

CONTRACT OPPORTUNITY ANNOUNCEMENT

Contract Type:

- Professional Service Contract
- Construction Contract
- Service Contract
- Material Requirement
- Other

Opportunity Summary:

Contract Opportunity Title:	RFP – Seeking Cloud Platform Provider for Vehicle-Grid Integration Pilots
Request For:	Proposal
Estimated Contract Value:	N/A
Work Location:	Across PG&E’s Territory
Response Due Date:	Register your interest no later than Feb 1 st , 2023, by 3PM PT RFP tentative release date: January 12 th , 2023. Formal RFP responses are due Feb 6 th , 2023, at 3 PM PT
NAICS Code / Size Standard	518210 - Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services / \$35M

Opportunity Description:

Background:

Pacific Gas and Electric Company (www.pge.com), a subsidiary of PG&E Corporation, is one of the largest combined natural gas and electric energy companies in the United States. Based in San Francisco with more than 23,000 employees, the company is the primary natural gas and electric service provider for Northern and Central California. The company’s 70,000-square-mile service area stretches from Eureka to the north to Bakersfield in the south and from the Pacific Ocean in the west to the Sierra Nevada in the east. PG&E delivers some of the nation’s cleanest energy to 16 million people.

Pacific Gas and Electric Company (PG&E) was incorporated in California in 1905. Our customers include over 20,000 schools, 3,000 hospitals, 20,000 high-tech companies, and 700 military facilities. PG&E provides electricity to over 4.9 million customers and natural gas to over 3.9 million customers. PG&E is committed to enhancing its supply base to include contractors who can contribute to PG&E’s corporate values, including diversity, safety, environmental stewardship, and corporate integrity. The RFP evaluation process is intended to provide opportunities for successful firms to expand their business with PG&E, new firms to establish business with PG&E, and for PG&E to realize reductions in costs, both internal and external, while experiencing enhanced commitment to corporate values. This will be an exciting opportunity for PG&E and its suppliers – both current and new – to reshape the way we work together and to improve PG&E’s operations.

Vehicle-Grid Integration (VGI) Decision (D.)20-12-029

Decision D.20-12-029 (the “VGI Decision”) was adopted by the California Public Utilities Commission (CPUC) on December 17, 2020. The VGI decision “...adopts strategies and metrics to further the integration of electric vehicles as electrical grid resources, and fulfills obligations imposed on the Commission by Senate Bill 676 (Ch. 484, Stats. 2019).” One of the strategies adopted by the VGI Decision was the “...pursuit of VGI pilots...”. According to the decision, “The large electrical corporations are authorized to propose a variety of VGI pilots...to address needs that fall outside of the scope of other state programs.” As such, PG&E submitted an application via Advice Letter 6259-E to the CPUC for approval of four VGI pilots pursuant to (D.)20-12-029 on July 15, 2021. The CPUC approved three of the four VGI pilots in Resolution E-5192 on May 5, 2022.

Contract Opportunity Description:

PG&E’s VGI Pilots

PG&E’s three VGI pilots approved by resolution E-5192 consist of a residential pilot, a commercial pilot, and a microgrid pilot. The residential pilot (“**Pilot 1: V2X Residential Pilot Program**”) is focused on the adoption of bidirectional light-duty electric vehicle (EVs) and bidirectional single-phase direct current (DC) electric vehicle service equipment (EVSE) technology by residential customers. The commercial pilot (“**Pilot 2: V2X Commercial Pilot Program**”) is focused on the adoption of bidirectional medium and heavy-duty EVs and three-phase DC EVSE technology by commercial customers. The microgrid pilot (“**Pilot 3: V2M PSPS Microgrid Pilot**”) is focused on enabling bidirectional electric vehicles to charge/discharge in a microgrid to support community resiliency during a PSPS event with the goal of operational integration with multi-customer microgrids (i.e., front of the meter (FTM) microgrids with behind the meter (BTM) support). Customers that enroll in the residential or commercial pilots will have the option to additionally enroll in the microgrid pilot if they meet the additional eligibility criteria.

The Cloud Platform Provider is requested via this RFP to develop a VGI Pilot cloud platform (“**Cloud Platform**”) that will serve as the central data management, use case scheduler, and general “control center” for the VGI Pilots. The Cloud Platform will serve several functions for the VGI Pilots including data collection and management, translation of use case signals between different protocols, interfacing with multiple aggregators, and tracking of Pilot participants.

PG&E is building its Distributed Energy Resource Management System (**DERMS**) in a separate effort. PG&E’s DERMS platform will manage, monitor, and control Distributed Energy Resources (DERs) via the use of IEEE 2030.5 but will not be ready in time for use in PG&E’s VGI Pilots. Therefore, due to this timing, and to accommodate as many aggregators as possible (including those without current use of IEEE 2030.5), PG&E has elected to develop and build a Cloud Platform specific to the VGI Pilots. For example, the Cloud Platform is intended to translate between IEEE 2030.5 and different communication protocols, such as OpenADR 2.0b and proprietary APIs. Therefore, if an aggregator does not yet communicate via IEEE 2030.5, they can still participate in our VGI Pilots using OpenADR 2.0b and/or a proprietary API.

The Cloud Platform is envisioned as a set of distinct modules, that each have a specific functionality. Not all modules will be used by all VGI Pilots. Some of the VGI Pilots may only use a subset of the modules developed in the Cloud Platform, as each pilot is investigating slightly different use cases, and access to specific internal or external systems may not be relevant.

Cloud Platform Functional Modules

These are the minimum requirements for what functionalities the Cloud Platform should perform.

- **Public Safety Power Shutoff (PSPS):** This module represents PG&E’s PSPS server that broadcasts the status of PSPS events. The Cloud Platform will connect to PG&E’s PSPS server and collect information on upcoming PSPS notifications and events.
- **Incentive Module:** This module calculates the incentive payments for each customer.
- **Use Case Execution:** This module calculates the signals to send for testing of various use cases.
- **Use Case Scheduling:** This module can be accessed by PG&E Project Management (PM) teams. This module allows PG&E PM teams to schedule use cases for testing.
- **Protocol Translations:** This module translates data from external systems into protocols used by the EV/EVSE/Aggregator Clouds. This module also translates data received from the EV/EVSE/Aggregator Clouds into a standardized format for storage within the cloud platform. For example, this module may translate PG&E PSPS messages into the OpenADR or IEEE 2030.5 format so that the EV/EVSE/Aggregator Clouds can read the messages and pass them along to customer end devices.
- **Database(s):** This module collects and stores data, such as vehicle telematics data, charger performance data, and customer meter data.
- **EV/EVSE/Aggregator Cloud Interface:** This module interfaces with EV, EVSE, and Aggregator provider clouds and collects data on customer end devices and sends messages to the respective EV, EVSE, and Aggregator clouds for testing use cases on customer end devices.

There will be a variety of data sources used across the three VGI pilots for purposes of initiating use case testing and performance evaluation. The following is a list of potential data sources:

- Electrical meter data for smart meters of pilot participants
- EVSE data
- EV telematics data
- PSPS event data
- ELRP event data

Electrical meter data can be obtained by the cloud platform provider via Green Button Connect My Data. More information on connecting to Green Button can be found here: [Share My Data for third-party-companies \(pge.com\)](#)

EVSE data and EV telematics data can be shared with the cloud platform via an application programming interface (API) or other standard communication protocol used by the EVSE or EV provider. A full list of EVSE and EV partners will evolve over time.

PSPS event data can be obtained through PG&E’s PSPS API. More information on how to access this API can be found here: [PG&E QA PSPS Portal \(pge.com\)](#)

ELRP data can be obtained via our ELRP implementation partner [Olivine](#).

Supply Chain Responsibility Considerations:

The selected supplier is encouraged to align with PG&E’s Supply Chain Responsibility policies and procedures. The supplier will be asked to provide a detailed description of their internal, specific supply chain responsibility program and practices related to supplier diversity, environmental sustainability and ethical business conduct.

Conduct Requirements:

Suppliers, as well as their employees, subcontractors and sub-suppliers, must adhere to the principles and standards outlined in our Supplier Code of Conduct as they provide goods and services to PG&E. Review Code and understand its obligations here:

<http://www.pgecorp.com/corp/about-us/compliance-ethics/program/third-party-code-conduct.page>

How to Respond:

Suppliers interested in participating in this Contract Opportunity must:

- Express interest by registering for the Wood Mackenzie/PowerAdvocate event, by **February 1st, 2023**, at:
<https://www.poweradvocate.com/pR.do?okey=138316&pubEvent=true>
- RFP response due date is **February 6th, 2023, by 3 PM PST.**

If Additional Questions, contact by registering for Wood Mackenzie/Power Advocate access (see registration link above) and submit questions using the event messaging system.