## **PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



Ms. Linda Wrazen Regulatory Case Administrator San Diego Gas & Electric Southern California Gas Company January 21, 2010

Subject: Data Request No. 1 - San Diego Gas & Electric ("Applicant"), East County Substation Project (PTC Application No. 09.08.003)

Dear Ms. Wrazen:

The California Public Utilities Commission (CPUC) has identified additional information required to complete our analysis of the East County Substation Project. Please provide requested information in Attachment A in support of analyzing reasonable alternatives in the EIR/EIS and the electric magnetic field analysis. We would appreciate your response to this data request no later than February 12, 2010. This will help us maintain our schedule for analysis and processing of this application.

If you have any questions regarding this letter or need additional information, please contact me at 415.355.5580 or aei@cpuc.ca.gov.

Sincerely,

Tain Fisher
Energy Division

California Public Utilities Commission

## **System Alternatives**

- Please provide input regarding how the following system alternative may perform. Should such an alternative not meet project objectives please provide an in depth discussion as to why.
  - Remove the requirement for the 230kV portion of the ECO substation by requiring energy from the various collector systems to be delivered at either 138 or 500 kV.
  - Adjust the 138 kV switch yard and associated transformation (500/138kV) to reflect this new configuration.
- While the proposed upgrades to the Boulevard substation may make sense, the benefits from such upgrades could be short lived if the addition of the new wind generation results in the need for upgrades to the existing 69kV circuit back to Crestwood and Boulevard Tap. Please, provide studies (either internal or CAISO studies) that indicate the impact of the proposed ECO Boulevard 138kV line and the new generation will have on the 69kV system in the area. If such studies are not available please provide a time frame in which they can be made available.

## **Magnetic Field Management Plan**

3. The submitted "Detailed Magnetic Field Management Plan" (Attachment 3-D of the Proponent's Environmental Assessment) for the 138-kV transmission line part of the ECO Substation Project meets CPUC requirements. The absence of a field management plan for the ECO and Boulevard substations does not meet CPUC requirements.

The submitted Magnetic Field Management Plan (FMP) treats phasing of the new construction of a 138 kV twin-circuit 60-Hz transmission line that will be sited on its own 100 foot wide ROW and on a shared ROW abutting the Southwest Powerlink (SWPL) 500-kV transmission line. Segment 1, which is aligned along a north-south axis, involves only the 138-kV line, whereas Segments 2 and 3 are aligned along an east-west axis on a shared ROW of 300 foot total width. The 138-kV line placement changes from north of the SWPL to south of the SWPL at the point where Segments 2 and 3 meet.

A reduction in edge of the ROW magnetic fields of 32.1% was achieved on Segment 2 at no-cost by changing from the initial phasing (A-B-C, top-to-bottom in a vertical I-type configuration for both of the twin circuits) to CAB (top-to-bottom). This reduction in magnetic field strength is greater than the CPUC significance guideline of 15%. Consequently, Segment 1 also will be phased as BAC for both of the twin circuits without,

of course, affecting costs or magnetic fields on Segment 1. Phasing on Segment 3 of the 138-kV line will change to BAC (top-to-bottom) at the point where the 138-kV line makes a transition to placement on ROW to the south side of the SWPL. A reduction of slightly more than 15% was achieved by the BAC phasing compared to the initial design. These nocost changes satisfy CPUC requirement for the three segments of the 138-kV line that constitute its entire length.

The submitted magnetic FMP for the ECO Substation Project considers only the 138 kV transmission line between Boulevard and ECO substations. The CPUC (2006 b) indicated that all new transmission lines over 50 kV must include a FMP and new substations over 50 kV a checklist-style FMP, unless exempt under terms listed in Section 3.4. The potentially applicable exemption criterion therein is for undeveloped land:

"Projects located exclusively adjacent to undeveloped land—including land under the jurisdiction of the National Park Service, the State Department of Parks and Recreation, U.S. Forest Service, or Bureau of Land Management (BLM)."

CPUC guidance on FMP preparation for undeveloped land eliminates the requirement for low-cost mitigation, but does not eliminate the requirement for an FMP. Land use adjacent to the project includes undeveloped land (the majority use), planned residential and commercial development, and 25 existing residences within 1000 feet. The FMP submitted for this project considers only no-cost mitigation, which is consistent for CPUC requirements for undeveloped land.

The 138-kV transmission line route largely traverses undeveloped land, but Table 4.9.2 lists 25 residences that are within 1000 feet of the line and a smaller number within a few hundred feet. The presence of these residences shows that the project does not meet the test for exclusively undeveloped land adjacent to the project.

The proposed 138 kV transmission line would traverse a potential development (Ketchum Ranch) that, if built, could include 2,125 residential units, schools and recreational areas intended for use by residents. There also is a planned project approximately 0.25 mile from the Boulevard substation. CPUC explicitly considered such situations with the decision that in view of the changeable nature of development, low-cost mitigation would not be required, but a detailed FMP citing no-cost mitigations should be prepared (CPUC 2006b, Table 3-1 and CPUC 2006a).

The absence of FMPs for the ECO Substation and upgraded Boulevard Substation appears to be an omission that deviates from CPUC requirements even though land adjacent to the substations is undeveloped.