



*Pacific Gas and
Electric Company®*

Energy Storage Request for Offers Solicitation Protocol

**2016
Energy Storage Request for Offers**

November 30, 2016
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I. Introduction and Overview

I.A. Overview

Pacific Gas and Electric Company (“PG&E”) is issuing this Energy Storage Request For Offers (“RFO” or “Solicitation”) to achieve its megawatt (“MW”) procurement targets for electric energy storage (“ES”) as required by California Public Utilities Commission (“CPUC”) Decision (“D.”) 13-10-040¹ (the “Storage Decision”), pursuant to Assembly Bill 2514 (Pub. Util. Code §2836 *et seq.*)².

The Storage Decision establishes biennial ES procurement targets for CPUC jurisdictional load serving entities (“LSEs”) and requires energy storage resources be operational no later than the end of 2024. PG&E’s 2016 procurement targets are summarized in Table I.1:

Table I.1: PG&E’s Energy Storage Procurement Targets and CPUC Sample Use Cases

Storage Grid Domains (Grid Interconnection Point)	2016 PG&E Targets ³	Regulatory Function	CPUC Sample Use-Cases
Transmission (T)	65 MW Min: 13 MW Max: 97 MW	Generation / Market	Generation + ES
			Stand-Alone ES Ancillary Services, Peaker, Load Following
Distribution (D)	40 MW Min: 8 MW Max: 92 MW	Distribution Reliability	Substation ES (Deferral)
		Generation / Market	Stand-Alone ES Generation + ES
Customer (C)	15 MW Min: 15 MW Max: 30 MW	Customer-Sited Storage	Bill Management/Permanent Load Shifting, Power Quality, Electric Vehicle Charging

This Solicitation Protocol sets forth the terms and conditions by which PG&E will seek offers (“Offers”) to meet its 2016 ES procurement target. An entity submitting an Offer in response to this RFO, hereinafter a “Participant,” agrees to be bound by all the terms, conditions and other provisions of this RFO and any changes or supplements to it that may be issued by PG&E. The obligations of the Participant are further described in Section V.A, Agreement by Participant.

I.B. Energy Storage RFO Website and Communication

PG&E has established a website at www.pge.com/rfo/energystorage, where Participants may access and download all RFO documents, announcements and Q&As that are posted.

¹ Decision Adopting Energy Storage Procurement Framework and Design Program, D.13-10-040, <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M079/K533/79533378.PDF>.

² http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_2501-2550/ab_2514_bill_20100929_chaptered.pdf

³ The min and max target numbers represent the MW target range given the flexibility provided in the CPUC Energy Storage Program. This program allows for up to 80% of MW from T&D connected projects to be shifted between T, D & C, but with a minimum floor where 100% of the customer target must be met by customer-connected projects and a ceiling of 200% for the customer target. These min and max numbers do not reflect CPUC approved projects that can be applied to 2016 and do not reflect SGIP projects which PG&E expects may meet our minimum C target.

To ensure the accuracy and consistency of information provided to all Participants, PG&E prefers that Participants communicate by e-mail to both EnergyStorage@pge.com, and to the Independent Evaluator (“IE”), wayneoliver@aol.com. With respect to a matter of general interest raised by any Participant, PG&E may, without reference to the inquiring Participant, post the question and PG&E’s response on PG&E’s website. PG&E will attempt to respond to all inquiries, but may decline to respond to any particular inquiry.

All correspondence will be monitored by the IE, Wayne Oliver of Merrimack Energy Group, Inc., who was selected to oversee this Solicitation. The IE is an independent, third-party evaluator who is required by the CPUC to monitor and evaluate certain competitive solicitations.

I.C. Schedule Overview

The expected schedule for the RFO is listed in Table I.2 below. All deadlines occur at 5:00 P.M. Pacific Prevailing Time (“PPT”), unless otherwise noted.

Table I.2: PG&E Energy Storage Solicitation Schedule

Ongoing:	Participants are invited to register online to receive notices regarding the RFO at www.pge.com/rfo
December 1, 2016	Deadline for PG&E to issue RFO
December 15, 2016	Participants’ Webinar
December 22, 2016	Deadline to submit Confidentiality Agreement for access to additional PG&E-owned Distribution Deferral Asset data
January 10, 2017	Participants’ Offer Form Webinar
January 31, 2017	Deadline for PG&E to receive Offers by 1:00 P.M. PPT
April 14, 2017	PG&E notifies selected Participants that their Offer(s) will be included on a list of Offers for which PG&E may seek to enter into or negotiate an Agreement related to that Offer (“Shortlist”)
April 21, 2017 or earlier	Participants notify PG&E whether they accept Shortlist status and execute and return the Confidentiality Agreement
April 28, 2017 or earlier	Deadline to submit Shortlist deposit, and any other requested documents
By December 1, 2017	PG&E submits Agreements for CPUC Approval

The schedule and documents associated with the RFO are subject to change at PG&E’s sole discretion at any time and for any reason. PG&E will endeavor to notify Participants of any changes to the RFO, but shall not be liable for any costs or liability incurred by Participants or

any other party due to a change or for failing to provide notice or acceptable notice of any change.

PG&E reserves the right to execute agreements resulting from this RFO (each an “Agreement”) with any individual Participant at any time after selecting the Shortlist. Except for the terms that bind the Participants to their Agreement, PG&E’s obligations under an Agreement will be conditioned upon PG&E’s receipt of CPUC Approval within a stated period of time, as described further in Section XIII, CPUC Approval. PG&E will seek CPUC Approval of all executed Agreements by December 1, 2017. PG&E reserves the right to seek CPUC Approval of certain Agreements prior to execution of others. The CPUC’s approval process may take eighteen (18) months or longer from the date PG&E submits an Agreement for CPUC Approval.⁴ Participants should factor the CPUC’s approval process into their project development timelines and proposals.

I.D. Events in the RFO Schedule

- 1) Online Registration: Participants should register at the RFO website <http://www.pge.com/rfo> to receive timely announcements and updates about this RFO and other RFO-related information via email. Online registration is not required, but is strongly recommended.
- 2) PG&E issues the Solicitation: All documents associated with the Solicitation, including documents which Participants will need to prepare their Offer, are posted to PG&E’s public website under “2016 Energy Storage RFO.”
- 3) Access to PG&E-owned Distribution Deferral Asset data: PG&E will provide additional data regarding the PG&E-owned Distribution Deferral Asset, Section III.F, PG&E-owned Distribution Deferral Asset and Appendix E1, Distribution Deferral Asset Project, for those Participants who submit to PG&E via Power Advocate an executed Confidentiality Agreement (Appendix D) by December 22, 2016 by 5:00 P.M. PPT.
- 4) Participants’ Webinar: PG&E will hold a Participants’ Webinar on December 15, 2016. The Webinar will provide an overview of the RFO and the requirements. Call-in information will be provided on the Solicitation website.
- 5) Participants’ Offer Form Webinar: PG&E will hold a Participants’ Offer Form Webinar on January 10, 2017. During this Webinar, PG&E will walk Participants through the RFO Offer Form. Call-in information will be provided on the Solicitation website.
- 6) Offers Due: Offers must be received by PG&E by 1:00 P.M. PPT on January 31, 2017. Participant Offer package(s) must be submitted through the online platform, Power

⁴ Rule 12.1(c) of the Commission’s Rules of Practice and Procedure.

Advocate. Offer package(s) must include the documents described in Section VI.D, Required Information. PG&E encourages Participants to begin developing their Offer packages early and to send questions regarding the preparation of their Offer(s) to EnergyStorage@pge.com.

As necessary, PG&E may request a meeting or conference call to discuss a Participant's Offer. The purpose would be to provide PG&E with a full understanding of the details of an Offer for the evaluation process. The IE will be invited to participate in these discussions.

- 7) PG&E Selects Shortlist: PG&E expects to notify Participants selected for PG&E's Shortlist by April 14, 2017. Participants accepting a Shortlist position must post a Shortlist Offer Deposit as described in Section V.D, Shortlist Offer Deposit. PG&E reserves the right to request additional information and to add additional Participants to the Shortlist following the initial selection.
- 8) PG&E and Participants Execute Agreements: PG&E expects to negotiate with Participants on the Shortlist and may select any subset of Shortlisted Offers for execution of an Agreement.
- 9) PG&E Submits Agreements for CPUC Approval: PG&E will seek CPUC Approval of each Agreement, as further described in Section XIII, CPUC Approval.

II. RFO Goals

II.A. PG&E Resource Needs

Per the Storage Decision, PG&E's 2016 ES Procurement Target is 120 MW of eligible⁵ new or existing energy storage resources connected at the transmission, distribution, or customer level. However PG&E may procure a different MW amount through this 2016 ES RFO.

PG&E is seeking to purchase on a turnkey basis for utility-ownership, or enter into Agreements with, energy storage resources ("Projects") that meet the specifications noted in Section III, Eligibility Requirements.

II.B. Agreement Types

The following section describes the Agreements for each of the Projects or products being solicited in this RFO. For third-party owned Projects, PG&E is only seeking RA products through its Agreements. The Agreements for these Projects are listed below (1-3). PG&E is also seeking utility-owned Projects. The Agreements for these Projects are listed below (4).

⁵ As defined by the CPUC. Existing energy storage resources must have been installed after January 1, 2010.

1. Resource Adequacy Only Capacity Storage Agreement (RA Only Agreement)

PG&E will consider Offers for RA only products through an RA Only Agreement. For details, see Appendix F1, Resource Adequacy Only Agreement.

2. Capacity Storage Agreement (CSA)

PG&E will consider Offers for RA only products through a CSA, which also includes an energy equivalent settlement component. For details, see Appendix F2, Capacity Storage Agreement.

3. Behind-the-Retail Meter Capacity Storage Agreement (BTM CSA)

PG&E will consider Offers for RA only products from customer-connected Projects through a BTM Capacity Storage Agreement, which also includes an energy equivalent settlement component. For details, see Appendix F3, Behind-the-Retail Meter Capacity Storage Agreement.

Projects with Agreements referenced in Sections 1-3 shall be referred to as “Third Party Agreements”.

4. Purchase and Sale Agreement (PSA) for Utility Ownership

PG&E will consider Offers for Projects to be sold to PG&E using a PSA tailored to one of the three scenarios described below:

(1) *ES for distribution deferral.* This Project will enable PG&E to defer an otherwise planned investment at the Llagas Substation. See Section III.F, PG&E-owned Distribution Deferral Asset and Appendix E1, Distribution Deferral Asset Project.

(2) *ES at PG&E owned photovoltaic (PV) generation sites.* This Project would be constructed adjacent or near to one of three identified PG&E-owned PV sites and must be capable of being connected to the PV system at the switchgear location. This Project would not result in increased generation from the PV site. See Appendix E2, PG&E-owned Photovoltaic Sites, for more information on the specific sites and their ES requirements.

(3) *Stand-alone ES projects.* This Project would be a stand-alone Project anywhere in PG&E’s service territory that would act as a California Independent System Operator (“CAISO”) wholesale market resource.

Participants must design, procure, finance, and cause the Project to be constructed, completed, tested and ready for placement into commercial operation. For the Projects described under clause (3) above, this includes obtaining the necessary property interests and permits to develop the Project. PG&E would take ownership of the Project once it has been constructed to the specifications in the PSA, is operational, and has satisfied certain tests. Offers for PSAs must include milestone guarantees and performance guarantees for the completed Project.

For details, see Appendix F4, Purchase and Sale Agreement (PSA) – Energy Storage for Distribution Deferral Project, Appendix F5, PSA – Energy Storage for Utility Owned PV sites, or Appendix F6, Term Sheet for PSA – Stand-alone Energy Storage for Utility Ownership.

III. Eligibility Requirements

Offers must meet the applicable specifications noted below.

III.A. Project Size

Offers at all connection levels must be at least 1 MW⁶ in size.

PG&E will consider Offers where multiple ES resources are aggregated to meet the minimum size. For Projects connected to the CAISO Transmission System, multiple ES resources can be aggregated so long as: (1) the aggregate product has a single CAISO Resource ID, (2) the aggregate product can be measured similar to having a single CAISO meter, (3) the aggregate product has one Locational Marginal Price node, and (4) the aggregate product complies with the CAISO Tariff.

For the utility-owned distribution deferral asset project, see the requirements in Section III.F, PG&E-owned Distribution Deferral Asset and Appendix E1, Distribution Deferral Asset Project. For utility-owned storage assets at PV sites, see the requirements in Appendix E2, PG&E-owned Photovoltaic Sites.

The maximum project size that PG&E will accept is 50 MW.

III.B. Site Control

Participants must demonstrate site control for the Project referenced in their Offer at the time of Offer submission, except for Offers for the PG&E-Owned PV Sites Projects, PG&E-Owned Distribution Deferral Asset, and customer-connected Projects.

III.C. Certain Performance and Operational Requirements

- 1) ES resources must have a fifteen (15) minute minimum discharge duration. For Projects at PG&E-owned PV sites, please see the minimum discharge duration requirements indicated in Appendix E2, PG&E-owned Photovoltaic Sites. For PG&E-owned Distribution Deferral Asset, please see the minimum discharge duration requirements indicated in Section III.F, PG&E-owned Distribution Deferral Asset.

⁶ PG&E's CPUC application for approval for its 2016 Energy Storage RFO indicated that the minimum size would be 10 MW; subsequently, PG&E has determined to broaden participation and lower the minimum size to 1 MW.

- 2) Offers including RA must meet the applicable CPUC requirements for duration and 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.

The following are applicable to stand-alone utility ownership Projects only.

- 3) Stand-alone ES resources that will be bid into the CAISO must have a single exclusive CAISO resource ID, and be able to respond to the electronic signals of PG&E, a third party scheduling coordinator (“SC”), or CAISO systems (e.g., SCADA, AGC).
- 4) Projects must directly interconnect to the CAISO or applicable distribution provider and have a single dedicated CAISO-approved meter located on the high side of a step-up transformer.
- 5) Specific operating flexibility or constraints must be defined by the Participant.

III.D. Electric Interconnection

Third Party Agreements for transmission- or distribution-connected Projects

Participants must have completed a Phase I interconnection study (or equivalent⁷) or have documentation showing that the Project passed the Distribution Provider or CAISO Fast Track screens at the time of Offer submittal. Participants must remain active in the applicable interconnection queue until the Project’s required network upgrades have been completed.

PSA – Distribution Deferral Asset

Participants submitting Offers for utility-owned distribution deferral asset are not required to establish a valid and active interconnection application by the time of Offer submittal. PG&E has already filed an application for interconnection under the Wholesale Distribution Tariff and the main interconnection facilities will not be in the Participant’s scope of work.

PSA – PG&E PV Sites

Participants submitting Offers for utility-owned ES for a PG&E-owned PVsite do *not* need to establish a valid and active interconnection application by the time of Offer submittal. However, Participants should consider that they will be responsible for all activities and costs associated with obtaining interconnection, including interconnection study costs, network upgrades, and interconnection facilities as determined via the relevant interconnection process. After PSA execution, the successful Participant will need to work with PG&E’s Electric Generation Interconnection group to determine which interconnection process is required. As the existing interconnection net capacity will not be increased, it is anticipated that Participants will submit a request for material modification review.

⁷ For example, a System Impact Study.

PSA –Stand-Alone

Participants submitting Offers for stand-alone utility-owned ES will be responsible for all activities and costs associated with obtaining interconnection, including interconnection study costs, network upgrades, and interconnection facilities as determined via the relevant interconnection process. Participants must have completed a Phase I interconnection study (or equivalent⁸) or have documentation showing that the Project passed the Distribution Provider or CAISO Fast Track screens at the time of Offer submittal. Participants must remain active in the applicable interconnection queue until the Project’s required network upgrades have been completed.

III.E. Public Funding

Projects receiving funding in part from local, state, and federal public programs, such as Public Interest Energy Research (“PIER”) and Electric Program Investment Charge (“EPIC”), may count toward PG&E’s procurement targets.

Funding from other third party public sources not listed must be disclosed.

III.F. PG&E-owned Distribution Deferral Asset

The table below highlights certain minimum requirements for Offers for the Distribution Deferral Asset.

Table III.1: Distribution Deferral Site

Location	Minimum Size (MW)	Discharge Duration (Hours)	Guaranteed Commercial Operation Date (Later of the two dates)
Llagas Substation – Gilroy, CA	10.0	4.0	November 1, 2021, or 12 months after CPUC approval

PG&E has filed an interconnection application for 20 MW and will entertain Offers between 10 and 20 MW that meet the requirements above.

III.G. PG&E-owned Energy Storage at PV Site

PG&E has identified three PG&E-owned PV sites that would be candidates for utility-owned Projects.

⁸ For example, a System Impact Study.

Table III.2: PG&E-owned ES at PV sites

Site	Nominal Voltage At Connection Point (see note 1)	Guaranteed Dmax (MW) at Year 1- 10 (see note 2)	Guaranteed Discharge Duration (hours)	Guaranteed Site Specific Required Duty Cycle
Gates 17115 W. Gale Ave., Huron, CA 93234	12.47kVAC	4MW	4	1 full discharge and charge per day, for 365 days per year for minimum of 10 years
Huron (see note 3) Corner of West Gale Avenue and South Lassen Ave (Hwy 269), Huron, CA 93234	12.47kVAC	4MW	4	1 full discharge and charge per day, for 365 days per year for minimum of 10 years
Stroud W. Kamm Ave west of S. Lassen Ave (Hwy 145) Helm, CA	12.47kVAC	4MW	4	1 full discharge and charge per day, for 365 days per year for minimum of 10 years
<p><u>Notes:</u></p> <ol style="list-style-type: none"> The voltages listed are nominal only. <ol style="list-style-type: none"> The equipment connected to the 12.47kVAC bus shall be at least 15kV class equipment, typical voltage range is from 0VAC to 13.8kVAC. These values are minimum total output power for the Energy Storage Systems (ESS) at each site. Dmax of 4 MW is the minimum output for duration of 4 hours. This system should be a modular system made up of smaller units (say 500kW or 1 MW) in parallel to give the total of 4 MW. Huron is on the west side of South Lassen Ave (Hwy 269) on West Gale Ave. 				

III.H. PG&E-owned Stand-alone Energy Storage

Offers for Stand-alone Projects to be acquired by PG&E on a turnkey basis must be located in PG&E’s service territory. These Projects would be wholesale market resources PG&E would own and operate.

IV.Credit

Upon execution of an Agreement with PG&E, the Participant must post collateral to PG&E to mitigate PG&E’s risk in the event that the Project is not constructed or placed into commercial operation, or the Participant is otherwise unable to meet the conditions of the Agreement. Each Agreement requires that the Participant post collateral with PG&E prior to and following commercial operation of the facility in varying amounts and form, as provided in the applicable Agreement. If providing a Letter of Credit, please review carefully the Letter of Credit requirements set forth in the applicable Agreement. For reference, Table IV.1 below highlights a few of the collateral requirements in each of the Agreements:

Table IV.1: Credit/Collateral Requirements

Agreement Options	RA-Only / CSA / BTM Capacity Product Agreement	PSA (Distribution Deferral Asset)	PSA (PG&E's PV Generation Sites)	PSA (Stand-Alone Energy Storage)
Pre-Commercial Operation Date (COD)				
Project Development Security ("PDS")	\$15/kW within 5 days of Execution, and an additional \$45/kW within 5 days of CPUC Approval (total posted PDS of \$60/kW)	\$15/kW at Execution, and 10% of purchase price at CPUC Approval plus aggregate amount of Daily Delay Damages plus Early Decommissioning Performance Assurance prior to any earth disturbance	\$15/kW at Execution; and at least an additional \$45/kW plus \$x – for security for license for potential dismantling/de-commissioning, at CPUC Approval plus \$x – if upgrades or other modifications needed to be paid to Distribution Provider	\$15/kW at Execution, and an additional \$45/kW at CPUC Approval
Post-COD				
Delivery Term Security ("DTS")	\$125/kW (Payment Quantity) or 10% of highest estimated Capacity Payments for any 36 months, whichever is higher	10% of Purchase Price through General Warranty Period	N/A	N/A
Post Closing Collateral for Performance and Warranty Periods	N/A	An acceptable warranty by an issuer acceptable to PG&E plus 10% of the purchase price for the duration of the warranty period	An acceptable warranty by an issuer acceptable to PG&E plus 10% of the purchase price for the duration of the warranty period	An acceptable warranty by an issuer acceptable to PG&E plus 10% of the purchase price for the duration of the warranty period

V. Terms for RFO Participation

V.A. Agreement by Participant

Each Participant submitting an Offer shall provide their electronic signature of a duly authorized officer of Participant in the Offer Form. By providing such signature the Participant (a) agrees to be bound by all terms, conditions and other provisions of this RFO and any changes or supplements to it that may be issued by PG&E, and (b) makes the following representations and warranties:

1. Participant has read, understands, and agrees to be bound by all terms, conditions and other provisions of the RFO.
2. Participant has had the opportunity to seek independent legal and financial advice of its own choosing with respect to the RFO and all Appendices to the RFO.
3. Unless otherwise specified in the Offer Form, Participant is not PG&E, an affiliate of PG&E, PG&E Corporation, or any of their affiliates.

4. Participant has obtained all necessary authorizations, approvals and waivers, if any, required of Participant as a condition of: (i) submitting its Offer and, if Participant's Offer is selected; (ii) executing an Agreement with PG&E in the form submitted with its Offer, or at the conclusion of negotiations.
5. Participant is submitting its Offer subject to all applicable laws including, but not limited to, the Federal Power Act and all amendments thereto, and Public Utilities Code section 454.5, and all amendments thereto.
6. Participant represents that it has carefully considered the terms and conditions of its Offer and that it is submitting its Offer in good faith, such that PG&E may reasonably expect Participant to enter into a definitive Agreement, and to negotiate, if requested by PG&E, as provided in Section XII, Execution of Agreement, below.
7. Participant has not engaged in and will not engage in communications with any other Participant in the RFO concerning any terms contained in Participant's Offer, unless explicitly authorized by PG&E, and has not engaged in activities in violation of State or Federal antitrust laws or other unlawful or unfair business practices in connection with the RFO ("Prohibited Communication Activities").

Notwithstanding the foregoing, Participant may engage in communications with its advisors, counsel, experts or employees who have a need to know the content of the communications and have agreed to keep such information confidential (collectively, "advisors"). In addition, Participant may engage in communications with other Participants submitting an Offer in the RFO and their advisors ("Other Participants"), so long as: (1) such Other Participants are under common ownership and control with Participant; (2) Participant and Other Participants do not engage in Prohibited Communication Activities; and (3) in the event Participant and Other Participant share a common advisor, Participant has, prior to sharing communications with such Other Participant and the common advisor, provided PG&E with (a) notice of such Other Participant and common advisor and (b) an attestation that Participant has not and will not engage in Prohibited Communication Activities with either the Other Participant or the common advisor.

8. If Participant's Offer is selected for the Shortlist and Participant accepts the position on the Shortlist, then Participant agrees to execute a Confidentiality Agreement, to negotiate in good faith, and to inform PG&E if the Project that is the subject of the Offer on the Shortlist has been submitted into another solicitation with PG&E or any other entity.
9. If a Participant is submitting an Offer jointly with other entities, and the Offer is selected for the Shortlist, PG&E may require, as part of the shortlisting process, additional representations and warranties, along with additional documentation,

from all entities involved in the joint Offer (see Section VI.D, Required Information, below).

10. Participant will promptly notify PG&E of any change in circumstances that may affect its ability to fulfill the terms of its Offer, at any time from Offer submission to PG&E's acceptance of the Offer, as evidenced by PG&E's execution of an applicable Agreement, or Participant's withdrawal of the Offer.

A BREACH BY ANY PARTICIPANT OF THE REPRESENTATIONS AND WARRANTIES IN SECTION V.A OF THIS SOLICITATION PROTOCOL, IN ADDITION TO ANY OTHER REMEDIES THAT MAY BE AVAILABLE TO PG&E UNDER APPLICABLE LAW, IS GROUNDS FOR IMMEDIATE DISQUALIFICATION OF SUCH PARTICIPANT FROM PARTICIPATION IN THE RFO AND, DEPENDING ON THE NATURE OR SEVERITY OF THE BREACH, MAY ALSO BE GROUNDS FOR TERMINATING THE RFO IN ITS ENTIRETY.

V.B. PG&E's Reservation of Rights

This RFO is an invitation to submit Offers to PG&E; it does not constitute an offer to buy and creates no obligation to execute any Agreement or to enter into a transaction under an Agreement as a consequence of the RFO. PG&E reserves the right to request information from a Participant at any time during the solicitation process. PG&E reserves the right, in its sole discretion, to reject any Offer at any time for any reason, including but not limited to grounds that the Offer does not conform to the terms and conditions of this RFO or contains terms that are not acceptable to PG&E. PG&E also retains the discretion, in its sole judgment, at any time; (a) to formulate and implement new or additional criteria for the evaluation and selection of Offers; (b) to negotiate with any Participant or withdraw PG&E's Shortlist selection; or (c) to modify this RFO as it deems appropriate to implement the RFO and to comply with applicable law or other direction provided by the CPUC. In addition, PG&E reserves the right to either suspend or terminate this RFO at any time for any reason. PG&E will not be liable in any way, by reason of such withdrawal, rejection, suspension, termination or any other action described in this paragraph to any third party, including any Participant. PG&E will not reimburse the Participant for its expense of participating in this RFO under any circumstances.

V.C. Safety

PG&E is committed to providing safe utility (electric and gas) service to its customers. As part of this commitment, PG&E requires that the Participants recognize safety is of paramount importance. In connection with this Solicitation and executed Agreement, Participants will be required to meet certain safety standards, provide safety information related to the technology for the Project, and provide information regarding safety history, including for the entities that will construct, operate, or maintain the Project(s). Per Appendix B1 Section 2, Appendix B4 Section 7, and, as applicable for PSA Projects, Appendix B7 Section 4 of this Solicitation, Participants are required to identify in their Offers known safety-related hazards and risks

associated with their technology and Participant's ability to mitigate safety risks and comply with applicable safety-related codes and standards identified by the Participant.

Participants selected for the Shortlist will be required to (1) register for and maintain the acceptable pre-qualification criteria during the negotiation process of the Agreement similar or according to Section 3 of PG&E's Contractor Safety Program Requirements which can be found at: <http://www.pge.com/contractorsafety>, and (2) submit a preliminary project safety plan with respect to the Project, as conditions for remaining on the Shortlist. The project safety plan will describe applicable safety standards and planned safety programs and policies for design, construction, operation, maintenance of the Project. PG&E will provide additional information to Participants selected for the Shortlist to complete these steps.

Projects selected by PG&E for execution of an Agreement may also need to provide an independent third party engineer report detailing the safety of the technology and verifying the safety history and practices of the Participant and the entities identified by Participant to construct and operate the Project.

A Participant's obligations with respect to safety may vary based on the particular Agreement and Project and product type, as well as the commercial relationship of the entities involved in the energy storage transaction. Each of the Agreements contain specific requirements intended to ensure that the Participant and the entities that construct, operation, or maintain the Project, as applicable, do so in a safe, reliable and efficient manner that protects the public health and safety of California residents, business, employees, and the community. Participants will be responsible for any fees and costs associated with meeting PG&E's safety requirements in the Solicitation and the Agreement. Prior to a Participant submitting an Offer, PG&E recommends that Participants review the safety provisions in the form of Agreement and PG&E's Contractor Safety Program Requirements.

V.D. Shortlist Offer Deposit

If Participant is notified that it is eligible for PG&E's Shortlist and accepts the Shortlist position, then the Participant must post a deposit (the "Shortlist Offer Deposit") in the amount of \$3 per kilowatt (kW) of Payment Quantity (as that term is defined in the form Agreements) or Guaranteed Dmax for each Offer on the Shortlist before 5:00 P.M. PPT on the 10th business day after receiving such notice. Participant shall maintain the Shortlist Offer Deposit with PG&E until the termination of negotiation with PG&E or as otherwise provided pursuant to the terms of the definitive Agreement.

1. Purpose of Shortlist Offer Deposit

The Shortlist Offer Deposit is intended to secure the obligation of each Participant with respect to this Solicitation Protocol and to negotiate a definitive Agreement, as expressly provided in Section XII, Execution of Agreement, below.

2. Form of Shortlist Offer Deposit

The form of the Shortlist Offer Deposit may be either: (a) a cash deposit, or (b) a Letter of Credit. These two options are detailed below. NOTE: If the Participant fails to submit the Shortlist Offer Deposit within the required time period, the Participant's Offer may be rejected and removed from the Shortlist.

a) Cash Deposit

Cash may be deposited with PG&E to be held as collateral through a wire transfer, as instructed in the Shortlist Notification. PG&E will pay interest on each cash deposit, calculated on a monthly basis and compounded at the end of each calendar month, from the date on which the cash is fully deposited to the date on which the deposit is returned to the Participant. The applicable interest rate will be the rate per annum equal to the Monthly Federal Funds Rate (as reset on a monthly basis, as of the first day of the month, based on the latest month for which such rate is available) as reported in Federal Reserve Bank Publication H.15-519 or its successor publication ("Interest Rate"). The Interest Rate shall be calculated based on a three hundred sixty (360) day year and shall be payable upon the return of the cash deposit.

b) Letter of Credit

A Letter of Credit posted by a Participant as collateral must satisfy all of the requirements below.

"Letter of Credit" means an irrevocable, non-transferable, stand-by letter of credit in the form attached hereto as Appendix G1, (a) issued either by (i) a U.S. commercial bank or (ii) a U.S. branch of a foreign commercial bank that meets the following conditions: (A) it has sufficient assets in the U.S. as determined by PG&E, and (B) it is acceptable to PG&E in its sole discretion; and (b) for which the issuing U.S. bank or foreign bank, must have a Credit Rating of at least "A-" from S&P or "A3" from Moody's, with a stable outlook designation. In the event the issuer is rated by both rating agencies and the ratings are not equivalent then the lower rating will apply. If the Letter of Credit is issued by a branch of a foreign bank, PG&E may require changes to the form Letter of Credit. All costs of the Letter of Credit shall be borne by Participant. The Letter of Credit should be sent by overnight delivery to:

Pacific Gas and Electric Company
Attn: Manager, Credit Risk Management

**77 Beale Street, Mail Code B28L
San Francisco, CA 94105**

3. Return of Shortlist Offer Deposit

The Shortlist Offer Deposit will be returned to Participant by PG&E under one or more of the following conditions:

- a) Upon execution of the Agreement and Seller's submission of the collateral required under the Agreement;
- b) PG&E's rejection of the Offer subsequent to Shortlist selection; or
- c) In the course of negotiations, if PG&E and Participant cannot agree on the terms of the Offer and Agreement.

4. Forfeiture of Shortlist Offer Deposit

The Participant will forfeit the Shortlist Offer Deposit in its entirety due to: (i) any material misrepresentation in information submitted in Participant's Offer; (ii) Participant unilaterally withdrawing its Offer from the Solicitation; or (iii) a breach of this Solicitation Protocol. In the event that Participant forfeits the Shortlist Offer Deposit, PG&E will be entitled to draw upon the Shortlist Offer Deposit in its entirety as payment for direct and indirect damages incurred in connection with the Participant's misrepresentation or breach of this Solicitation Protocol.

5. Shortlist Offer Deposit as Security

PG&E may retain any cash deposit or draw on any Letter of Credit provided as a Shortlist Offer Deposit as security under an executed Agreement in the event that Participant fails to provide additional security and/or agrees to PG&E's retention of the Shortlist Offer Deposit as collateral in accordance with the terms of the executed Agreement, if applicable.

VI. Offer Submittal Process

VI.A. Submittal Process Overview

All Offers must be received by January 31, 2017 at 1:00 P.M. (PPT), as specified in Table I.2, PG&E Energy Storage Solicitation Schedule.

Offer packages for PSA Projects must be independent and packaged separately from any non-PSA Offer packages and materials.

Submitting Documents: All Offers for this RFO *must* be submitted electronically through Power Advocate. Prior to submitting an Offer, Participants must register with Power Advocate. There will be separate Power Advocate sites for third-party owned and utility-owned offer submittals. Please ensure Offers are submitted to the applicable site. PG&E strongly encourages Participants to register with Power Advocate well before Offers are due. PG&E will post detailed instructions on the 2016 ES RFO website for submitting Offer(s) and using the online platform. Power Advocate registrants should be listed under the entity submitting the Offer, not its consultants.

Power Advocate Links:

- 3rd party-owned: <https://www.poweradvocate.com/pR.do?okey=62697&pubEvent=true> (Event 62697: 2016 Energy Storage RFO – Third Party Owned Resources)
- Utility-owned: <https://www.poweradvocate.com/pR.do?okey=62701&pubEvent=true> (Event 62701: 2016 Energy Storage RFO – Utility Owned Resources)

Power Advocate functions in most browsers; however it may not work as well in browsers older than Internet Explorer version 8.

Each Offer should be uploaded as a “Commercial” and “Administrative” document type in Power Advocate. If submitting more than one Offer, each Offer should be in separate zip files. Please make sure that file names for your submittals do **not** contain any special characters such as *&#, and please keep file names short, but do include short references to Participant’s name (such as an acronym) and the appendix (e.g., App B).

Electronic Document Formats: Electronic documents must be submitted as Microsoft Word, Microsoft Excel, or pdf files, as identified in Section VI.D, Required Information. However, maps or drawings may be in alternate formats (e.g., jpg, kmz) as appropriate. Each Appendix must be a separate folder or document, not one long document. To the extent possible, pdf files should be provided in a searchable format. The Participant should not provide documents in other electronic formats, unless specifically requested.

VI.B. Need for Complete Offer Packages

Each Participant’s Offer must be complete at the time of submission. Participant’s failure to provide all required information may prevent PG&E from being able to evaluate and rank the Offer, which means that the Offer may not be considered for the Shortlist.

VI.C. Number of Offers and Variations Allowed Per Participant

Participants may submit up to twelve (12) Offers. Participants may submit one Offer for each Project at a particular location, using a particular ES technology, and for a particular Agreement

type (e.g., RA-only or PSA); varying these attributes of an Offer are substantial changes and are considered new Offer(s).

Each Offer may include up to ten (10) variations (i.e., the original base Offer and 9 additional variations of that Offer). A variation may alter such attributes as delivery term, price, commercial operation date, or capacity. For PSA Offers, additional variations may alter such attributes as duration of charge/discharge or operational characteristics such as cycles per day.

VI.D. Required Information

Offers must contain all required information and must be organized in accordance with these instructions.

Participants must complete the following documents: (1) the initial offer package (see Section VI.D.1, Offer Package, below); and (2) the post-shortlist package, if PG&E selects the Participant's Offer for the Shortlist (see Section VI.D.2, Post-Shortlist Documents, below).

Note on Joint Offers: If a Participant is submitting a joint Offer with another Participant, each Participant will need to be registered as a separate Participant in Power Advocate from any other entity submitting an Offer and PG&E may require additional documentation or conditions, such as retaining separate legal counsel, restricting the sharing of certain information, or requiring all parties to the joint Offer to execute a modified Confidentiality Agreement and agree to, and execute, modified terms for RFO participation, similar to those set forth in Section V.A, Agreement by Participant.

1. Offer Package

Provide an **Introductory Letter** that describes the Project and the Offer (e.g., price, term, size, technology), including identification of each variation proposed, as applicable. In addition, complete all of the Appendices listed in Table VI.1, below.

Address any potential changes to the Project due to an Offer variation in the appropriate Appendices. A separate Offer Form is required for each Offer variation, but an entirely new offer package is not required; there is no need to submit unchanged, duplicate Appendices if the information is the same; but please provide a short note indicating which sections are duplicative over multiple offer variations.

For PSAs, any operational limitations on the ES resource due to technology constraints or other factors must be specifically identified in the Offer Form (Appendix A) and the Project Description (Appendix B1), and must be substantiated in terms of operational criteria, technical limitations, permit requirements, or environmental regulations.

Table VI.1: Energy Storage RFO Offer Package

Appendix	Title	Description	Format
	Introductory Letter	Describe the Project and Offer information. A sample introductory letter outline is provided.	MS Word
A	Offer Form	Provide the requested information.	MS Excel
B1	Project Description	Describe the existing or proposed Project, format as single spaced, and include the requested information.	MS Word
B2	Site Control	Provide information relating to the Project’s location and generation-tie line (“Gen-Tie”) route as requested or for customer-connected Projects, a customer acquisition plan.	MS Word, PDF
B3	Project Milestone Schedule	Provide schedule to support submitted online date.	MS Word
B4	Experience Qualifications	Describe the Participants experience and staff qualifications, including but not limited to information requested.	MS Word
B5	Electric Interconnection	Most recent interconnection study (if required), point of interconnection, and description of the status of Project’s interconnection (if required).	MS Word, PDF
B6	Organizational and Finance Information	Provide Participant corporate or organizational and finance information.	MS Word
B7	PSA Additional Information	Information for Projects to be acquired by PG&E under a Purchase and Sale Agreement	MS Word
C	FERC 717 Waiver	Authorizes the disclosure of Participant’s transmission-related information to PG&E’s marketing or merchant business unit (“PG&E Merchant”).	MS Word

2. Post-Shortlist Documents

If the Participant is notified that it is eligible for and accepts PG&E’s Shortlist position, then the Participant must complete the Appendices listed in Table VI.2, below. In addition, the Participant will need to provide a **Shortlist Offer Deposit** as described in Section V.D, Shortlist Offer Deposit, above, per date specified in Table I.2. Any delay in providing the Appendices below will impact the Participant’s Shortlist position.

Table VI.2: Energy Storage RFO - Post-Shortlist Appendices

Appendix	Title	Description	Format
D	Confidentiality Agreement	If not submitted already, Participants should submit a redline of the Confidentiality Agreement, including the names of the entities who will sign the Agreement(s), along with any proposed modifications. Participants must execute and return a Confidentiality Agreement when accepting a position on the Shortlist. Provide BOTH a PDF AND an MS Word version.	MS Word, PDF
F1 – F6	Redline of Agreement or Term Sheet	See description of various forms of Agreements in Section II.B, Agreement Types.	MS Word
G1	Letter of Credit (if applicable)	Provide the requested Letter of Credit information, if using a Letter of Credit for the Shortlist Offer Deposit (see Section V.D, Shortlist Offer Deposit, for more information on the two accepted forms for the Shortlist Offer Deposit).	MS Word
G2	Request for Taxpayer ID (W-9) Form (if applicable)	Provide the requested information if posting a cash deposit.	PDF
	Preliminary Site Safety Plan	Provide a preliminary Project or Site Safety Plan for all Projects, as detailed in the relevant Agreement.	MS Word

VII. Pricing

Participants are required to provide a complete Offer package, and include pricing in their Offer Form depending on the Agreement, as described below.

1. RA Only: RA price in \$/kW-mo
2. CSA or BTM CSA: RA price in \$/kW-mo; VOM in \$/MWh
3. PSAs: Purchase Price in \$ and operations and maintenance (“O&M”) Costs in \$/year’ decommissioning costs in the event of early termination for a Distribution Deferral Project prior to closing and transfer to PG&E

VIII. Evaluation of Offers

PG&E’s Evaluation will apply “least-cost, best-fit” principles, using quantitative and qualitative criteria to evaluate the submitted Offers.⁹

⁹ Participants will be required to submit accurate figures, descriptions and calculations with their Offers.

VIII.A. PG&E's Evaluation of Offers

PG&E will evaluate Offers using both quantitative and qualitative criteria. The quantitative criteria include Net Market Value (NMV) and Portfolio Adjusted Value (PAV).

NMV benefits include net energy, capacity and ancillary services value. NMV costs include the offered fixed and variable pricing in the applicable Agreement.

PAV may include adjustments that are relevant to PG&E's total energy portfolio, specifically for, but not limited to, location, deferral of replacement of T&D project costs, increased system efficiency and avoided renewable curtailment.

VIII.B. Details of PG&E's Evaluation Protocol

PG&E will evaluate Offers using quantitative and qualitative criteria, which may include, but are not limited to:

Quantitative Attributes:

- a. Net Market Value (NMV)
 1. Benefits (Energy, Ancillary Services, Capacity)
 2. Fixed and Variable Costs
- b. Portfolio-Adjusted Value (PAV)
 1. Location
 2. Transmission Network Upgrade Cost
 3. Distribution Investment Deferral Value
 4. Increased System Efficiency for Fossil Generation
 5. Avoided Renewable Curtailment
 6. Portfolio's Net Capacity Position

The final PAV value is equal to the Net Market Value (NMV) plus the six PAV components stated above. Shortlisting will be based on the final total PAV value.

Qualitative Attributes:

- a. Project Viability
- b. Supply Chain Responsibility
- c. Credit
- d. Agreement Modifications
- e. Counterparty Concentration
- f. Technology Diversity
- g. Safety
- h. Term and Commercial Operation Date Diversity

1. Quantitative Attributes

a) Net Market Value (NMV)

NMV compares an Offer's costs to its market value. The risks and uncertainties associated with an offer's costs and benefits will be considered as part of Market Valuation. NMV is calculated for each Offer as follows:

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

Where:

E = Energy Value

A = Ancillary Services Value

C = Capacity Value

V = Variable Cost

F = Fixed Cost

1) Energy Value ("E")

Energy value captures the value associated with the electric energy price in the CAISO markets for each Offer over its delivery term. The market value of the energy will be computed from the appropriate price curves for the corresponding Trading Hub (NP15, ZP26, or SP15) adjusted for congestion and losses specific for the project location to account for the Location Marginal Price ("LMP") at the location.

2) Ancillary Services Value ("A")

For Offers that provide PG&E the ability to schedule and receive CAISO market revenues for Ancillary Services in accordance with CAISO Tariff requirements, the incremental benefit of having Ancillary Service capability will be captured.

3) Capacity Value ("C")

The value of Resource Adequacy ("RA") capacity associated with each Offer will be determined based on the projected monthly quantity of Net Qualifying Capacity (NQC, for System RA) and Effective Flexible Capacity (EFC, for Flexible RA). Resources that are expected to be found fully deliverable by the CAISO will be attributed the full System RA capacity value for its projected NQC.¹⁰ To the extent that an Offer provides Flexible RA, the EFC that is expected to count and meet the must-offer obligation for Flexible RA

¹⁰ See the Commission's Resource Adequacy program (http://www.cpuc.ca.gov/PUC/energy/Procurement/RA/ra_history.htm) and the CAISO Reliability Requirements (<http://www.caiso.com/planning/Pages/ReliabilityRequirements/Default.aspx>).

will be evaluated at the projected monthly price for Flexible RA, and added to the capacity benefit.^{11,12}

4) Variable Cost (“V”)

Variable cost includes the cost of fuel (other than grid energy) and associated greenhouse gas (“GHG”) cost, variable O&M (“VOM”) for discharge, and/or start-up costs for discharge, if applicable, but does not include the market costs for charging energy. The Agreement VOM price will affect the discharge time series: all other things being equal, a lower VOM will result in more energy charging and discharging both in PG&E’s evaluation and in actual operation. Variable cost for an Offer will be calculated as the sum of hourly variable payments (other than grid energy).

5) Fixed Cost (“F”)

Fixed Cost for an Offer will be calculated as the sum of projected monthly fixed payments. Monthly fixed payments will be based on the Payment Quantity Price (\$/kW-yr) and the monthly Payment Quantity specified in the Offer.

Fixed Cost for a PSA Offer will be collected by PG&E’s Cost of Service Model to determine the revenue requirements (mainly depreciation, return, taxes and fixed O&M) based on initial capital costs and fixed O&M of the facility.

Each Offer will also be assigned an annual fixed overhead cost (independent of the size of the Project) representing administrative costs plus the cost of scheduling into CAISO markets.

b) Portfolio Adjusted Value (PAV)

PG&E will calculate PAV to derive the value of each Offer from the perspective of PG&E’s portfolio, in addition to the NMV derived from the market perspective. PAV adjustments to the NMV are based on the following factors, where applicable: (1) PG&E’s bundled portfolio’s net capacity position, (2) location, (3) transmission network upgrade cost, (4) distribution investment deferral value, (5) increased system efficiency for fossil generation, and (6) avoided renewable curtailment.

¹¹See the Commission’s current RA proceeding (Rulemaking 11-10-023) and the CAISO’s FRAC-MOO initiative (<http://www.caiso.com/informed/Pages/StakeholderProcesses/FlexibleResourceAdequacyCriteria-MustOfferObligations.aspx>).

¹² Please refer to the CAISO Tariff for definitions of capitalized terms.

1) Portfolio's Net Capacity Position

Capacity value in the NMV calculation represents the market price of capacity, which reflects the capacity position of the CAISO footprint. It is possible the CAISO footprint could be short in a type of capacity, System or Flexible, for which PG&E's bundled portfolio is projected to be long due to load loss caused by Community Choice Aggregation ("CCA"), Direct Access ("DA"), and Distributed Generation ("DG").

In PAV, PG&E will account for this discrepancy between the market value of a type of capacity and the lower value of that same type of capacity in PG&E's bundled portfolio when PG&E's net capacity position is long. PG&E will apply a zero or negative adjustment to the capacity value from the NMV calculation based on PG&E's bundled portfolio's net capacity position for System RA and Flexible RA over the term of the Offer.

2) Location

PG&E has a preference for Projects in its service territory. Offers for Projects in northern California (north of Path 26 or NP26) will have an equal or higher PAV than comparable Offers from resources outside of NP26.

3) Transmission Network Upgrade Cost

Transmission availability and transmission-related costs will be part of an Offer's PAV. PG&E will use the latest CAISO tariff rules¹³ and results from the independent study conducted as part of the feasibility study to determine the transmission network upgrade cost adder for all Offers. 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.¹⁴ Transmission cost adders reflect the reimbursed portion of the cost of potential network upgrades borne by customers.

¹³ Refer to the CAISO website (<http://www.caiso.com/rules/Pages/Regulatory/Default.aspx>) for the most recent tariff information.

¹⁴ Network upgrades include transmission lines, transformer banks, special protection systems, substation breakers, capacitors, and other equipment needed to transfer power to the consumer. Network upgrades typically are funded upfront by Participants, and partially refunded after commercial operation. The reimbursed portion of the costs of network upgrades are included in transmission rates and paid by customers. For Projects that are fully deliverable, PG&E will consider both reliability and deliverability network upgrades.

4) Distribution System Investment Deferral Value

PG&E has identified a distribution deferral asset Project that would enable PG&E to defer an otherwise planned investment. For Offers that meet PG&E-identified operational requirements at the PG&E-identified location, the value of deferred distribution investment cost will be estimated.

5) Increased System Efficiency for Fossil Generation

Energy storage has the potential for allowing fossil generation to run with fewer startups and to operate more efficiently. Such increased efficiency could reduce the portfolio's overall generation cost in such cost components as start-up, fuel, GHG and VOM costs. PG&E will estimate such avoided generation costs to PG&E's portfolio. Such avoided costs would differ among Offers due to the variation in characteristics of those Offers.

6) Avoided Renewable Curtailment

Higher penetration of renewable energy increases the likelihood of curtailment being used to avoid over-generation and reliability problems. Energy storage can help reduce the curtailment of intermittent generation in PG&E's portfolio, which would benefit PG&E's customers by reducing the instances of over-generation as well as avoiding curtailments of renewable generation, such as wind and solar, that contribute to meeting PG&E's renewable portfolio standard requirements. PG&E will estimate the potential economic effect of an Offer's ability to avoid the curtailment of renewable resources in PG&E's portfolio.

2. Qualitative Factors

a) Project Viability

Project viability means the likelihood that the Project under an Offer can be successfully developed and then 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., financing, site access, permitting, engineering, procurement, construction, interconnection, start-up and testing, operations, fuel supply, charging capability, etc.). While not required, PG&E will consider any independent engineer's report that evaluates a Project's charging capability for a Project.

b) Agreement Modifications

PG&E will assess the materiality and cost impact of any of Participant's proposed modifications to Solicitation requirements and the applicable Agreement, as identified in the Term Sheet or marked Agreement (Appendix F1-6). PG&E strongly encourages Participants to only make those changes to the Agreement associated with their Offer that address their particular technology or are uniquely required to enable the lowest priced Offer. PG&E will give additional consideration to Participants that agree to take on additional risk beyond what is specified in the Agreement or Term Sheet.

c) Credit

PG&E may consider the Participant's capability to perform all of 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.

d) 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 DBE program can be found at:
www.pge.com/supplychainresponsibility

e) Counterparty Concentration

PG&E may consider the volume of energy or capacity already under contract from a particular counterparty, as well as Offers submitted in this RFO.

f) Technology Diversity

PG&E may consider technology diversity in its evaluation of Offers. Technology diversity may also include applications and attributes of ES technology types.

g) Safety

PG&E will seek information from Participants regarding the safety history and practices of the entities that will construct, operate, or maintain the Projects and safety information related to the technology for the Project and Project development.

h) Term and Commercial Operation Date Diversity

PG&E may consider a shorter term and earlier start date as factors, as this could accelerate PG&E accumulation of experience with diverse applications of energy storage.

Any or all qualitative factors may impact a Project's status for Shortlisting or Agreement execution.

IX. Confidentiality Agreement

Except with PG&E's prior written consent, no Participant shall disclose its participation in this Solicitation (other than by attendance at any meeting held by PG&E with respect to the Solicitation) or collaborate on, or discuss with any other Participant or potential Participant bidding strategies or the substance of any Offer(s), including without limitation the price or any other terms or conditions of any Offer(s).

Except as provided below, all information and documents clearly identified by Participant as "Confidential" on the page(s) on which confidential information appears shall be considered confidential information. PG&E shall not disclose such information and documents to any third parties except for PG&E's or PG&E Corporation's, officers, directors, employees, agents, counsel, accountants, advisors, or contractors who have a need to know such information and have agreed to keep such information confidential and except as provided below. PG&E may use Confidential Information, consolidated with other market information and not specifically attributed to the Provider, to analyze or forecast market conditions or prices, for its own internal use or in the context of regulatory or other proceedings.

It is expressly contemplated that materials submitted by a Participant in connection with this RFO will be provided to the CPUC, its staff, the Independent Evaluator, and PG&E's Procurement Review Group ("PRG"). PG&E will seek confidential treatment pursuant to D.08-04-023, General Order 66-C, and Public Utilities Code section 583, with respect to any Participant-supplied non-public RFO information and documents ("Participant's Confidential Information") that are submitted by PG&E to the CPUC for the purpose of obtaining CPUC Approval. PG&E will also seek confidentiality and/or non-disclosure agreements with the PRG applicable to the Participant's confidential information. PG&E cannot, however, ensure that the CPUC will afford confidential treatment to a Participant's confidential information, or that

those confidentiality agreements or orders will be obtained from and/or honored by the PRG or the CPUC.

With respect to any information or documents provided by the Participant, PG&E shall have the right to disclose to the CPUC, its staff, the Independent Evaluator, the PRG, CAISO, other control area operator or balancing authority and any other entity in order to comply with any applicable law, regulation, or rule or order issued by a court or entity with competent jurisdiction over PG&E, at any time, even in the absence of a protective order, confidentiality agreement or nondisclosure agreement, as the case may be, without notification to the Participant and without liability or any responsibility of PG&E to the Participant.

Once a Participant is selected for the Shortlist, the Participant must execute a Confidentiality Agreement in the form attached as Appendix D and return such Confidentiality Agreement within five (5) business days of notification of their selection in order to continue to participate in the RFO. Depending upon Participant's submittal in response to Appendix B6, PG&E may require additional Confidentiality Agreements with collaborating entities.

X. Procurement Review Group Review

Following completion of the evaluation and PAV ranking of Offers, PG&E will submit the results of the evaluation and its recommendations to its PRG. Such information will include at least the all-in cost ranking of Offers, the consideration of non-price evaluation criteria, and PG&E's recommendations based on such information. PG&E has no obligation to obtain the concurrence of the PRG with respect to any Offer.

PG&E assumes no responsibility for the actions of the PRG, including actions that may delay or otherwise affect the schedule for this Solicitation, including the timing of the selection of Offers and the obtaining of CPUC Approval.

XI. Shortlist Notification to Participants

The Solicitation schedule set forth in Section I.C, Schedule Overview, may be modified at PG&E's sole discretion. PG&E expects to be able to provide an e-mail notification to Participants whose Offers have been selected for the Shortlist, and invite each Participant on the Shortlist to conduct discussions and negotiations with PG&E regarding the Offer selected for the Shortlist. PG&E anticipates notifying those Participants whose Offers were not Shortlisted shortly thereafter. As previously stated, PG&E may contact Participants prior to Shortlisting during the evaluation process to seek or notify Participants of deficiencies in their Offers or Offer Packages.

XII. Execution of Agreement

By submitting an Offer, Participant agrees, if its Offer is selected for PG&E's Shortlist, that it is prepared to negotiate and execute a definitive Agreement consistent with the Participant's Offer and containing such other terms and conditions as may be mutually acceptable to PG&E and the Participant. PG&E's evaluation of a Participant's Offer and PG&E's shortlisting of a Participant will not constitute an agreement by PG&E to any of the Participant's modifications made to the form of Agreement submitted.

XIII. CPUC Approval

Whether an Agreement goes into effect or not is expressly conditioned on PG&E's receipt of CPUC Approval, which is more specifically defined in each of the Agreements and Term Sheet. At a minimum PG&E will require a finding from the CPUC that PG&E's entry into the Agreement satisfies PG&E's ES compliance requirement, 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 CPUC Approval does not occur within a specified period, as set forth in each of the applicable Agreements; CPUC Approval typically requires 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.

XIV. Waiver of Claims and Limitations of Remedies

Except as expressly set forth in this Protocol, by submitting an Offer, Participant knowingly and voluntarily waives all remedies or damages at law or equity concerning or related in any way to the Solicitation, the Solicitation Protocol and/or any attachments to the Solicitation Protocol ("Waived Claims"). The assertion of any Waived Claims by Participant may, to the extent that Participant's Offer has not already been disqualified, automatically disqualify such Offer from further consideration in the Solicitation or otherwise.

By submitting an Offer, Participant agrees that the only forums in which Participant may assert any challenge with respect to the conduct or results of the Solicitation is through the Alternative Dispute Resolution ("ADR") services provided by the CPUC pursuant to Resolution ALJ 185, August 25, 2005. The ADR process is voluntary in nature, and does not include processes, such as binding arbitration, that impose a solution on the disputing parties. However, PG&E will consider the use of ADR under the appropriate circumstances. Additional information about this program is available on the CPUC's website at the following link:

http://docs.cpuc.ca.gov/published//Agenda_resolution/47777.htm

Participant further agrees that other than through the ADR process, the only means of challenging the conduct or results of the Solicitation is a protest to PG&E's filing seeking CPUC Approval of one or more Agreements entered into as a result of the Solicitation, that the sole

basis for any such protest shall be that PG&E allegedly failed in a material respect to conduct the Solicitation in accordance with this Protocol, and the exclusive remedy available to Participant in the case of such a protest shall be an order of the CPUC that PG&E again conduct any portion of the Solicitation that the CPUC determines was not previously conducted in accordance with the Solicitation Protocol. Participant expressly waives any and all other remedies, including, without limitation, compensatory and/or exemplary damages, restitution, injunctive relief, interest, costs, and/or attorney's fees. Unless PG&E elects to do otherwise in its sole discretion during the pendency of such a protest or ADR process, the Solicitation and any related regulatory proceedings related to the Solicitation, will continue as if the protest had not been filed, unless the CPUC has issued an order suspending the Solicitation or PG&E has elected to terminate the Solicitation.

Participant agrees to indemnify and hold PG&E harmless from any and all claims by any other Participant asserted in response to the assertion of a Waived Claim by Participant or as a result of a Participant's protest to an advice letter filing with the CPUC resulting from the Solicitation.

Except as expressly provided in this Protocol, nothing herein including Participant's waiver of the Waived Claims as set forth above, shall in any way limit or otherwise affect the rights and remedies of PG&E.

XV. Termination of the RFO-Related Matters

PG&E reserves the right at any time, in its sole discretion, to terminate the RFO for any reason whatsoever without prior notification to Participants and without liability of any kind to, or responsibility of, PG&E or anyone acting on PG&E's behalf. Without limitation, grounds for termination of the RFO may include the assertion of any Waived Claims by a Participant or a determination by PG&E that, following evaluation of the Offers, there are no Offers that provide adequate ratepayer benefit.

PG&E reserves the right to change the Offer evaluation criteria for any reason, to terminate further participation in this process by any Participant, to accept any Offer or to enter into any definitive Agreement, to evaluate the qualifications of any Participant, and to reject any or all Offers, all without notice and without assigning any reasons and without liability to PG&E or anyone acting on PG&E's behalf. PG&E shall have no obligation to consider any Offer.

In the event of termination of the RFO for any reason, PG&E will not reimburse the Participant for any expenses incurred in connection with the RFO regardless of whether such Participant's Offer is selected, not selected, rejected or disqualified.