

June 17, 2025

Tharon Wright
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California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
VIA EMAIL

RE: CPUC Data Request #9 for PG&E's Moraga to Oakland X 115 Kilovolt Rebuild Project (A.24-11-005)

Dear Ms. Wright,

This letter is in reply to your June 4, 2025 letter in which you request certain additional information regarding Pacific Gas and Electric Company's (PG&E's) application (A.24-11-005) for a Permit to Construct (PTC) and Proponent's Environmental Assessment (PEA) for the Moraga-Oakland X 115 kilovolt (kV) Rebuild Project (project). The original text for each data request item from the California Public Utilities Commission (CPUC) is included, followed by PG&E's response.

There is one attachment to this letter to support PG&E's response.

- Attachment 1 – Table ALT-6 Road Closures

PEA Chapter 4, Alternatives

ALT-6 Roadway widths for underground alternatives are discussed under PEA Alternatives B and C; however, the PEA analyzes installation of 4 circuits and the EIR is considering 2 circuits each road. The EIR must evaluate impacts of construction of the underground alternatives on traffic and evacuation routes, so must consider the need for road closures. Please define the minimum roadway width that would allow retaining a single traffic lane open at all times during underground installation of 2 power line circuits and associated vaults.

Specifically, please define the specific areas (by block, e.g., "along x street between y and z streets") along the following roadways that would require full roadway closure for any length of time during installation of 2 underground circuits:

Manzanita Drive to State Route 13

- Skyline Boulevard
- Colton Boulevard
- Heartwood Drive
- Snake Road
- Shepherd Canyon Road (west of Saroni Drive)
- Ascot Drive

West of State Route 13

- Sims Drive
- Somerset Drive
- Estates Drive (west of Somerset Drive to Park Boulevard)

PG&E's Response

The minimum roadway width required for construction and to retain a single traffic lane open depends on several factors. PG&E assumed the following to provide a response:

- Construction width required to install 2 circuits in a double-circuit duct bank in one of the roads listed above would be the same as described in the PEA Project Description for installing 2 circuits in Park Boulevard. As noted on PEA Page 3-28:

[T]he workspace for open trenching operations to install the duct bank between the vaults typically may extend up to approximately 1,500 feet long by 24 feet wide.

The 24 feet provides space for the 4-foot wide trench, sidecasting of excavated soil into a hauling truck, a cement pouring truck, a cable splicing trailer, construction equipment access, and materials and equipment storage, among other construction activities.

- The construction width required to install a vault in one of the roads listed above would be the same as described in the PEA Project Description for installing a vault in Park Boulevard. As noted on PEA Page 3-28,

Each vault will have an excavation size of 42 feet long by 18 feet wide by 13 feet deep.

- Vault construction requires greater road width than duct construction. Where a road would not be wide enough for a traffic lane during duct bank construction, it also would not be wide enough for a traffic lane during vault construction.
- The minimum required width of a traffic lane during construction would be established in coordination with the applicable agencies (primarily City of Oakland). For this response, the minimum traffic lane width is assumed to be 10 feet wide. This assumption is based on several sources:
 - (1) The City of Oakland's "Supplemental Design Guidance: Accommodating Pedestrians, Bicyclists, and Bus Facilities in Construction Zones" requires that motor vehicle travel lanes be maintained at least 10 feet wide if narrowed to provide temporary bike lanes in construction zones (https://cao-94612.s3.amazonaws.com/documents/OakDOT-Updated-Guidance-Temporary-Traffic-Control_2017_01_06.pdf).
 - (2) The City of Oakland also requires, in its Street Design Manual (<https://cao-94612.s3.us-west-2.amazonaws.com/documents/STREET-DESIGN-GUIDELINES.pdf>), that driveways be a minimum of 10 feet wide.
 - (3) Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (<https://mutcd.fhwa.dot.gov/hdm/2003/part6/part6h1.htm>) states that lanes should be a minimum of 10 feet wide when shoulders are temporarily closed for construction work.
- The entire width of pavement, including paved parking lanes and paved shoulders, is assumed to be available for construction activities or a traffic lane. Areas outside of existing pavement on public right-of-way would not be available for construction or traffic because private residential property or vegetated slopes are adjacent to the pavement along nearly the entire length of the roadways. It is assumed no temporary road widening would occur. The PEA notes that the Montclair Railroad Trail (MRRT) along Shepherd Canyon Road could potentially be used if additional width was needed (p. 4-18). However, much of the MRRT is not at the same grade as Shepherd Canyon Road and extensive vegetation removal, earthwork, and modifications to a drainage would be required to accommodate a traffic lane along an entire block. Use of MRRT therefore was not assumed.

Based on the above assumptions, a minimum existing road width of 34 feet would be required for construction of a duct bank with 2 power line circuits and associated vaults. This assumes the trench location is placed optimally in one lane with no shifting of the alignment to avoid existing utilities (e.g. concrete storm drains, electric distribution lines). Aerial and street view imagery were reviewed to identify which blocks of the roads in question have an existing width of at least 34 feet. Blocks with one lane each way and without paved shoulders or parking lanes are less than 34 feet wide and were eliminated from further consideration. Where the roadways could be seen to have more than one lane in each direction, have a double yellow center line, or have a shoulder or parking lane, the roadway width was measured for each block using an online map with aerial imagery base.

Most blocks had only intermittent and short lengths wider than 34 feet and were less than 34 feet wide most of the block length. For example, while Skyline Boulevard has lengths that are wider than 34 feet, most lengths have areas with less than 34 feet of width, as illustrated in PEA Figure 5.1-2c, Representative Photo: 5. *Skyline Boulevard looking west*. Blocks such as these were assumed to require complete closure. It should be noted that intersections may appear to have sufficient width because the intersecting road(s) add "width" in that location. Isolated intersections were not included as separate blocks. The desktop review results are summarized in Table ALT-6 Road Closures in Attachment 1.

Based on this review, it appears nearly all blocks of the roadways listed would require complete closure during construction. Several road blocks may be sufficiently wide to accommodate a traffic lane during construction of a duct bank with 2 circuits, although they may not be wide enough to accommodate vault construction with a traffic lane left open. These road blocks are:

- Colton Boulevard between Arrowhead Drive and Lodge Court
- Snake Road between Hemlock Street and Thornhill Drive
- Ascot Drive between Ascot Lane (a deadend street) and Skyline Boulevard
- Ascot Drive between Mountaingate Way and Scout Road
- Ascot Drive between Longwalk Drive and Melville Drive

ALT-7 For each road, please define the estimated duration of full closure for any one segment requiring a detour for installation of the underground power line (2 circuits) and vault.

PG&E's Response

The pace and durations provided in this response are approximate and would change depending on engineering design, site conditions, construction sequencing, and other factors. Because of these limitations, it was not feasible to develop a specific estimated duration of full closure for each road segment and block discussed in the ALT-6 response. However, this response does provide an estimate of what road closure durations may be like for shorter and longer road segments to illustrate the possible range of road closures. The road closure duration estimates presented below represent a "best case" scenario because the durations used were developed for a wide road with minimal grade and bends. Actual durations would likely be longer than presented below.

Construction duration at a single location is assumed to be the same as construction in Park Boulevard described in the PEA and in previous responses to data requests. The Part A Response to CPUC Data Request #6 (dated April 21, 2025), identifies a timeline of construction activities at a single address on Park Boulevard, assuming a vault within 100 feet, as follows:

- *Vault (excavation, shoring, soil hauling, installation, and backfill) will take approximately 2 weeks [12 days].*
- *Duct bank (trenching, shoring, soil hauling, conduit installation, and backfill) will take approximately 6 days of active construction progressing at minimum of 40 feet/day, nonconsecutive days expected.*
- *Cable pulling installation at a vault will take approximately 12 days (6 days in each direction to the adjacent vault).*
- *Cable splicing at a vault will take approximately 20 days.*
- *Repaving and lane striping will take approximately 2 days.*

DR #6 Part A also notes that duct bank trenching and conduit installation would move at an approximate pace of 40 to 100 feet per day per crew in Park Boulevard. PG&E's response Item ALT-1a in Data Request 6 Part B describes the relationship between the cumulative horizontal curvature of a duct bank and vault spacing. More vaults would be expected for the windier roads in question and they would be spaced closer together than the approximate 1,000 to 1,200 feet distance on Park Boulevard. The physical characteristics of Park Boulevard have optimal construction conditions for duct bank and vault installation, including a relatively straight road alignment with slight grade and wide multiple lanes. These optimal conditions allow for construction activities to be completed at a faster pace than they would in the winding, narrow, and steep streets that are included in this request. Additionally, these smaller residential roadways may have reduced construction working hours stipulated in the encroachment permits compared to Park Boulevard thus reducing the construction pace.

Approximate full lane closure duration for shorter road segments (blocks).

Shorter blocks would be up to approximately several hundred feet and are assumed to have only one vault. Shorter blocks could be closed for approximately 12 days for vault installation. Using a roadway length of approximately 600 feet to calculate and an optimal construction pace range of approximately 40 to 100 feet per day, the shorter block would be closed for approximately 6 to 15 days for duct bank construction. During the cable installation phase of construction (cable pulling), shorter road segments would be closed for approximately 12 days. The size of cable reels, which would be placed near vaults, and the trucks that carry them would necessitate full closure of these roads. During cable splicing, the vaults would be open, and in roadways less than 28 feet wide, full closure of the roadway at each adjacent vault location would be required for approximately 20 days. The repaving phase could require full closure of shorter road segments for approximately 2 days.

Approximate full lane closure duration for longer road segments (blocks).

For longer road segments, such as Skyline Boulevard between the north end of Manzanita Drive and Pinehurst Road (approximately 2,700 feet), closures would be longer. For this segment of Skyline Boulevard, for example, the duration for duct bank construction alone for one crew could be up to approximately 27 work days to 68 work days (at an approximate pace of 40 to 100 feet per day for approximately 2,700 feet). More than one vault would be constructed in longer road segments, and the road would be closed at each vault location for approximately 12 days. Skyline Boulevard would be closed to through traffic at the single inroad work area as work progressed between the north end at Manzanita Drive and Pinehurst Road. Using more than two crews on longer segments is not advisable because it would prevent vehicles between the two work areas from moving past either work area. Cable pulling would require closure for approximately 20 days at each adjacent vault work location. The repaving phase could require full closure of longer road segments for approximately 6 days.

PEA Page 5.20-11 notes that, for work on Park Boulevard, “[a]t the conclusion of a construction work day, a work area in a roadway will be demobilized and temporary lane or road closures will end.” It may be possible that temporary lane closures could end at the conclusion of a construction work day along the roadway segments in question. However, this may not be possible due to the more constrained work areas compared to Park Boulevard. Leaving a single traffic lane open outside work areas, without flaggers or similar traffic controls, would be unsafe. Reestablishing both lanes of traffic (one lane each way) would require that all construction equipment and materials be demobilized from the work area to a staging area, which likely would not be near the work area, and placement of plates over the trenching. The daily mobilization and demobilization, if feasible, would leave a short work window each day and would significantly slow the pace of construction. The possibility for ending temporary lane closures each day cannot be determined at this time without detailed design and construction sequencing.

ALT-8 If underground alternatives are constructed, the existing overhead structures will need to be removed after energization of the underground circuits. PG&E has provided “Structure Work Areas” defining areas along roads where cranes would be located, and roads would be closed to through traffic while cranes are in place. For structure removal activity only, what would be the estimated duration of closure of roadways for each tower site for the removal of existing conductors and towers only?

PG&E’s Response

As noted in PEA Table 3.6-4 structure removal requires approximately 1 to 2 days per structure for the proposed project. Therefore, for each pair of structures for an alternative, roadway closure is assumed to be approximately 2 to 4 days, as well as approximately 1 day for conductor removal.

ALT-9 PG&E’s PEA (pages 4-18 and 4-19) discusses roadway closures for underground installation of 4 circuits under PEA Alternative C, which includes a transition pole on Saroni Drive. What is the estimated duration of closure of Saroni Drive and/or Gunn Drive to accommodate construction of the Saroni transition pole and installation of an underground 2-circuit power line from the overhead-to-underground transition location to Shepherd Canyon Road?

PG&E’s Response

As noted in PEA Table 3.6-4, transition structure installation for the proposed project would require approximately 12 to 18 days. It is assumed either or both Saroni Drive and Gunn Drive would be closed for approximately 12 to 18 days for installation of transition structures at this location.

PEA Chapter 15.7, Transportation

TRA-1

- a. Pending coordination with transit agencies, what is the estimated maximum distance a temporary bus stop is expected to be relocated and for what maximum duration for construction of the proposed Project?

PG&E’s Response

PG&E will coordinate with the transit agencies to relocate bus stops temporarily during construction. Construction details are not known at this time to determine specific temporary bus stop locations or durations. However, based on the PEA assumptions about construction activity at a single address on

Park Boulevard (see response to ALT-7), bus stops may be moved temporarily up to several hundred feet and the duration would be up to approximately 2 weeks during vault installation and approximately 1 week during duct bank installation. If cable pulling or cable splicing requires a temporary work area at an existing bus stop location, the temporary relocation of the bus stop would be approximately 12 days and 20 days, respectively. It is anticipated that bus stop locations can be avoided for these construction activities. Paving would require temporary relocation for approximately 2 days.

- b. Please describe PG&E's coordination with transit agencies and responsibilities for signage and alerting riders of temporary bus stop relocations.

PG&E's Response

Coordination with transit agencies and specific measures related to temporary bus stop locations would be done consistent with PEA APM TRA-1: PG&E Temporary Traffic Controls. Detailed measures for temporary bus stop relocation would be developed in coordination with transit agencies but could include postings of notices and appropriate signage of construction activities with construction schedule, the exact location and duration of activities at each bus stop, and a tollfree telephone number for receiving questions or complaints.

TRA-2 PEA page 5.17-14 states that "[f]ull closures at several locations along Montclair Railroad Trail [MRRT] will also likely last up to 2 calendar weeks."

- a. Please confirm whether the 2-week MRRT closures would be staggered (based on specific construction activities that may take place months apart) or would trail closures be expected to occur continuously and simultaneously at multiple locations.

PG&E's Response

It is assumed that one crew would move to each work location consecutively along the trail. The 2-week, or approximately 12-day, MRRT closure would occur at one work location at a time.

- b. Please describe the anticipated MRRT pedestrian and bicycle detours that would be established during each planned trail closure, including exit and reentry locations. Trail entry points are mapped at: <https://montclairrrtrail.org/visit/>.

PG&E's Response

Structures with work areas that will use MRRT are described on PEA Page 5.16-7. Potential MRRT temporary closures as well as possible pedestrian and bicycle detours, which would be determined during implementation of PEA APM TRA-1: PG&E Temporary Traffic Controls, are as follows:

Structures EN19/ES21/RN18/RS18 will be included in a single work area between MMRT entry point E7 (near Paso Robles Drive) and entry point E6 (near the Oakland Corporation Yard). Three detour options include:

- (1) Close MRRT only at the work area so that pedestrians and bikes could use the trail from E7 or E6 and turn around upon reaching the work area, which would use flagging, barriers, or other appropriate safety measures to identify the limits of the work area and MRRT trail closure.
- (2) Close MRRT between E7 and E6. Although it would be long, a MMRT detour could be marked along nearby residential roads including Paso Robles Drive, Balboa Drive, Drake Drive, and Snake Road to connect to entry point E5 on Snake Road. This detour would have substantive grade variation in comparison to the relatively flat MMRT. Closures would be indicated using flagging, barriers, or other appropriate measures.
- (3) Close MRRT between E7 and the Zinn Trail, which connects to MRRT to the north of the work area, near project milepost 2.7 (see PEA Figure 3.5-1 Page 16 of 25). The Zinn Trail is unpaved and has substantive changes in grade. A detour could be marked along nearby residential roads including Paso Robles Drive, Balboa Drive, and Asilomar Drive.

Two work areas (for structures EN20/ES22 and for structures EN21/ES23/RN19/RS19) will be located between MMRT entry points E6 and E5. Detour options are similar to those described previously and include:

- (1) Closure MRRT only at each work area so that pedestrians and bikes could use the trail from E6 or E5 and turn around upon reaching the marked work area.
- (2) Close MRRT between E6 and E5. A detour could be marked along Zinn Trail and nearby residential roads including Zinn Drive and Snake Road to connect to entry point E5 on Snake Road.

We trust the information provided herein is fully responsive to your requests. However, should you have any further requests, please contact me at **415-990-6001** or **BXLG@pge.com**.

Sincerely,



Brandon Liddell
Principal Land Planner

Attachment:
Attachment 1 – Table ALT-6 Road Closures

cc:
Michelle Wilson, CPUC CEQA Unit
Erica Schlemer, PG&E Law Department
Colleen Taylor, Jacobs
Hedy Koczwara, Aspen Environmental Group