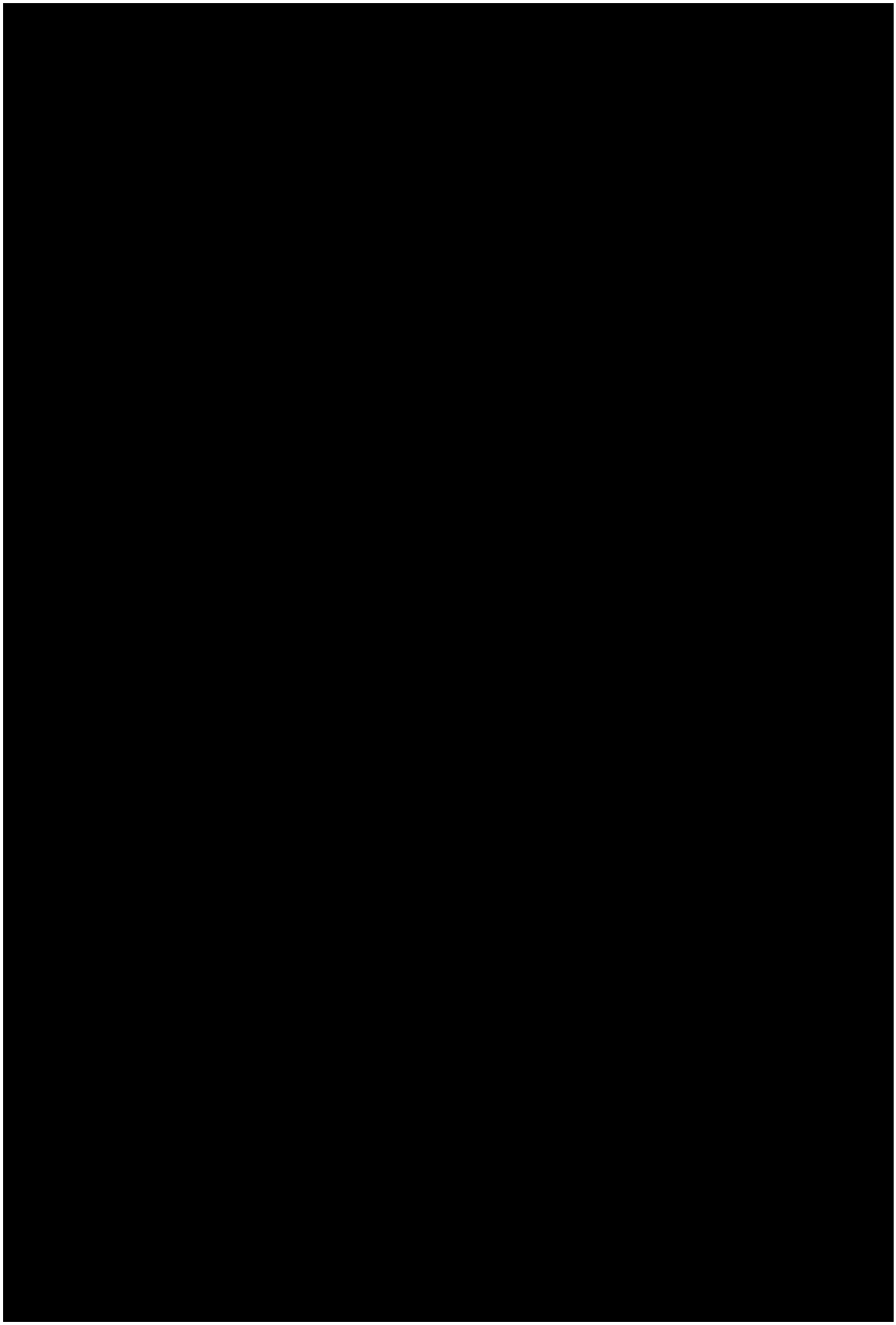
[redacted]

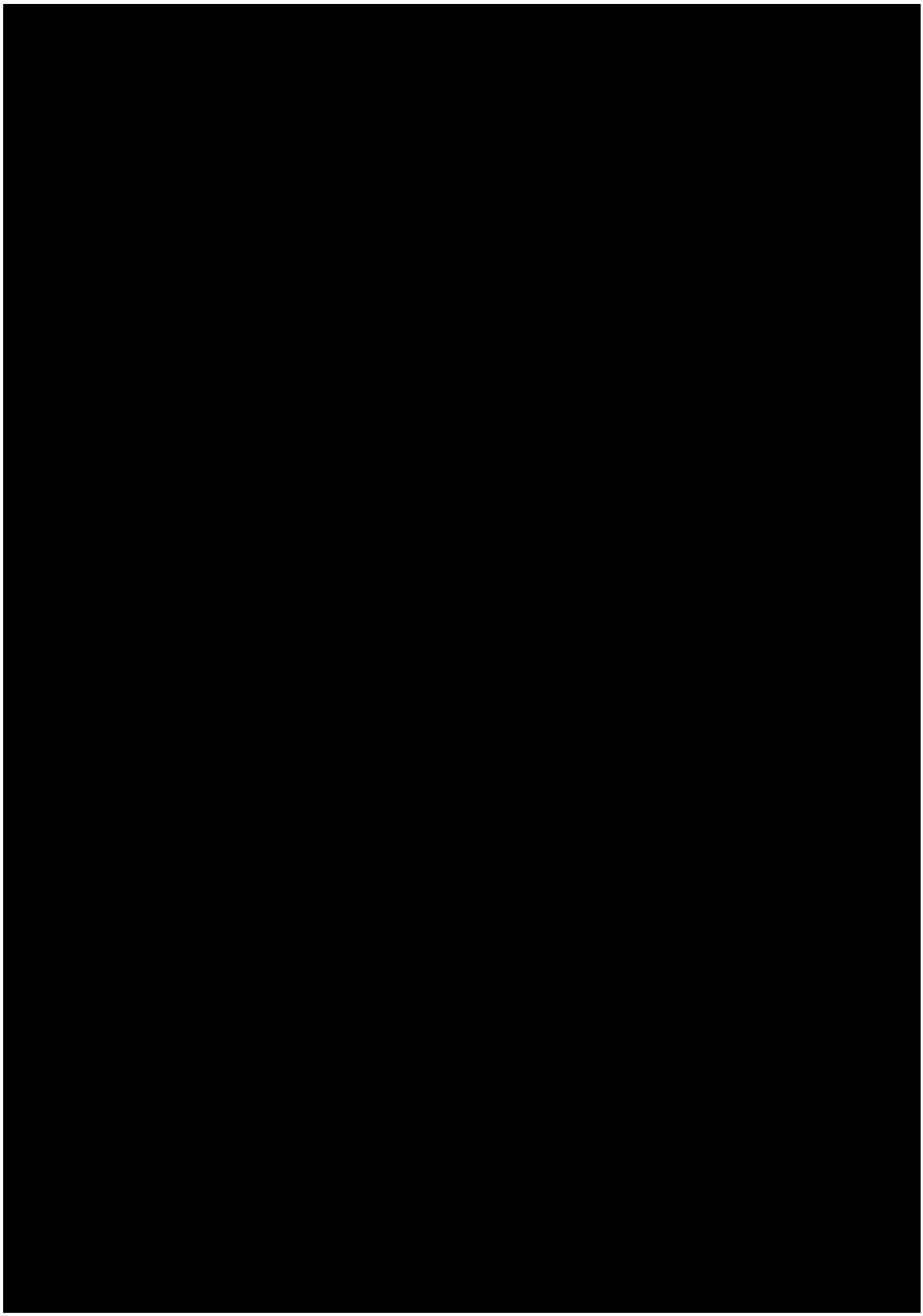
[redacted]

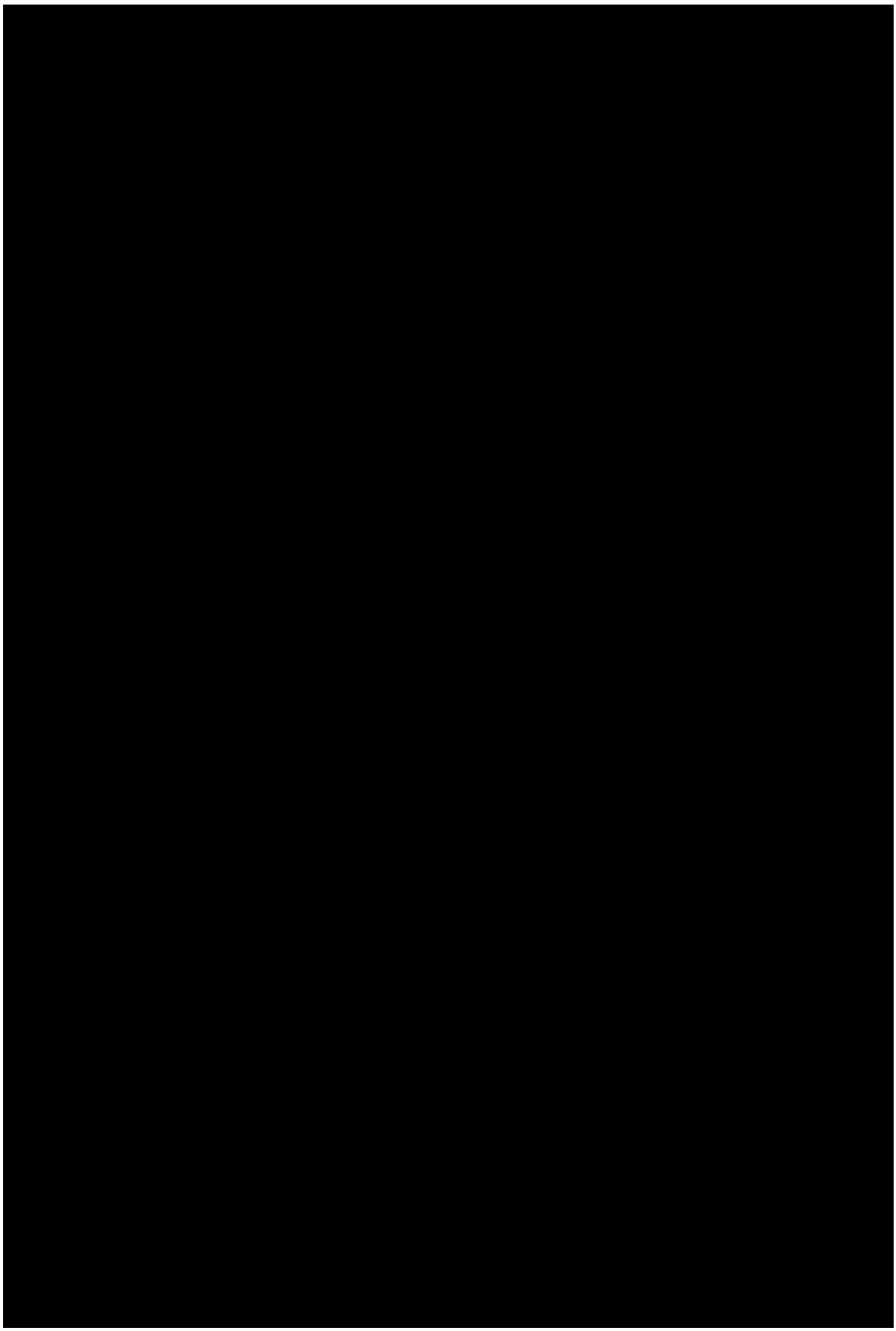
The key provisions of the final executed Nexus Renewables U.S. Inc. BTMRAA are summarized in Exhibit A-2.

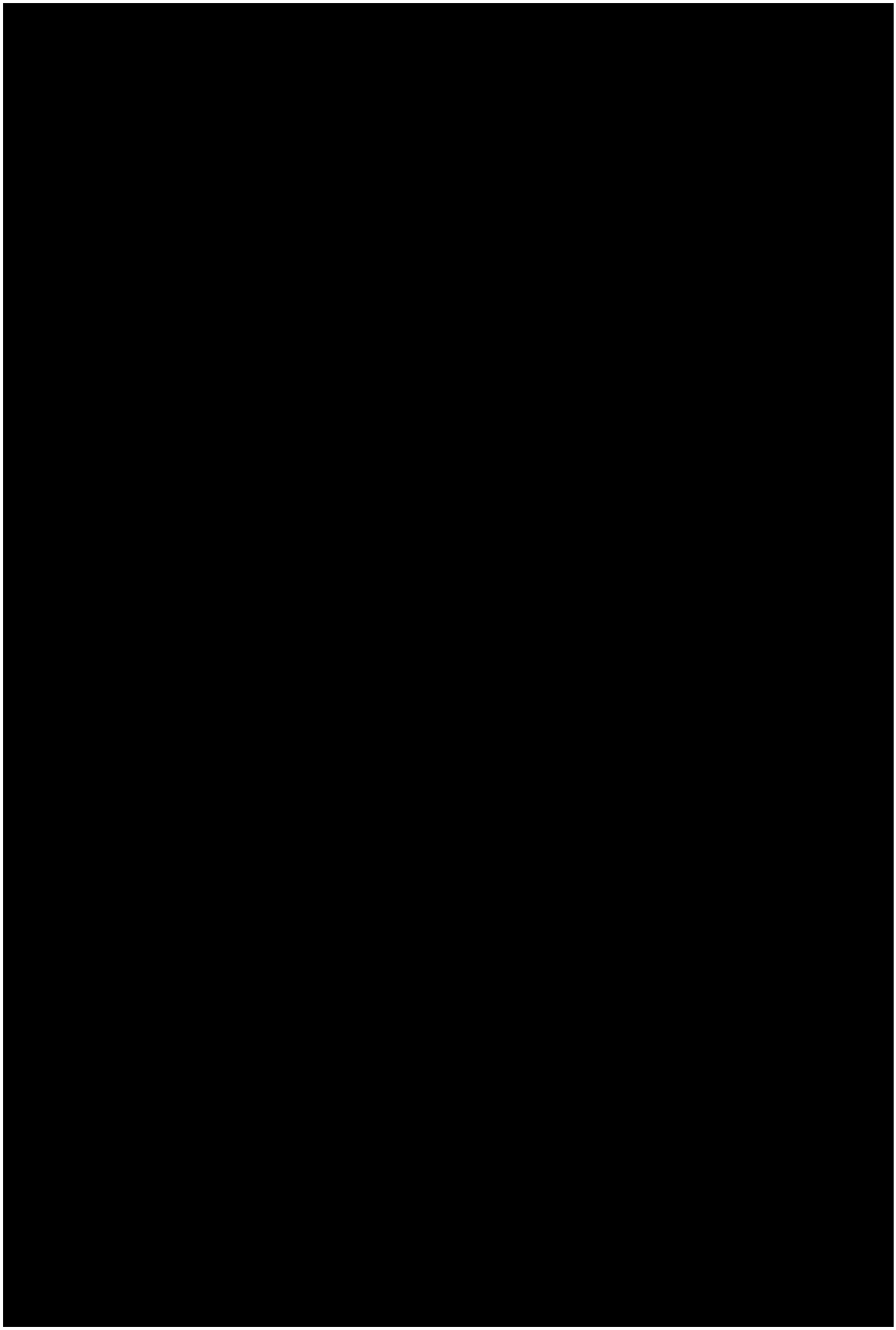
Exhibit A-2: Final Contract Key Provisions

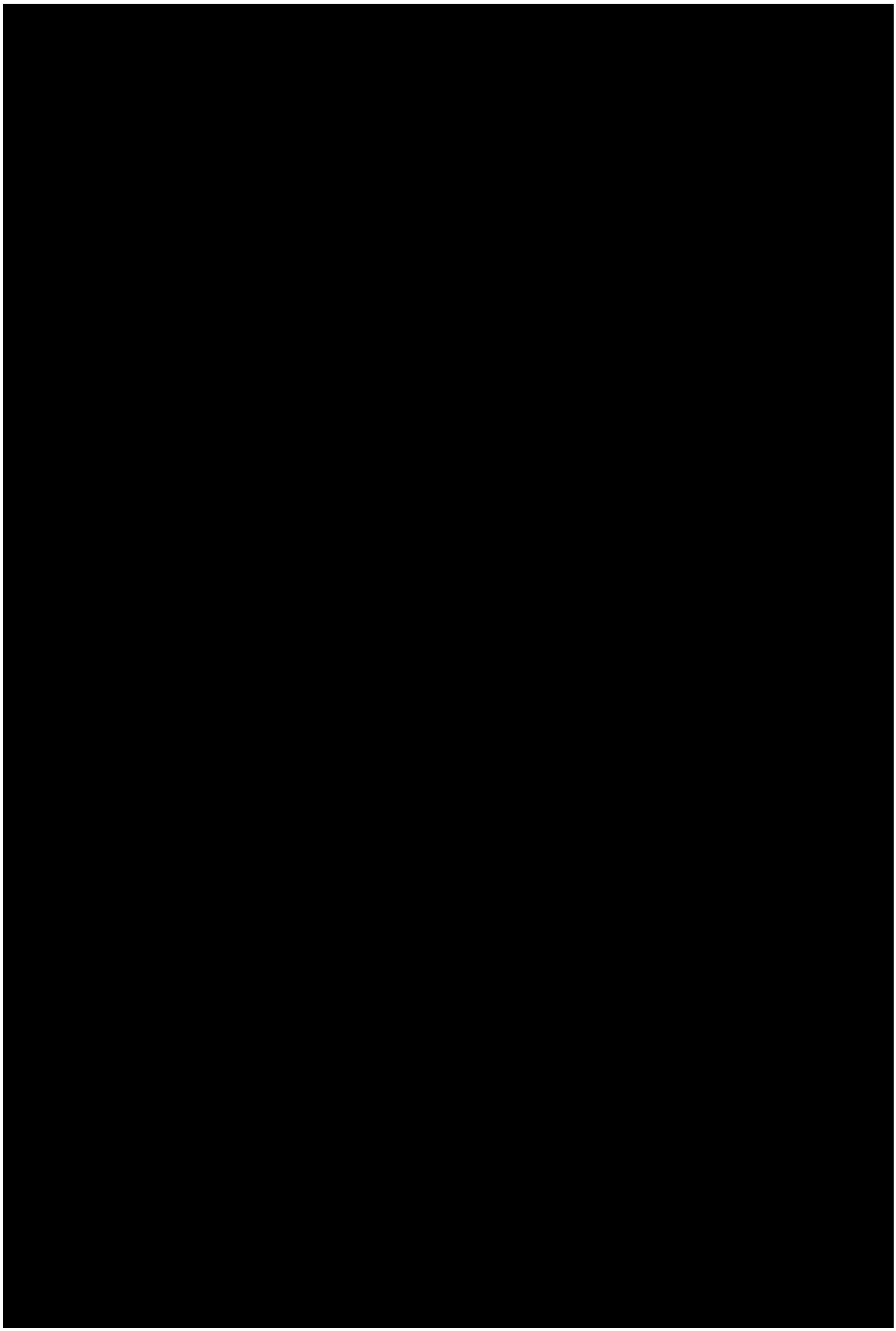
Contract Provisions	Inclusion in Final Contract
Form of Agreement	Behind the Retail Meter Resource Adequacy Agreement
[redacted]	

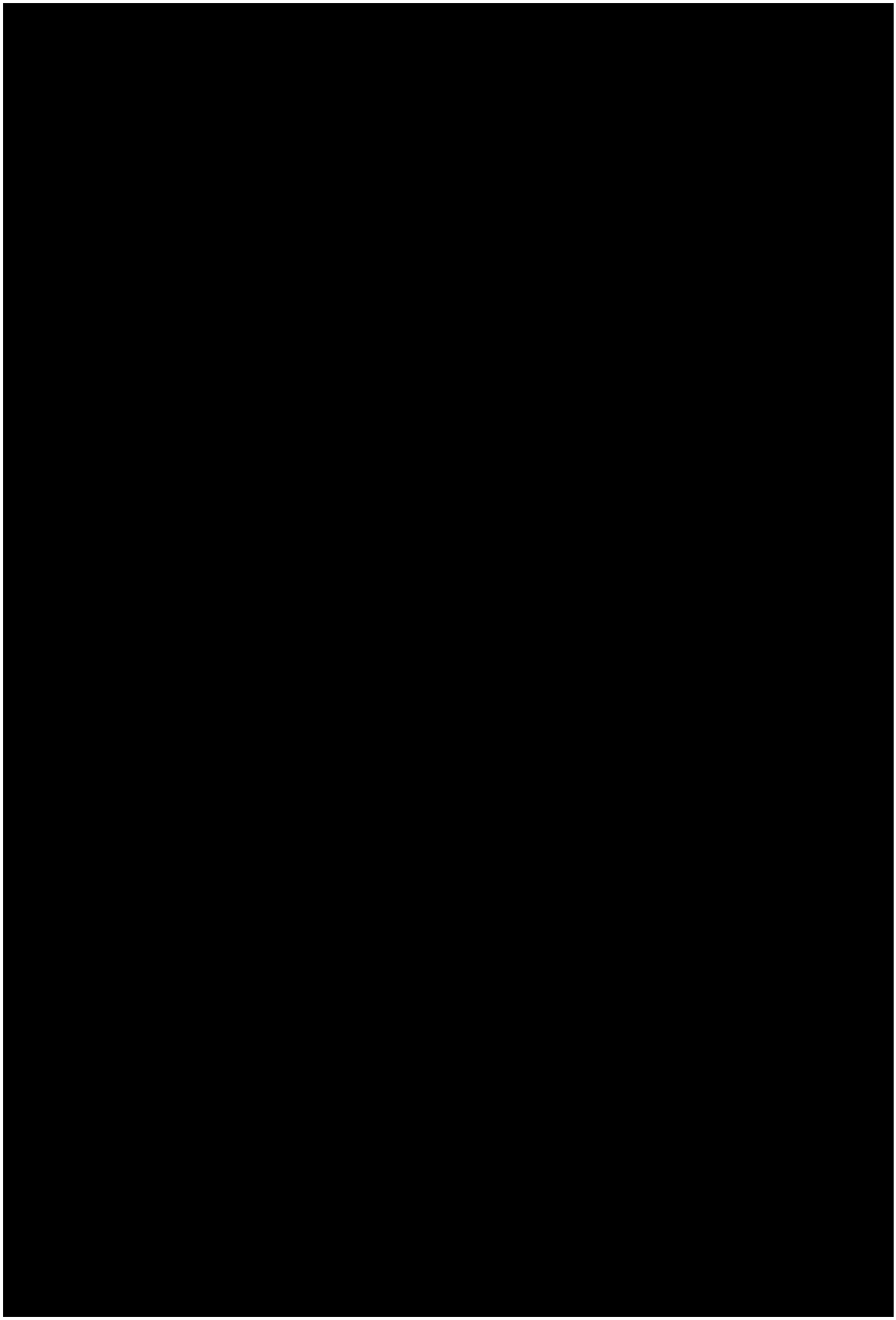












[redacted]

In addition to the contract provisions described above, the BTM RAA also includes Appendix II and III which provide a description of the facility, unit, performance characteristics and operational limitations. The information from Appendix II and III is summarized in Exhibit A-3 below.

Exhibit A-3: Summary of BTMA Appendix II and III for Nexus Renewables U.S. Inc.

Project Name	Nexus Renewables AMCOR project
[redacted]	
Technology Type	Lithium-Ion Batteries

Physical Point of Interconnection to the CAISO Grid	PG&E Transmission Access Charge Area at [redacted]
Maximum Continuous Discharge Power (Dmax)	27 MW
[redacted]	
Discharge Duration	4.0 hours
Storage Energy (MWh)	108.00 MWh
[redacted]	

IV. Does the Contract Merit CPUC Approval

A. Introduction

This section of the Report addresses the issue "Does the Contract merit CPUC approval and is the contract reasonably priced and does it reflect a functioning market? To address these questions the IE Report Template requires that the following issues be addressed.

1. Provide a discussion and observation for each category and describe the project's ranking relative to other bids from the solicitation; and from an overall market perspective;
    a. Contract price, including cost adders (transmission, credit, etc.)
    b. Portfolio fit
    c. Project viability
        i. Technology
        ii. Bidder experience (financing, construction, operation)
        iii. Credit and collateral
        iv. Permitting, site control and other site-related matters
        v. Fuel status
        vi. Transmission upgrades
    d. Any other relevant factors
2. Based on the complete bid process:
    a. Does the IOU contract reflect a functioning market?
    b. Is the IOU contract the best overall offer received by the IOU?

3. Is the contract a reasonable method of achieving the need identified in the RFO?
4. If the contract does not directly reflect a product solicited and bid in an RFO, is the contract superior to the bids received or the products solicited in the RFO?
5. Based on your analysis of the RFO bids and the bid process, does the contract merit Commission approval? Explain

B. Need for Procurement

Through the 2020 System Reliability RFO – Phase 2 solicitation process, PG&E is seeking offers for the purchase of resource adequacy (RA) or load reduction to come online by August 1, 2022 and August 1, 2023 pursuant to CPUC Decision D.19-11-016. The Decision requires PG&E to make incremental procurement of system-level qualifying resource adequacy (RA) capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023.[6] The Decision requires PG&E to procure and have online 50% of the target or 358.45 MW by August 1, 2021, 75% (573.83 MW) of the target capacity by August 1, 2022, and 100% online by August 1, 2023. PG&E contracted for 423 MW via its System Reliability RFO – Phase 1, and therefore is targeting a minimum of 342.1 MWs for Phase 2. Phase 1 was for projects that intend to meet the August 1, 2021 online date and Phase 2 is for projects that intend to come online after August 1, 2021 and before August 1, 2023.

Through this 2020 System Reliability RFO – Phase 2 process, PG&E has procured 387 MW of eligible resource capacity with 194 MW in 2022 and 193 MW in 2023. The execution of this agreement with Nexus Renewables U.S. Inc for 27 MW will provide approximately 7% of this total.

Chapter V of the IE's Report on the 2020 System Reliability RFO – Phase 2 process, provides evidence that the response to the RFO was reasonably robust, even in light of the short turnaround time for Participants to prepare their offers. As illustrated in this section of the IE report, PG&E received [redacted] offer variations from [redacted] projects and [redacted] counterparties. [redacted] The detailed evaluation conducted by PG&E is described primarily in Chapters IV and V of the IE Report on the 2020 System Reliability RFO – Phase 2, and that description confirms that the Nexus Renewables U.S. Inc. Energy Storage Behind the Meter Resource Adequacy Agreement submitted by Nexus Renewables AMCOR project was selected for execution based on its competitiveness, and on the applicable evaluation criteria, compared to other similar lithium-ion battery BTM RAA agreement options. The reasonableness of the Nexus Renewables U.S. Inc. BTM RAA from a viewpoint of its cost competitiveness, as well as project viability and other evaluation criteria, is set forth in the next section of this Report.

[6] The target was increased to 765.1 MW based on an April 15, 2020 ALJ ruling.

C. Contract Pricing and Portfolio Fit

[redacted]

[redacted]

[redacted]

Exhibit A-4: Valuation Results for the Short-Listed Nexus Renewables U.S. BTM RAA Project

Valuation Components	NMV Components ($/kW)	NMV Components ($/kW)
[redacted]		

[redacted]

D. Project Viability

Project Scrutiny

The 2020 System Reliability RFO – Phase 2 Offer Package requires Participants to complete and submit documents pertaining to aspects of project development for their offers. The Offer Form (Appendix A) includes information required from the Participant on project pricing, operational information, electrical interconnection information, developer experience, site control status, permitting status, and project finance status. In addition, Participants were required to submit Supplemental Project Information (Appendix B1) which requested detailed information about the status of the project. PG&E relies on this information to conduct its own qualitative evaluation of the offers.[7] [redacted]

PG&E conducted its internal project viability assessment on each of the offers submitted and provided the assessment to the IE. [redacted]

Technology and Procurement Issues

The Nexus/AMCOR Storage project will include the installation of [redacted] lithium-ion battery systems with power conversion systems sited at [redacted] facilities totaling 27 MW/108 MWh. [redacted]

[7] As noted in the RFO Protocol, PG&E may consider qualitative factors that could impact the value of an offer, including project viability, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date, supply chain responsibility status, and completeness of the offer.

[8] [redacted]

Experience (Financing, construction, operation)

Nexus has BTM operations in Ontario, New York, PJM territory, New England, Texas, and California. [redacted] Nexus has developed or in the process of developing 48.5 MW of generation, including roughly 26.8 MW of stand-alone Battery Energy Storage Systems mostly located in Canada. The largest Energy Storage project size that Nexus has developed is 4.0 MW. [redacted]

Site Control and Other Site Issues, Permitting,

[redacted]

Interconnection

[redacted]

Schedule

[redacted]

Conclusion

Based on the foregoing, it appears to the IE that the Nexus Renewables AMCOR project should have a reasonable probability of success for completing the project by August 1, 2022, as required by the BTMA. [redacted]

Pacific Gas and Electric Company

2020 System Reliability Request for Offers – Phase 2

Independent Evaluator Report

Public Version

Attachment B

Long Term Resource Adequacy Agreement with Daggett Solar Power 2, LLC and Daggett Solar Power 3, LLC

December, 2020

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

Merrimack

M

Energy

Table of Contents

I. Introduction

A. Overview

Pacific Gas and Electric Company ("PG&E) is seeking approval of two Long-Term Resource Adequacy Agreement ("LTRAA") from the Daggett Solar Power 2, LLC 46 MW Energy Storage System and the Daggett Solar Power 3, LLC 15 MW Energy Storage System located in Daggett, California. [redacted][1] The project includes the installation of one 15 MW/60 MWh and one 46 MW/184 lithium-ion battery and power conversion systems. The agreements between PG&E and Daggett 2 BESS and Daggett 3 BESS are for a 15-year term with an Expected Initial Delivery Date ("IDD") of August 1, 2023.

For this Agreement, [redacted][2]

The LTRAAs with Daggett Solar Power 2 and 3 were executed by PG&E pursuant to the Company's 2020 System Reliability Request for Offers – Phase 2 ("2020 System Reliability RFO – Phase 2"). Through this RFO, PG&E is seeking offers from Participants for the purchase of resource adequacy ("RA") or load reduction that meet the objectives of California Public Utility Commission ("CPUC") Decision D.19-11-016. The Decision requires PG&E to undertake incremental procurement of system-level qualifying resource adequacy capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023. With the backstop procurement included, PG&E's new target is 765.1 MW. Decision D.19-11-016 requires PG&E to procure and have online 75% (573.83 MW) of the target capacity by August 1, 2022 and 100% online by August 1, 2023. In its System Reliability RFO – Phase 1, PG&E contracted for 423 MWs expected on-line by August 1, 2021 and is therefore targeting a minimum of 342.1 MWs for Phase 2.

PG&E launched the 2020 System Reliability RFO – Phase 2 on July 10, 2020 and received offers on August 19, 2020. PG&E executed six Agreements for eligible products as a result of the solicitation, representing a total of 387 MW, including 61 combined MW of energy

[1] The proposal was submitted by Clearway Renew LLC ("Clearway") which is wholly owned by Clearway Energy Group, LLC as developer and owner of Participant Entity or Project.

[2] [redacted]

storage capacity under the LTRAA with Daggett Solar Power 2, LLC and Daggett Solar Power 3, LLC.

This Attachment B to the Independent Evaluator Report on PG&E's 2020 System Reliability RFO – Phase 2 process ("IE Report on 2020 System Reliability RFO – Phase 2") focuses on the two sections of the CPUC IE Report Template associated with discussions of project-specific negotiations (Section E of the Report Template) and of the contract approval issue (Section H of the Report Template) – does the contract merit CPUC approval? Is the contract reasonably priced and does it reflect a functioning market? A separate Attachment is provided for each Agreement executed by PG&E with eligible resource providers via this solicitation. Accordingly, the IE Report on PG&E's 2020 System Reliability RFO – Phase 2 will contain Attachment A through Attachment E, which address each contract executed through this solicitation.

II. Offer Submission and Evaluation

Clearway Energy initially submitted [redacted] for Long-Term Resource Adequacy for the Daggett Solar Power project into the 2020 System Reliability RFO – Phase 2.

- [redacted][3]

[redacted] Merrimack Energy's report on the entire solicitation process includes more details on the variants submitted by each Participant.

[3] [redacted]

[redacted] [4]

[redacted]

[4] [redacted]

[redacted]

On September 18, 2020, PG&E notified Clearway Energy that its offer had been selected for the shortlist and asked for the company to notify PG&E if they would accept their shortlist position. [redacted]

III. Project Specific Contract Negotiations

For reviewing and evaluating the performance of the utility with regard to specific contract negotiations, the IE has addressed the issues raised in the CPUC Independent Evaluator Report Template. These include:

1. Identify the principles the IE used to evaluate negotiations;

2. Using the above principles, evaluate the project specific negotiations. Highlight any issues of interest/concern including unique terms and conditions;

3. Was similar information/options made available to other bidders when appropriate (i.e. if a bidder was told to reduce its price, was the same information made available to others?);

4. Describe and explain any differences of opinion between the IE and utility. If resolved, describe the reasonableness of the outcome;

5. Any other information relevant to negotiations not asked above but important to understanding the IOU's process.

Principles Used to Evaluate Negotiations

The general principles followed by the IE in evaluating contract negotiations include assurance that the risk allocation provisions in the contract are reasonably balanced between the counterparties and that the utility customers are not placed at undue risk as a result of the contracting process. The IE generally "monitors" but does not actively participate in the contract negotiation process but will identify issues to the utility transactors if negotiations are moving off track or there are potential biases or inconsistencies in the process. The IE also attempts to ensure that similarly situated counterparties are treated the same or similarly and that all counterparties are provided with the same message. For example, [redacted]

However, given the lead times associated with completion of this RFO, PG&E essentially used a "standard" contract approach.[5] [redacted]

Revisions to the Pro Forma Long-Term Resource Adequacy Agreement

PG&E included a pro forma Long-Term Resource Adequacy Agreement in its 2020 System Reliability RFO – Phase 2 solicitation for Participants to review and redline.[6] As a standalone battery energy storage project with a proposed fifteen-year term, [redacted] Given the timeframe for undertaking this solicitation, PG&E noted that it had a preference for projects that can agree to terms in an expedited fashion. In the RFO Protocol, PG&E informed Participants that they must submit applicable Form Agreements with their offer and must include all edits necessary to accurately describe the proposed project at the time of offer submittal. [redacted]

[5] [redacted]

[6] PG&E included seven pro forma agreements in the RFO: (1) Resource Adequacy Confirm (3-5 year delivery term); (2) Long Term Resource Adequacy Agreement (10 or 15 year term); (3) Long Term Resource Adequacy Agreement with Energy Settlement; (4) Behind the Meter Resource Adequacy Agreement for new projects (10 or 15 year terms); (5) Demand Response Agreement (up to 10 year terms); (6) Energy Efficiency Agreement; and (7) Build-Own-Transfer Agreement.

[redacted]

Merrimack Energy reviewed the redlines to the pro forma agreements prepared by the shortlisted Participants. [redacted]

Meetings with Counterparties

PG&E held an introductory meeting with Clearway on September 22, 2020 [redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

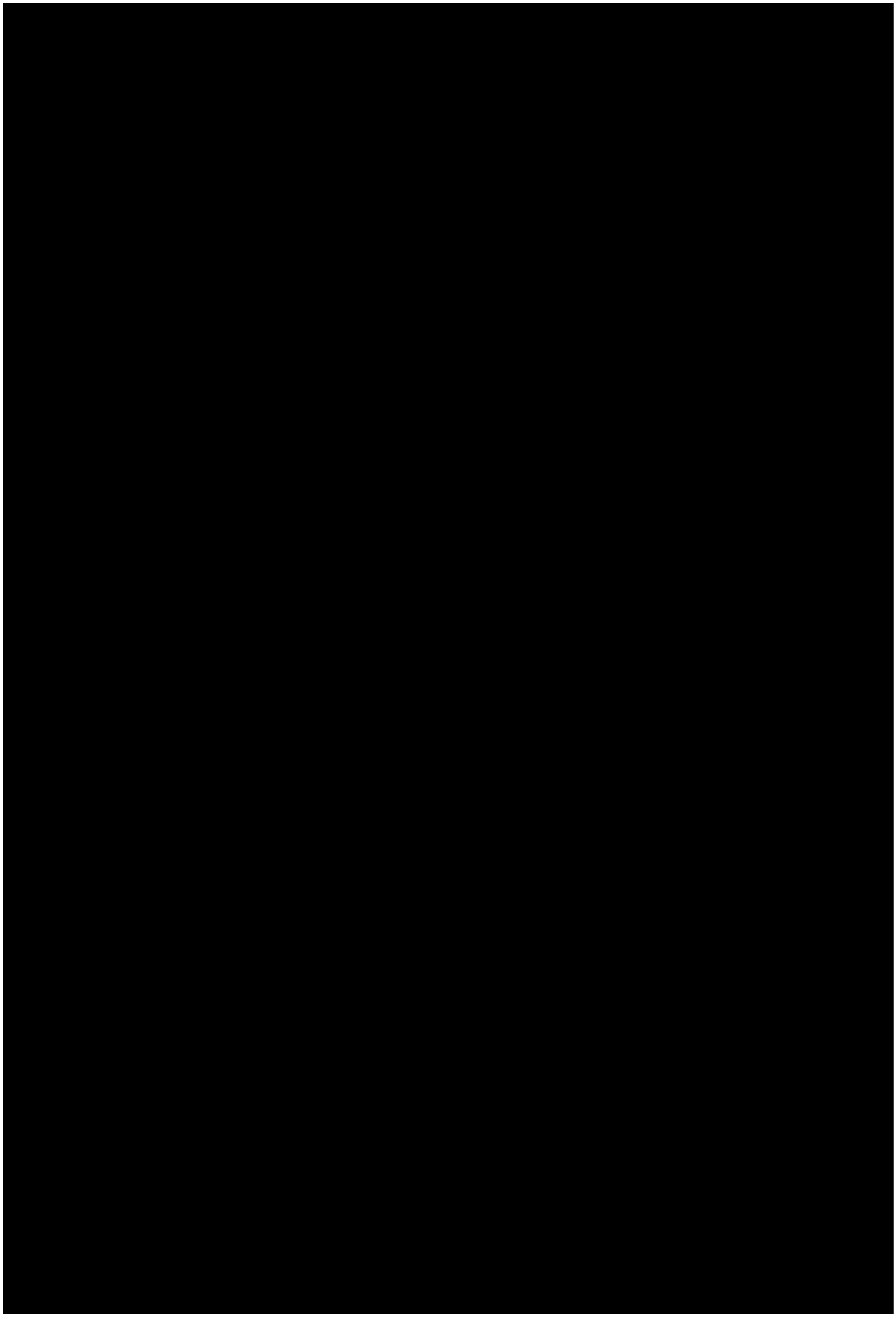
[redacted]

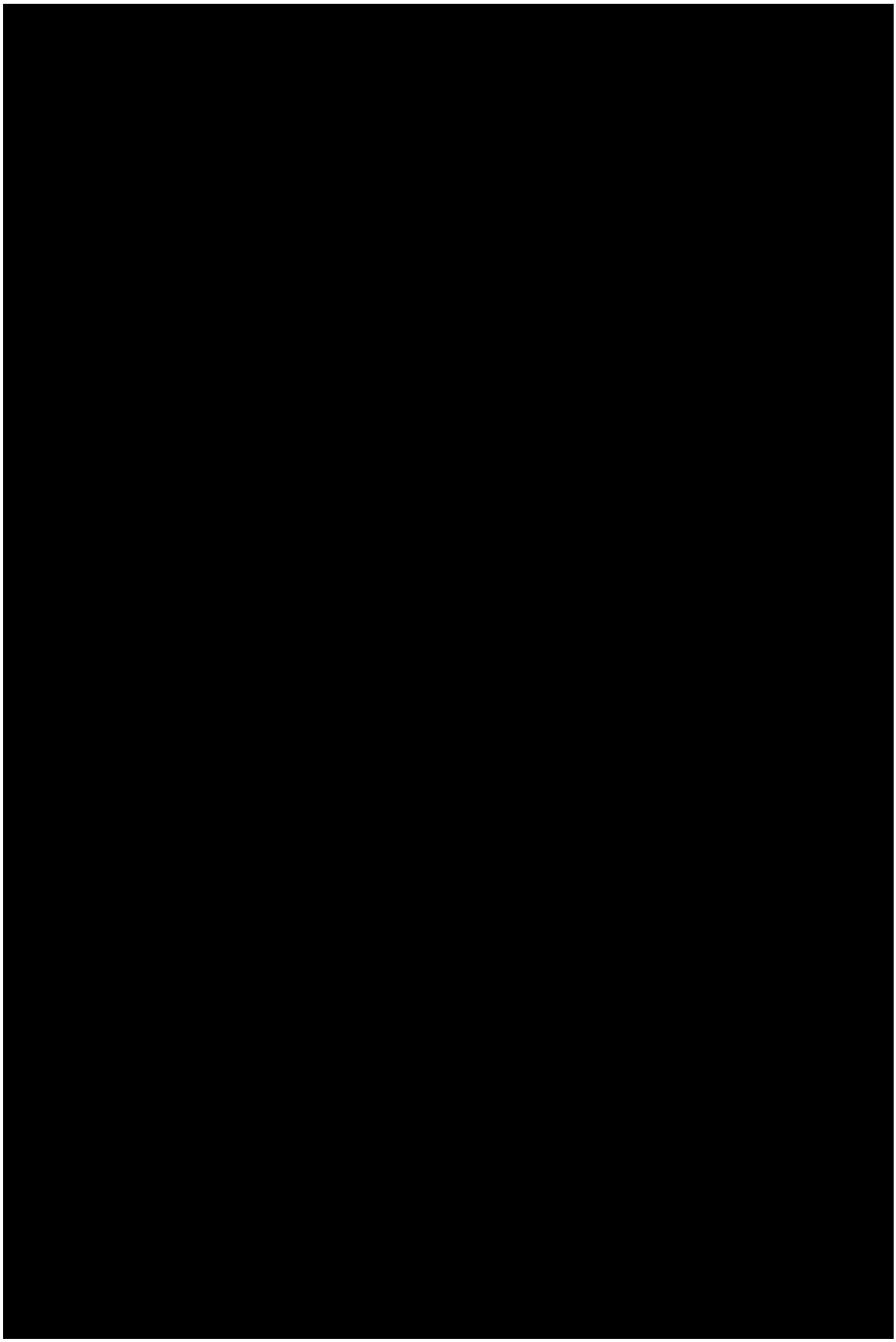
The key provisions of the final executed Daggett Solar Power 2, LLC and Daggett Solar Power 3, LLC LTRAAs are summarized in Exhibit B-2.

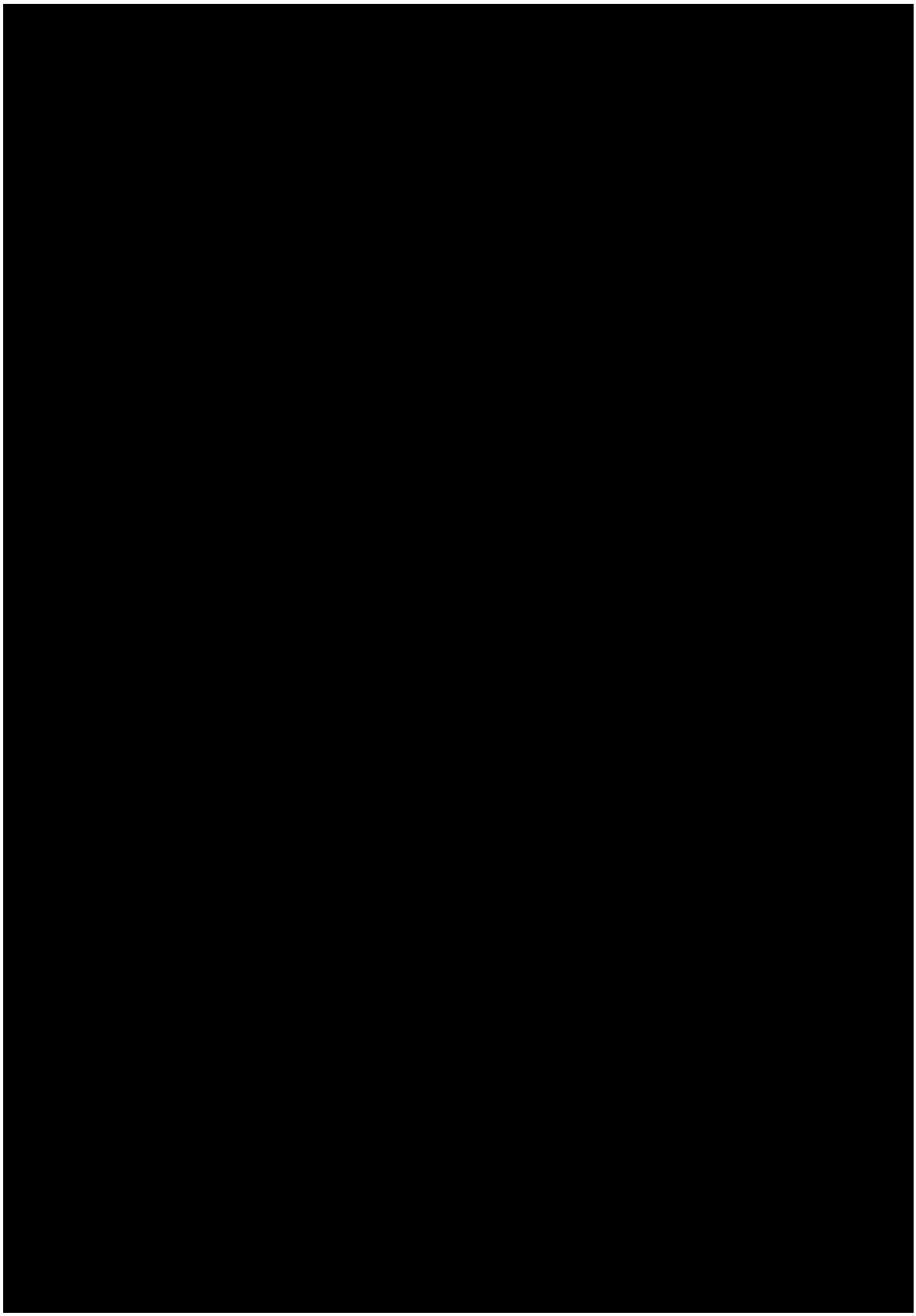
Exhibit B-2: Final Contract Key Provisions[7]

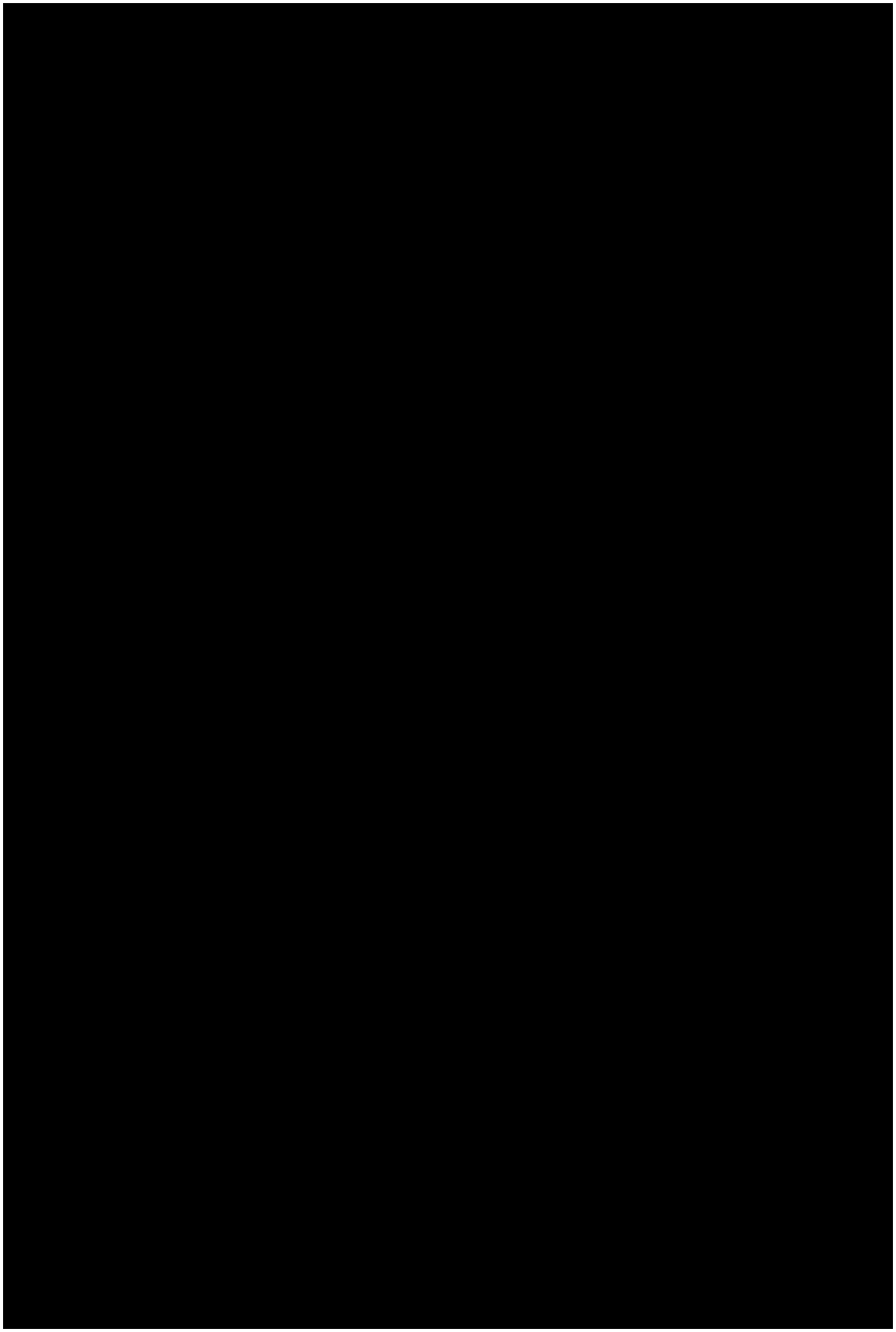
Contract Provisions	Inclusion in Final Contract
Form of Agreement	Long Term Resource Adequacy Agreement
[redacted]	

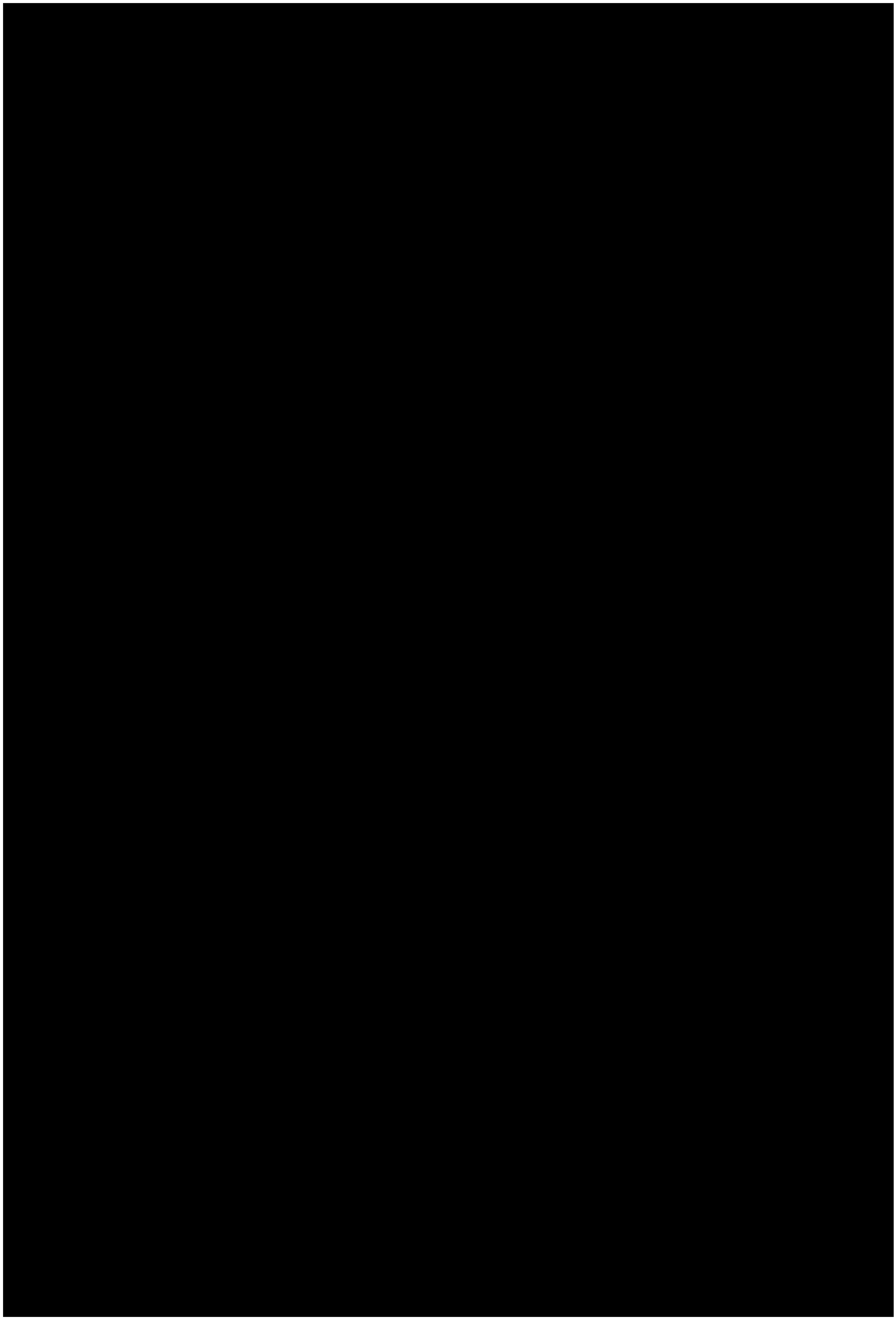
[7] [redacted]











[redacted]

In addition to the contract provisions described above, the LTRAA also includes Appendix II and III which provide a description of the facility, unit, performance characteristics and operational limitations. The information from Appendix II and III is summarized in Exhibit B-3 below.

Exhibit B-3: Summary of LTRAA Appendix II and III for Daggett Solar Power

Project Name	Daggett Solar Power 2 project	Daggett Solar Power 3 project
[redacted]		
Technology Type	Lithium-Ion Batteries	Lithium-Ion Batteries
Physical Point of Interconnection to the CAISO Grid	SCE Kramer Substation	SCE Kramer Substation

Existing Zone	SP-15	SP-15
Maximum Continuous Discharge Power (Dmax)	46 MW	15 MW
[redacted]		
Discharge Duration	4.0 hours	4.0 hours
Storage Energy (MWh)	184 MWh	60 MWh
[redacted]		

IV. Does the Contract Merit CPUC Approval

A. Introduction

This section of the Report addresses the issue "Does the Contract merit CPUC approval and is the contract reasonably priced and does it reflect a functioning market? To address these questions the IE Report Template requires that the following issues be addressed.

1. Provide a discussion and observation for each category and describe the project's ranking relative to other bids from the solicitation; and from an overall market perspective;
    a. Contract price, including cost adders (transmission, credit, etc.)
    b. Portfolio fit
    c. Project viability
        i. Technology
        ii. Bidder experience (financing, construction, operation)
        iii. Credit and collateral
        iv. Permitting, site control and other site-related matters
        v. Fuel status
        vi. Transmission upgrades
    d. Any other relevant factors
2. Based on the complete bid process:
    a. Does the IOU contract reflect a functioning market?
    b. Is the IOU contract the best overall offer received by the IOU?
3. Is the contract a reasonable method of achieving the need identified in the RFO?

4. If the contract does not directly reflect a product solicited and bid in an RFO, is the contract superior to the bids received or the products solicited in the RFO?
5. Based on your analysis of the RFO bids and the bid process, does the contract merit Commission approval? Explain

B. Need for Procurement

Through the 2020 System Reliability RFO – Phase 2 solicitation process, PG&E is seeking offers for the purchase of resource adequacy (RA) or load reduction to come online by August 1, 2022 and August 1, 2023 pursuant to CPUC Decision D.19-11-016. The Decision requires PG&E to make incremental procurement of system-level qualifying resource adequacy (RA) capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023.[8] The Decision requires PG&E to procure and have online 50% of the target or 358.45 MW by August 1, 2021, 75% (573.83 MW) of the target capacity by August 1, 2022, and 100% online by August 1, 2023. PG&E contracted for 423 MW via its System Reliability RFO – Phase 1, and therefore is targeting a minimum of 342.1 MWs for Phase 2. Phase 1 was for projects that intend to meet the August 1, 2021 online date and Phase 2 is for projects that intend to come online after August 1, 2021 and before August 1, 2023.

Through this 2020 System Reliability RFO – Phase 2 process, PG&E has procured 387 MW of eligible resource capacity with 194 MW in 2022 and 193 MW in 2023. The execution of these agreements with Daggett Solar Power 2 and 3 for 61 MW total will provide approximately 15.8% of this total.

Chapter V of the IE's Report on the 2020 System Reliability RFO – Phase 2 process, provides evidence that the response to the RFO was robust. As illustrated in this section of the IE report, PG&E received [redacted] offer variations from [redacted] projects and [redacted] counterparties. [redacted] The detailed evaluation conducted by PG&E is described primarily in Chapters IV and V of the IE Report on the 2020 System Reliability RFO – Phase 2, and that description confirms that the Daggett Solar Power 3, LLC Energy Storage Resource Adequacy Agreement submitted by Clearway for the Daggett Solar Power 3 project was selected for execution based on its competitiveness, and on the applicable evaluation criteria, compared to other similar lithium-ion battery LTRAA agreement options. The reasonableness of the Daggett Solar Power 3, LLC LTRAA from a viewpoint of its cost competitiveness, as well as project viability and other evaluation criteria, is set forth in the next section of this Report.

[8] The target was increased to 765.1 MW based on an April 15, 2020 ALJ ruling.

C. Contract Pricing and Portfolio Fit

[redacted]

[redacted]

[redacted]

Exhibit B-4: Valuation Results for the Short-Listed Daggett Solar Power Projects

Valuation Components	NMV Components ($/kW)	NMV Components (Daggett Solar 2) ($/kW)	NMV Components (Daggett Solar 3) ($/kW)
[redacted]			

[redacted]

D. Project Viability

Project Scrutiny

The 2020 System Reliability RFO – Phase 2 Offer Package requires Participants to complete and submit documents pertaining to aspects of project development for their projects. The Offer Form (Appendix A) includes information required from the Participant on project pricing, operational information, electrical interconnection information, developer experience, site control status, permitting status, and project finance status. In addition, Participants were required to submit Supplemental Project Information (Appendix B1) which requested detailed information about the status of the project. PG&E relies on this information to conduct its own qualitative evaluation of the offers.[9] [redacted]

PG&E conducted its internal project viability assessment on each of the offers submitted and provided the assessment to the IE. [redacted][10]

Technology and Procurement Issues

The Daggett Solar Power projects will include the installation of a 46 MW/184 MWh and a 15 MW/60 MWh lithium-ion battery project with power conversion systems and a high voltage substation to be located in Boron, California. [redacted]

Experience (Financing, construction, operation)

Clearway stated that it owns and operates a portfolio of 4.7 GWs of renewable energy assets across 25 states and owns a pipeline of over 9 GWs of wind, solar, and energy storage

[9] As noted in the RFO Protocol, PG&E may consider qualitative factors that could impact the value of an offer, including project viability, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date, supply chain responsibility status, and completeness of the offer.

[10] [redacted]

projects under development. Clearway has 9 years of experience developing, financing, owning, and operating renewable energy projects in California. A substantial portion of Clearway's solar development pipeline includes energy storage, including: 50MWh of li-ion bulk energy storage systems in operations or late stage in Massachusetts under the SMART Program, and 300 MWh in construction in Hawaii under two solar plus storage agreements with Hawaiian Electric.

[redacted]

Site Control and Other Site Issues, Permitting,

[redacted]

[redacted]

Interconnection

[redacted]

Schedule

[redacted]

Conclusion

Based on the foregoing, it appears to the IE that the Daggett Solar Power 2 and Daggett Solar Power 3 projects should have a reasonable probability of success for completing the projects by August 1, 2023, as required by the LTRAA. [redacted]

Pacific Gas and Electric Company

2020 System Reliability Request for Offers – Phase 2

Independent Evaluator Report

Public Version

Attachment C

Long Term Resource Adequacy with Energy Settlement Agreement with Lancaster Area Battery Storage, LLC

December, 2020

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

Table of Contents

I. Introduction

A. Overview

Pacific Gas and Electric Company ("PG&E) is seeking approval of a Long-Term Resource Adequacy Agreement ("LTRAA") with Energy Settlement ("w/ ES") from the Lancaster Area Battery Storage, LLC 127 MW Battery Energy Storage System located in Lancaster, California. [redacted] [1] The project includes the installation of 127 MW/508 MWh lithium-ion batteries and power conversion systems. The project has an Expected Initial Delivery Date ("IDD") of August 1, 2022.

For this Agreement, [redacted]

The term of the LTRAA with Energy Settlement between PG&E and Lancaster Area Battery Storage, LLC is for 15 years commencing on the Initial Delivery Date, which is expected to be August 1, 2022. The project is a new build, stand-alone energy storage project that does not appear on the Procurement Baseline List.

The LTRAA with Energy Settlement with Lancaster Area Battery Storage was executed by PG&E pursuant to the Company's 2020 System Reliability Request for Offers – Phase 2 ("2020 System Reliability RFO – Phase 2"). Through this RFO, PG&E is seeking offers from Participants for the purchase of resource adequacy ("RA") or load reduction that meet the objectives of California Public Utility Commission ("CPUC") Decision D.19-11-016. The Decision requires PG&E to undertake incremental procurement of system-level qualifying resource adequacy capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023. With the backstop procurement included, PG&E's new target is 765.1 MW. Decision D.19-11-016 requires PG&E to procure and have online 75% (573.83 MW) of the target capacity by August 1, 2022 and 100% online by August 1, 2023. In its System Reliability RFO – Phase 1, PG&E contracted for 423 MWs expected to be online by April 1, 2021, and is therefore targeting a minimum of 342.1 MWs for Phase 2.

[1] The proposal was submitted by sPower Development Company, LLC ("sPower" or "Sustainable Power Group") as developer and owner of Participant Entity or Project.

PG&E launched the 2020 System Reliability RFO – Phase 2 on July 10, 2020 and received offers on August 19, 2020. PG&E executed six Agreements for eligible products as a result of the solicitation, representing a total of 387 MW, including 127 MW of energy storage capacity under the LTRAA with Energy Settlement with Lancaster Area Battery Storage, LLC.

This Attachment C to the Independent Evaluator Report on PG&E's 2020 System Reliability RFO – Phase 2 process ("IE Report on 2020 System Reliability RFO – Phase 2") focuses on the two sections of the CPUC IE Report Template associated with discussions of project-specific negotiations (Section E of the Report Template) and of the contract approval issue (Section H of the Report Template) – does the contract merit CPUC approval? Is the contract reasonably priced and does it reflect a functioning market? A separate Attachment is provided for each Agreement executed by PG&E with eligible resource providers vis this solicitation. Accordingly, the IE Report on PG&E's 2020 System Reliability RFO – Phase 2 will contain Attachment A through Attachment E, which address each contract executed through this solicitation.

II. Offer Submission and Evaluation

sPower initially submitted [redacted] for the Lancaster Area Battery Storage project into the 2020 System Reliability RFO – Phase 2.

[redacted]

- [redacted][2];
- [redacted]

[redacted] Merrimack

[2] [redacted]

Energy's report on the entire solicitation process includes more details on the variants submitted by each Participant.

[redacted] [3]

[redacted]

[3] [redacted]

[redacted]

On September 18, 2020, PG&E notified sPower that its offer had been selected for the shortlist and asked for the company to notify PG&E if they would accept their shortlist position. [redacted]

III. Project Specific Contract Negotiations

For reviewing and evaluating the performance of the utility with regard to specific contract negotiations, the IE has addressed the issues raised in the CPUC Independent Evaluator Report Template. These include:

1. Identify the principles the IE used to evaluate negotiations;

2. Using the above principles, evaluate the project specific negotiations. Highlight any issues of interest/concern including unique terms and conditions;

3. Was similar information/options made available to other bidders when appropriate (i.e. if a bidder was told to reduce its price, was the same information made available to others?);

4. Describe and explain any differences of opinion between the IE and utility. If resolved, describe the reasonableness of the outcome;

5. Any other information relevant to negotiations not asked above but important to understanding the IOU's process.

Principles Used to Evaluate Negotiations

The general principles followed by the IE in evaluating contract negotiations include assurance that the risk allocation provisions in the contract are reasonably balanced between the counterparties and that the utility customers are not placed at undue risk as a result of the contracting process. The IE generally "monitors" but does not actively participate in the contract negotiation process but will identify issues to the utility transactors if negotiations are moving off track or there are potential biases or inconsistencies in the process. The IE also attempts to ensure that similarly situated counterparties are treated the same or similarly and that all counterparties are provided with the same message. For example, [redacted]

However, given the lead times associated with completion of this RFO, PG&E essentially used a "standard" contract approach.[4] [redacted]

Revisions to the Pro Forma Long-Term Resource Adequacy Agreement

PG&E included a pro forma Long-Term Resource Adequacy Agreement with Energy Settlement in its 2020 System Reliability RFO – Phase 2 solicitation for Participants to review and redline.[5] [redacted]
Given the timeframe for undertaking this solicitation, PG&E noted that it had a preference for projects that can agree to terms in an expedited fashion. In the RFO Protocol, PG&E

[4] [redacted]

[5] PG&E included seven pro forma agreements in the RFO: (1) Resource Adequacy Confirm (3-5 year delivery term); (2) Long Term Resource Adequacy Agreement (10 or 15 year term); (3) Long Term Resource Adequacy Agreement with Energy Settlement; (4) Behind the Meter Resource Adequacy Agreement for new projects (10 or 15 year terms); (5) Demand Response Agreement (up to 10 year terms); (6) Energy Efficiency Agreement; and (7) Build-Own-Transfer Agreement.

informed Participants that they must submit applicable Form Agreements with their offer and must include all edits necessary to accurately describe the proposed project at the time of offer submittal. [redacted]

Merrimack Energy reviewed the redlines to the pro forma agreements prepared by the shortlisted Participants. [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

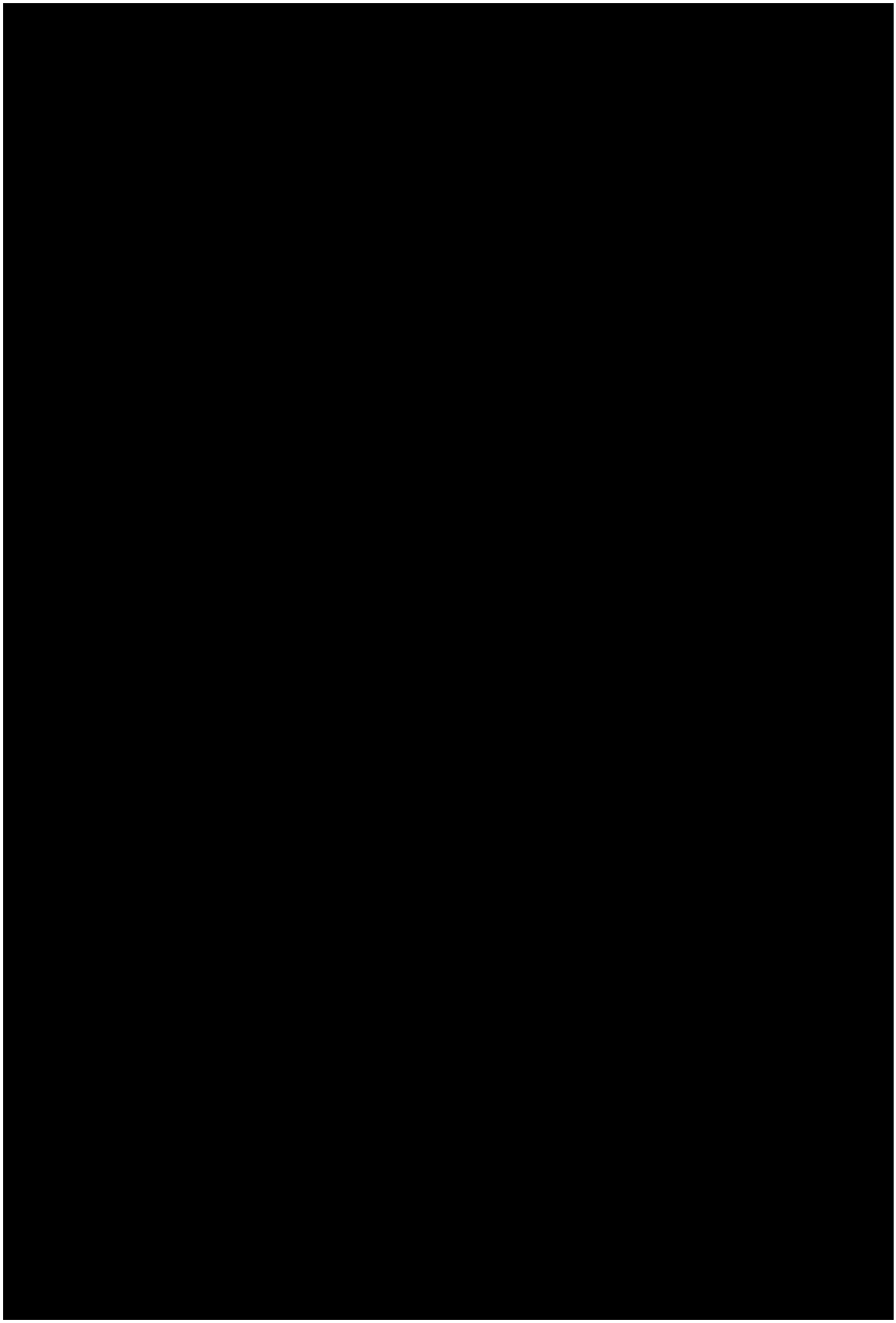
- [redacted]
- [redacted]
- [redacted]

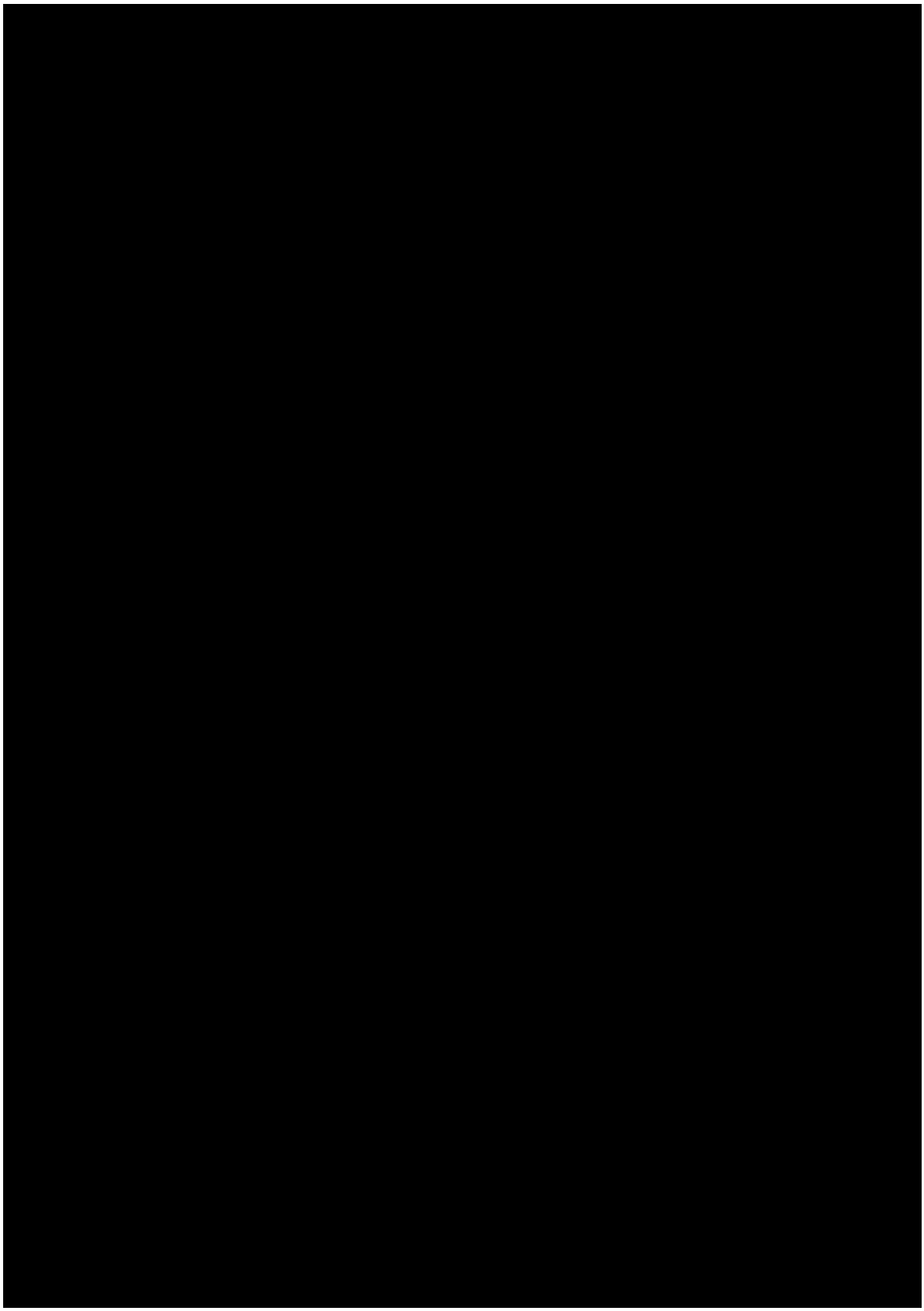
[redacted]

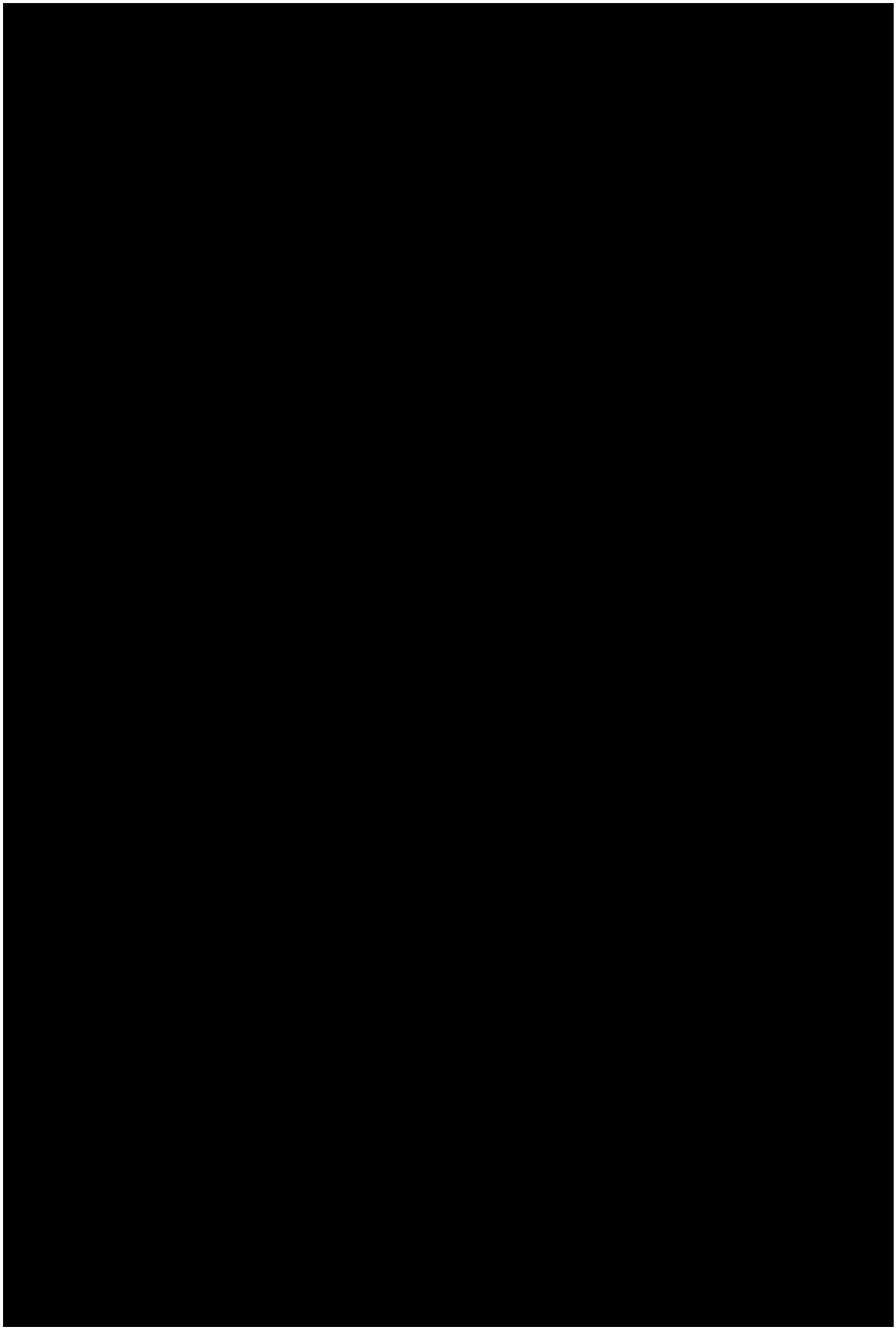
The key provisions of the final executed Lancaster Area Battery Storage, LLC LTRAA with Energy Settlement are summarized in Exhibit C-2. [redacted]

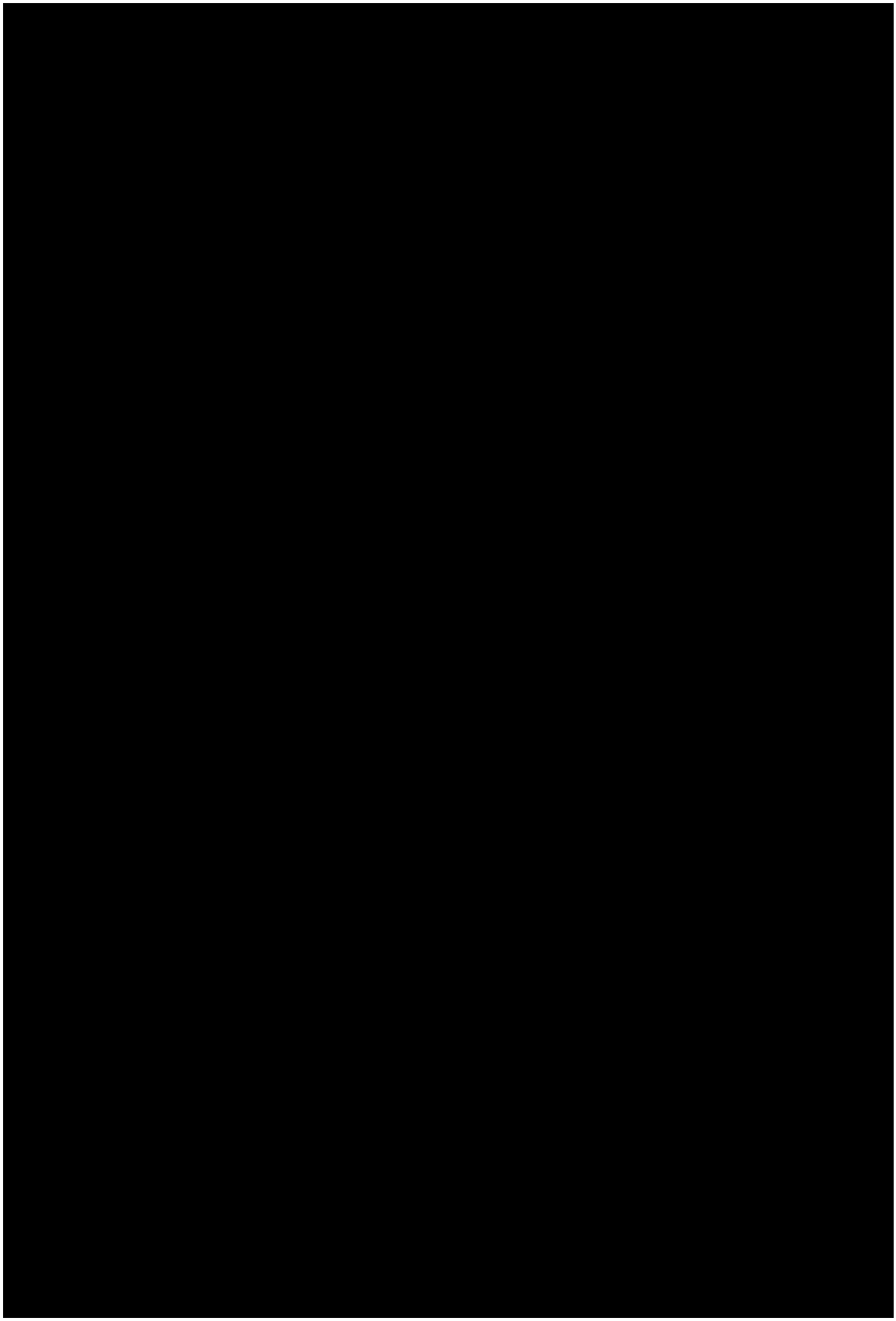
Exhibit C-2: Final Contract Key Provisions

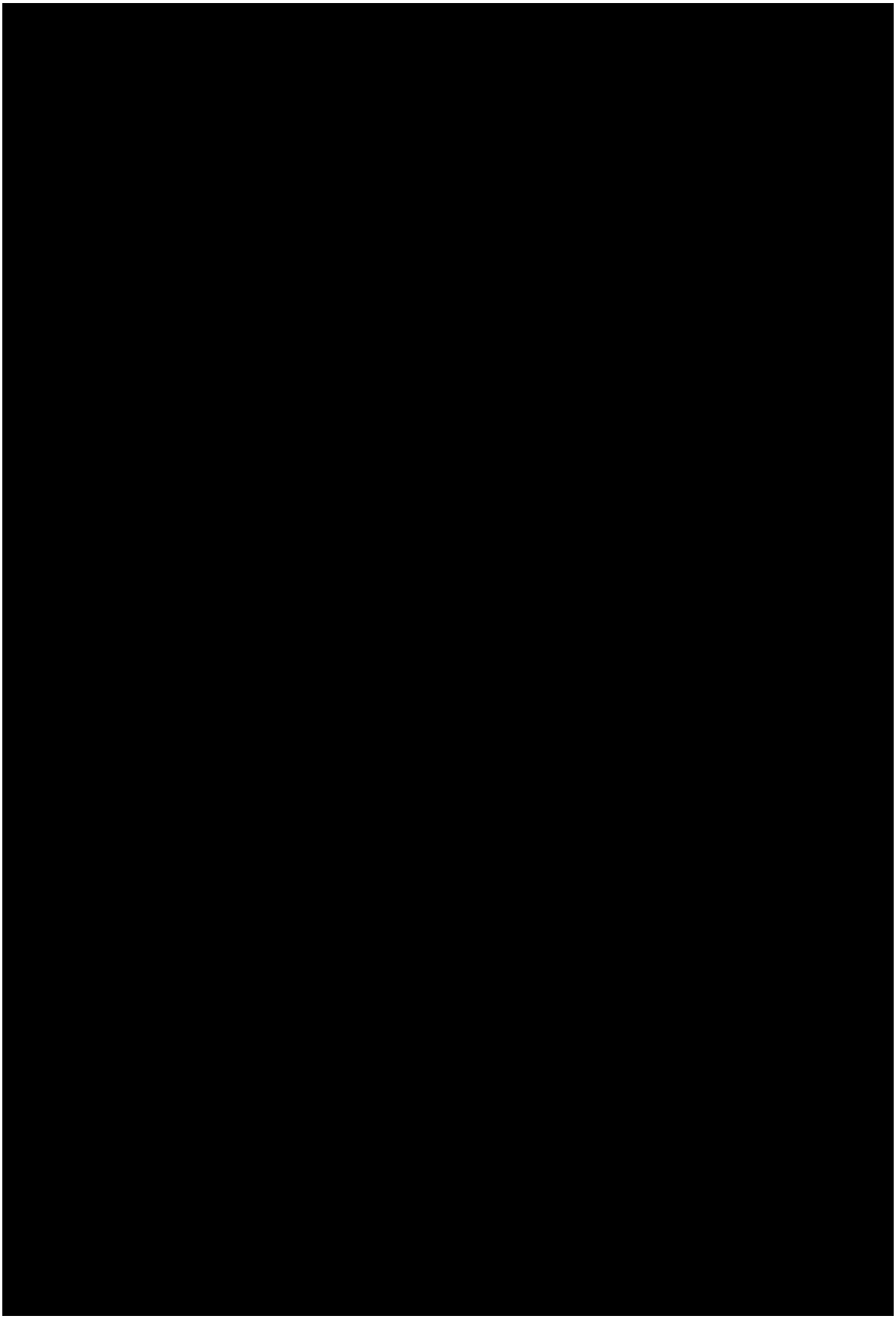
Contract Provisions	Inclusion in Final Contract
Form of Agreement	Long Term Resource Adequacy with Energy Settlement Agreement
[redacted]	











[redacted]

In addition to the contract provisions described above, the LTRAA with Energy Settlement also includes Appendix II and III which provide a description of the facility, unit, performance characteristics and operational limitations. The information from Appendix II and III is summarized in Exhibit D-3 below.

Exhibit C-3: Summary of LTRAA Appendix II and III for Lancaster Area Battery Storage, LLC

Project Name	Lancaster Area Battery Storage Project
[redacted]	
Technology Type	Lithium-Ion Batteries
Physical Point of Interconnection to the CAISO Grid	SCE Antelope 220kV Substation
Existing Zone	SP-15
Maximum Continuous Discharge Power (Dmax)	127 MW
[redacted]	
Discharge Duration	4.0 hours
Storage Energy (MWh)	508 MWh
[redacted]	

IV. Does the Contract Merit CPUC Approval

A. Introduction

This section of the Report addresses the issue "Does the Contract merit CPUC approval and is the contract reasonably priced and does it reflect a functioning market? To address these questions the IE Report Template requires that the following issues be addressed.

1. Provide a discussion and observation for each category and describe the project's ranking relative to other bids from the solicitation; and from an overall market perspective;
    a. Contract price, including cost adders (transmission, credit, etc.)
    b. Portfolio fit
    c. Project viability
        i. Technology
        ii. Bidder experience (financing, construction, operation)
        iii. Credit and collateral

iv. Permitting, site control and other site-related matters
v. Fuel status
vi. Transmission upgrades

d. Any other relevant factors

2. Based on the complete bid process:
   a. Does the IOU contract reflect a functioning market?
   b. Is the IOU contract the best overall offer received by the IOU?
3. Is the contract a reasonable method of achieving the need identified in the RFO?
4. If the contract does not directly reflect a product solicited and bid in an RFO, is the contract superior to the bids received or the products solicited in the RFO?
5. Based on your analysis of the RFO bids and the bid process, does the contract merit Commission approval? Explain

B. Need for Procurement

Through the 2020 System Reliability RFO – Phase 2 solicitation process, PG&E is seeking offers for the purchase of resource adequacy (RA) or load reduction to come online by August 1, 2022 and August 1, 2023 pursuant to CPUC Decision D.19-11-016. The Decision requires PG&E to make incremental procurement of system-level qualifying resource adequacy (RA) capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023.[6] The Decision requires PG&E to procure and have online 50% of the target or 358.45 MW by August 1, 2021, 75% (573.83 MW) of the target capacity by August 1, 2022, and 100% online by August 1, 2023. PG&E contracted for 423 MW via its System Reliability RFO – Phase 1, and therefore is targeting a minimum of 342.1 MWs for Phase 2. Phase 1 was for projects that intend to meet the August 1, 2021 online date and Phase 2 is for projects that intend to come online after August 1, 2021 and before August 1, 2023.

Through this 2020 System Reliability RFO – Phase 2 process, PG&E has procured 387 MW of eligible resource capacity with 194 MW in 2022 and 193 MW in 2023. The execution of this agreement with Lancaster Area Battery Storage, LLC for 127 MW will provide approximately 32.8% of this total.

Chapter V of the IE's Report on the 2020 System Reliability RFO – Phase 2 process, provides evidence that the response to the RFO was robust. As illustrated in this section of the IE report, PG&E received [redacted] offer variations from [redacted] projects and [redacted] counterparties. [redacted] The detailed evaluation conducted by PG&E is described primarily in Chapters IV and V of the IE Report on the 2020 System Reliability RFO – Phase 2, and that description confirms that the Lancaster Area Battery Storage, LLC Long-Term Resource Adequacy Agreement submitted by sPower for the Lancaster Area Battery Storage project was selected for

[6] The target was increased to 765.1 MW based on an April 15, 2020 ALJ ruling.

execution based on its competitiveness, and on the applicable evaluation criteria, compared to other similar lithium-ion battery LTRAA agreement options. The reasonableness of the Lancaster Area Battery Storage, LLC LTRAA from a viewpoint of its cost competitiveness, as well as project viability and other evaluation criteria, is set forth in the next section of this Report.

C. Contract Pricing and Portfolio Fit

[redacted]

[redacted]

[redacted]

Exhibit C-4: Valuation Results for the Short-Listed Lancaster Area Battery Storage Project

Valuation Components	NMV Components ($/kW)	NMV Components ($/kW)
[redacted]		

[redacted]

[redacted]

D. Project Viability

Project Scrutiny

The 2020 System Reliability RFO – Phase 2 Offer Package requires Participants to complete and submit documents pertaining to aspects of project development for their offers. The Offer Form (Appendix A) includes information required from the Participant on project pricing, operational information, electrical interconnection information, developer experience, site control status, permitting status, and project finance status. In addition, Participants were required to submit Supplemental Project Information (Appendix B1) which requested detailed information about the status of the project. PG&E relies on this information to conduct its own qualitative evaluation of the offers.[7] [redacted]

PG&E conducted its internal project viability assessment on each of the offers submitted and provided the assessment to the IE. [redacted][8] [redacted]

Technology and Procurement Issues

The Lancaster Area Battery Storage project will include the installation of a 127 MW/508 MWh (i.e. 4-hour duration battery) standalone lithium-ion battery project with power conversion systems and a high voltage substation to be located in Lancaster, California. [redacted]

[7] As noted in the RFO Protocol, PG&E may consider qualitative factors that could impact the value of an offer, including project viability, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date, supply chain responsibility status, and completeness of the offer.

[8] [redacted]

Experience (Financing, construction, operation)

sPower is an experienced renewable energy developer with over 150 solar and wind projects in operation in the United States. This amount includes 1.65 GW in operation, 480 MW in construction, and 13 GW of projects under development. In July 2017, AES Corporation and Alberta Investment Management Corporation entered into a joint venture agreement to acquire sPower. sPower remains a joint venture operating company with its current management and staff in place. sPower's development team has extensive experience leading permitting, interconnection, origination and financing processes and has developed and built utility scale solar and wind projects representing over $3.5 billion in investment. [redacted]

In addition, it was announced in November 2020 that sPower plans to merge with the AES Corporation, a Fortune 500 generation and power distribution company, in order to streamline clean energy development. AES and sPower plan to offer 24/7 clean energy packages for corporate customers, which will rely heavily on storage development. AES is one of the world's leading power companies, generating and distributing power in 15 countries and employing over 10,000 people worldwide.

Site Control and Other Site Issues, Permitting,

[redacted]

Interconnection

[redacted]

[redacted]

Schedule

[redacted]

Conclusion

Based on the foregoing, it appears to the IE that the Lancaster Area Battery Storage project should have a high probability of success for completing the project by August 1, 2022, as required by the LTRAA with Energy Settlement. [redacted]

Pacific Gas and Electric Company

2020 System Reliability Request for Offers – Phase 2

Independent Evaluator Report

Public Version

Attachment D

Long Term Resource Adequacy with Energy Settlement Agreement with North Central Valley Energy Storage, LLC

December, 2020

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

Table of Contents

I. Introduction

A. Overview

Pacific Gas and Electric Company ("PG&E) is seeking approval of a Long-Term Resource Adequacy Agreement ("LTRAA") with Energy Settlement ("w/ ES") from the North Central Valley Energy Storage LLC 132 MW Battery Energy Storage System located in North Central Valley, California. [redacted].[1] The project includes the installation of 132 MW/528 MWh lithium-ion batteries and power conversion systems. The project has an Expected Initial Delivery Date ("IDD") of August 1, 2023.

For this Agreement, [redacted].[2] [redacted] The Battery Energy Storage System ("BESS") is located in the town of Stockton in San Joaquin County, California.

The term of the LTRAA with Energy Settlement between PG&E and North Central Valley Energy Storage, LLC is for 15 years commencing on the Initial Delivery Date, which is expected to be August 1, 2023. The project is a new build, stand-alone energy storage project that does not appear on the Procurement Baseline List.

The LTRAA with Energy Settlement with North Central Valley Energy Storage was executed by PG&E pursuant to the Company's 2020 System Reliability Request for Offers – Phase 2 ("2020 System Reliability RFO – Phase 2"). Through this RFO, PG&E is seeking offers from Participants for the purchase of resource adequacy ("RA") or load reduction that meet the objectives of California Public Utility Commission ("CPUC") Decision D.19-11-016. The Decision requires PG&E to undertake incremental procurement of system-level qualifying resource adequacy capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023. With the backstop procurement included, PG&E's new target is 765.1 MW. Decision D.19-11-016 requires PG&E to procure and have online 75% (573.83 MW) of the target capacity by August 1, 2022 and 100% online by August 1, 2023. In its System Reliability RFO – Phase 1, PG&E contracted for 423 MWs expected on-line by August 1, 2021, and is therefore targeting a minimum of 342.1 MWs for Phase 2.

PG&E launched the 2020 System Reliability RFO – Phase 2 on July 10, 2020 and received offers on August 19, 2020. PG&E executed six Agreements for eligible products as a result

[1] The proposal was submitted by NextEra Energy Resources, LLC ("NextEra") as developer and owner of Participant Entity or Project.

[2] [redacted]

of the solicitation, representing a total of 387 MW, including 132 MW of energy storage capacity under the LTRAA with Energy Settlement with North Central Valley Energy Storage, LLC.

This Attachment D to the Independent Evaluator Report on PG&E's 2020 System Reliability RFO – Phase 2 process ("IE Report on 2020 System Reliability RFO – Phase 2") focuses on the two sections of the CPUC IE Report Template associated with discussions of project-specific negotiations (Section E of the Report Template) and of the contract approval issue (Section H of the Report Template) – does the contract merit CPUC approval? Is the contract reasonably priced and does it reflect a functioning market? A separate Attachment is provided for each Agreement executed by PG&E with eligible resource providers vis this solicitation. Accordingly, the IE Report on PG&E's 2020 System Reliability RFO – Phase 2 will contain Attachment A through Attachment E, which address each contract executed through this solicitation.

II. Offer Submission and Evaluation

NextEra Energy initially submitted [redacted] for the North Central Valley Storage project into the 2020 System Reliability RFO – Phase 2.

[redacted][3].

[redacted]

[redacted]

[3] [redacted]

[redacted][4]

[redacted]

[4] [redacted]

[redacted]

On September 18, 2020, PG&E notified NextEra Energy that its offer had been selected for the shortlist and asked for the company to notify PG&E if they would accept their shortlist position. [redacted]

III. Project Specific Contract Negotiations

For reviewing and evaluating the performance of the utility with regard to specific contract negotiations, the IE has addressed the issues raised in the CPUC Independent Evaluator Report Template. These include:

1. Identify the principles the IE used to evaluate negotiations;

2. Using the above principles, evaluate the project specific negotiations. Highlight any issues of interest/concern including unique terms and conditions;

3. Was similar information/options made available to other bidders when appropriate (i.e. if a bidder was told to reduce its price, was the same information made available to others?);

4. Describe and explain any differences of opinion between the IE and utility. If resolved, describe the reasonableness of the outcome;

5. Any other information relevant to negotiations not asked above but important to understanding the IOU's process.

Principles Used to Evaluate Negotiations

The general principles followed by the IE in evaluating contract negotiations include assurance that the risk allocation provisions in the contract are reasonably balanced between the counterparties and that the utility customers are not placed at undue risk as a result of the contracting process. The IE generally "monitors" but does not actively participate in the contract negotiation process but will identify issues to the utility transactors if negotiations are moving off track or there are potential biases or inconsistencies in the process. The IE also attempts to ensure that similarly situated counterparties are treated the same or similarly and that all counterparties are provided with the same message. For example, [redacted]

However, given the lead times associated with completion of this RFO, PG&E essentially used a "standard" contract approach.[5] [redacted]

Revisions to the Pro Forma Long-Term Resource Adequacy Agreement

PG&E included a pro forma Long-Term Resource Adequacy Agreement with Energy Settlement in its 2020 System Reliability RFO – Phase 2 solicitation for Participants to review and redline.[6] [redacted] Given the timeframe for undertaking this solicitation, PG&E noted that it had a preference for projects that can agree to terms in an expedited fashion. In the RFO Protocol, PG&E informed Participants that they must

[5] [redacted]

[6] PG&E included seven pro forma agreements in the RFO: (1) Resource Adequacy Confirm (3-5 year delivery term); (2) Long Term Resource Adequacy Agreement (10 or 15 year term); (3) Long Term Resource Adequacy Agreement with Energy Settlement; (4) Behind the Meter Resource Adequacy Agreement for new projects (10 or 15 year terms); (5) Demand Response Agreement (up to 10 year terms); (6) Energy Efficiency Agreement; and (7) Build-Own-Transfer Agreement.

submit applicable Form Agreements with their offer and must include all edits necessary to accurately describe the proposed project at the time of offer submittal. [redacted]

Merrimack Energy reviewed the redlines to the pro forma agreements prepared by the shortlisted Participants. [redacted]

[redacted]

- [redacted]
- [redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

- [redacted]
- [redacted]

[redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]

[redacted]

- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

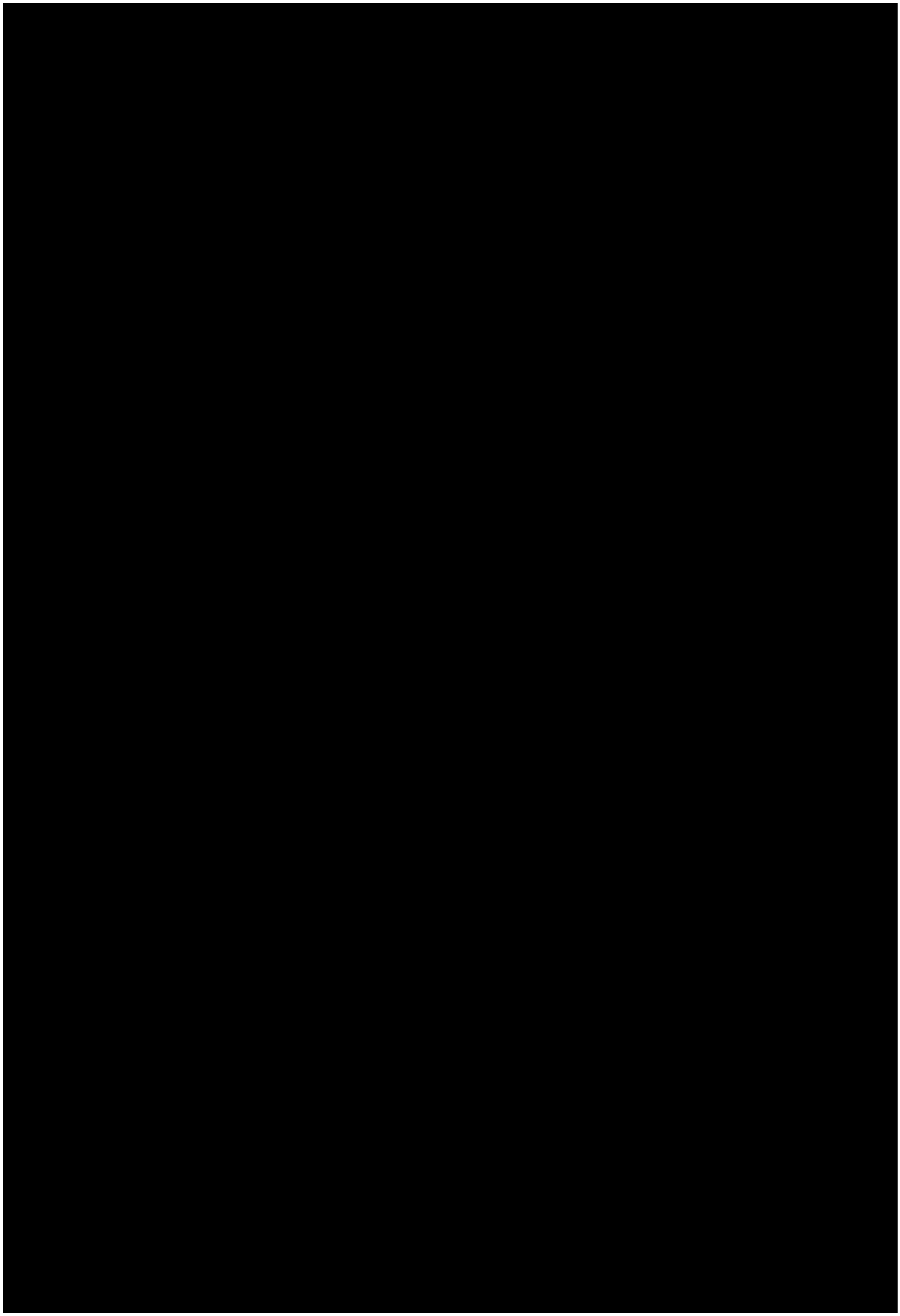
[redacted]

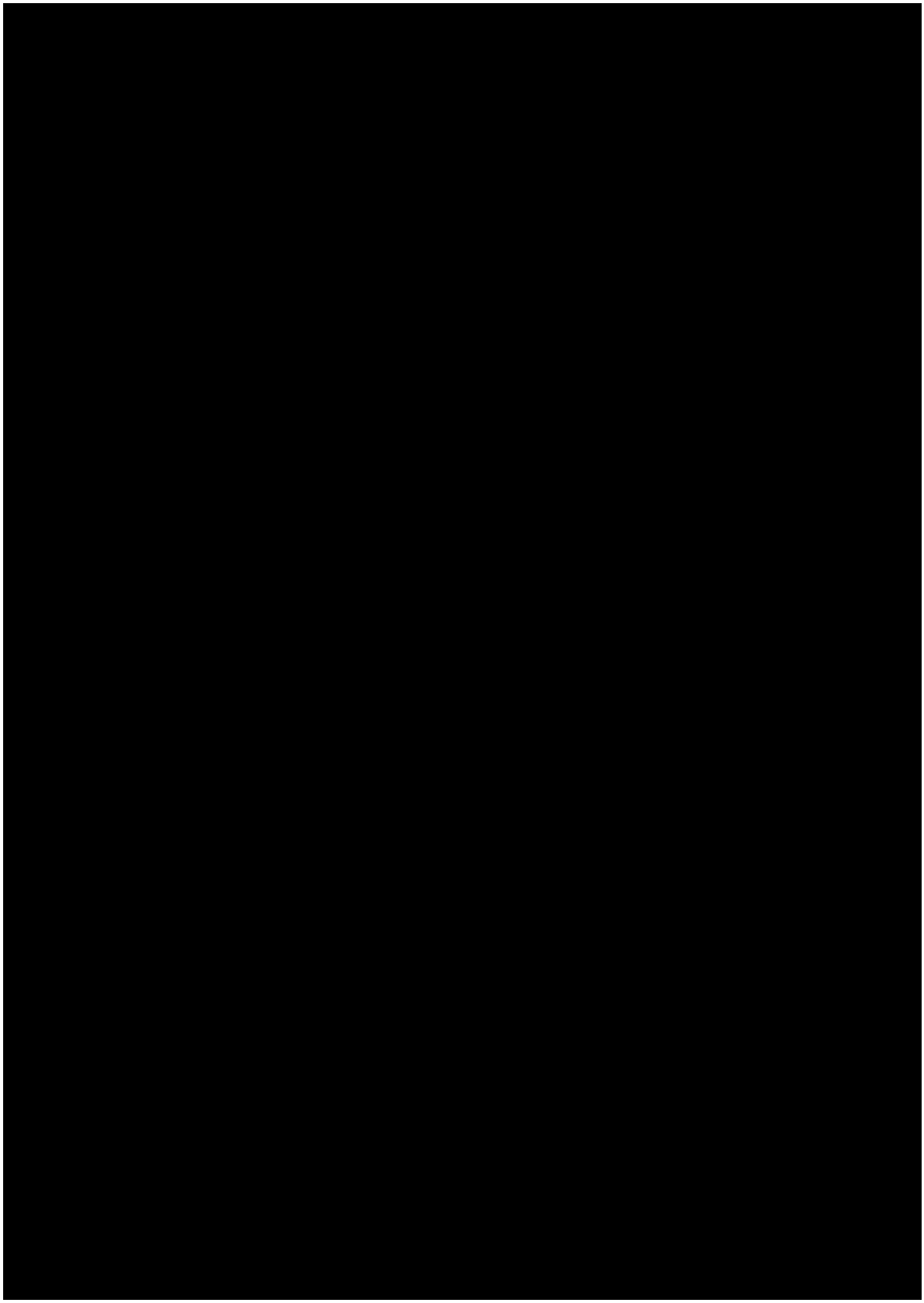
The key provisions of the final executed North Central Valley Energy Storage, LLC LTRAA with Energy Settlement are summarized in Exhibit D-2. [redacted].[7]

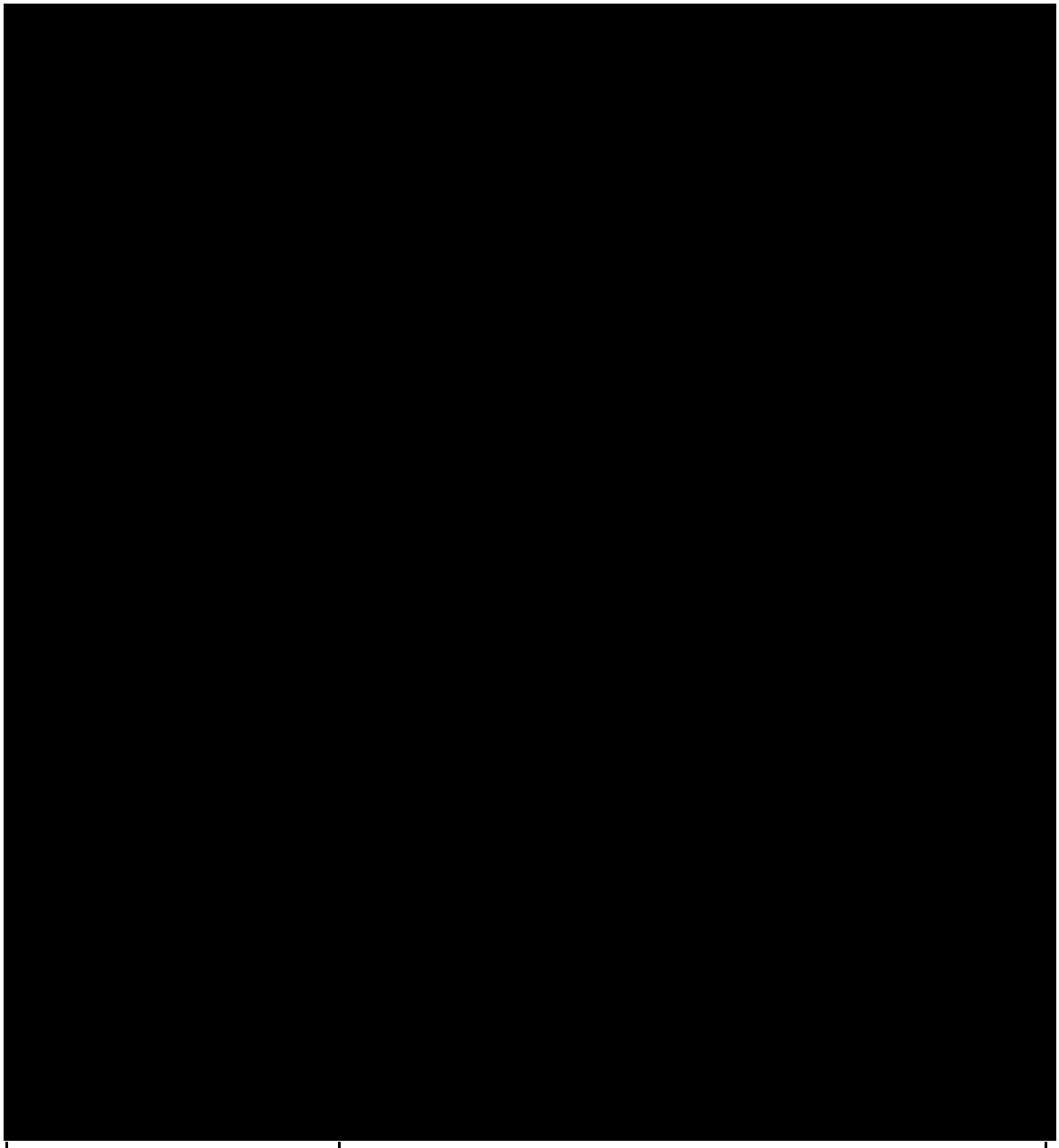
Exhibit D-2: Final Contract Key Provisions

Contract Provisions	Inclusion in Final Contract
Form of Agreement	Long Term Resource Adequacy with Energy Settlement Agreement
[redacted]	

[7] [redacted]



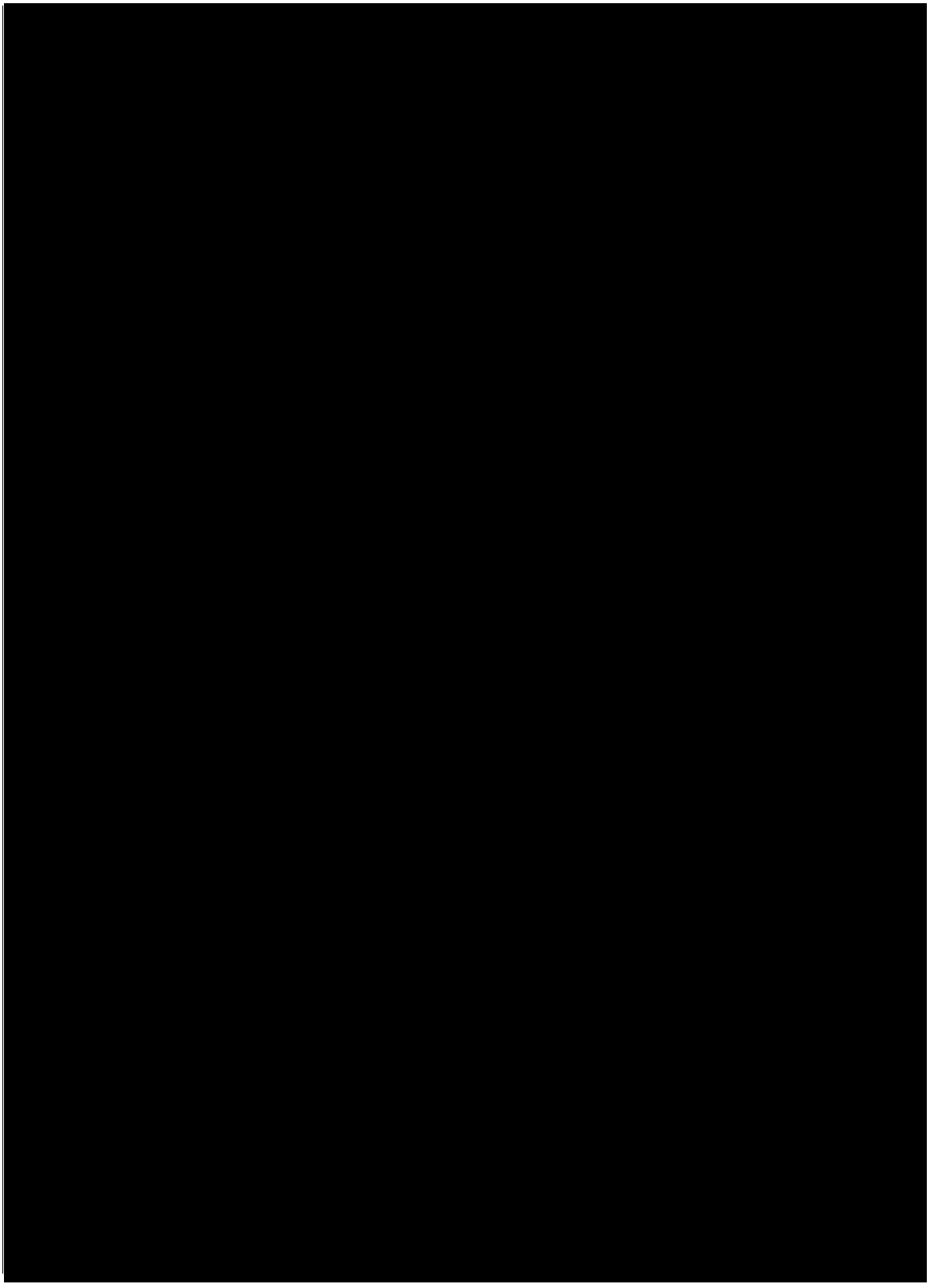




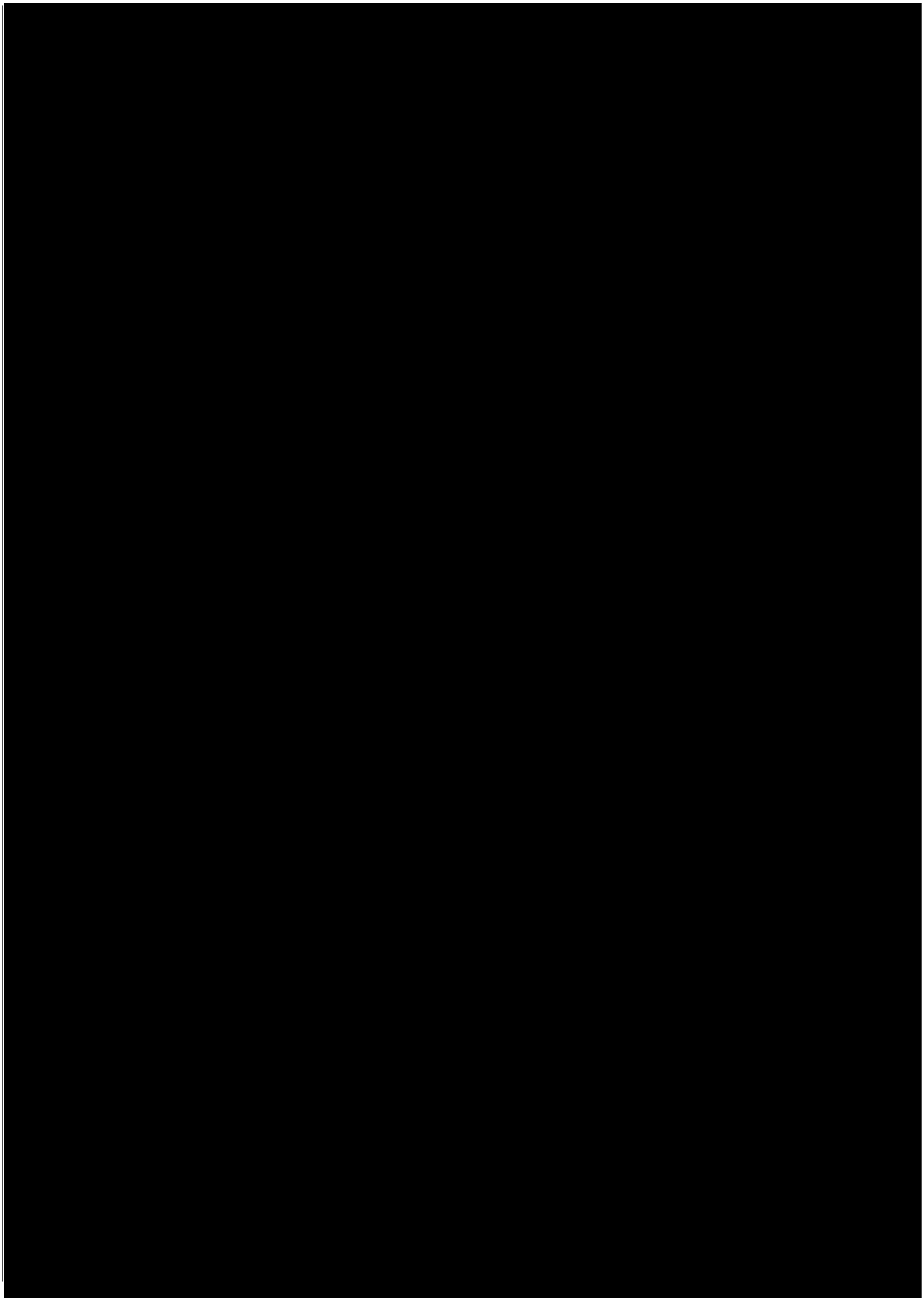
[redacted][8]

[redacted]

[8] [redacted]



[redacted]



[redacted]

In addition to the contract provisions described above, the LTRAA with Energy Settlement also includes Appendix II and III which provide a description of the facility, unit, performance characteristics and operational limitations. The information from Appendix II and III is summarized in Exhibit D-3 below.

Exhibit D-3: Summary of LTRAA Appendix II and III for North Central Valley Energy Storage, LLC

Project Name	North Central Valley Energy Storage project
[redacted]	[redacted]
Technology Type	Lithium-Ion Batteries
Physical Point of Interconnection to the CAISO Grid	Bellota 115kV Substation
Existing Zone	NP-15
Maximum Continuous Discharge Power (Dmax)	132 MW
[redacted]	[redacted]
Discharge Duration	4.0 hours
Storage Energy (MWh)	528 MWh
[redacted]	[redacted]

[redacted]

IV. Does the Contract Merit CPUC Approval

A. Introduction

This section of the Report addresses the issue "Does the Contract merit CPUC approval and is the contract reasonably priced and does it reflect a functioning market? To address these questions the IE Report Template requires that the following issues be addressed.

1. Provide a discussion and observation for each category and describe the project's ranking relative to other bids from the solicitation; and from an overall market perspective;
    a. Contract price, including cost adders (transmission, credit, etc.)
    b. Portfolio fit
    c. Project viability
        i. Technology
        ii. Bidder experience (financing, construction, operation)
        iii. Credit and collateral
        iv. Permitting, site control and other site-related matters
        v. Fuel status
        vi. Transmission upgrades
    d. Any other relevant factors
2. Based on the complete bid process:
    a. Does the IOU contract reflect a functioning market?
    b. Is the IOU contract the best overall offer received by the IOU?
3. Is the contract a reasonable method of achieving the need identified in the RFO?
4. If the contract does not directly reflect a product solicited and bid in an RFO, is the contract superior to the bids received or the products solicited in the RFO?
5. Based on your analysis of the RFO bids and the bid process, does the contract merit Commission approval? Explain

B. Need for Procurement

Through the 2020 System Reliability RFO – Phase 2 solicitation process, PG&E is seeking offers for the purchase of resource adequacy (RA) or load reduction to come online by

August 1, 2022 and August 1, 2023 pursuant to CPUC Decision D.19-11-016. The Decision requires PG&E to make incremental procurement of system-level qualifying resource adequacy (RA) capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023.[9] The Decision requires PG&E to procure and have online 50% of the target or 358.45 MW by August 1, 2021, 75% (573.83 MW) of the target capacity by August 1, 2022, and 100% online by August 1, 2023. PG&E contracted for 423 MW via its System Reliability RFO – Phase 1, and therefore is targeting a minimum of 342.1 MWs for Phase 2. Phase 1 was for projects that intend to meet the August 1, 2021 online date and Phase 2 is for projects that intend to come online after August 1, 2021 and before August 1, 2023.

Through this 2020 System Reliability RFO – Phase 2 process, PG&E has procured 387 MW of eligible resource capacity with 194 MW in 2022 and 193 MW in 2023. The execution of this agreement with North Central Valley Energy Storage, LLC for 132 MW will provide approximately 34.1% of this total.

Chapter V of the IE's Report on the 2020 System Reliability RFO – Phase 2 process, provides evidence that the response to the RFO was robust. As illustrated in this section of the IE report, PG&E received [redacted] offer variations from [redacted] projects and [redacted] counterparties. [redacted]. The detailed evaluation conducted by PG&E is described primarily in Chapters IV and V of the IE Report on the 2020 System Reliability RFO – Phase 2, and that description confirms that the North Central Valley Energy Storage, LLC Energy Storage Resource Adequacy Agreement submitted by NextEra for the North Central Valley Energy Storage project was selected for execution based on its competitiveness, and on the applicable evaluation criteria, compared to other similar lithium-ion battery LTRAA with and without Energy Settlement options. The reasonableness of the North Central Valley Energy Storage, LLC LTRAA with Energy Settlement from a viewpoint of its cost competitiveness, as well as project viability and other evaluation criteria, is set forth in the next section of this Report.

C. Contract Pricing and Portfolio Fit

[redacted]

[redacted]

[9] The target was increased to 765.1 MW based on an April 15, 2020 ALJ ruling.

[redacted]

[redacted]

Exhibit D-4: Valuation Results for the Short-Listed North Central Valley Energy Storage Project

Valuation Components	NMV Components ($/kW)	NMV Components ($/kW)
[redacted]		

D. Project Viability

Project Scrutiny

The 2020 System Reliability RFO – Phase 2 Offer Package requires Participants to complete and submit documents pertaining to aspects of project development for their project. The Offer Form (Appendix A) includes information required from the Participant on project pricing, operational information, electrical interconnection information, developer experience, site control status, permitting status, and project finance status. In addition, Participants were required to submit Supplemental Project Information (Appendix B1) which requested detailed information about the status of the project. PG&E relies on this information to conduct its own qualitative evaluation of the offers.[10] [redacted]

[redacted]

[10] As noted in the RFO Protocol, PG&E may consider qualitative factors that could impact the value of an offer, including project viability, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date, supply chain responsibility status, and completeness of the offer.

[redacted]

PG&E conducted its internal project viability assessment on each of the offers submitted and provided the assessment to the IE. [redacted].[11] [redacted]

Technology and Procurement Issues

The North Central Valley Storage project will include the installation of a 132 MW/ 528 MWh (i.e., 4-hour duration battery) standalone lithium-ion battery project with power conversion systems and a high voltage substation to be located in Linden California. [redacted]

Experience (Financing, construction, operation)

NextEra is the largest wholesale generator of clean power, primarily wind and solar, in the US with approximately 15,000 MW of wind, 2,900 MW of solar, and 170 MW of battery storage currently operating. In addition, NextEra has approximately 20,700 MW of net generating capacity across 36 states. NextEra plans to add up to 4,000 MW of new wind and 2,500 MW of new solar generation and also has over 2,000 MW of additional storage projects that are contracted and in development. [redacted]

[redacted]

[11] [redacted]

Site Control and Other Site Issues, Permitting,

Interconnection

[12].

[13].

Schedule

Conclusion

Based on the foregoing, it appears to the IE that the North Central Valley Energy Storage project should have a high probability of success for completing the project by August 1, 2023, as required by the LTRAA.

[12]

[13]

[redacted]

Pacific Gas and Electric Company

2020 System Reliability Request for Offers – Phase 2

Independent Evaluator Report

Public Version

Attachment E

Long Term Resource Adequacy Agreement with LeConte Energy Storage, LLC

December, 2020

Prepared by
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26 Shipway Place
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Table of Contents

I. Introduction

A. Overview

Pacific Gas and Electric Company ("PG&E) is seeking approval of a Long-Term Resource Adequacy Agreement ("LTRAA") from the LeConte Energy Storage, LLC 40 MW Battery Energy Storage System project located in LeConte, California. [redacted][1] The project includes the installation of 40 MW/200 MWh lithium-ion batteries and power conversion systems. The project has an Expected Initial Delivery Date ("IDD") of August 1, 2022.

For this Agreement, [redacted]

The term of the LTRAA between PG&E and LeConte Energy Storage, LLC is for 15 years commencing on the Initial Delivery Date, which is expected to be August 1, 2022. The project is a new build, stand-alone energy storage project that does not appear on the Procurement Baseline List and is therefore fully incremental to the baseline.

The LTRAA with LeConte Energy Storage was executed by PG&E pursuant to the Company's 2020 System Reliability Request for Offers – Phase 2 ("2020 System Reliability RFO – Phase 2"). Through this RFO, PG&E is seeking offers from Participants for the purchase of resource adequacy ("RA") or load reduction that meet the objectives of California Public Utility Commission ("CPUC") Decision D.19-11-016. The Decision requires PG&E to undertake incremental procurement of system-level qualifying resource adequacy capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023. With the backstop procurement included, PG&E's new target is 765.1 MW. Decision D.19-11-016 requires PG&E to procure and have online 75% (573.83 MW) of the target capacity by August 1, 2022 and 100% online by August 1, 2023. In its System Reliability RFO – Phase 1, PG&E contracted for 423 MWs expected on-line by August 1, 2021 and is therefore targeting a minimum of 342.1 MWs for Phase 2.

PG&E launched the 2020 System Reliability RFO – Phase 2 on July 10, 2020 and received offers on August 19, 2020. PG&E executed six Agreements for eligible products as a result of the solicitation, representing a total of 387 MW, including 40 MW of energy storage capacity under the LTRAA with LeConte Energy Storage, LLC.

[1] The proposal was submitted by LS Power Development, LLC ("LS Power") as developer and owner of Participant Entity or Project. LeConte Energy Storage, LLC is a wholly owned subsidiary of Bolt Energy, LLC, which is a subsidiary and affiliate of LS Power Development, LLC.

This Attachment E to the Independent Evaluator Report on PG&E's 2020 System Reliability RFO – Phase 2 process ("IE Report on 2020 System Reliability RFO – Phase 2") focuses on the two sections of the CPUC IE Report Template associated with discussions of project-specific negotiations (Section E of the Report Template) and of the contract approval issue (Section H of the Report Template) – does the contract merit CPUC approval? Is the contract reasonably priced and does it reflect a functioning market? A separate Attachment is provided for each Agreement executed by PG&E with eligible resource providers vis this solicitation. Accordingly, the IE Report on PG&E's 2020 System Reliability RFO – Phase 2 will contain Attachment A through Attachment E, which address each contract executed through this solicitation.

II. Offer Submission and Evaluation

LS Power initially submitted [redacted] for the LeConte Energy Storage project into the 2020 System Reliability RFO – Phase 2, including [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted][2].
- [redacted]
- [redacted]
- [redacted]

[2] [redacted]

[redacted][3]

[3] [redacted]

On September 18, 2020, PG&E notified LS Power that its offer had been selected for the shortlist and asked for the company to notify PG&E if they would accept their shortlist position. [redacted]

III. Project Specific Contract Negotiations

For reviewing and evaluating the performance of the utility with regard to specific contract negotiations, the IE has addressed the issues raised in the CPUC Independent Evaluator Report Template. These include:

1. Identify the principles the IE used to evaluate negotiations;

2. Using the above principles, evaluate the project specific negotiations. Highlight any issues of interest/concern including unique terms and conditions;

3. Was similar information/options made available to other bidders when appropriate (i.e. if a bidder was told to reduce its price, was the same information made available to others?);

4. Describe and explain any differences of opinion between the IE and utility. If resolved, describe the reasonableness of the outcome;

5. Any other information relevant to negotiations not asked above but important to understanding the IOU's process.

Principles Used to Evaluate Negotiations

The general principles followed by the IE in evaluating contract negotiations include assurance that the risk allocation provisions in the contract are reasonably balanced between the counterparties and that the utility customers are not placed at undue risk as a result of the contracting process. The IE generally "monitors" but does not actively participate in the contract negotiation process but will identify issues to the utility transactors if negotiations are moving off track or there are potential biases or inconsistencies in the process. The IE also attempts to ensure that similarly situated counterparties are treated the same or similarly and that all counterparties are provided with the same message. For example, [redacted]

However, given the lead times associated with completion of this RFO, PG&E essentially used a "standard" contract approach.[4] [redacted]

[4] [redacted]

Revisions to the Pro Forma Long-Term Resource Adequacy Agreement

PG&E included a pro forma Long-Term Resource Adequacy Agreement in its 2020 System Reliability RFO – Phase 2 solicitation for Participants to review and redline.[5] [redacted] Given the timeframe for undertaking this solicitation, PG&E noted that it had a preference for projects that can agree to terms in an expedited fashion. In the RFO Protocol, PG&E informed Participants that they must submit applicable Form Agreements with their offer and must include all edits necessary to accurately describe the proposed project at the time of offer submittal. [redacted]

Merrimack Energy reviewed the redlines to the pro forma agreements prepared by the shortlisted Participants. [redacted]

[5] PG&E included seven pro forma agreements in the RFO: (1) Resource Adequacy Confirm (3-5 year delivery term); (2) Long Term Resource Adequacy Agreement (10 or 15 year term); (3) Long Term Resource Adequacy Agreement with Energy Settlement; (4) Behind the Meter Resource Adequacy Agreement for new projects (10 or 15 year terms); (5) Demand Response Agreement (up to 10 year terms); (6) Energy Efficiency Agreement; and (7) Build-Own-Transfer Agreement.

[redacted]

[redacted][6] [redacted]

[redacted]

- [redacted]
- [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[6] [redacted]

[redacted]

[redacted]

[redacted]

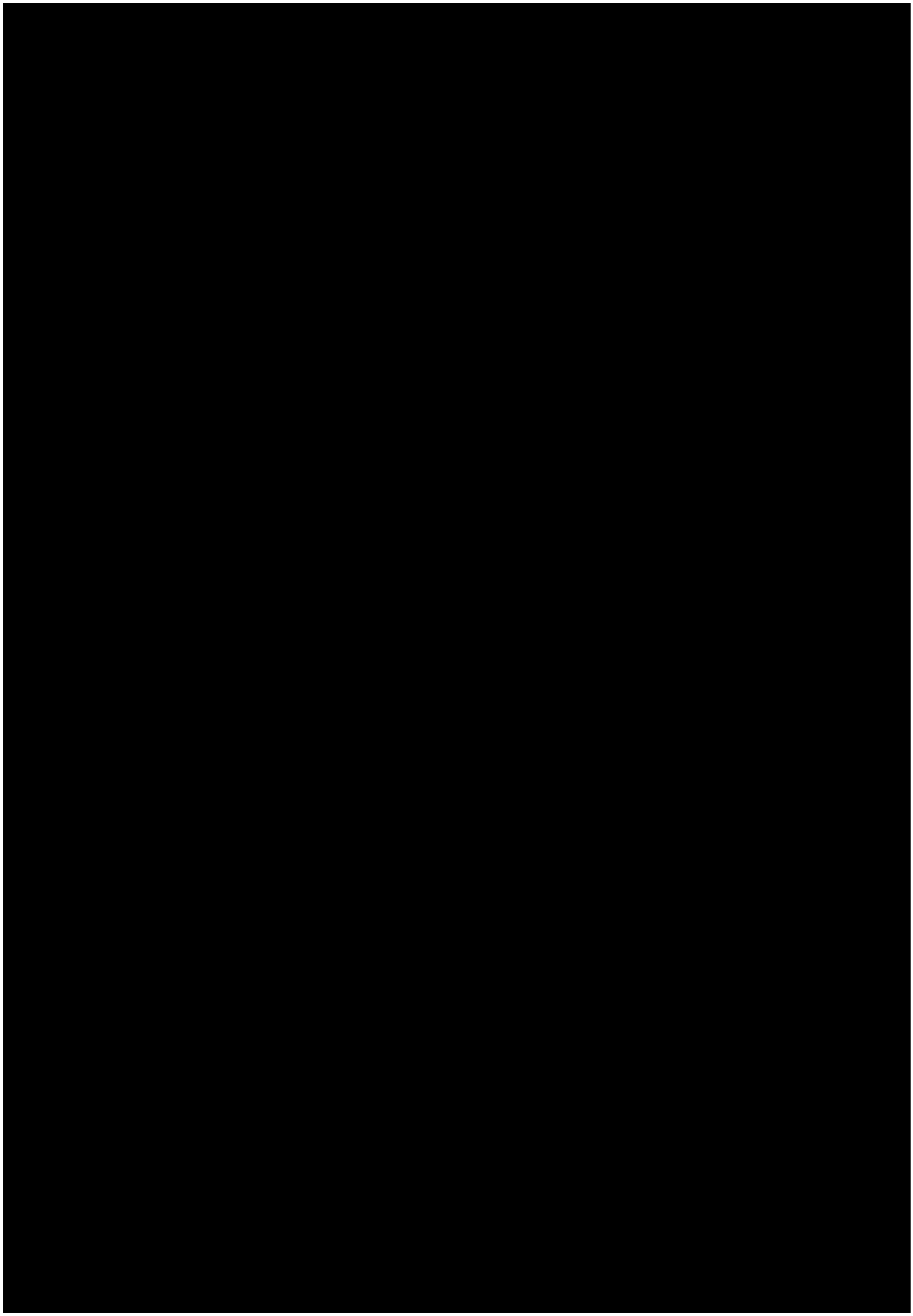
[redacted]

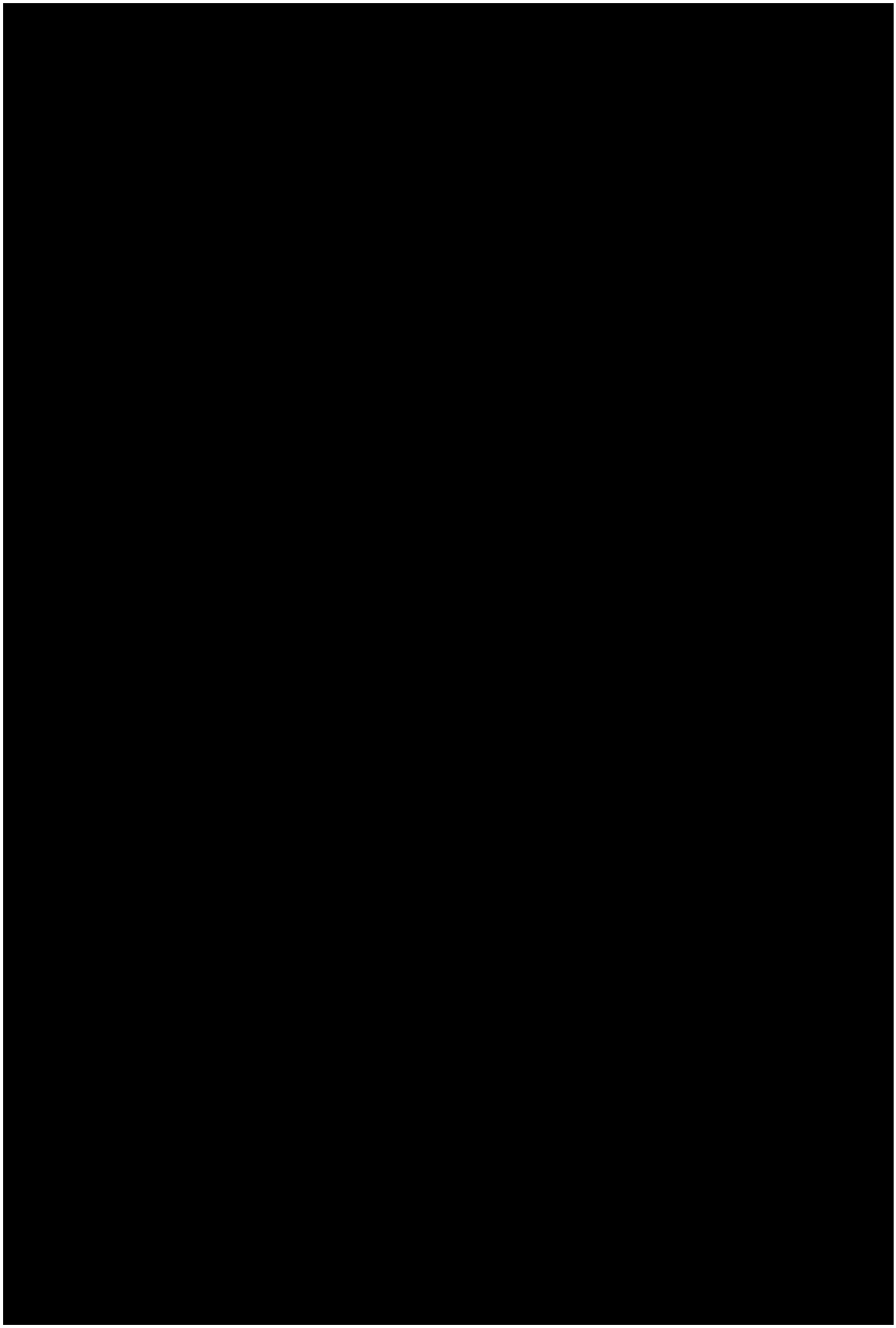
[redacted]

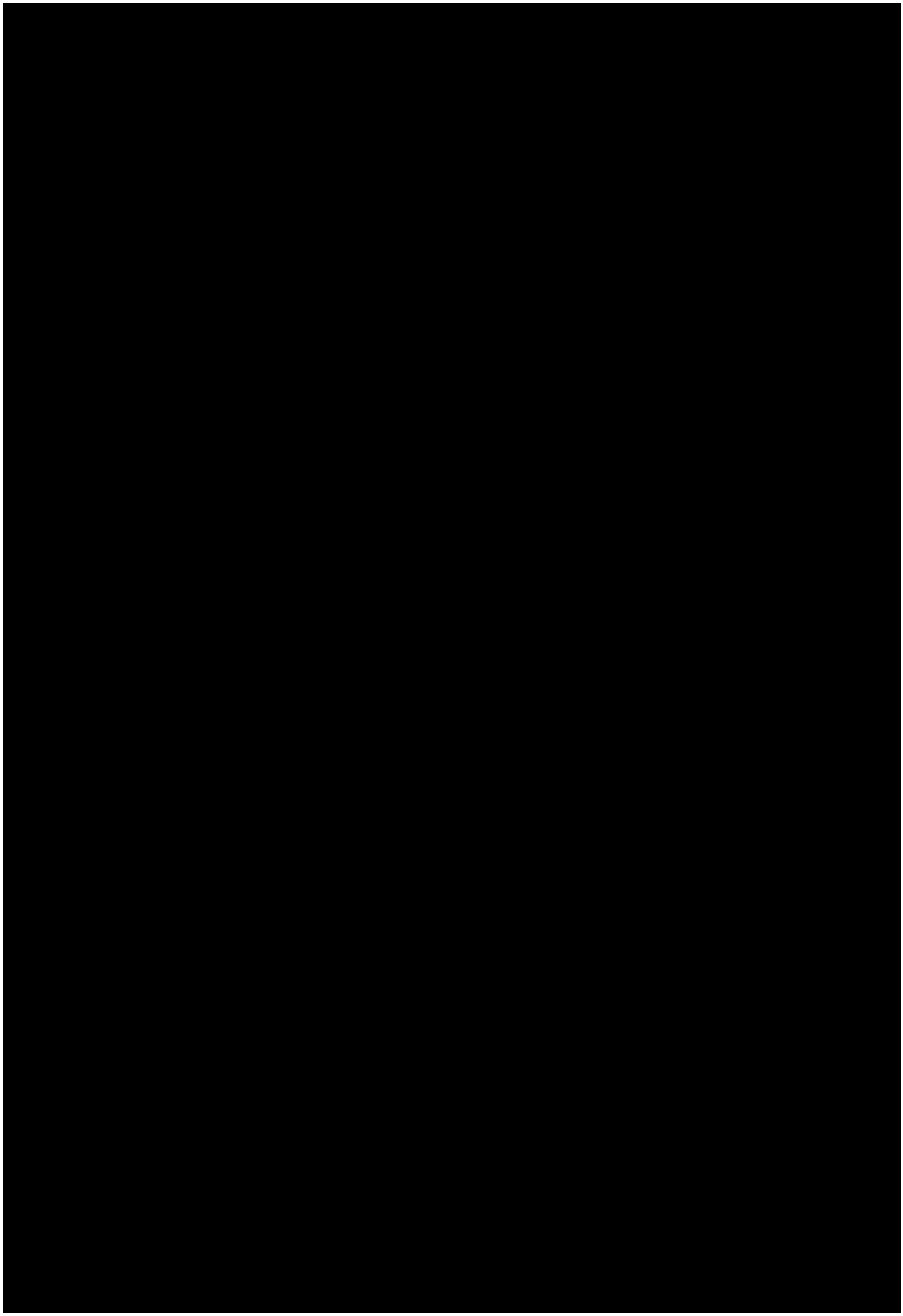
The key provisions of the final executed LeConte Energy Storage, LLC LTRAA are summarized in Exhibit E-2.

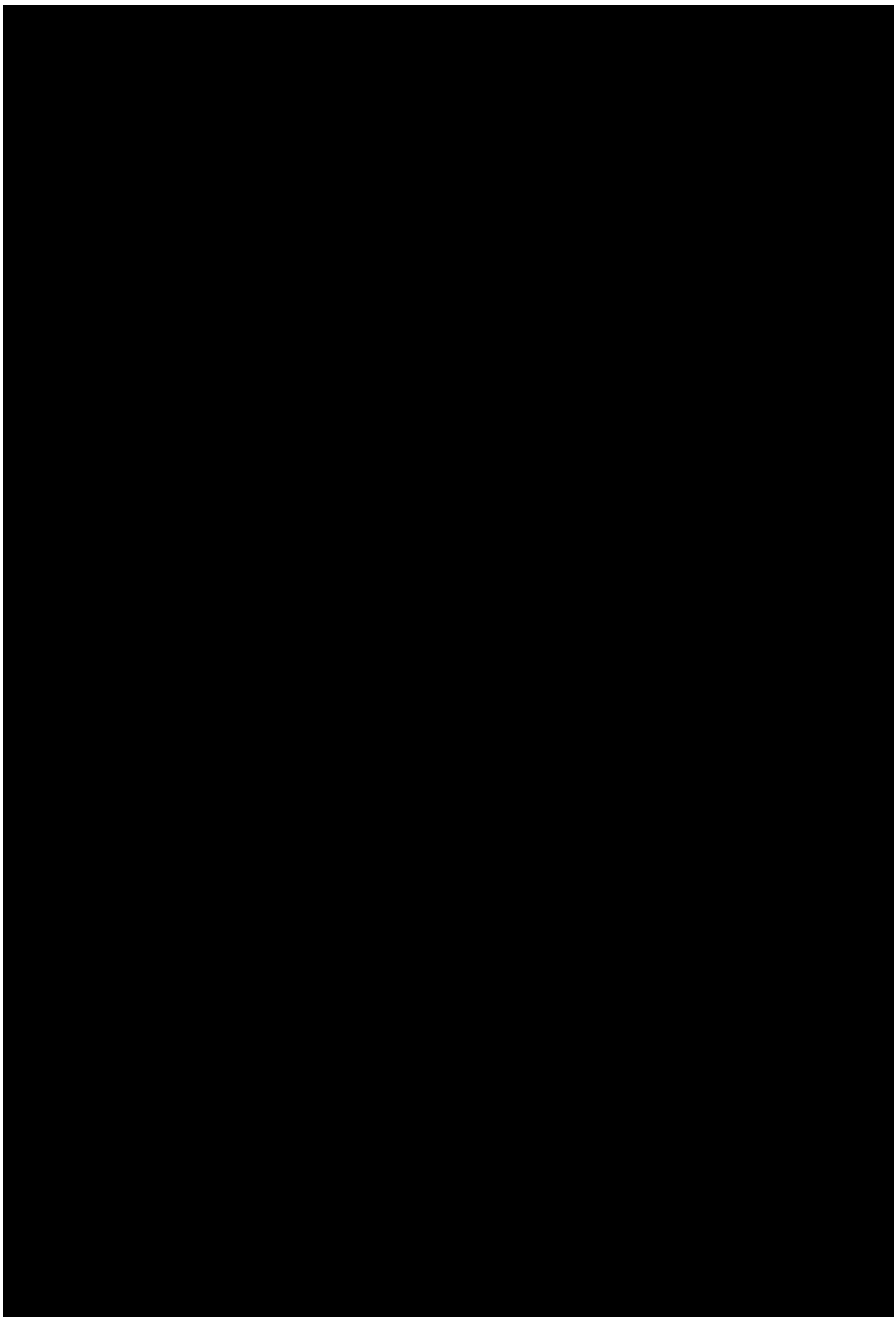
Exhibit E-2: Final Contract Key Provisions

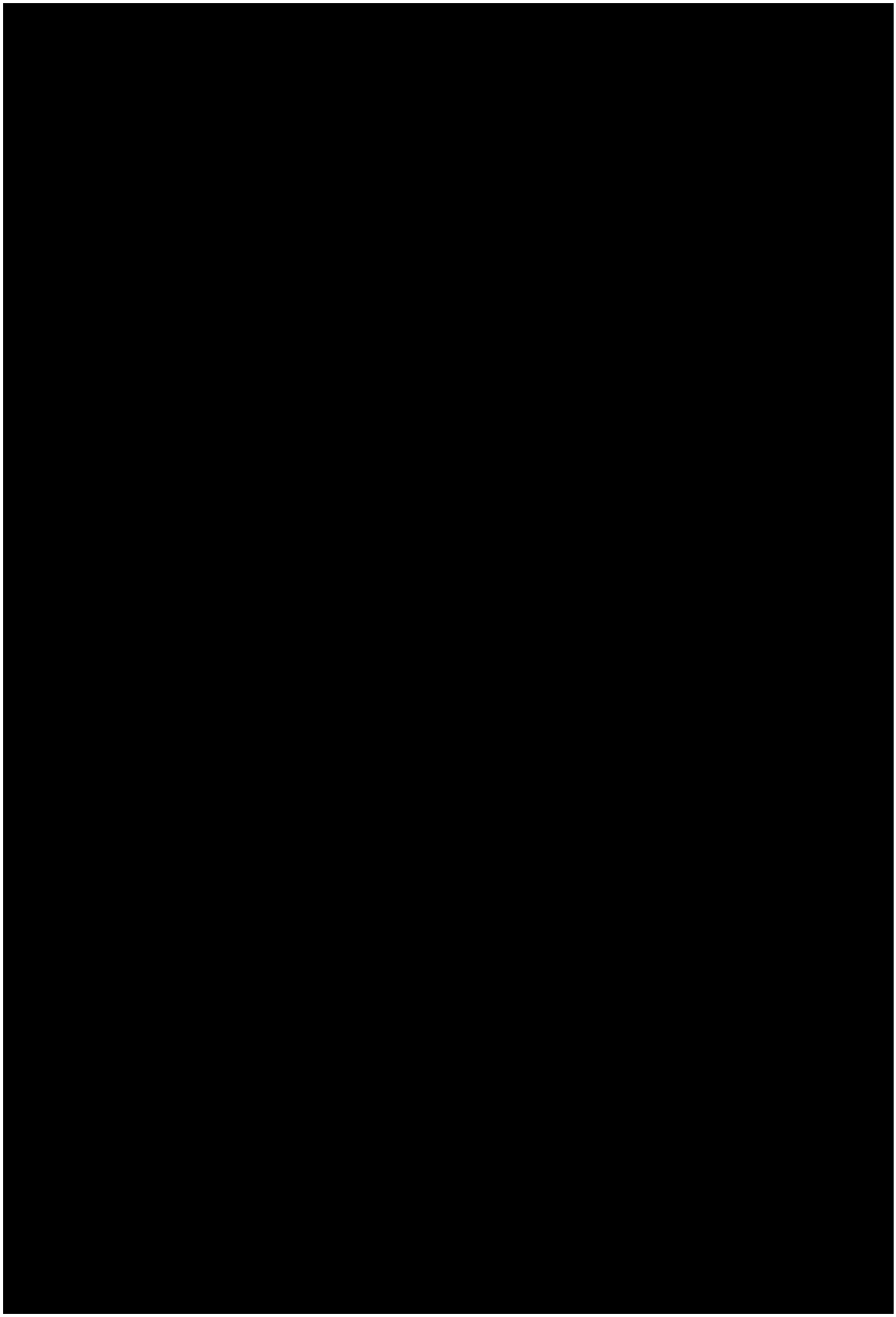
Contract Provisions	Inclusion in Final Contract
Form of Agreement	Long Term Resource Adequacy Agreement
[redacted]	

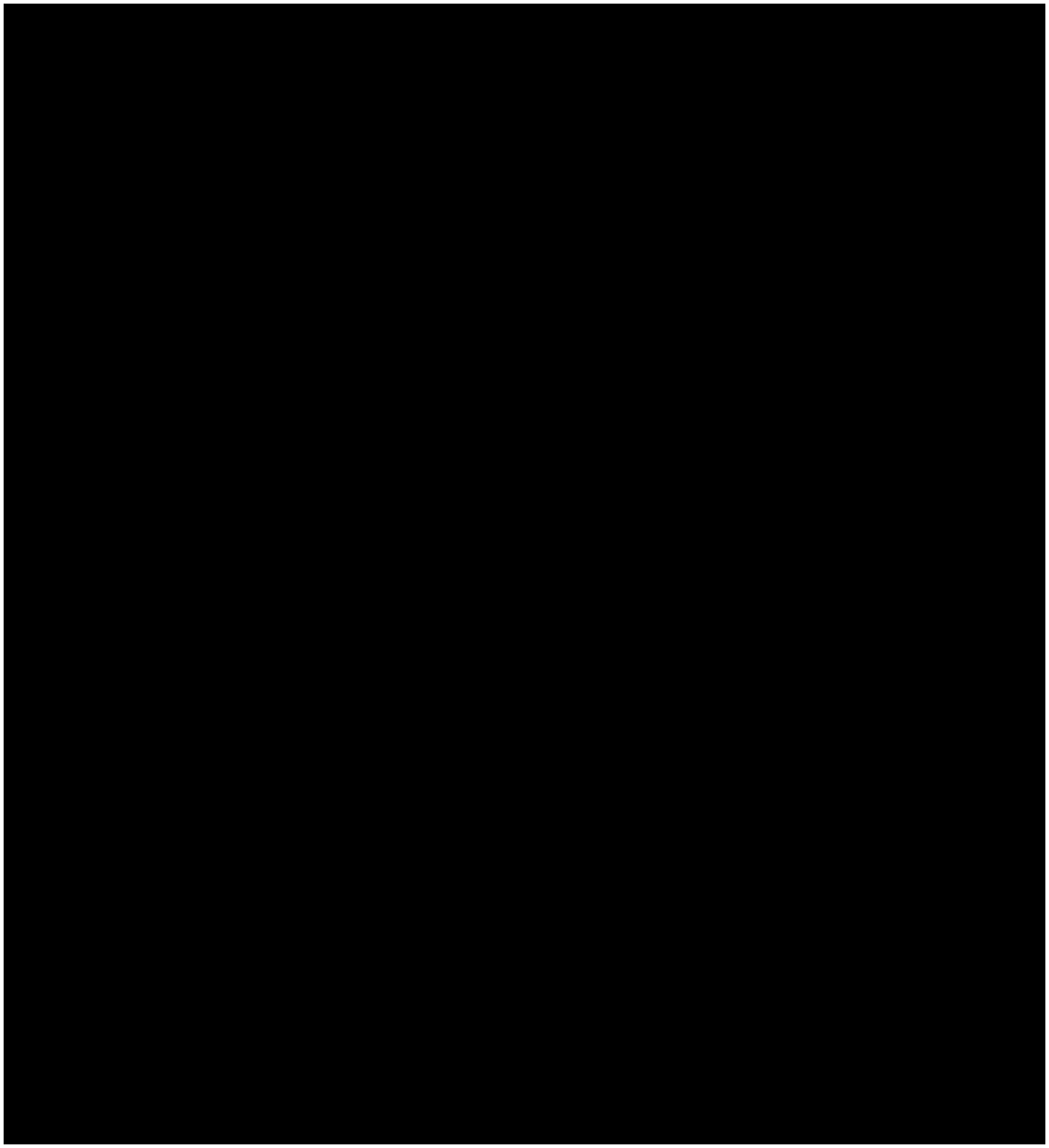












In addition to the contract provisions described above, the LTRAA also includes Appendix II and III which provide a description of the facility, unit, performance characteristics and operational limitations. The information from Appendix II and III is summarized in Exhibit E-3 below.

Exhibit E-3: Summary of LTRAA Appendix II and III for LeConte Energy Storage, LLC

Project Name	LeConte Energy Storage project
[redacted]	
Technology Type	Lithium-Ion Batteries

Physical Point of Interconnection to the CAISO Grid	SDG&E Imperial Valley 230 kV Substation
Existing Zone	SP-15
Maximum Continuous Discharge Power (Dmax)	40 MW
[redacted]	
Discharge Duration	4 hours
Storage Energy (MWh)	160 MWh
[redacted]	

IV. Does the Contract Merit CPUC Approval

A. Introduction

This section of the Report addresses the issue "Does the Contract merit CPUC approval and is the contract reasonably priced and does it reflect a functioning market? To address these questions the IE Report Template requires that the following issues be addressed.

1. Provide a discussion and observation for each category and describe the project's ranking relative to other bids from the solicitation; and from an overall market perspective;
    a. Contract price, including cost adders (transmission, credit, etc.)
    b. Portfolio fit
    c. Project viability
        i. Technology
        ii. Bidder experience (financing, construction, operation)
        iii. Credit and collateral
        iv. Permitting, site control and other site-related matters
        v. Fuel status
        vi. Transmission upgrades
    d. Any other relevant factors
2. Based on the complete bid process:
    a. Does the IOU contract reflect a functioning market?

b. Is the IOU contract the best overall offer received by the IOU?

3. Is the contract a reasonable method of achieving the need identified in the RFO?
4. If the contract does not directly reflect a product solicited and bid in an RFO, is the contract superior to the bids received or the products solicited in the RFO?
5. Based on your analysis of the RFO bids and the bid process, does the contract merit Commission approval? Explain

B. Need for Procurement

Through the 2020 System Reliability RFO – Phase 2 solicitation process, PG&E is seeking offers for the purchase of resource adequacy (RA) or load reduction to come online by August 1, 2022 and August 1, 2023 pursuant to CPUC Decision D.19-11-016. The Decision requires PG&E to make incremental procurement of system-level qualifying resource adequacy (RA) capacity in the amount of 716.9 MW to come online between August 1, 2021 and August 1, 2023.[7] The Decision requires PG&E to procure and have online 50% of the target or 358.45 MW by August 1, 2021, 75% (573.83 MW) of the target capacity by August 1, 2022, and 100% online by August 1, 2023. PG&E contracted for 423 MW via its System Reliability RFO – Phase 1, and therefore is targeting a minimum of 342.1 MWs for Phase 2. Phase 1 was for projects that intend to meet the August 1, 2021 online date and Phase 2 is for projects that intend to come online after August 1, 2021 and before August 1, 2023.

Through this 2020 System Reliability RFO – Phase 2 process, PG&E has procured 387 MW of eligible resource capacity with 194 MW in 2022 and 193 MW in 2023. The execution of this agreement with LeConte Energy Storage, LLC for 40 MW will provide approximately 10.3% of this total.

Chapter V of the IE's Report on the 2020 System Reliability RFO – Phase 2 process, provides evidence that the response to the RFO was robust. As illustrated in this section of the IE report, PG&E received [redacted] offer variations from [redacted] projects and [redacted] counterparties. [redacted] The detailed evaluation conducted by PG&E is described primarily in Chapters IV and V of the IE Report on the 2020 System Reliability RFO – Phase 2, and that description confirms that the LeConte Energy Storage, LLC Energy Storage Resource Adequacy Agreement submitted by LS Power for the LeConte Energy Storage project was selected for execution based on its competitiveness, and on the applicable evaluation criteria, compared to other similar lithium-ion battery LTRAA with and without Energy Settlement options. The reasonableness of the LeConte Energy Storage, LLC LTRAA from a viewpoint of its cost competitiveness, as well as project viability and other evaluation criteria, is set forth in the next section of this Report.

[7] The target was increased to 765.1 MW based on an April 15, 2020 ALJ ruling.

C. Contract Pricing and Portfolio Fit

[redacted]

[redacted]

[redacted]

Exhibit E-4: Valuation Results for the Short-Listed LeConte Energy Storage Project

Valuation Components	NMV Components($/kW)	NMV Components
[redacted]		

[redacted]

D. Project Viability

Project Scrutiny

The 2020 System Reliability RFO – Phase 2 Offer Package requires Participants to complete and submit documents pertaining to aspects of project development for their

project. The Offer Form (Appendix A) includes information required from the Participant on project pricing, operational information, electrical interconnection information, developer experience, site control status, permitting status, and project finance status. In addition, Participants were required to submit Supplemental Project Information (Appendix B1) which requested detailed information about the status of the project. PG&E relies on this information to conduct its own qualitative evaluation of the offers.[8] [redacted]

PG&E conducted its internal project viability assessment on each of the offers submitted and provided the assessment to the IE. [redacted][9] [redacted]

Technology and Procurement Issues

The LeConte Energy Storage project will include the installation of a 40 MW, 160 MWh standalone lithium-ion battery project with power conversion systems and a high voltage substation to be located in Imperial, California. [redacted]

Experience (Financing, construction, operation)

LeConte Energy Storage is a wholly owned subsidiary of Bolt Energy Holdings, LLC and an affiliate of LS Power. LS Power Group personnel will be responsible for all services required for the project, including engineering services, development support, financial support, and other services. LS Power has a successful history of developing and operating battery energy storage, power generation, and electric transmission lines and substations serving the CAISO market. LS Power has developed and owned a number of renewable and conventional power projects in California. With regard to storage, in addition to the LeConte Energy Storage project, LS Power has developed the Vista Energy Storage project

[8] As noted in the RFO Protocol, PG&E may consider qualitative factors that could impact the value of an offer, including project viability, credit, safety history, agreement modifications, ability to meet the Initial Delivery Date, supply chain responsibility status, and completeness of the offer.

[9] [redacted]

(40 MW) located in Vista, California; the Gateway Energy Storage project in San Diego County CA and the Diablo Energy Storage project in Pittsburg, CA.

LS Power has significant experience developing, financing, constructing and operating power transmission, storage and generating facilities. LS Power has raised approximately $41 billion of equity and debt over the previous 20 years. [redacted]

Site Control and Other Site Issues, Permitting,

[redacted]

Interconnection

[redacted]

Schedule

[redacted]

Conclusion

Based on the foregoing, it appears to the IE that the LeConte Energy Storage project should have a high probability of success for completing the project by August 1, 2022, as required

by the LTRAA. [redacted][10] [redacted]

[10] [redacted]

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Appendix H1

Summary of Key Behind The Retail Meter Resource Adequacy Agreement Terms

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Appendix H2

Summary of Key Long-Term Resource Adequacy Agreement Terms

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Appendix H3

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

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Appendix I

Project Development Milestones

(Confidential)

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Appendix J

Evaluation Methodology

Appendix J: 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. Project Viability
3. Credit
4. Safety
5. Supply Chain Responsibility

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	Scoring Unit	Application
1	Net Market Value	$/kW	Shortlist Development
2	Project Viability	+, 0, -	Post Shortlist Development
3	Credit	Required[(a)]	Informational Only
4	Safety	Required[(a)]	Post Shortlist Development
5	Supply Chain Responsibility	Required[(a)]	Informational Only

(a) Additional requirements were imposed on participants to be added to the shortlist, or will be required during performance of the contract.

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 seven 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);
- Demand Response Agreement (DRA);
- Energy Efficiency Agreement (EE);
- Master EEI Resource Adequacy Confirmation (RA Confirm); and
- Build Own Transfer Agreement (BOT)

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

b. Energy Value (E)

The Energy Value component only applies to 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 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 that submitted a Phase II interconnection study PG&E used the network upgrade cost included in the interconnection study 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 potential network upgrades borne by customers.

2. Project Viability

Project viability means the likelihood that the project under an offer can be successfully developed and then provides the product and services for the period stated in the offer.

As indicated in Table J-1 above, PG&E assessed each project's viability and assigned a score of +, 0, or -. This assessment was based on a review of the status and plans for key project activities (e.g., site control, permitting, procurement, construction, interconnection, and developer experience.).

3. Credit

PG&E considered the participant's capability to perform all its financial and financing obligations under the agreements and PG&E's overall credit concentration with the participant or its banks, including any of participant's affiliates.

4. Safety

For each offer, PG&E required information from the offering party regarding the safety history and practices of the entities that would construct, operate, own or maintain the projects, and safety information related to the technology for the project.

5. Supply Chain Responsibility

PG&E may consider participant's status as a Small Business Administration self-certified small business. PG&E is committed to supply chain responsibility which includes supplier diversity, sustainability and ethical supply chain practices. The Supplier Diversity Program, launched in 1981, aims to provide diverse suppliers with economic opportunities to supply products and services. The Supplier Sustainability Program, launched in 2007, encourages supplier responsibility, excellence and innovation.

Promoting an ethical supply chain means that health and safety, labor issues and human rights, ethical business conduct and conflicts of interest are important considerations in supplier selection. Additional information on PG&E's Supply Chain Responsibility and Diversity Program can be found at www.pge.com/supplychainresponsibility.

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Appendix K

Quantitative Evaluation Results and Price Comparison

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Appendix L

Quantitative Evaluation Results Workbook

(Confidential)

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
Cenergy Power
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
IGS Energy
International Power Technology
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

Office of Ratepayer Advocates
OnGrid Solar
Pacific Gas and Electric Company
Peninsula Clean Energy

Pioneer Community Energy

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