PUBLIC UTILITIES COMMISSION

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SAN FRANCISCO, CA 94102-3298

Proposed Mitigated Negative Declaration

Pacific Gas & Electric Company's Delta DPA Capacity Increase Substation Project Application No. A. 05-08-022

Introduction

Pursuant to California Public Utilities Commission's (CPUC) General Order 131-D, Pacific Gas & Electric Company (PG&E) has filed an application (A. 05-08-022) with the CPUC for a Permit to Construct for the Delta DPA Capacity Increase Substation Project ("Proposed Project"). The Application was filed on August 12, 2005, and includes the Proponent's Environmental Assessment (PEA), prepared by PG&E pursuant to Rules 17.1 and 17.3 of CPUC's Rules of Practice and Procedure. The Proposed Project includes construction of a three-bank 230/21 kV distribution substation on a 5.1-acre site in the City of Antioch. In addition, the Proposed Project would include a new transmission tower in an existing transmission right of way (ROW) and a temporary access road from an existing public road to the proposed substation site. The temporary access road would require a temporary bridge over Sand Creek. PG&E's project objective is to improve reliability and meet projected electrical load requirements in the Delta Distribution Planning Area. In accordance with the CPUC's General Order 131-D, approval of this project must comply with the California Environmental Quality Act (CEQA).

Pursuant to CEQA, the CPUC must prepare an Initial Study (IS) for the Proposed Project to determine if any significant adverse effects on the environment would result from project implementation. The IS utilizes the significance criteria outlined in Appendix G of the CEQA *Guidelines*. If the IS for the project indicates that a significant adverse impact could occur, the CPUC would be required to prepare an Environmental Impact Report.

According to Article 6 (Negative Declaration Process) and Section 15070 (Decision to Prepare a Negative Declaration or Mitigated Negative Declaration) of the CEQA *Guidelines*, a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or

(b) The initial study identifies potentially significant effects, but:

(1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Based on the analysis in the Initial Study, it has been determined that all project-related environmental impacts could be reduced to a less than significant level with the incorporation of feasible mitigation measures. Therefore, adoption of a Mitigated Negative Declaration (MND) will satisfy the requirements of CEQA. The mitigation measures included in this MND are designed to reduce or eliminate the potentially significant environmental impacts described in the Initial Study. Where a measure described in this document has been previously incorporated into the project, either as a specific project design feature or as an Applicant-Proposed Measure, this is noted in the discussion. Mitigation measures are structured in accordance with the criteria in Section 15370 of the CEQA *Guidelines*.

Project Description

The proposed substation property would occupy approximately 5.1 acres within which the substation footprint (fenced area) would occupy approximately 3.5 acres. The project site is immediately adjacent to the existing Contra Costa–Cayetano 230 kV transmission line, to which the substation would connect. All portions of the Proposed Project are located within the City of Antioch, County of Contra Costa, California.

The present generation model for 230/21 kV substations having three 45 MVA transformers includes low-profile bus bar equipment to aid aesthetics. The proposed substation would include steel bus support racks, high voltage breakers, power transformers, and switchgears. The major substation equipment would include the following:

- 230 kV bus structures for an initial ring bus connection and arranged for an ultimate configuration for three 230 kV transmission circuits and three 230/21 kV power transformers,
- six 230 kV circuit breakers (for switching and protecting three transmission lines and three 230/21 kV power transformers)
- three 230/21 kV power transformers,
- three 21 kV metal-clad switchgears,
- six to nine 21 kV distribution circuits at ultimate build-out, and
- digital microwave communications equipment.

In addition, the Proposed Project would require construction of a transmission tower to allow a connection between the existing transmission line and the proposed substation, and a temporary road to allow access to the substation site until a public road is extended past the site. The road would be approximately 3,050 feet long within a 50-foot wide easement. This easement represents 3.5 acres of land, of which approximately 1.25 acres would be occupied by the proposed 18-foot wide paved road.

The project's study area includes the proposed substation site, the transmission tower site, and the temporary road and bridge between Heidorn Ranch Road at Sand Creek Road and the project site.

Alternatives

The purpose of an alternatives analysis pursuant to CEQA is to identify options that would feasibly attain the project's objectives while reducing the significant environmental impacts resulting from the Proposed Project. CEQA does not require the inclusion of an alternatives analysis in MNDs because the Initial Study concludes that, with incorporation of mitigation measures, there would be no significant adverse impacts resulting from the Proposed Project. Therefore, no alternatives analysis needs to be provided in the Initial Study. However, pursuant to Section IX.B.1.c of CPUC General Order 131-D, PG&E's application did consider site alternatives and other methods to relieve forecast demand. The application discussed advantages and disadvantages of each option, and includes an analysis in the Proponent's Environmental Assessment (PEA).

Environmental Determination

The Initial Study was prepared to identify the potential environmental effects resulting from Proposed Project implementation, and to evaluate the level of significance of these effects. The Initial Study is based on PG&E's PEA filed on August 12, 2005, project site reconnaissance by the CPUC environmental team, and other environmental analyses for the project. Measures addressing potentially significant impacts, proposed in PG&E's PEA, are referred to as Applicant Proposed Measures (APMs) and are incorporated into the Proposed Project description. These APMs are listed in Table B.1-2, in Initial Study Section B.1.13. Based on the Initial Study analysis, additional mitigation measures are recommended to ensure that impacts of the Proposed Project are at less than significant levels upon implementation. The additional mitigation measures either supplement, or supersede the APMs. PG&E has agreed to implement all of the additional recommended mitigation measures as part of the Proposed Project.

Implementation of the following mitigation measures would avoid potentially significant impacts identified in the Initial Study or reduce them to less than significant levels.

Mitigation Measure for Preserving Visual Character

V-1 **Landscape screening with sufficiently tall tree species to provide effective long-term screening.** To ensure effective long term screening, trees shall include species with sufficient ultimate height with the proposed berm to substantially screen taller substation components, and tree plantings shall be of sufficient density to substantially screen these features. Landscape screening shall be consistent with a landscaping plan developed by PG&E and submitted for review and approval by the City of Antioch.

Mitigation Measure for Construction-Phase Aesthetics

V-2 **Restore and revegetate ground disturbances due to construction staging.** All ground disturbances caused by construction, staging, and temporary access road construction shall be restored to original, natural-appearing contours and revegetated at the earliest feasible time.

Mitigation Measure for Light and Glare

V-3 **Shroud and minimize unnecessary sources of light.** New permanent lighting shall be designed and installed such that light bulbs and reflectors are not visible from public viewing areas; light-

ing does not cause reflected glare; and illumination of the project, the vicinity, and the nighttime sky is minimized. To meet these requirements the project owner shall ensure that:

- Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to prevent light trespass outside the project boundary;
- All lighting shall be of minimum necessary brightness consistent with worker safety;
- Wherever feasible and safe, lighting shall be kept off when not in use.

Mitigation Measures for Construction-Phase Air Quality

AQ-1 **Use ultra low sulfur fuel.** All diesel fueled construction equipment shall be fueled with diesel fuel meeting CARB ultra low sulfur (15 ppm max) certification specifications.

AQ-2 **Use Tier 1 engines.** All diesel fueled off-road construction equipment with engines 50 hp or larger shall at a minimum meet U.S. EPA/CARB Tier 1 engine standards. Records of equipment compliance shall be kept by the general construction contractor. This measure does not apply to equipment permitted by the local air quality district or certified through the CARB's Statewide Portable Equipment Registration Program. This also does not apply to any single specialized equipment items that will be used for less than five days total during the project construction.

Mitigation Measure for Special Status Plant Species

B-1 **Preserve and/or restore impacted plant populations.** Should one or more populations of round-leaved filaree (*Erodium macrophyllum*) or showy madia (*Madia radiata*) be detected within the project footprint, then one of the following measures shall be implemented to offset permanent impacts to these plant populations.

- *Avoid special status plants*. In consultation with a botanist, and to the maximum extent practicable, the project shall be constructed and operated in such a way as to avoid substantial direct and indirect impacts (e.g., the establishment of an appropriate-sized buffer) to these species. Avoidance measures include, but are not limited to, establishment of an appropriate-size buffer (e.g., installation of exclusion fencing) to ensure that identified populations are not disturbed during construction (e.g., human intrusion by motorized vehicles).
- *Implement a site restoration plan*. A detailed Special Status Plant Species Restoration Plan shall be developed in consultation with a qualified restoration ecologist and shall identify measures allowing for the restoration of these plant populations at a minimum of a 1:1 replacement-to-loss ratio (i.e., one individual replanted for each individual lost). This plan shall be submitted to the CPUC for approval. The restoration plan shall:
    1. Designate location of onsite areas to restore lost plant populations. Sufficient habitat amongst the proposed development area should exist for onsite restoration. Appropriate habitat could be created on suitable soils.
    2. Describe the propagation and planting techniques to be employed in the restoration effort. Perennial plants to be impacted by site grading should be salvaged and raised in a greenhouse for eventual transplanting within the restoration areas. Annual plants can be established through direct seeding practices and/or transplanting container-grown plants into existing suitable habitat.
    3. Develop a timetable for implementation of the restoration plan

4. Develop a monitoring plan and performance criteria.
5. Describe remedial measures to be performed in the event that initial restoration measures are unsuccessful in meeting the performance criteria.
6. Describe site maintenance activities to follow restoration activities. These may include weed control, irrigation, and control of herbivory by livestock and wildlife.

- *Provide offsite mitigation*. If a site restoration plan is not feasible, mitigation for these plant species shall be accommodated via offsite habitat creation or enhancement or through the purchase of credits from a mitigation bank.

Mitigation Measures for Special Status Animal Species

B-2 **Offset for loss of burrowing owl habitat.** Per the Resource Management Plan (RMP) adopted by the City of Antioch General Plan, loss of burrowing owl habitat (a grassland species located on lands east of Deer Valley Road) shall be mitigated at a loss to mitigation ratio of 0.5:1 to 1:1. The Resource Management Plan allows for mitigation ratios to be reduced or discounted between 25% and 50% if grassland habitat is preserved within the FUA1 Plan Area or in strategically important grassland areas identified in the RMP.

B-3 **Protect San Joaquin kit fox.** The applicant shall follow the *Standardized Recommendations for Protection of the Kit Fox Prior to or During Ground Disturbance* developed by the U.S. Fish and Wildlife Service (1999).

Mitigation Measure for Loss of Riparian Habitat

B-4 **Restore lost riparian habitat.** Any woody vegetation removed to accommodate bridge construction (e.g., elderberry, willow) within the riparian corridor of Sand Creek shall be replaced at a minimum of a 1:1 replacement-to-loss ratio or as set forth by the California Department of Fish and Game. Plantings shall be native species that are contract grown from local stock (within 5 miles of the site), if feasible.

Mitigation Measure for Jurisdictional Waters

B-5 **Avoid jurisdictional waters.** Construction of all project components shall avoid work below the ordinary high water level, to the extent feasible. For any construction below the ordinary high water level of the creek, a mitigation plan shall be developed that either results in the creation of new jurisdictional waters as replacement for those lost or enhances the quality of existing jurisdictional waters for native plants and wildlife. The mitigation plan for wetland impacts shall be submitted to the CPUC with supporting documentation indicating compliance with USACE, CDFG, and RWQCB requirements.

Mitigation Measure for Cultural Resources

CR-1 **Install pre-construction fence to protect historical resource.** Prior to the initiation of construction or ground-breaking activities, archaeologists shall install temporary fencing along the southeast boundary of historic resource site CA-CCO-682H. The fence shall be situated 10 to 15 feet from the northwest side of the existing access road, beginning at the Sand Creek crossing and continuing north for approximately 200 feet. The fence shall be erected to form a protective buffer around the general site boundaries so the actual site boundaries are not revealed. If relocation of the creek crossing disturbs the area circumscribed by the fence, then project archae-

ologists shall establish a research and data recovery program to test the site and determine the significance of the resource. The data recovery program shall include procedures to properly report and curate the resource in a manner consistent with standards mandated by the California Office of Historic Preservation (OHP). The research and data recovery program shall be submitted to the CPUC for review and approval at least 30 days before disruption of the pre-construction fence.

Mitigation Measure for Hazards and Hazardous Materials

H-1 **Stop work upon encountering contamination.** If evidence of soil and/or groundwater contamination is encountered during grading or excavation, work shall stop immediately. The construction superintendent, designated PG&E and CPUC personnel, and applicable regulatory agencies shall be notified immediately. Contingency planning for such an event shall be conducted prior to start of work. The nature and extent of contamination shall be identified through soil and/or water testing, and appropriate remedial action proposed and approved by the CPUC prior to disturbing additional material.

Mitigation Measure for Hydrology and Water Quality

W-1 **Prepare a hydraulic and erosion study of the proposed bridge, and design to ensure no adverse hydraulic or erosion impact.** Prior to issuance of a grading permit, a hydraulic/erosion analysis shall be conducted by a registered civil engineer demonstrating the effect of the proposed bridge on the Sand Creek floodplain, and documenting any increased erosion hazard. The bridge design shall include features to ensure no adverse impact. If needed, modifications could include, but not be limited to, removal of the existing culvert, channel widening, and/or erosion-control measures.

A Mitigation Monitoring Plan has been prepared to ensure that the APMs and mitigation measures presented above are properly implemented. The plan describes specific actions required to implement each measure, including information on timing of implementation and monitoring requirements.

Based on the analysis and conclusions of the Initial Study, the impacts of the project as proposed by PG&E would be mitigated to less than significant levels with the implementation of the mitigation measures presented herein, which have been incorporated into the Proposed Project.