

# CITY OF CALISTOGA STAFF REPORT

TO:

Honorable Mayor and City Council

FROM:

Brad Kilger, Interim City Manager

DATE:

February 1, 2022

SUBJECT:

Consideration of a Resolution Authorizing Execution of Letter of Intent

with Palm Energy LLC for Lease of City Property for a Clean Energy

Microgrid Station

# Approved by

Brad Kilger, Interim City Manager

#### **DESCRIPTION:**

Consider adopting a resolution authorizing the City Manager to execute a Letter of Intent with Palm Energy LLC for a ground lease on City property for the purpose of installing and operating a clean energy microgrid station.

#### BACKGROUND

Beginning in the summer/fall of 2018 Pacific Gas & Electric (PG&E) initiated a Wildfire Mitigation plan which included Public Safety Power Shutoffs (PSPS) as a primary consideration to make when wildfire conditions are present. During a PSPS, PG&E switches off transmission power in High Fire Hazard areas. The power shutoffs were an attempt to prevent wildfires from being started by electrical equipment during strong and dry winds. The City of Calistoga has been subject of several PSPS events, which have lasted a few hours to several days leaving business, citizens, and many critical governmental services without power.

In January of 2020, the City Council and staff began looking at a community microgrid as one possible solution to the preemptive power shutoffs. A microgrid is typically a self-contained, small, electricity system with the ability to disconnect from the electric grid

when the need arises and provide customers with various levels of critical support. Microgrids are typically made of a combination of distributed energy resources, storage, and demand response capabilities. Following talks with the City, in July of 2020 PG&E installed a microgrid station to provide temporary power to downtown Calistoga during a Public Safety Power Shutoff event during wildfire season. The station allows much of the downtown area (including a medical facility, fire and police station, fairgrounds, post office, banks, schools, markets, residences, hotels, and restaurants among other businesses, facilities, and community services) to remain energized during PSPS events. The microgrid is located on south Washington Street, next to Tedeschi Little League Field. The utility uses mobile, diesel generators to power the microgrid.

As a result of the impacts to the customers of PG&E from the PSPS events, the State initiated efforts to commercialize microgrids. On September 19, 2018, the Governor signed SB 1339. The legislation required the California Public Utilities Commission (PUC), in consultation with the State Energy Resources Conservation and Development Commission and the Independent System Operator, to take specified actions by December 1, 2020, to facilitate the commercialization of microgrids for distribution customers of large electrical corporations. This included requiring local publicly owned electric utilities to develop and make available a standardized process for the interconnection of a customer-supported microgrid, including separate electrical rates and tariffs.

In response to SB 1339, the PUC issued Decision 21-01-018 on January 21, 2021, and draft Resolution E.5164 on September 9, 2021, which required PG&E to seek offers at one or more substations for a clean substation microgrid project capable of safely and reliably powering the substation during a 48-hour transmission outage. The decision also required that the projects should be partially operational by September 2022 and estimated to achieve grid equivalent or lower GHG emissions, and a 90 percent reduction in particulate and NOx emissions, compared to Tier 2 diesel and to achieve grid equivalent or lower greenhouse gas (GHG) emissions.

Pursuant to the PUC decision PG&E issued a Clean Substation Microgrid (CSM) Pilot Request for Offer (RFO) for a clean substation microgrid project in Calistoga (Attachment 3) which would provide Distributed Generation Enabled Microgrid Services (DGEMS). The purpose of the RFO was to seek the procurement of DGEMS solely from a third-party owned project that served customer demand in Calistoga during future PSPS events. In the RFO, PG&E identified the site next to Tedeschi Field where the existing distribution microgrid pre-interconnection hub (PIH) is located as a possible location at which participants might site equipment for their proposed microgrid.

Per the schedule established by PG&E for the solicitation below, PG&E issued the RFO at the end of November. Once they evaluate the proposals, they will execute any resulting agreement by the end of March 2022. PG&E will then submit an advice letter to the PUC at the end of April 2022 seeking approval for any project that meets the operational and cost-effectiveness criteria set forth by the PUC. If PG&E does not receive approval from

the PUC for the pilot, it is their intent to continue to operate the Calistoga distribution microgrid during PSPS for the 2022 fire season.

# PG&E Request for Offer Process/Schedule

Event	Date/Time
PG&E issues the RFO	November 30, 2021
Participants' Webinar	December 9, 2021
Offer(s) due via the online platform	January 20, 2022
Participants notified of eligibility for shortlisted offer negotiations	February 15, 2022
Deadline for Notified Shortlisted Participants to: 1) Accept Shortlist Status 2) Acknowledge Acceptance of Confidentiality Agreement 3) Post Shortlist Offer Deposit 4) Begin ISNet Safety Process	February 22, 2022
Shortlisted Participants to have completed safety prequalification with ISNet	Early-March 2022
Complete negotiations and execute transaction Target Advice Letter Filing with CPUC	Late-March 2022 Late-April
	PG&E issues the RFO Participants' Webinar Offer(s) due via the online platform Participants notified of eligibility for shortlisted offer negotiations Deadline for Notified Shortlisted Participants to: 1) Accept Shortlist Status 2) Acknowledge Acceptance of Confidentiality Agreement 3) Post Shortlist Offer Deposit 4) Begin ISNet Safety Process Shortlisted Participants to have completed safety prequalification with ISNet Complete negotiations and execute transaction

# **DISCUSSION**

In November of last year, Mayor Canning and the Interim City Manager received a briefing on the proposed CSM project from Mark van Gorder, the PG&E North Bay Local Government Affairs representative. During the briefing, Mayor Canning stated the City's support for a clean energy alternative to the current diesel-powered microgrid plant. However, it was also emphasized that this effort should in no way threaten the deployment of the existing microgrid facility for next fire season nor the expectation that PG&E would expand the power generating capabilities of the existing microgrid to serve the City west of the Napa River during a PSPS (Attachment 4). In addition, it was made clear that any plan could not include the deployment of any generator infrastructure at the current substation location on HWY 29 north of the Lincoln Avenue and Silverado Trail intersection.

The PG&E representative also advised the Mayor and Interim City Manager that since the projects were to be third-party owned and operated, participants may reach out to the City for land, environmental, permitting, or related questions. In reviewing the RFO Solicitation Protocol, it appeared that the main support anticipated from the City was to assist participants with site selection and providing a Letter of Intent for the lease of any sites that were on City property.

In December, a representative of Palm Energy LLC contacted the City. Palm Energy is a small start-up company located in Bonita Springs, Florida that has been in operation for approximately 2 years. Palm Energy is owned by e2 Companies which has been in business since 2009 providing power generation and emission compliance solutions.

Palm Energy primarily operates in the energy conservation consultant industry within the engineering, accounting, research, and management services sector. Their web site can be found at <a href="https://palmenergyllc.com/">https://palmenergyllc.com/</a>.

The microgrid system that Palm Energy proposes to establish is intended to be permanent using stationary, modular units (containers) deployable in one (1) mega-watt size increments (Attachment 5). The containers house either a generator or a battery system. The generators are powered with natural gas. The system configuration can be stacked or placed side-by-side or on trailers. To meet the variable energy profile of the area and have system redundancy, Palm Energy estimates the need to install ten (10) systems. The microgrid station would also include installation of necessary isolation transformers and may require additional equipment to connect to the PIH depending on the parcel of land chosen.

Because of the limited number of available properties within the PG&E defined boundary and the RFO requirement that the microgrid be connected to the existing PG&E preinstalled interconnection hub (PIH) adjacent to Tedeschi Field, Palm Energy identified parcels owned by the City near that location. Another factor in choosing the location was the relative proximity to a PG&E natural gas line to power the generators. It is Palm Energy's preference to connect to a future extension to the existing PG&E natural gas line, however it is not known at this time whether it is technically feasible or will be cost prohibitive. Therefore, at this stage they have chosen to submit the RFO with 2 fueling options. As an alternative to connecting to the PG&E natural gas line, Palm Energy proposes to lease sufficient land area from the City to accommodate between 15 to 25 trailers to store the natural gas. To accommodate both fueling options, Palm Energy identified seven (7) sites in the vicinity of the PIH (Attachment 6). Of those the City staff determined five (5) did not pose problems for the City which could not be addressed if the project were built (Attachment 7). However, please note that placing the station on Site 1 would result in the permanent loss of the dog park at that location. Staff also has concerns regarding the use of trailers to store the CNG on site as discussed below.

PG&E's RFO requires that Palm Energy obtain a Letter of Intent for a potential ground lease for the City-owned properties that they will be submitting as part of their response. Due to the large number of issues with siting of the microgrid station that still need to be worked out, Section 7 (Expiration) of the draft Letter of Intent (Attachment 2), which anticipates that any property transaction will be a ground lease, sets forth that neither Palm Energy or the City "have any legal obligations to the other, or with respect to the proposed transaction, unless and until all of the terms and conditions of the proposed transaction have been negotiated, agreed to by both Parties and set forth in the Lease Agreement, which has been approved by formal action of the City Council of the City of Calistoga and the full and final execution and delivery by the Parties of the Lease Agreement." Therefore, the draft Letter of Intent meets the requirements of PG&E's RFO, without impacting the City's ability to evaluate and act on the proposed project within normal timeframes and processes.

Based on the expiration language and that no commitments by the City will be made until a Ground Lease is signed, staff supports the City Council authorizing execution of a Letter of Intent with Palm Energy. However, staff has serious safety concerns with the possible use of CNG trailers on site should Palm Energy determine that it is infeasible to connect the microgrid to the existing PG&E natural gas line. Staff's preference would be for the project to connect to a PG&E natural gas line. It should also be noted that Calistoga Municipal Code Chapter 15.36 Sections 5701.6 prohibits such use without obtaining a use permit from the fire department.

#### FISCAL IMPACT

There is no fiscal impact to the City because of this item.

# **ATTACHMENTS:**

- 1) Resolution
- 2) Draft Letter of Intent
- 3) Letter to PG&E regarding proposed clean energy microgrid project
- 4) PG&E Clean Substation Microgrid Pilot Request for Offers Solicitation Protocol
- 5) Palm Energy LLC project description
- 6) Microgrid Site Analysis Aerial
- 7) Microgrid Site Analysis Chart

# **RESOLUTION NO. 2022-XXX**

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CALISTOGA, COUNTY OF NAPA, STATE OF CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE A LETTER OF INTENT WITH PALM ENERGY LLC FOR A POTENTIAL GROUND LEASE ON CITY PROPERTIES FOR A CLEAN ENERGY MICROGRID STATION

- WHEREAS, in the summer/fall of 2018 Pacific Gas & Electric (PG&E) initiated a Wildfire Mitigation plan which included Public Safety Power Shutoff (PSPS) as a primary consideration to make when wildfire conditions are present; and
- **WHEREAS,** during a PSPS, PG&E switches off transmission power in High Fire Hazard areas, which includes the City of Calistoga; and
- WHEREAS, the City of Calistoga has been subject of several PSPS events, which have lasted a few hours to several days leaving business, citizens, and many critical governmental services without power; and
- WHEREAS, in July of 2020 PG&E installed a microgrid station to provide temporary power to downtown Calistoga during a PSPS event during wildfire season; and
- WHEREAS, the State of California in response to the impacts of PSPS events on the customers took steps to commercialize microgrids by enacting SB 1339 in 2018; and
- WHEREAS, The legislation required the California Public Utilities Commission (PUC), to take specified actions by December 1, 2020, to facilitate the commercialization of microgrids for distribution customers of large electrical corporations; and
- WHEREAS, the PUC issued Decision 21-01-018 on January 21, 2021, and draft Resolution E.5164 on September 9, 2021, which required PG&E to seek offers at one or more substations for a clean substation microgrid project capable of safely and reliably powering the substation during a 48-hour transmission outage; and
- WHEREAS, in response to PUC Decision 21-01-018 PG&E issued a Clean Substation Microgrid Pilot Request for Offer (RFO) for a clean substation microgrid project in the City of Calistoga in November of 2021; and
- **WHEREAS**, in response to PG&E's RFO Palm Energy LLC informed the City of Calistoga of their intent to submit a response to the RFP siting the microgrid project on one or more City owned properties; and
- WHEREAS, as a condition of submitting a response to the RFO, PG&E required Palm Energy LLC to obtain a Letter of Intent to enter into a potential ground lease with the City of Calistoga on one or more of the City properties to demonstrate site control; and

**WHEREAS,** the Letter of Intent specifies that it is not legally binding until all the essential terms and conditions of the proposed ground lease agreement transaction have been negotiated and agreed to by both the City and Palm Energy LLC.

**NOW, THEREFORE, BE IT RESOLVED** that the City Council of the City of Calistoga hereby authorizes the City Manager to execute a Letter of Intent with Palm Energy LLC for a potential ground lease on City properties for a clean energy microgrid station.

PASSED, APPROVED AND ADOPTED this 1<sup>st</sup> day of February 2022. I, MARNI RITTBURG, CITY CLERK OF THE CITY OF CALISTOGA, HEREBY CERTIFY the foregoing resolution was introduced and passed at a regular meeting of the Calistoga City Council by the following roll call vote:

AYES: NOES: ABSENT: ABSTAIN:	
ATTEST:	APPROVED:
Marni Rittburg, CMC, City Clerk	Chris Canning, Mayor

#### [CITY LETTERHEAD]

#### LETTER OF INTENT

#### CONFIDENTIAL

Date

Steven Moffitt President, Palm Energy LLC 8901 Quality Rd. Bonita Springs, FL 34135

Re: Pacific Gas and Electric Company (PG&E) – Pre-Installed Interconnection Hub (PIH) Program Relating to Property Generally Located Along Napa Valley Vine Trail, Calistoga, California, Napa County Assessor's Parcel Numbers (APNs) 011-260-03, 011-260-02, 020-150-033, and 020-150-008

Dear Mr. Moffitt

On behalf of the City of Calistoga ("City"), I have been authorized to submit the following letter of intent to Palm Energy LLC ("Lessee") proposing a ground lease for purposes of installing and operating a pre-installed interconnection hub ("PIH") on all, or a portion of, the property generally located along Napa Valley Vine Trail, Calistoga, California, County of Napa APNs 011-260-03, 011-260-02, 020-150-033, and 020-150-008 (the "Property"), as depicted on Exhibit "A," attached hereto and incorporated by reference herein. The PIH site, as depicted on Exhibit "B," attached hereto and incorporated by reference herein, will consist of both an exclusive and non-exclusive area, and will enable Lessor to rapidly assemble and connect temporary generation equipment in order to energize an isolated circuit within the area during future public safety power shutoff ("PSPS") events.

The primary terms and conditions of the lease, to be later memorialized in a separate Lease Agreement and Transaction Summary Letter (together, the "Lease Agreement"), would be as follows:

1. **LESSEE:** Palm Energy LLC

2. **LESSOR:** City of Calistoga

#### 3. PROPERTY RIGHTS TO BE ACQUIRED:

Leasehold rights for a proposed PIH site.

#### 4. GROUND RENT:

The initial monthly ground rent ("Ground Rent") for the necessary leasehold rights to construct the PIH site shall be an amount not to exceed the fair market rental value of the Property, as determined either by (i) a qualified appraiser of vacant land, or (ii) such other valuation methodology as may be agreed upon by the parties.

Note: After performing due diligence and feasibility studies, should it be deemed that additional property rights will be required to construct the PIH, this Ground Rent may be adjusted accordingly.

### 5. RIGHT OF ACCESS:

City shall grant Lessor and its employees, agents and contractors the right to enter the Property for purposes of conducting due diligence and feasibility studies to construct the PIH.

#### 6. CONFIDENTIALITY:

Both Lessor and City (collectively, "Parties") will maintain all information pertaining to the ground lease in confidence and will not disclose such information to any other party without written consent. Confidential information may be released to the Parties' employees, partners, consultants and lenders who have a reasonable need for such information, provided that such individuals agree to maintain the confidential nature of the information.

#### 7. EXPIRATION:

This proposal will expire on October 1, 2022 at 5:00 PM PST.

Parties acknowledge that they do not intend this letter to be legally binding. Parties also acknowledge that this letter does not contain nor have the Parties' agreed on all of the essential terms of a Lease Agreement, and that such essential terms will be the subject of further discussion. Parties further acknowledge that it would be imprudent and unreasonable to rely upon the expectation of entering into a binding contract based upon this letter, and efforts by the Parties to complete due diligence or negotiate a Lease Agreement shall not be considered as evidence of the intent by either party to be bound by the terms of this letter. Parties expressly agree and acknowledge that no implied covenants attached to this non-binding letter of intent. Parties fully understand that neither Lessor or City shall have any legal obligations to the other, or with respect to the proposed transaction, unless and until all of the terms and conditions of the proposed transaction have been negotiated, agreed to by both Parties and set forth in the Lease Agreement, which has been approved by formal action of the City Council of the City of Calistoga and the full and final execution and delivery by the Parties of the Lease Agreement. Any Party who takes any actions in reliance on this non-binding letter of intent does so at their own costs, expense, risk and peril. This letter does not constitute an agreement to negotiate and either Lessor or City may terminate negotiations at any time and for any reason, or for no reason, prior to the execution and delivery of a definitive Lease Agreement.

If this letter accurately reflects our present understanding with respect to the Property, kindly sign below and return this letter to the attention of the Calistoga City Manager. Should you like to discuss further, please feel free to contact the City Manager at (707) 942-2806 or via email at <email address>. We look forward to your prompt reply.

Sincerely,			
City Manager			
City of Calistoga			

ACKNOWLEDGED BY I	LESSEE:
<property name="" owner=""></property>	
Ву:	
Name:	
Date:	

# Exhibit "A" Potential Parcels

<Insert Exhibit>

# Exhibit "B" PIH Site

[Insert Exhibit]

# CITY OF CALISTOGA

1232 Washington Street • Calistoga, CA 94515 707-942-2827 www.ci.calistoga.ca.us



December 3, 2021

Mark van Gorder| Local Government Affairs, North Bay Pacific Gas and Electric Company 1850 Soscol Avenue Napa, California 94558

Re: PG&E's Clean Substation Pilot Project at Calistoga

Mr. van Gorder,

Thank you for providing the briefing to Mayor Channing and me regarding the CPUC's clean substation microgrid pilot project and the requirement for PG&E to solicit bids for such a project in Calistoga. As this project would be third-party owned and operated you informed us that any prospective bidders may reach out to the City for available land, information regarding potential environmental and land use permitting issues and regulations, and related questions. Furthermore, PG&E plans to identify the City's property where the existing distribution microgrid pre-interconnection hub (PIH) is located as a possible location for the bidders to site equipment.

You stated that Calistoga was chosen as a potential location for the project due to the City meeting PG&E's criteria of communities experiencing 10 or more PSPS outages with over 100 safe-to-energize customers over a 10-year period. In addition, CPUC ordered any clean substation project be at least partially operational by September 2022 and fully meet the emission performance criteria by September 2023. In response, we requested that PG&E require "partial operation" to be bundled with the City's existing PIH to power the existing microgrid footprint and provide the additional megawatts needed to power all of the City's incorporated area east and west of the Napa River. We further requested that the City's existing PIH continue to be operational and remain in place until a substation microgrid project is completed and that any such project include the ability to serve City residents and businesses energized by the existing distribution microgrid as well as any additional safe-to-energize load not currently within the distribution microgrid.

As you are aware because of Calistoga's continued exposure to numerous annual PSPS outages that the existing PIH was installed. It is extremely important therefore that PG&E remain firmly committed to the retention and continued operation of this hub regardless of its responsibility to implement the CPUC project. This includes ensuring

PG&E's Clean Substation Pilot Project at Calistoga December 3, 2021 Page 2

that additional generator(s) sufficient to power the portion of the City west of the Napa River are installed and operational prior to the 2022 fire season.

Again, thank you for the meeting and we look forward to regular updates as the project moves forward.

Sincerely,

Brad Kilger, AICP Interim City Manager

bkilger@ci.calistoga.ca.us

707-942-2806

CC: Chris Canning, Mayor, City of Calistoga



# 2021 Clean Substation Microgrid Pilot

Request for Offers

Solicitation Protocol

November 30, 2021
January 12, 2022

# **Table of Contents**

I. Int	troduction and Overview	1
I.A.	Overview	1
I.B.	Clean Substation Microgrid RFO Website and Communication	1
I.C.	Expected Schedule	2
II. So	licitation Goals	3
II.A.	PG&E Resource Needs	3
II.B.	Delivery Term	
II.C.	Agreement	
II.D.	Renewable Natural Gas Supply	4
III. Eli;	gibility Requirements	4
III.A.	Eligible Resources	
III.B.	Minimum Technical Requirements	
III.C.	Site Control	
III.D.	Land Use and Environmental Approval Requirements	
III.E.	Electric Interconnection	
III.F.	Gas Interconnection [If Applicable]	9
IV. Cre	edit	9
V. Te	rms for RFO Participation	10
V.A.	Agreement by Participant	10
V.B.	PG&E's Reservation of Rights	11
V.C.	Safety	12
V.D.	Shortlist Offer Deposit	13
VI. Of	fer Submittal Process	15
VI.A.	Submittal Process Overview	15
VI.B.	Need for Complete Offer Packages	16
VI.C.	Number of Offers and Variations Allowed Per Seller	16
VI.D.	Additional Offer Information	16
VII. Pri	icing	17
VIII Ev	aluation of Offers	17

IX. Confidentiality Agreement	18
X. Procurement Review Group Review	19
XI. Shortlist Notification to Participants	19
XII. Execution of Agreement	19
XIII. Approvals	19
XIV. Waiver of Claims and Limitations of Remedies	20
XV. Supply Chain Responsibility	21
XVI. Termination of the RFO-Related Matters	22

#### LIST OF APPENDICES

Appendix A Offer Form

Appendix B Supplemental Project Information

Appendix C FERC Order 717

Appendix D Confidentiality Agreement

Appendix E Term Sheet

Appendix F1 Substation Information

Appendix F2 Calistoga 2020 Load Data

Appendix G Letter of Credit

#### I. Introduction and Overview

#### I.A. Overview

Pursuant to California Public Utilities Commission ("CPUC") Decision (D.) 21-01-018 issued on January 21, 2021 (the "Decision") and Resolution E-5164 issued on September 9, 2021 (the "Resolution"), Pacific Gas and Electric Company ("PG&E") is issuing the Clean Substation Microgrid ("CSM") Pilot Request for Offer ("RFO" or "Solicitation") for a clean substation microgrid project to provide Distributed Generation Enabled Microgrid Services ("DGEMS") as described in this Solicitation Protocol.

Pursuant to the Resolution, PG&E is seeking a clean substation microgrid project that is partially operational by September 1, 2022 and fully operational by September 1, 2023.

PG&E is seeking to procure DGEMS solely from a third-party owned project that serves customer demand during future Public Safety Power Shutoff ("PSPS") events. In this Solicitation, PG&E is not procuring any other products other than DGEMS and requires consent for actions to make such products available, pursuant to the terms and conditions within the agreement, as defined below. If and when other products may become available in the future, DGEMS provided to PG&E shall not be interfered with during any development to facilitate delivery of such products or the commercial transactions to market such products.

This Solicitation Protocol sets forth the terms and conditions by which PG&E will seek Offers. An entity submitting an Offer in response to this RFO 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. Clean Substation Microgrid RFO Website and Communication

PG&E has established a website at <a href="https://www.pge.com/clean-substation-microgrid-pilot">www.pge.com/clean-substation-microgrid-pilot</a> where Participants may access and download all RFO documents, announcements and Q&As that are posted.

All correspondence will be monitored by the Independent Evaluator ("IE"), Merrimack Energy Group, 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.

To ensure the accuracy and consistency of information provided to all Participants, PG&E encourages Participants to submit any inquiries via e-mail to <a href="mailto:CSMPilot@pge.com">CSMPilot@pge.com</a> and CC the IE, Merrimack Energy Group, at <a href="mailto:merrimackenergy.com">merrimackle@merrimackenergy.com</a>. 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.

#### I.C. Expected Schedule

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

Table I: PG&E CSM Pilot Schedule

Event	Dates
Participants are invited to register online to receive	
notices regarding the RFO at <a href="https://www.pge.com/rfo">www.pge.com/rfo</a>	Ongoing
PG&E issues RFO	November 30, 2021
Participants' Webinar	December 9, 2021
Deadline for PG&E to receive Offers by 45:00 P.M. PPT	January <u>1420</u> , 2022
PG&E notifies Shortlisted Participants	February 15, 2022
Deadline for Notified Shortlisted Participants to 1) Accept	February 22, 2022
Shortlist Status and 2) Acknowledge Acceptance of	
Confidentiality Agreement 3)Post Shortlist Offer Deposit,	
and 4) Begin ISNet Safety Process	
All shortlisted Participants are required to have	
completed safety prequalification with ISNet as further described in Section V.C.	Early-March, 2022
Target Agreement Execution	Late-March 2022
Target Advice Letter Filing with CPUC	Late April, 2022

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. PG&E has a preference for projects that can agree to terms in an expedited fashion. 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, Approvals. PG&E reserves the right to seek Approvals of certain Agreements prior to execution of others. Participants should factor the CPUC's approval process into their project development timelines and proposals.

#### **II. Solicitation Goals**

#### II.A. PG&E Resource Needs

PG&E is seeking to procure DGEMS capable of safely and reliably powering a variable load up to 8.5 MW throughout the Calistoga Substation safe-to-energize area described in Appendix F1 – Substation Information (the "Substation Area") during a 48-hour transmission outage.

Offers must be capable of operating in accordance with all of the requirements summarized in Section III, Eligibility Requirements below. Additional information about the Calistoga Substation (the "Substation") is included in Appendix F1 – Substation Information and Appendix F2 – Calistoga 2020 Load Data.

#### II.B. Delivery Term

In accordance with the Resolution, PG&E is seeking to enter into an Agreement for a permanent¹ project with a delivery term ("Delivery Term") of 5 years or 10 years and an initial delivery date ("IDD") of September 1, 2023. The project must be partially operational² by September 1, 2022 and fully operational by the IDD.

<sup>&</sup>lt;sup>1</sup> The Resolution refers to "permanent" microgrids. PG&E defines this term consistent with D.21-01-018, which categorized projects as either "temporary" or "permanent," and further defined "temporary" projects as those with durations of 3 or fewer years. See D.21-01-018, App. A., p.A-3.

<sup>&</sup>lt;sup>2</sup> The Resolution refers to partially operational projects to mean they reduce the use of diesel temporary generation during PSPS events.

#### II.C. Agreement

PG&E will consider Offers for third-party owned projects that are able to meet the requirements in Section III, Eligibility Requirements, and can provide DGEMS when called upon by PG&E during PSPS events occurring from June through December of each calendar year.

Under the terms of the form Agreement for third-party owned projects ("Agreement"), the services provider ("Seller") will sell and deliver, and PG&E ("Buyer") will purchase and receive DGEMS at the contracted amount from the project during the Delivery Term, as outlined in the Term Sheet – Appendix E. A form of the Agreement will be made available to Participants at a later date.

PG&E intends to execute agreements that are substantially similar to the form agreement to be provided and will not consider any edits that are not necessary to accurately describe a proposed Project. All final Agreements will be conditioned upon receipt of satisfactory CPUC Approvals.

#### II.D. Renewable Natural Gas Supply

For Offers that require the use of natural gas, the Seller must ensure that their project meets the requirements in Section III.B, Minimum Technical Requirements, including utilization of renewable natural gas when complete. Gas supply may be provided through a connection to the local gas distribution pipeline in the project's location, including obtaining all land rights required to enable such connection, or through mobile supply of the necessary renewable natural gas. Further detail on gas interconnection may be found in Section III.F, Gas Interconnection. In the event that gas pipeline interconnection is infeasible or not costeffective, the Participant must design and construct the project to allow for natural gas to be delivered via tanker truck. Additionally, it will be the responsibility of the Participant to plan for any required natural gas storage facilities to be built at the project site.

# III. Eligibility Requirements

This Solicitation is for resources capable of mitigating PSPS events within the Substation Area and able to be partially operational by September 1, 2022 and fully operational by September 1, 2023.

For the partial solution requirement, in 2022 only<sup>3</sup>, PG&E requests Participants to provide a written description in Appendix B, Supplemental Project Information, of how it will work with PG&E to reduce the reliance on diesel temporary generation during the 2022 PSPS fire season and coordinate with any of PG&E's existing temporary generation efforts in the area. PG&E will work with Participants to determine the contract and pricing structure for 2022 solutions. PG&E prefers Participants to provide written descriptions of 2022 partial solutions, as stated above. If a Participant does not have a 2022 solution at time of Offer submittal, PG&E requests Participants to submit an Offer for 2023 and will work with selected Participants to determine if 2022 solutions are available.

#### III.A. Eligible Resources

This Solicitation will accept Offers from all resource types that can meet the minimum technical requirements listed in Section III.B, Minimum Technical Requirements and, per the Decision, completed permanent projects must demonstrate a fully renewable microgrid.

#### III.B. Minimum Technical Requirements

All Offers must meet the following minimum technical requirements by September 1, 2023 to be considered. Additional technical specifications may be provided at a later date as part of the Supplemental Solicitation Information. Projects must be able to provide reliable and safe power to the Substation Area during PSPS events as specified in the requirements below.

PROTECTION REQUIREMENTS: Protective relaying scheme that protects the system from abnormal voltage and frequency conditions. Generators must have ability to generate short circuit fault duty and have a characteristic for various fault types to allow traditional overcurrent protection to be used to successfully detect and clear utility primary faults. Generator must have ability to generate 3phase short circuit of at least 250% of nameplate MVA rating. If proposing a non-current based protection solution less than 250%, provide technical details and explanation of the fault duty scheme in Appendix B, which should, at minimum, meet 125% name plate capacity. Generator must have ability to sustain 3phase fault duty for 10 seconds, Line-Line (L-L) fault duty for 5 seconds and Line-Ground (L-G) fault duty for

<sup>&</sup>lt;sup>3</sup> See p.14 and Ordering Paragraph 2 of the Resolution for a description of a partial solution.

2 seconds. Generator and Step-up Transformer must be designed such that Faults within the island are cleared to ensure the safe operation of the generator while serving the utility loads, this includes maintaining an effective on the PG&E equipment energized from the generation resource.

PG&E require that generator over and undervoltage protection settings are set as follows; under voltage alarm = 94% of nominal voltage, Under voltage trip = 88% of nominal voltage, Over-voltage Alarm = 108% of nominal voltage. Over-voltage trip = 115%.

PG&E require that generator frequency protection settings are set as follows; Under-frequency Alarm = 97%, Under-frequency trip = 95%, Over-frequency Alarm = 103%. Over-frequency Trip = 105%. Generators are required to maintain frequency within these ranges. Customer is responsible for the protection of their own equipment.

Fault Duty - The generators ability to generate short circuit fault duty for various fault types allows traditional overcurrent protection to be used to successfully detect and clear utility primary faults. Generators must provide enough fault duty to accomplish overcurrent protection with feeder protective devices.

Grounding - Generator equipment must be properly grounded to: 1) minimize contact and step potential hazard to operators working alongside units, and 2) provide sufficient grounding to be able to detect and clear line to ground faults on the distribution primary.

1. **LOAD REQUIREMENTS:** Meet a variable load of up to 8.5 MW instantaneous peak loading with no transmission energy supply for at least two consecutive days (48 hours) without any customer load drop.

While in Microgrid operations, the project's generation must be able to follow load to meet customer demand while maintaining appropriate power quality (defined in Voltage and Frequency Requirements) and be able to meet peak load throughout microgrid operation. See Appendix F2 – Calistoga 2020 Load Data for more information about the Substation Area load.

When determining the size and configuration of the generation with multiple parallel units, consideration must be given to an N-1 for a loss of the largest sized generator.

2. **FREQUENCY REQUIREMENTS:** Maintain nominal frequency at 60Hz as specified within PG&E Electric Rule 2.

- 3. **VOLTAGE REGULATION:** Maintain steady voltage within 1% of the setpoint for the setpoints within PG&E specified range between 120V-126V. Generator voltage output will need to comply with Rule 21 requirements. Step-up transformers should be rated appropriately in KVA to handle the peak load of 8.5MW during normal and N-1 conditions.
- 4. BLACK START REQUIREMENTS: The project must provide black start capability and must be able re-energize previously de-energized distribution feeders with no additional energy sources (distribution or transmission sources). The project must be capable of handling high in-rush current with no external sources to assist. The block cold load capability for generators must be a minimum 60% of the generator name plate capacity.
- COLD LOAD PICK-UP REQUIREMENTS: The project must be able to provide cold load pickup the capability of adding dead load segments of distribution grid and maintain electrical properties, while in island operation.
- 6. **SITING REQUIREMENTS:** Generation resources may be located anywhere in the Substation Area, but cannot be sited at the substation due to limited space. The project must be interconnected within the Substation Area in a fashion that allows for safe power that is not subject to de-energization delivery as a result of PSPS.
  - Projects must adhere to relevant local, state and federal fire protection clearance standards.
- 7. **EMISSIONS:** Per the Decision and Resolution, the solution must reduce particulate matter (PM) and oxides of nitrogen (NOx) emissions by at least 90% compared to Tier 2 diesel and achieve grid equivalent or lower GHG emissions by September 1, 2023.

#### III.C. Site Control

Participants must demonstrate project site control at the time of Offer submission. Examples of acceptable forms of site control for projects sited on any land **not** owned by the City of Calistoga within the Substation Area are: 1) recorded exclusive easement, 2) purchase option agreement, 3) lease covering the entire term of the agreement, 4) lease option (for a lease term covering the entire term of the Agreement-revocable), and 5) fee title.

Participants are responsible for securing all land rights for their proposed project, including generation location and the electric and gas lines and interconnections.

The only acceptable form of site control for projects sited on land owned by the City of Calistoga within the Substation Area, as described in Appendix F1, Substation Info, is a letter of intent-issued by the City of Calistoga. The City of Calistoga has communicated to PG&E that it will be unable to issue letters of intent prior to February 1, 2022, as it requires City Council approval. All Offers utilizing land owned by the City of Calistoiga must still be submitted by the Offer submittal deadline as noted in Section 1.C (Expected Schedule). The letter of intent must be submitted to PG&E no later than 5:00 PM PPT on February 4<sup>th</sup> 2022.

#### III.D. Land Use and Environmental Approval Requirements

Participants are responsible for obtaining all land use and environmental permits and discretionary approvals required from local, state, federal, and/or tribal authorities for the project including the electrical and gas interconnection components of the project.

#### III.E. Electric Interconnection

Projects must be connected to:

- a. Sections of the Calistoga 1101 and 1102 feeders that are within the safe to energize polygon as described in Appendix F1, Substation Information; and/or
- The Pre-installed Interconnection Hub for the Substation as described in Appendix F1,
   Substation Information.

At the time of Offer submittal, Participants must describe in Appendix B, Supplemental Project Information, how their project is on track to be interconnected to meet the September 1, 2023 online date.

Any potential generator project also must apply for a generator interconnection study using the EGI Wholesale Distribution Tariff (WDT) Generator Interconnection Procedures application. It is recommended that a generator interconnection study application for the WDT Independent Study Process should be submitted upon execution of an Agreement in this Solicitation in late-March 2022, pursuant to the Solicitation schedule set forth in Section I.C, Exepected Schedule. For projects that include battery storage that intends on charging from the grid at any point in time, those projects would also need to apply through PG&E's Service Planning Load Interconnection Process.

Sellers are reminded that PG&E is releasing this RFO in its merchant function and in that function PG&E has no obligation nor ability to influence the Participating Transmission Operator or Utility Distribution Company. PG&E in its merchant function is not responsible or liable for delays in interconnection or transmission or distribution service or inability to obtain retail

electric service for any project. For more information, please refer to the Separation of Functions section of the applicable Agreement.

## III.F. Gas Interconnection [If Applicable]

In the event that a project will require delivery of natural gas via a new gas interconnection with PG&E, Participants must initiate the interconnection process and obtain land rights for the interconnection if necessary. At the time of Offer submittal, Participants must have documentation showing that any projects are on track to be interconnected to meet the 2023 online date.

#### **IV.Credit**

Upon execution of an Agreement with PG&E, the Participant must post collateral to PG&E. The Agreement will require that the Participant post collateral with PG&E prior to and following commercial operation of the facility.

**Table II: Credit/Collateral Requirements** 

Pre-Delivery Term Security	\$15/kW within 5 days of Execution, and an additional \$85/kW within 5 days of CPUC Approval (total posted Project Development Security of \$100/kW)
Delivery Term Security	Greater of A) \$125/kW or B) 10% of the highest 3 consecutive years of estimated monthly payments

# 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.
- 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 reflecting its Offer, 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, except with PG&E's prior written consent, 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 concerning any terms contained in Participant's Offer with its advisors, counsel, experts or employees who have a need to know the content of the communications

(collectively, "advisors") and have agreed to keep such information confidential. 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, then Participant agrees acknowledge acceptance of a Confidentiality Agreement, to negotiate in good faith, and to inform PG&E if the project that is the subject of the Shortlisted Offer 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 additional representations and warranties, along with additional documentation, from all entities involved in the joint Offer (see Section VI.D, Additional Offer 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. Per Appendix B 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.

In order to be eligible for execution of an Agreement, shortlisted RFO participants are required to complete PG&E's safety registration and prequalification process with ISNetworld ("ISNet"), PG&E's primary contractor safety management system. This applies to New and Existing projects. To complete this requirement, Participant's should go to www.isn.com, and register the project entity who will be party to the Agreement, or, if the project entity has not yet been formed, Participants may register the parent organization to undergo prequalification during the RFO. Participants will be required to submit company information related to safety performance and practices for evaluation by ISNet based on criteria described in Section 3 of PG&E' PG&E's Contractor Safety Program Requirements, which can be found at: www.pge.com/contractorsafety. As the prequalification process can take several weeks and active follow-up thru ISNet, PG&E recommends Participants familiarize themselves with ISNet and PG&E's Contractor Safety Program pregualification requirements and any costs related to the process. Shortlisted Participants are required to complete and satisfy PG&E's pregualification process must do so prior to execution in Phase I to be considered eligible for execution of an Agreement. Failure to complete prequalification may result in Participant being subject to removal from the shortlist and forfeiture of Shortlist Offer Deposit.

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 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 PG&E's Contractor Safety Program Requirements, which can be found at: <a href="https://www.pge.com/contractorsafety">www.pge.com/contractorsafety</a>.

#### 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 Contract Capacity (as that term is defined in the form Agreements) for each Offer on the Shortlist before 5:00 P.M. PPT on February 22, 2022. 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 G, (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: 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 including failure to register and complete the requirements for ISNet prequalification. 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 4420, 2022 at 45:00 P.M. (PPT), as specified in Table I.

**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. 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 Clean Substation Microgrid 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 Link: <a href="https://www.poweradvocate.com/pR.do?okey=128945&pubEvent=true">https://www.poweradvocate.com/pR.do?okey=128945&pubEvent=true</a>

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. All document file names should **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), project name and the appendix (e.g., App B). For Offer Forms contained within each Offer submittal, please make sure the Offer Form file name is the same as the Offer ID for each offer as created in the corresponding form.

**Electronic Document Formats:** Electronic documents must be submitted as Microsoft Word, Microsoft Excel, or pdf files, as identified in Table III. However, maps or drawings may be in alternate formats (e.g., jpg, kmz) as appropriate. Each Appendix must be a separate 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.

Offers must contain all required information noted in Table IV below and must be organized in accordance with these instructions.

**Table III: CSM Pilot Offer Package** 

Appendix	Title	Description	Format
Α	Offer Form	Provide the requested information.	MS Excel
В	Supplemental RFO Documents	Describe the proposed project, format as single spaced, and include the requested information.	MS Word
С	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

#### 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.

Due to the time-sensitive nature of this RFO, PG&E will not be able to engage with Sellers that submit incomplete Offers or inaccurate Offer information.

#### VI.C. Number of Offers and Variations Allowed Per Seller

Participants may submit up to 5 mutually exclusive offer variations at a specific interconnection point. The Offer Form has been developed so that all 5 variations will reside in one excel workbook.

#### VI.D. Additional Offer Information

<u>Note on Joint Offers</u>: If a Participant wishes to submit 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 Participants submitting 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. Any Participant submitting a joint Offer must comply with. its obligations under Section V.A.7, including the prohibition against Prohibited Communication Activities.

<u>Note on Multiple Variants:</u> Participants need to only submit one Appendix B per Offer. Differences in variants should be described within Appendix B.

# VII. Pricing

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

#### VIII. Evaluation of Offers

PG&E's Evaluation will apply "least-cost, best-fit" principles, using qualitative and quantitative criteria to evaluate the submitted Offers, which may include, but are not limited to:

#### Qualitative Attributes:

In addition to the criteria specifically listed above, PG&E may consider qualitative factors that could impact the value of Offer, including, but not limited to: project viability; interconnection status; site control; environmental impacts; credit; safety history; agreement modifications; ability to meet the IDD; Supply Chain Responsibility status; and completeness of Offer.

#### Quantitative Attributes:

The quantitative valuation compares an offer's cost to its benefits. The cost may consist of the contract fixed cost, variable cost, and network upgrade cost. The benefit may consist of DGEMS, to the extent provided in the agreement.

Per Appendix A of the Decision, the cost of the project to ratepayers may not exceed twice the expected cost of utilizing backup diesel generation over the contract period.

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, 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 acknowledge acceptance of the Confidentiality Agreement in the form attached as Appendix D within two (2) 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 B, PG&E may require additional confidentiality obligations with collaborating entities.

#### X. Procurement Review Group Review

Following completion of the evaluation and ranking of Offers, PG&E will submit the results of the evaluation and its recommendations to the PRG. Such information will include at least the notional value 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, Exepected Schedule, 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 limited negotiations with PG&E regarding the Offer(s) 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, however Participants should not expect this level of guidance due to the time constraints of the RFO.

#### 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 form of Agreement submitted with the Participant's Offer, including the data which must be consistent with the Offer Form and containing such other terms and conditions 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 form of Agreement submitted.

#### XIII. Approvals

After Agreement execution, PG&E will submit executed Agreements to the CPUC for approval via an Advice Letter filing.

The effectiveness of any executed Agreement is expressly conditioned on PG&E's receipt of final and non-appealable CPUC approval.

Whether an Agreement goes into effect or not is expressly conditioned on PG&E's receipt of Approvals, as 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 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 Approvals 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. Supply Chain Responsibility

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.

It is the policy of PG&E that small and diverse businesses shall have the maximum practicable opportunity to participate in the performance of agreements resulting from this solicitation, including Small Business Enterprises ("SBEs"); and Women, Minority, Disabled Veteran and Lesbian, Gay, Bisexual, and Transgender Business Enterprises ("WMDVLGBTBEs"). PG&E encourages Participants to carry out PG&E's policy and contribute to PG&E's supplier diversity goal. For selected Participants, the Agreement includes a requirement to make good faith efforts toward meeting the contracted supplier diversity target, and successful Participants will be expected to report payments made to diverse business enterprises to support the project upon request but no less than annually.

PG&E may consider a Participant's status as a small business when evaluating each Offer. Participant's that identify themselves as a small business certified as a small business by the Small Business Administration or the California Department General Services in order to be considered under this qualitative criteria. <a href="SBA Dynamic Small Business Search">SBA Dynamic Small Business Search</a> and the <a href="State">State</a> of California Department of General Services.

Additional information on PG&E's DBE program can be found at: <a href="https://www.pge.com/supplychainresponsibility">www.pge.com/supplychainresponsibility</a>, with resources on how to register as a DBE on the Supply Chain Responsibility Resources page.

#### XVI. 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, including a finding that one or more Offers does not meet the cost-effectiveness requirements set forth in D.21-01-018.

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.



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January 24, 2022

City of Calistoga – City Council City Hall 1232 Washington Street Calistoga, CA 94515

Subject: PG&E RFO for Clean Substation Microgrid and Palm Energy request for LOI

Dear Councilmembers:

On 11/30/2021, PG&E issued a "Request for Offers" ("RFO")<sup>1</sup> for a "Clean Substation Microgrid" ("CSM") which would operate during the Public Safety Power Shutoff ("PSPS") events. PG&E has historically provided energy to the area during the PSPS events using diesel fired generators. The goal of the CSM is to potentially replace the use of diesel power generation with a solution that can safely and reliably power the substation during a minimum 48-hour transmission outage.

Per PG&E's CSM RFO, projects may be "partially operational" by September 2022 and achieve grid equivalent or lower Greenhouse Gas Emissions ("GHG") emissions as well as a ninety percent reduction in particulate and NOx emissions, during a PSPS event of average duration by the "fully operational" date of September 2023. The requested term of the project is five (5) or ten (10) years; however, Palm Energy is proposing a 10-year term to PG&E. In the RFO, it is stated that any projects which utilize natural gas must procure Renewable Natural Gas ("RNG").

Palm Energy believes its Patent Pending R3Di ("Ready") Modular Microgrid solution provides PG&E and the City of Calistoga with a solution that has superior qualitative and quantitative attributes versus other solutions, including the legacy diesel generators. The R3Di does this by:

- 1. Meeting the energy response requirements, variable load, and outage duration length PG&E has requested; a minimum of 48 hours and can operate for longer durations
- 2. Providing more flexibility and support during power outages and can provide other local or grid level energy balancing services versus alternative technologies

<sup>&</sup>lt;sup>1</sup>https://www.pge.com/en\_US/for-our-business-partners/energy-supply/electric-rfo/wholesale-electric-power-procurement/clean-substation-microgrid-pilot.page?WT.mc\_id=Vanity\_clean-substation-microgrid-pilot





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- Significantly reducing emissions including particulate matter ("PM") and nitrogen oxides ("NOx"); through the procurement of RNG, the System will meet the GHG requirements.
- 4. Requiring far less real estate versus alternative technologies such as battery storage, wind, and/or solar.
- 5. Providing the City with a turnkey "futureproof" solution:
  - a. The R3Di has the ability to add solar, additional energy storage, electric vehicle charging stations, or other renewable technologies making such additions cheaper, easier, and able to operate when the grid is not available.
  - b. The existing battery portion of the R3Di System can be charged from the included generator, electric grid, or other renewable sources.

We believe that over the 10-year term provides a substantive total Societal Return on Investment (SROI)<sup>2</sup>.

#### About the R3Di System:

The R3Di system is a stationary, modular unit deployable in one (1) Mega-Watt size increments. The System configuration can be stacked, side-by-side, or placed on trailers as shown below. The container housing the generator, the other housing the battery system. The R3Di utilizes lithium iron phosphate fast-discharge batteries to provide instantaneous power outage support and is coupled with an ultra-low emission continuous rated natural gas engines which can operate using Renewable Natural Gas.



<sup>&</sup>lt;sup>2</sup> SROI is defined as a measurement not traditionally used in financial metrics that includes environmental, social, and economic factors. An example would be the societal impact of reduced emissions.



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All individual components of the R3Di System are UL certified and therefore meet stringent safety standards. The R3Di System is configured such that when faults and alarms are detected, the System will respond automatically, and if the alert or alarm is significant enough, the System will shut down. The R3Di is monitored 7x24 by our Network Operating Center ("NOC") in Bonita Springs, FL with redundant backup in Peoria, IL.

#### **Proposed Project Location:**

PG&E requires the system to be installed within a specified area of Calistoga, called the "Safe to Energize" zone, and must be connected into the existing interconnection location ("PIH"), substation, or feeders. Palm Energy has proposed the potential use of parcels in the southeast quadrant of the City of Calistoga which are owned by the City. Palm Energy believes the identified parcels are the most viable as they are close to the interconnection location and close to where PG&E has conducted an analysis to extend its natural gas pipeline. One of the locations identified by Palm is currently used by PG&E for diesel power generation during PSPS season. Palm Energy believes these locations would be most favored by City residents because it is located on the outer edge of the City.

#### Why Renewable Natural Gas:

Palm Energy is supportive of renewable technologies but believes that the requirements of the PG&E request necessitate the use of a system which incorporates the technologies in the R3Di and allow for Renewable Natural Gas to be utilized due to the potential duration of events.

PG&E has requested for the Clean Substation Microgrid to provide 8.5MWs with N+1 redundancy power in a quick, non-disruptive manner for at least 48-hours. PG&E also requires the Microgrid to be able to match the fluctuating energy load (the energy profile of the area) within the "Safe to Energize" zone. Depending on the time of day, weather events, increased energy demand, and other events, load can vary greatly.

The solution Palm Energy proposes, the R3Di System, is turnkey product designed to provide clean and conditioned power in a manner that responds faster than other technologies and mitigates disruption. In addition, it can operate for less than or more than the required 48-hours and can actively follow the variable electricity load profile of the area. As mentioned, the potential for multi-hour or multi-day outages lends itself to systems like the R3Di which necessitates the use of a fuel source such as Renewable Natural Gas whether located onsite or procured and injected into the gas pipeline.



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#### **Number of R3Di Systems:**

To meet the variable energy profile of the area and have system redundancy, Palm Energy proposes to install ten (10) R3Di Systems. The R3Di System would include necessary isolation transformers and depending on the parcel of land selected, may require additional equipment in order to connect to the PIH. As depicted in the separately attached brochure the R3Di system can be configured in a stacked configuration; however, depending on code requirements, the R3Di System may be placed side by side instead of a stacked configuration.

#### **Potential Fuel Storage Containers:**

Palm Energy has proposed two R3Di System options to PG&E:

<u>Option A</u> contemplates no use of onsite fuel, as the System would connect to PG&E's gas pipeline, subject to feasibility analysis, pipeline upgrade cost, and actual installation of the gas pipeline extension. In this Option A, the project would require Renewable Natural Gas be procured and injected into the pipeline system.

Option B proposes the use of onsite fuel. It is our understanding, based on PG&E's request, that the use of on-site Compressed Natural Gas or Renewable Natural Gas storage tanks may considered in the below scenarios:

- 1. PG&E has requested a "partially operational solution" for 9/1/22. PG&E's request mentions the possible use of Compressed Natural Gas until the "fully operational solution" is commissioned for 9/1/23.
  - a. The number of Compressed Natural Gas trailers for the partially operational solution is TBD but may be between 4 and 25 trailers, depending on the amount of power generation, storage required, and available real estate for the partially operational solution.
- 2. For the "fully operational solution" beginning 9/1/23, if the PG&E pipeline is not feasible or is delayed, any fuel-based solution would require Renewable Natural Gas onsite.
  - a. The number of Renewable Natural Gas trailers for the fully operational solution is TBD but may be between 15 and 25 trailers.

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#### **About e2 Companies and Palm Energy:**

Palm Energy is majority owned by e2 Companies which was founded in 2009. Palm Energy was founded in 2020 by Executives of the Utility industry.

e2 Companies provides power generation and state of the art monitoring systems with over 1,000 systems currently in place in the U.S. and Canada. e2 companies designed, developed, and have Patented (pending) the R3Di System.

The Palm Energy leadership team brings years of combined experience in the energy markets and distributed generation and has worked with utilities and end users of all types and sizes. Prior to forming Palm, the leadership team oversaw NRG Energy Inc's Distributed Energy Resources group of businesses overseeing a portfolio which stretched across North America and included 7,500 locations.

Together, Palm Energy, LLC and e2 Companies provide comprehensive energy reliability solutions and services to businesses and utilities throughout North America. Our success has been driven by a focus on providing value to clients, top-notch technical performance, and excellence in products and services. Palm Energy and the e2 Companies are headquartered in Bonita Springs, FL, with production of the R3Di Systems taking place in Olathe, Kansas.

More information including executive biographies are located on our websites <a href="https://www.palmenergyllc.com">www.palmenergyllc.com</a> and <a href="https://www.e2companies.com">www.e2companies.com</a>, respectively.

Thank you,

Steven Moffitt

President

Palm Energy, LLC

steven.moffitt@palmenergyllc.com



# R3Di - Reliable, Resilient, Ready

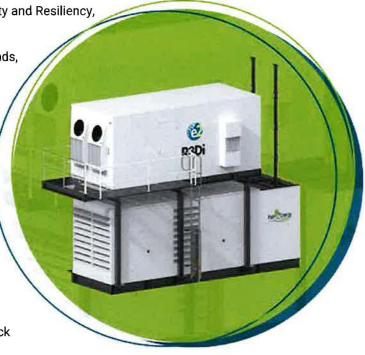
#### Micro-Grid in a Box

Our Patent Pending R3Diprovides a level of Reliability and Resiliency, which until now, has not been available.

The R3Di, provides near-instant (under16 milli-seconds, or faster) energy capacity and can sustain long duration outages. The R3Di can be configured with or without the need of an interconnection agreement, which combined with our modular pre-packaging allows for implementation and commissioning timeline of only six to nine months. The R3Di system can be deployed behind the meter or in front of the meter.

Palm Energy is responsible for all environmental permitting, reporting, and risk management throughout the term of the agreement. Our solution is offered through a 10+ year Master Services Agreement.

The R3Di system combined with our energy expertise can provide considerable Energy Cost Savings while serving as a foundational building block for future Distributed Generation projects.



## **SOLUTION**

- We design, install, own, operate, maintain, and insure through a 10+ year agreement
- No utility interconnection required
- Six to nine month deployment time
- Pre-built modular design, expandable in 1000kW increments
- 🔇 Seamless integration with renewables
- Fully insured & indemnified

### **BENEFITS**

- Provides Instantaneous and Long-Duration Resiliency and Reliability to Businesses and Utilities
- Balances intermittent Renewable Generation at the site or utility level
- Significantly lower emissions profile than Tier 4 Diesel
- Allows for load flexibility and voltage control
- No power blip or disruption
- Non-wires alternative for utilities
- Renewable Natural Gas (RNG) Ready

# **PALM ENERGY & E2 COMPANIES**

Our company has become the first integrated DER provider. Our solution creates flexibility and favorable financial outcomes by combining market expertise with capabilities of the R3Di technology. Palm Energy accomplishes this through the following:

- Commodity Management
- Utility Bill Management
- Participation in market based programs
- Sustainability Emissions, and Compliance
- Integration of Renewables, DERs, & EV Charging

# **CONTACT US**

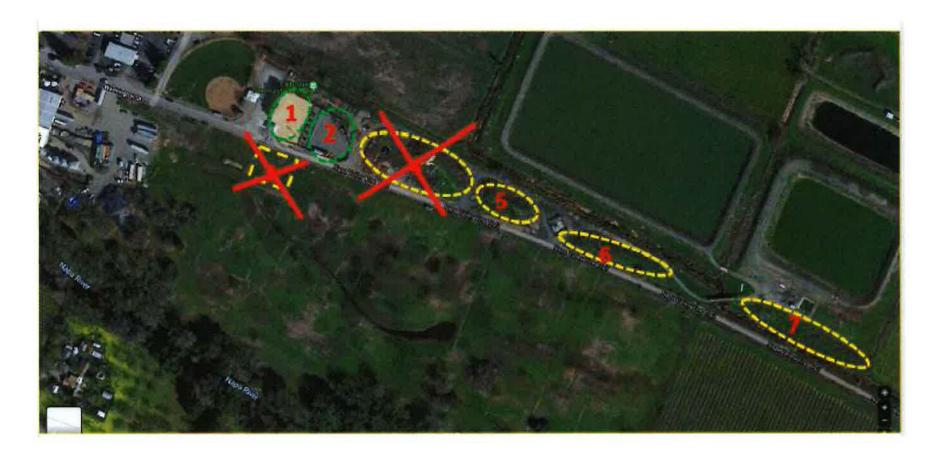
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  Bonita Springs, FL 34135
- inquiries@palmenergyllc.com
- (#) https://palmenergyllc.com/





Energy, LLC

# **Clean Energy Microgrid Site Analysis**



## Attachment 7

# Clean Energy Microgrid Site Analysis Summary

Option	Site (see map)	Location Description	Approximate Footprint (sf)	APN	Not es
1	1	Power Generation - at the Dog Park & PG&E Power Interconnection Hub (PIH)	7,000	_01126003000	Permanent generators here will require lost dog park (Possible temp generators similar to PIH)
2	1&2	Power Generation + Fuel (limited) - at the Dog Park /PG&E Power Interconnection Hub (PIH), and Lower Bone Yard	11,000	_01126003000	Fuel storage impedes access to lower boneyard area that is actively used by public works to store materials, need to coordinate combination access until permanent natural gas fuel is connected.
3	3	Power Generation - Existing Effluent Sprayfield	7,000	_011260043000	Can't be utilized for Cease and Desist order bypass exceedence concerns
4	4	Existing Public Works active stockpile and material storage just east of the existing lower boneyard	11,000	_01126003000 & 011260002000	Can't be utilized for Microgrid and is used actively for public works stockpile and material storage
5	5	Fuel (limited) - West of existing Palisades Lift Station	7,000	_01126003000 & 011260002000	Requires full removal of existing stockpile spoils and clearing to utilize space for temporary limited onsite fuel
6	6	Power Generation - East of existing Palisades Lift Station	7,000	_01126003000 & 011260002000	Preferred Site
7	6	Power Generation + Fuel (limited) - East of existing Palisades Lift Station	13,000	01126003000 & 011260002000	Preferred Site could pick up additional fuel at site 5 until permanent PG&E natural gas line is installed.
8	7	Power Generation - East of existing Recycle Water Pump Station	7,000	020150033000 & 020150008000	Potential longer utility runs for connecting to PG&E infrastructure