



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

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Application of PACIFIC GAS AND  
ELECTRIC COMPANY, a California  
corporation, for a Permit to Construct the  
Plainfield Substation Upgrade Project  
Pursuant to General Order 131-D

Application No.

(U 39 E)

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E)  
FOR A PERMIT TO CONSTRUCT THE  
PLAINFIELD SUBSTATION UPGRADE PROJECT**

DAVID T. KRASKA  
Pacific Gas and Electric Company  
Law Department, 19th Floor  
300 Lakeside Drive, Suite 210  
Oakland, CA 94612  
Telephone: (415) 314-0840  
Facsimile: (510) 898-9696  
E-Mail: David.Kraska@pge.com

JO LYNN LAMBERT  
Lambert Law  
300 East State Street, Suite 520  
Redlands, CA 92373  
Telephone: (909) 528-6436  
E-Mail: JLLm@pge.com  
Attorneys for Applicant  
PACIFIC GAS AND ELECTRIC COMPANY

Dated: June 18, 2024

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## SCOPING MEMO INFORMATION

### Category:

Ratesetting. Pursuant to Rule 2.1(c) of the Commission's Rules of Practice and Procedure, the application must propose a category for the proceeding as defined in Rule 1.3. If none of the enumerated categories are applicable, proceedings will be categorized under the catch-all "ratesetting" category. (CPUC Rule 7.1 (e)(2).) The Commission has consistently found that applications for CPCNs and PTCs under GO 131-D do not fit within any of the enumerated categories and should therefore be considered as "ratesetting proceedings."

### Need for hearing:

The CPUC has determined that issues related to project need and cost are not within the scope of PTC applications, leaving only environmental review as a relevant issue. No areas of environmental or other public concern are known. If concerns about the project are raised, PG&E recommends that a public participation hearing be held.

### Issues:

None known.

### Proposed Schedule:

See Exhibit C, attached.

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Pursuant to Section IX(B) of General Order (“GO”) 131-D and Rules 2.1 through 2.5 and 3.1 of the California Public Utilities Commission’s (“Commission” or “CPUC”) Rules of Practice and Procedure, Pacific Gas and Electric Company (“PG&E”) respectfully requests a Permit to Construct (“PTC”) the Plainfield Substation Upgrade Project (“project”) to upgrade and expand the existing substation with two 5 megavolt ampere reactive power (MVAR) shunt capacitor banks and related equipment, enabling the substation to better serve the Yolo County area.

**I. PROJECT OVERVIEW**

Plainfield Substation occupies approximately 0.9 acres (200 by 200 feet) on a parcel adjacent to County Road (CR) 27 in Yolo County, midway between the cities of Woodland and Davis, and approximately 1.5 miles west of California State Route 113.

PG&E’s Plainfield Substation Upgrade Project (project) proposes to expand PG&E’s existing Plainfield Substation to accommodate an upgrade of two 5 MVAR shunt capacitor banks and related equipment. The upgraded substation will address current low voltage concerns in the 60 kilovolt (kV) transmission system and help maintain electric transmission system reliability in the cities of Woodland and Davis, and the surrounding, largely-agricultural areas in Yolo County. The expanded substation property will be able to accommodate future upgrades when warranted by forecasted load growth in the region. The current estimated cost at completion is approximately \$26.8 million.

The expansion area on adjacent property to the south and east of the existing substation property is currently used for agricultural uses, such as growing row crops and storing agricultural building materials, as

are the surrounding parcels (see Exhibit A, which is also Figure 3-2 of the Proponent's Environmental Assessment ("PEA"), attached as Exhibit B). The parcel of land west of the substation is held as a conservation easement for Swainson's hawk. An agricultural ditch parallels the west side of the substation parcel and drains to Willow Slough, located approximately 0.6 mile to the south. The expansion area will extend 415 feet to the east and 235 feet to the south of the existing substation, occupying approximately 5.2 acres of the adjacent privately-owned, 320.8-acre parcel. At completion, the expanded substation will encompass approximately 6.2 acres. Most of the existing substation equipment and structures will be removed or relocated to accommodate the two new capacitor banks and related equipment.

One double-circuit power line connects to the substation from the north; it contains the Vaca-Plainfield 60 kV and Nicolaus-Plainfield 60 kV circuits. The double-circuit line currently crosses CR 27 from a tubular steel pole (TSP) on the north side of CR 27 and extends to the far side of the substation. The line is supported by four TSPs within an easement outside of the substation fence and enters the substation from the south. As part of the proposed project, the two circuits will be relocated onto separate TSPs within the expanded substation, supported by approximately 10 TSPs. The existing insulators and crossarms will be replaced on the TSP on the north side of CR 27, and, if necessary, the TSP itself will be replaced. The project also includes a new Modular Protection Automation and Control (MPAC) enclosure, an extended telecommunications line to the new MPAC enclosure, a retaining wall along a portion of the western fence line, additional lighting, asphalt roads within the new fenced area, a gravel perimeter road, and an approximately 0.5-acre stormwater retention pond within the eastern portion of the expanded substation. A second gate will also be installed in conjunction with a second access road into the expanded substation.

During project construction, equipment and materials will be staged within the expanded substation property. Project activities associated with the TSP on the north side of CR 27 will require overland access and a temporary 100-foot by 50-foot construction area adjacent to each side of the TSP as it is located adjacent to the agricultural ditch that drains south to Willow Slough.

## **II. REGIONAL CONTEXT AND PROJECT COMPONENTS**

### **A. Regional Context**

#### **1. Existing Regional Electric System**

Plainfield Substation is part of a regional interconnected network of 60 kV substations in PG&E's Sacramento Planning Area that includes Winters and Plainfield substations, both of which are served from Vaca Dixon Substation (Figure 3-3: Existing System, Exhibit B). Plainfield Substation is also connected to East Nicolas Substation, which is served from Rio Oso Substation to the northeast, both of which are also within the Sacramento Planning Area. When the power source from Vaca Dixon Substation is not available, these substations can provide a back feed to Plainfield Substation. Plainfield Substation currently has two transformers rated at 60/12 kV 7.5 megavolt amperes (MVA) and 115x60/12 kV 30 MVA, respectively. The Vaca-Plainfield 60 kV and Nicolaus-Plainfield 60 kV power lines provide power to the substation, and three 12 kV distribution lines extend from the substation across CR 27 and then on wood poles along the north side of CR 27 in each direction. The substation serves approximately 5,800 residences and businesses, including sizeable agricultural operations, in unincorporated Yolo County and the cities of Woodland and Davis.

#### **2. Substation System**

The existing substation measures approximately 200 by 200 feet. Existing equipment within the substation includes two transformers rated at 60/12 kV 7.5 MVA and 115x60/12 kV 30 MVA, a 60 kV bus, and a 450 square foot control enclosure occupying a floor space of approximately 15 feet by 30 feet. Existing facilities generally have a neutral grey finish.

### **B. Project Components**

The project includes the following major components:

#### **1. Expanded Substation**

The project will expand the substation in order to provide space to upgrade the existing bus, add two new 5 MVAR shunt capacitor banks, modify the existing SPCC system and install a stormwater retention pond, and install a new, larger MPAC enclosure (see Figure 3.7: Project Components, Exhibit B). Modifications to substation components are described in Exhibit B: Section 3.3.4, Proposed Facilities.

The substation currently has one entrance equipped with a 20-foot-wide gate that provides access from CR 27 into the fenced substation. In easements outside of the existing substation, two dirt roads originating from CR 27 provide access to the perimeter of the parcel. They include an approximately 12-foot-wide dirt road parallel to the agricultural ditch, which provides access along the western boundary of the substation. Another dirt road, approximately 20 feet wide, extends along the eastern and southern perimeter, providing access to the four existing TSPs located within the easement outside of the substation.

## **2. Power Line Reconfiguration**

The existing Vaca-Plainfield 60 kV and Nicolaus-Plainfield 60 kV circuits approach the substation from the north. The existing conductor is 715.5 kcmil ACC. The lines are currently supported on double-circuit TSPs north of CR 27 and on two double-circuit TSPs on the east side of the substation; the lines separate onto two individual TSPs on the south side of the substation. These four existing TSPs on the south side of CR 27, ranging from 55 to 60 feet in height, are within an easement bordering the east and south sides of the existing substation yard and will be removed to enable expansion of the substation. The concrete foundations, approximately 6 feet in diameter and 15 feet deep, will also be removed. The project will reconfigure the circuits such that, on the expanded substation parcel south of CR 27, the lines will be supported on new single-circuit TSPs. Modification of the existing TSPs and the installation of new TSPs are described in Exhibit B Section 3.3.4, Proposed Facilities.

North of CR 27, an existing dirt road approximately 16 feet wide provides access to the TSP on the north side of CR 27. Roadside ditches parallel both sides of CR 27 and existing culverts are present at all access roads. Access modifications are further described below in Exhibit B, Section 3.3.4, Proposed Facilities.

## **III. THE APPLICANT**

PG&E is, and since October 10, 1905, has been, an operating public utility corporation organized under California law. It is engaged principally in the business of furnishing electric and gas services in California. PG&E's principal place of business is 300 Lakeside Drive, Oakland, California 94612.

Communications with regard to this Application should be addressed to:

JO LYNN LAMBERT  
Lambert Law  
300 East State Street, Suite 520  
Redlands, CA 92373  
Telephone: (909) 528-6436  
E-Mail: JLLm@pge.com

A certified copy of PG&E's Amended and Restated Articles of Incorporation, effective as of June 22, 2020, is on record before the Commission in connection with PG&E's A.20-07-002, filed with the Commission on July 1, 2020. These articles are incorporated herein by reference pursuant to Rule 2.2 of the Commission's Rules.

PG&E's most recent Proxy Statement dated April 4, 2024, was filed with the Commission on May 15, 2024, in A.24-05-009, and is incorporated herein by reference. PG&E's balance sheet and an income statement for the three months ended March 31, 2024, was filed with the Commission on May 15, 2024, in A.24-05-009, and is incorporated herein by reference.

#### **IV. ADDITIONAL INFORMATION REQUIRED BY SECTION IX(B) OF GO 131-D:**

Pursuant to Rule 2.4 (b) of the Commission's Rules of Practice and Procedure, PG&E has submitted a PEA, which is attached as Exhibit B to this Application. The following information is required by Section IX.B of GO 131-D:

*a. A description of the proposed power line and substation facilities, including the proposed power line route; proposed power line equipment, such as tower design and appearance, heights, conductor sizes, voltages, capacities, substations, switchyards, etc., and a proposed schedule for authorization, construction, and commencement of operation of the facilities.*

A detailed description of the proposed project and components is contained in Section II.B above and in Chapter 2 of the PEA, Exhibit B. A Preliminary Project Schedule is attached as Exhibit C.

*b. A map of the proposed power line routing or substation location showing populated areas, parks, recreational areas, scenic areas, and existing electrical transmission or power lines within 300 feet of the proposed route or substation.*

A project map showing the expanded substation location and existing power lines within 300 feet of the project is attached as Exhibit A. A project location map is also provided in Chapter 3 of the PEA, Exhibit B, Figure 3-1. A map of the populated areas (single residences) as



well as land use/zoning is provided in Chapter 5 of the PEA, Exhibit B (see Figure 5.11-1).

There are no parks, recreational areas, or scenic areas within 300 feet of the project.

*c. Reasons for adoption of the power line route or substation location selected, including comparison with alternative routes or locations, including the advantages and disadvantages of each.*

A detailed description of the California Independent System Operator Corporation (CAISO) planning conclusions and the system and other alternatives considered in developing this project is contained in Section 4.0, PEA, Exhibit B, and incorporated herein by reference. A summary is included here.

The CAISO approved PG&E's Vaca Dixon-Davis Voltage Conversion Project, which proposed to convert the 60 kV system between Vaca Dixon and Davis substations to 115 kV operation, in its CAISO 2010-2011 Transmission Plan ("TPP"). A re-evaluation by the CAISO in its CAISO 2017-2018 TPP, however, acknowledged that load in the Central Valley Area had not materialized in accordance with CAISO projections. Concluding that the reliability concerns were not as severe as assumed in the 2010-2011 TPP analysis, the CAISO recommended a revised scope in its 2017-2018 TPP that identified four smaller, independent projects including the proposed project, to install two 5 MVAR shunt capacitor banks at Plainfield Substation to provide voltage support to the area. The CAISO was specific in identifying Plainfield Substation as the location for the shunt capacitor banks and reaffirmed the need for these facilities at Plainfield Substation in its 2021-2022 TPP. Because Plainfield Substation is roughly half-way between Vaca Dixon Substation and Rio Oso Substation, it is located where a boost in voltage support would be most effective. For these reasons, alternative locations were determined to be inferior.

The CAISO's larger Vaca Dixon-Davis Voltage Conversion Project had several advantages. It was an area-wide solution that would convert the entire 60 kV electric system between Vaca Dixon and Davis substations to a robust, higher-capacity 115 kV system, establishing Vaca Dixon Substation as a strong power source to the Davis area. The project would provide sufficient transmission capacity for 15 years and beyond, and would increase reliability by protecting the area against double-line outages. As to disadvantages, the project also had substantial additional impacts due to the breadth and nature of the work entailed. The conversion project would require reconductoring multiple lines, constructing two new switching stations, converting two substations to 115 kV operation, and upgrading equipment at other PG&E and customer-owned substations. While these activities might not create *significant* unavoidable environmental impacts,

they would necessarily result in impacts to a large area of the Central Valley. The project's biggest disadvantage was its price tag, which had grown to \$192 million by 2017-2018. Given the substantial construction cost increases in the past 5-7 years, it would likely be more today.

The Vaca Dixon Area Reinforcement Project, on the other hand, is a targeted solution to address specific issues based on four independent actions that could be taken at existing substations and on an existing power line. Given the lower-than-expected load growth in the area, these smaller components will be sufficient to alleviate the current and short-term future electrical concerns identified by the CAISO. Two of the four components have already been completed; all but the Plainfield Substation shunt capacitors could be done without formal CPUC permitting. Impacts from the expansion of Plainfield Substation have been examined in the Proponent's Environmental Assessment ("PEA") and have been found to be less than significant. For this reason, and because any impacts are localized to one substation with no close sensitive receptors and are largely a result of incremental changes to existing facilities, the proposed project has vastly fewer impacts than the larger voltage conversion project.

The Plainfield Substation Upgrade Project will expand and upgrade Plainfield Substation to accommodate the two new 5 MVAR capacitor banks, comply with current standards, and reserve space for the future ultimate build-out of the substation. The substation is being expanded to the south and east of the existing substation property. Expansion to the west is not an option due to an agricultural ditch that runs adjacent to the substation along the west side; expansion to the north is likewise blocked by the presence of CR 27. A smaller footprint alternative was not selected because it did not comply with current standards, provide an optimal substation design, or accommodate future needs.

Other than rearranging the existing 60 kV lines connecting into Plainfield Substation, this project does not include routing any power lines; for this reason, no routing alternatives or variations were considered.

*d. A listing of the governmental agencies with which proposed power line route or substation location reviews have been undertaken, including a written agency response to applicant's written request for a brief position statement by that agency. (Such listing shall include The Native American Heritage Commission, which shall constitute notice on California Indian Reservation Tribal governments.) In the absence of a written agency position statement, the utility may submit a statement of its understanding of the position of such agencies.*

### **Native American Heritage Commission**

On June 2, 2021, the PG&E team sent a request form with the project description and a map depicting the area of direct impact (ADI) to the Native American Heritage Commission (NAHC) to request a search of their Sacred Lands File to identify Native American cultural resources that might be affected by the project. On June 16, 2021, the NAHC responded with negative results.

The NAHC also provided a list of seven local Native American individuals and organizations who may have additional information about TCRs within the ADI:

- Daniel Gomez, Cachil Dehe Band of Wintun Indians of the Colusa Indian Community;
- Clifford Mota, Cachil Dehe Band of Wintun Indians of the Colusa Indian Community;
- Charlie Wright, Cortina Rancheria – Kletsel Dehe Band of Wintun Indians;
- Isaac Bojorquez, Yocha Dehe Wintun Nation;
- Laverne Bill, Yocha Dehe Wintun Nation;
- Anthony Roberts, Yocha Dehe Wintun Nation; and
- Leland Kinter, Yocha Dehe Wintun Nation.

Outreach to these Native American representatives was initiated in September 2022. A tabular summary of outreach efforts and results is provided in Table 5.18-1, Exhibit B. No concerns regarding the project have been expressed to date.

### **Yolo County**

On January 11, 2024, January 17, 2024, and January 24, 2024, PG&E met with staff from Yolo County's Department of Planning and Public works to provide them with an overview of the project. At all three meetings, County staff expressed support for PG&E's proposed project. PG&E formally requested a position statement from the County on January 17, 2024, but has not yet received a written response.

### **Yolo County Farm Bureau**

On January 19, 2024, PG&E sent project details by email to the Yolo County Farm Bureau. After reviewing the proposed project, the Yolo County Farm Bureau's board expressed no concerns about the project and indicated to PG&E that board members did not feel the need for a formal meeting to discuss the project.

## **V. MEASURES TAKEN TO REDUCE EMF EXPOSURE**

Section X(A) of GO 131-D requires that applications for a PTC include a description of the measures taken or proposed by the utility to reduce the potential exposure to electric and magnetic fields (“EMF”) generated by the proposed facilities. In accordance with Section X(A) of GO 131-D, CPUC Decision No. D.06-01-042 (“EMF Decision”), and the EMF Design Guidelines for Electrical Utilities (“EMF Guidelines”) prepared in accordance with the EMF Decision, PG&E is required to prepare a Substation Field Management Plan (“FMP”) Checklist for substation projects that identifies the “no-cost” and “low-cost” magnetic field reduction measures that will be installed as part of the final engineering design for the project. Accordingly, the Substation FMP Checklist for this project proposes the following measures to reduce the magnetic field strength levels from substation facilities:

- Keep high current devices, transformers, capacitors, and reactors away from the substation property lines.
- For underground duct banks, the minimum distance should be 12 feet from the adjacent property lines or as close to 12 feet as practical.
- Locate new substations close to existing power lines to the extent practical.
- Increase the substation property boundary to the extent practical.

A copy of the Substation Field Management Plan Checklist for this project is attached as Exhibit D. The power line reconfigurations are exempt from EMF mitigation under Section 3.4.3 of the EMF Guidelines.

## **VI. PUBLIC NOTICE**

Pursuant to Section XI(A) of GO 131-D, PG&E will send notice of the Application within ten days after filing the Application to Yolo County Department of Public Works and Planning, the California Energy Commission, the State Department of Transportation and its Division of Aeronautics, the Secretary of the California Natural Resources Agency, the California Department of Fish and Wildlife, the California Department of Health Services, the State Water Resources Control Board, the California Air Resources Board, the Yolo-Solano Air Quality Management District, the Central Valley Regional Water Quality Control Board, the NAHC, the California Department of Transportation’s District 3 Office, the United States Fish and Wildlife Service, the United States Army Corps of

Engineers Sacramento District Regulatory Division, the Yolo County Farm Bureau, all owners of land within a minimum of 300 feet<sup>1</sup> of the proposed project (as determined by the most recent local assessor’s parcel roll available to PG&E at the time the notice is sent), and any other interested parties that have requested such notification.

In accordance with Section XI(A)(2), PG&E will publish a notice of the Application within ten days after filing the Application, once a week for two successive weeks, in the Daily Democrat newspaper. In accordance with Section XI(A)(3), PG&E will also post a notice of the Application on-site and off-site where the proposed project is located. PG&E will deliver a copy of the notice to the CPUC Public Advisor and the CPUC’s Energy Division in accordance with Section XI(A)(3), and will file a declaration of mailing and posting with the Commission within five days after completion.

## **VII. REQUEST FOR TIMELY ACTION**

This reliability project will reinforce PG&E’s electrical transmission system to better enable it to safely and reliably serve the Yolo County area without interruptions or emergency conditions. To enable PG&E to procure materials, secure any necessary secondary permits and property rights, and begin construction by 2026, PG&E respectfully requests that this Application be approved no later than June 30, 2025.

## **VIII. EXHIBITS**

The following exhibits are attached and incorporated by reference to this Application:

Exhibit A: Project Overview Map

Exhibit B: Proponent’s Environmental Assessment (“PEA”)

Exhibit C: Preliminary Project Schedule

Exhibit D: Substation EMF Field Management Plan Checklist

## **IX. CONCLUSION**

PG&E respectfully requests that the Commission:

1. Issue a Decision and Order, effective immediately, granting PG&E a Permit to Construct the Plainfield Substation Upgrade Project, adopting an appropriate environmental document for the

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<sup>1</sup> PG&E will notice all landowners within at least 1000’ of the proposed project.

project, and granting any other permission and authority necessary to construct, operate and maintain the project.

2. Authorize Energy Division to approve requests by PG&E for minor project modifications that may be necessary during final engineering and construction of the project so long as Energy Division finds that such minor project modifications would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

3. Grant such other and further relief as the CPUC finds just and reasonable.

Dated in Oakland, California, this 18th day of June, 2024.

Respectfully submitted,

DAVID T. KRASKA  
Pacific Gas and Electric Company  
Law Department, 19th Floor  
300 Lakeside Drive, Suite 210  
Oakland, CA 94612  
Telephone: (415) 314-0840  
Facsimile: (510) 898-9696  
E-Mail: David.Kraska@pge.com

JO LYNN LAMBERT  
Lambert Law  
300 East State Street, Suite 520  
Redlands, CA 92373  
Telephone: (909) 528-6436  
E-Mail: JLLm@pge.com

Attorneys for Applicant  
PACIFIC GAS AND ELECTRIC COMPANY

By: /s/ Jo Lynn Lambert  
JO LYNN LAMBERT

Attorneys for Applicant  
PACIFIC GAS AND ELECTRIC COMPANY

**VERIFICATION**

I, Brooke Reilly, hereby declare that I am the Vice President of Land, Environmental, and Permitting Services at Pacific Gas and Electric Company and am authorized to make this verification on behalf of Pacific Gas and Electric Company; that I have read the foregoing:

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and that the information related to Pacific Gas and Electric Company set forth therein is true and correct to the best of my knowledge, information, and belief.

I declare under penalty of perjury pursuant to the laws of the state of California that the foregoing is true and correct.

Executed: June 18, 2024

*/s/ Brooke Reilly* \_\_\_\_\_  
Brooke Reilly  
Vice President  
Land, Environmental, and Permitting Services