

# CPUC A.24-11-005 Proceeding

## PG&E's Moraga-Oakland X (MOX) 115 kV Rebuild Project (Project)

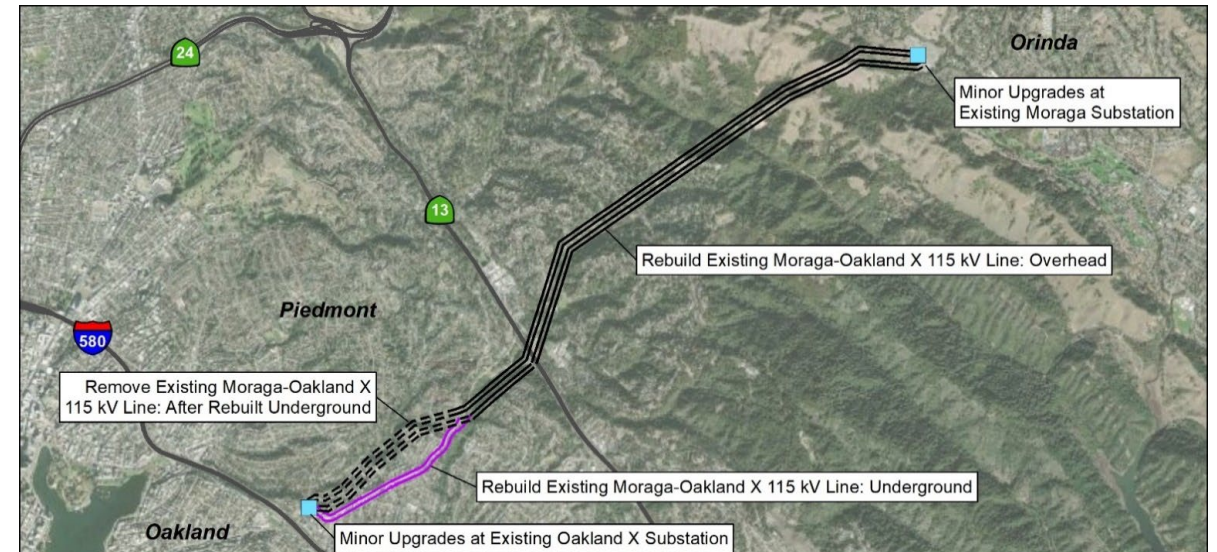
### CEQA Public Meeting

California Public Utilities Commission,  
Energy Division



California Public  
Utilities Commission

September 3, 2025



\*Please note that this meeting is being recorded

# Meeting Guidelines

- All attendees will be muted during the presentation.
- Please note that the **CHAT** box will be monitored, but questions will not be answered live. If you have a question, please reach out to the CPUC via email at: [MOX@AspenEG.com](mailto:MOX@AspenEG.com).
- You may submit a written public comment via **CHAT** box if you wish, but email is preferred.
- If you would like to make an **oral public comment**, please wait until the end of the presentation. When we ask for public comments, use the **RAISE HAND** feature and we will call on you to speak.
- **Note:** This meeting is being recorded.

# Public Meeting Agenda

- Introductions
- Public Involvement
- Environmental Review Process (CEQA)
- Project Overview
- Environmental Impacts
- Alternatives
- CEQA Environmentally Superior Alternative
- Public Comments





# Introductions

## State Lead Agency (CEQA):

- California Public Utilities Commission (CPUC)
  - Tharon Wright, CPUC Project Manager

## CEQA Consultant:

- Aspen Environmental Group
  - Hedy Koczwarra, Aspen Project Manager
  - Grace Weeks, Aspen Deputy Project Manager

## Project Applicant:

- Pacific Gas and Electric Company (PG&E)



# Public Involvement

## Scoping

- 30-day scoping period from February 25 to March 27, 2025 (59 letters rec'd).
- Two virtual scoping meetings held on March 13, 2025.

## Tribal Consultation

- No requests for formal AB 52 consultation.
- Confederate Villages of Lisjan Nation responded to courtesy tribal outreach.

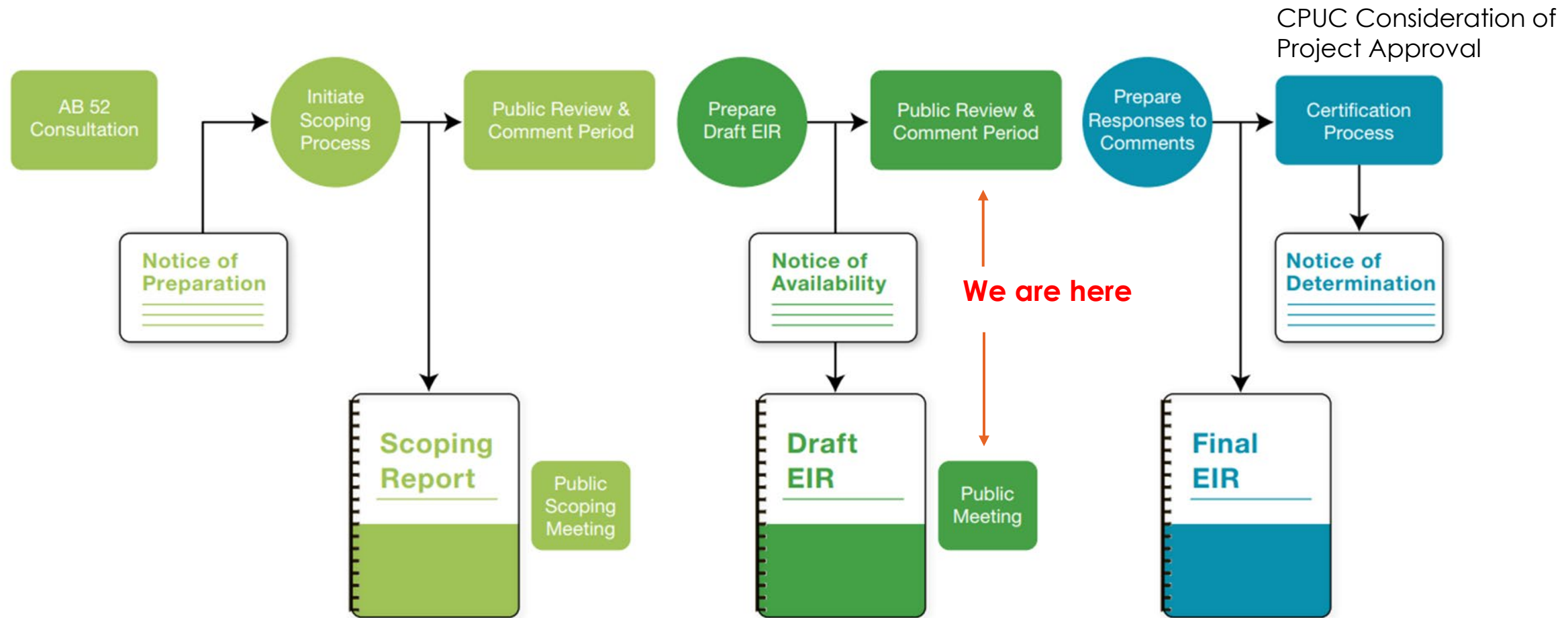
## Public Agencies

- CPUC held agency meetings with: City of Oakland Fire Department, City of Piedmont, City of Orinda, East Bay Municipal Utility District, & Oakland Department of Transportation. Responses received from California Department of Forestry and Fire Protection, East Bay Regional Park District, and Moraga-Orinda Fire Protection District.

# CEQA Overview

- Purpose of the California Environmental Quality Act (CEQA) is to:
  - **Inform** decision makers and the public about the potential significant environmental effects of a proposed project.
  - **Identify** ways that environmental damage can be avoided or significantly reduced.
  - **Prevent** significant, avoidable damage to the environment through the use of alternatives or mitigation measures.
  - **Disclose** to the public the reasons why a governmental agency approved the project if significant environmental effects are involved.
- Focus on physical impacts to the environment.

# CEQA EIR Process





# MOX Project Location

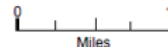
- Alameda County
  - Cities of Oakland & Piedmont
- Contra Costa County
  - Unincorporated County
  - City of Orinda

## Legend

- Substation
- Existing 230 kV Transmission Line
- State Route/Highway
- Arterial
- Local Street
- Project Components**
  - Four Existing Overhead 115 kV Lines to be Rebuilt in Same Overhead Configuration
  - Four New Underground 115 kV Lines
  - Four Existing Overhead 115 kV Lines to be Removed
- East Bay Regional Park District
- EBMUD Property
- Other Park or Recreation Area
- County Boundary
- City of Berkeley
- City of Moraga
- City of Lafayette
- City of Oakland
- City of Orinda
- City of Piedmont

## Moraga-Oakland X 115 kV Rebuild Project

Proposed by  
Pacific Gas & Electric Company





# Proposed Project Purpose

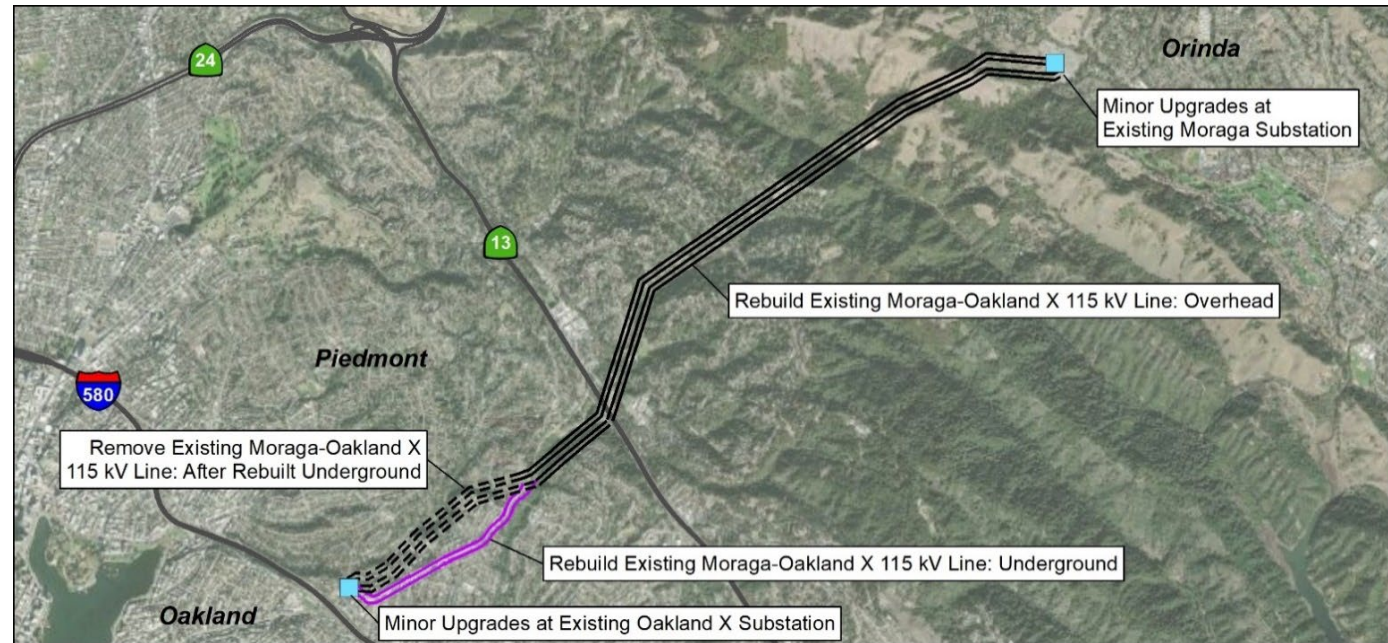
**Purpose:** Replace existing power line equipment that has reached the end of its useful life for safe operation of the lines.

The basic objectives of the MOX Project are to:

- Provide lifecycle updates of Moraga–Oakland X 115 kV four circuit power line path by removing and replacing four circuits to avoid future reliability issues while maintaining safe operations.
- Replace four Project power line circuits using a larger size conductor that will accommodate the region's reasonably foreseeable future energy demands.
- Ensure the Project at completion meets power line reliability and safety requirements, and industry standards.
- Construct a safe, economical, and technically feasible project that minimizes environmental and community impacts.

# Project Summary

- Proposed upgrades to ~5 miles of two existing overhead parallel double-circuit 115 kV power lines within existing PG&E land rights between Moraga & Oakland X substations.
- Rebuild four circuits (2 sets of overhead structures) into four hybrid lines, with both overhead (OH; ~4 miles) and underground (UG; ~1 mile) segments. Some recently replaced structures would be reused or reused with some modification.
- Underground construction is necessary west of Estates Dr., because of density of residences and lack of availability of an overhead ROW. Installation of 4 UG circuits is feasible in Park Blvd, because of its topography and roadway width.
- Project includes installation of optical ground wire on aboveground structures with a communication cable continuing within the underground portion.
- Project would also modify the Moraga & Oakland X substations.



# CEQA: Environmental Resource Areas

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire



# For Each Resource Area, the EIR ...

- Defines and Describes Existing Setting
  - Environmental setting, which includes PG&E's 4 existing 115 kV circuits
  - Regulatory setting
- Establishes Thresholds of Significance
  - What defines a “significant” impact
- Identifies Project Impacts and Mitigation
  - PG&E Applicant Proposed Measures
  - CPUC Mitigation Measures
  - Significance after mitigation
- Evaluates Cumulative Impacts
- The EIR identifies impacts of alternatives and defines the CEQA Environmentally Superior Alternative





# Proposed Project - Key Impact Conclusions of Draft EIR

- EIR mitigation measures (MMs) are recommended to reduce Project impacts for: Aesthetics, Biological Resources, Cultural Resources, Hazards, Hydrology and Water Quality, Noise, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire.
- Draft EIR concludes that even with implementation of MMs, the Project would result in the following *significant and unavoidable* impacts:
  - **Transportation** (*construction only*): Roadways, trails, and evacuation routes blocked during construction. [EIR Section 3.15]
  - **Wildfire** (*construction only*): Non-compliance with local evacuation plans due to potential difficulty with evacuation during construction. [EIR Section 3.18]
- Project's contribution to cumulative impacts would not be considerable since the cumulative projects are not in the vicinity of roadways/trails proposed for temporary closure. [EIR Section 5]

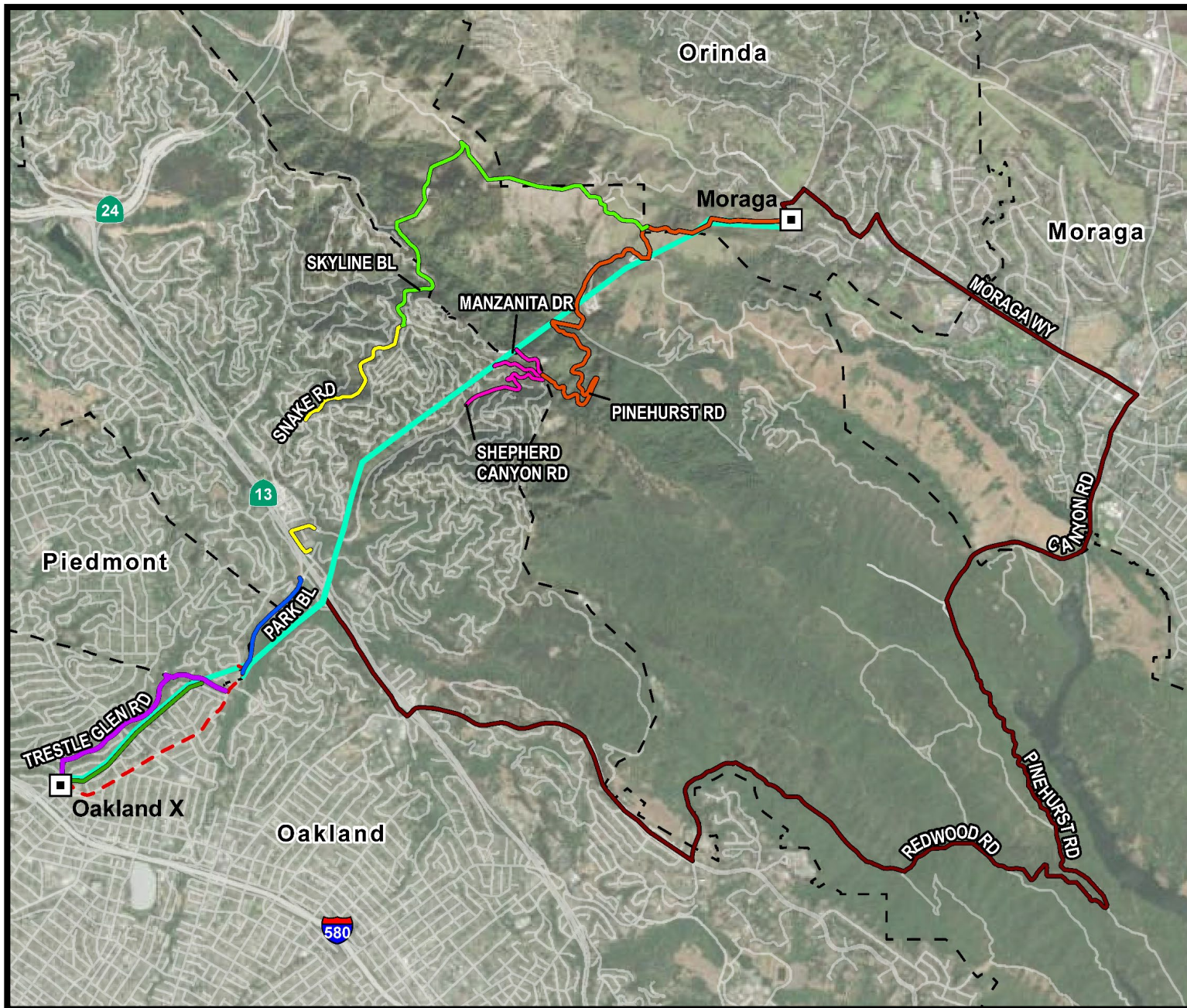
# Proposed Project – Key Draft EIR Impact Conclusions cont'd

- **Wildfire** risk associated with *operation* of the power line = **Beneficial** because:
  - Aging existing structures would be replaced with stronger, taller, safer, more fire-resistant structures and conductors.
  - 1 mile of underground construction and removal of 15 structures would eliminate the risk of wildfire caused by PG&E's facilities in this segment.
- **Geology & Soils** risk associated with seismic ground shaking and liquefaction during *operation* of power line is eliminated in the 1-mile segment where overhead power line structures would be removed = **Beneficial**.



# EIR Alternatives Considered & Eliminated

Figure 4.4-6 in EIR Appendix A



## Alternatives Eliminated

- Snake Road Underground
- Redwood Canyon Underground
- Park Boulevard Underground between SR-13 and Estates Drive
- Shepherd Canyon Underground Alternative East of Saroni Drive
- Pinehurst Underground
- Trestle Glen Road Underground
- Watertank Underground
- Western Overhead Replacement

# Alternatives Evaluated in EIR

- **Alternative 1:** No Project Alternative

## Moraga Substation to Manzanita Drive

- No feasible underground alternatives have been identified that would not create much greater environmental impacts.

## Manzanita Drive to SR-13 (2 alternatives are required to accommodate all 4 circuits)

- **Alternative 2:** Skyline-Colton-Snake Underground Alternative
- **Alternative 3:** Shepherd Canyon Underground Alternative
- **Alternative 4:** Skyline-Ascot Underground Alternative

## West of SR-13 to Oakland X Substation

- **Alternative 5:** Estates Drive Underground Alternative

*\*\*All of these alternatives would meet the Project objectives and feasibility criteria.*



# Design Considerations for Underground Alternatives

- Due to steep, narrow, sharply winding roads in Oakland Hills, placing all four circuits (2 duct banks) underground (UG) in one road is not considered feasible.
- Therefore, each of the UG alternatives between Manzanita Drive and SR-13 (Alternatives 2, 3, & 4) are assumed to support two 115 kV circuits (not four).
- Installing four circuits in two different UG roadways would increase reliability in the event of an outage within one of the roadways since the other two circuits would not be affected.
- To connect with relaying equipment that protects the circuits, each UG power line segment would require a transition pole and a transition station, one at each end where lines would transition from OH to UG or from UG to OH.
- If selected, further investigation would be required to develop a specific design for each roadway segment.

# Design Considerations for Underground Alternatives, cont'd

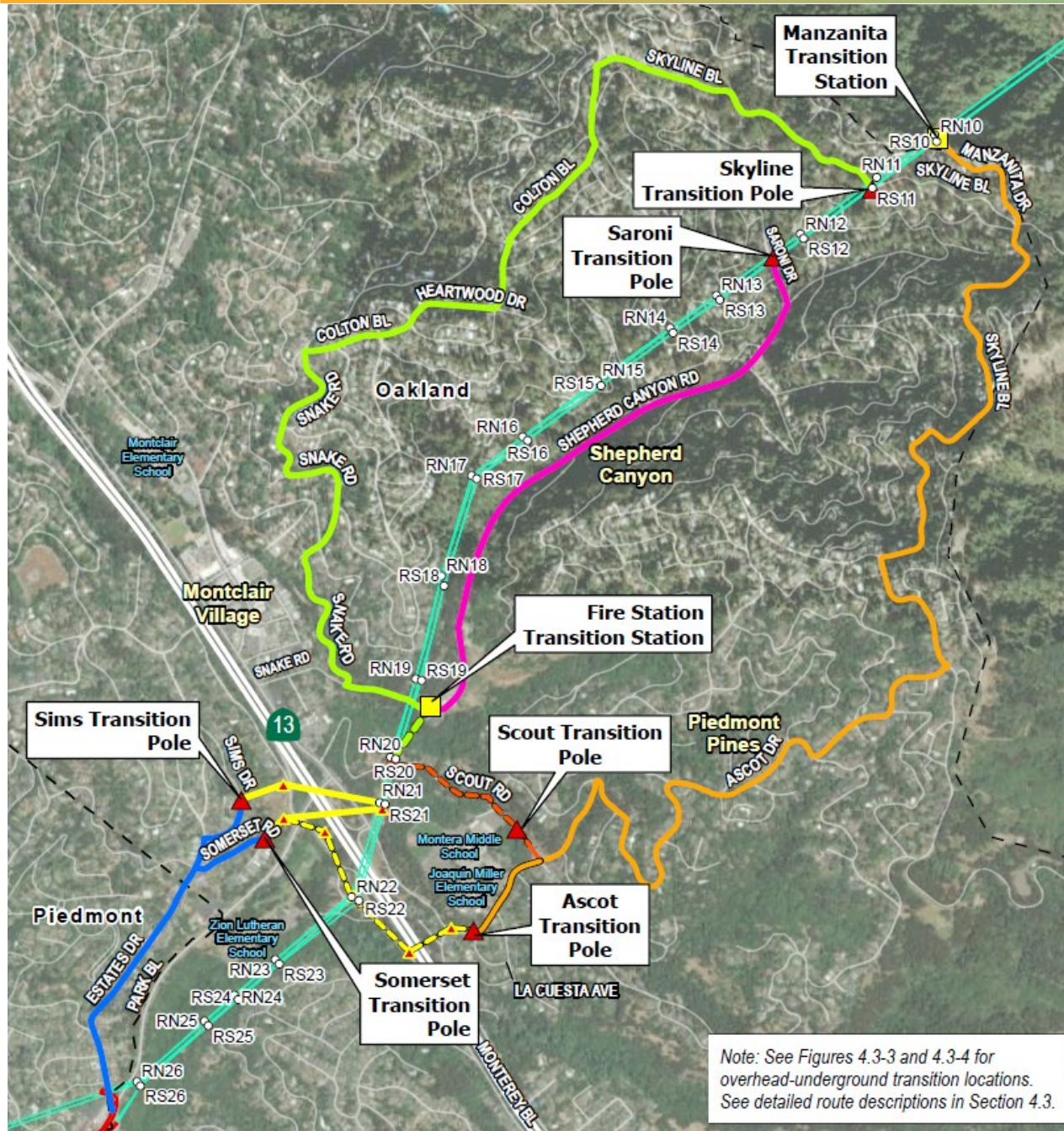
Even with installation of MOX underground (UG) alternatives, overhead (OH) components would remain in the following areas:

- **Moraga Substation to Manzanita Drive** (1.6 miles of OH components)
  - 3 UG alternatives were considered but eliminated from EIR evaluation due to rugged terrain, steep roadways, much longer distance, and/or routing within Hayward Fault zone (see EIR Section 4.4 & Figure 4.4-6).
- **Crossing of SR-13 (Across Hayward Fault)**
  - UG crossing is not feasible, because UG conductors are likely to rupture in an earthquake. Due to topography, an engineered tunnel to hold extra length of conductor as “mitigation” across the active fault would be infeasible (see EIR Section 4.4.3.2 & Figure 4.4-7).



# EIR Alternatives Retained for Analysis

Figure 4.3-1 in EIR Appendix A



- Alternative 2: Skyline-Colton-Snake Underground Alternative
- Alternative 2 & 3: Overhead Connection
- Alternative 3: Shepherd Canyon Underground Alternative; Shepherd Canyon Saroni Underground Option
- Alternative 4: Skyline-Ascot Underground Alternative
- Alternative 4: Option 1 Overhead Connection
- Alternative 4: Option 1 Underground
- Alternative 4: Option 2 Overhead
- Alternative 4: Option 2 Underground
- Alternative 5: Estates Drive Underground Alternative
- Overhead Alternative Component
- Transition Pole
- Overhead Pole
- Transition Station
- Proposed Pole
- Proposed Project Overhead
- Proposed Project Underground
- Municipal Boundaries

# EIR Alternatives – Summary of Impacts

- All *significant and unavoidable* (S/U) impacts identified for the proposed Project would be more severe for UG alternatives, because construction would last much longer; would obstruct traffic more severely (due to trenching and vault installation); and would occur in many more locations, resulting in overall greater evacuation risk in a wildfire and more intense construction activity/disturbance to residents.
- In addition to S/U impacts related to **Wildfire** and **Transportation** during construction, UG alternatives would result in additional S/U impacts:
  - **Aesthetics** (*Alternative 4, during operation*): View blockage at the Manzanita Transition Station.
  - **Geology and Soils** (*All UG Alternatives, during operation*): Concerns regarding the extent of slope stability impacts and well-known instability of Oakland Hills.
- Additional Air Quality mitigation measure (MM AQ-2a) would be required to ensure that emissions associated with concurrent UG construction do not exceed BAAQMD thresholds.



# EIR Alternatives Evaluation

Despite more intense construction activities and potential for blockage of evacuation routes, UG lines have been considered in the Draft EIR because:

- ✓UG lines reduce risk of lines being an ignition source for wildfire and create few constraints to fire fighting.
- ✓UG lines are not exposed to potential vehicle or tree-fall accidents, vandalism, or failures due to weather conditions, such as high winds, that could result in a wildfire ignition.
- ✓Visual impacts of overhead components are eliminated.

# Comparison of Project & Alternatives

- While the proposed Project would substantially reduce wildfire risk associated with the existing overhead lines (by 90% from current levels per PG&E modeling), the proposed overhead replacement structures would still have some risk of starting a wildfire or inhibiting firefighting.
- Undergrounding four circuits in 2 separate roadways would create severe traffic and access constraints during construction, for a much longer duration, resulting in:
  - Driving detours, bus stop relocations, and alternate routes.
  - Evacuation routes in an emergency would be impaired.
  - Service outages may be required to resolve conflicts with existing UG utilities.
  - New significant geology and soils impact due to uncertain slope instability (landslide) risk.
  - New significant visual impacts identified at the Manzanita Transition Station (Alternative 4 only).

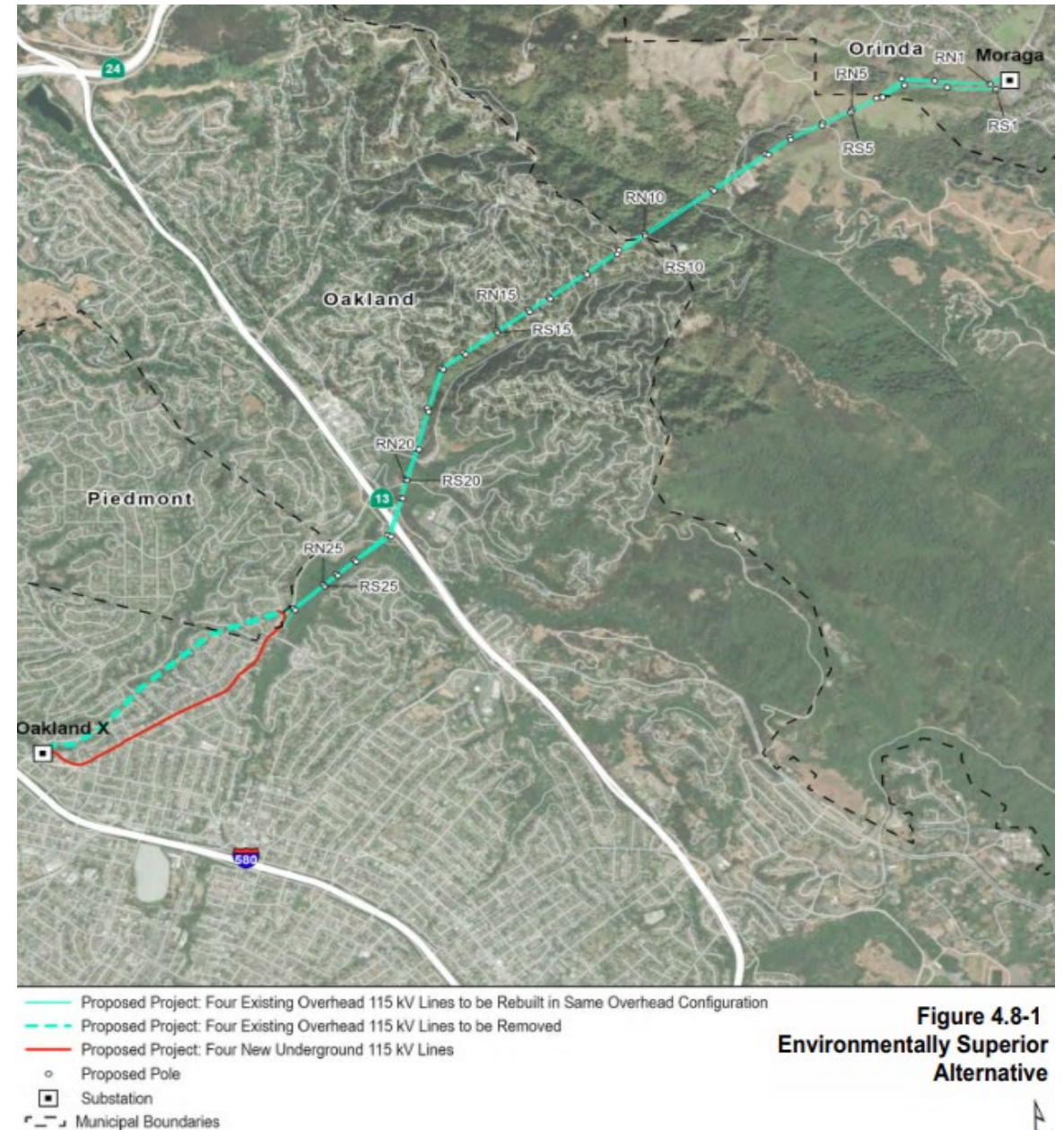
# CEQA Environmentally Superior Alternative

***The proposed Project would be the CEQA Environmentally Superior Alternative***, because it would:

- Create substantially less evacuation risk during extended construction periods, and a less disruptive and shorter duration of construction impacts compared to UG construction of two separate two-circuit 115 kV power lines in two different steep, narrow, and/or winding roadways.
- Result in a major improvement over the existing 115 kV lines by reducing the wildfire risk associated with the older existing power lines.

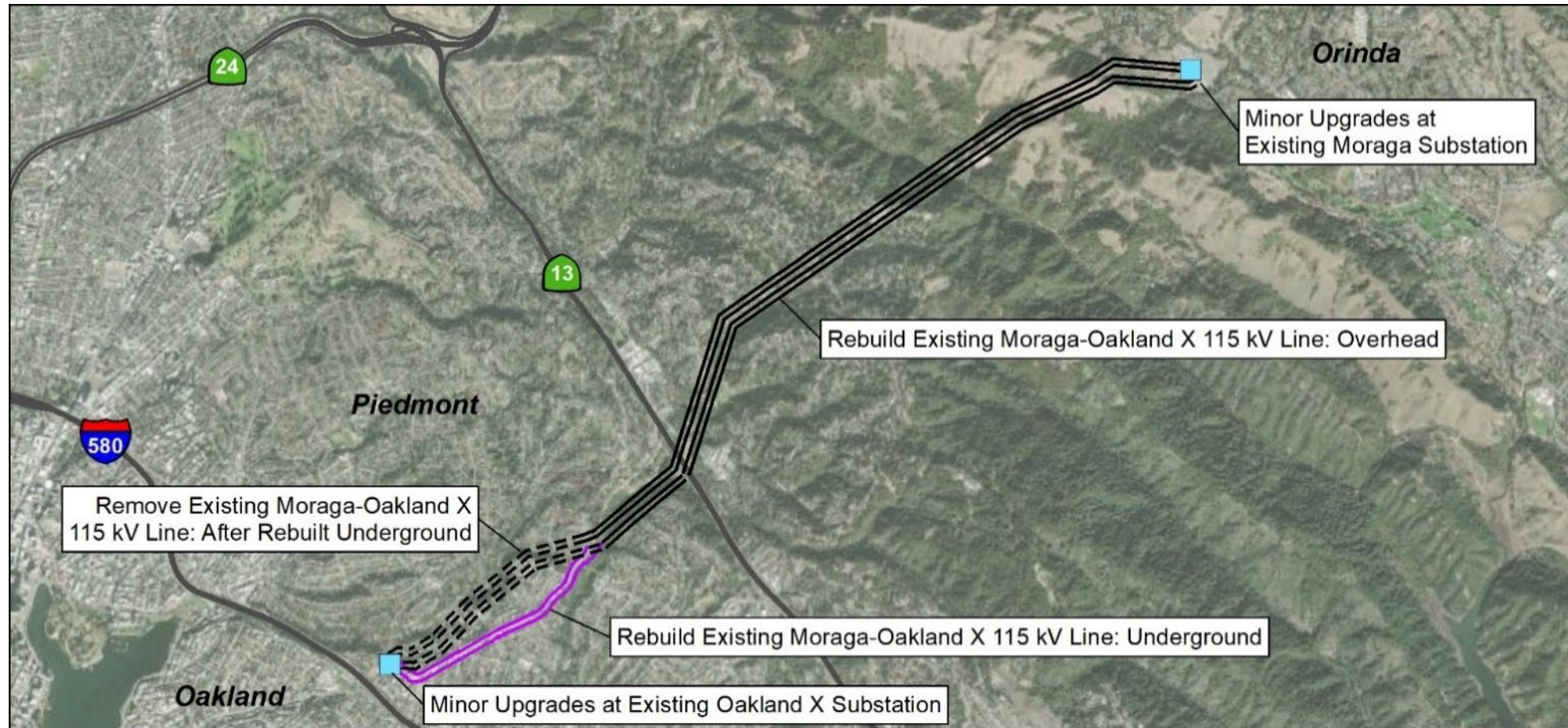
The No Project Alternative is not the environmentally superior alternative, because the Project's benefit of reduction of wildfire risk would not occur.

# CEQA Environmentally Superior Alternative = Proposed Project Route





# Public Comments



# How to Submit a Public Comment on Draft EIR

**E-mail:** [MOX@aspeneg.com](mailto:MOX@aspeneg.com)

**Address to:** Tharon Wright, CPUC

**Subject line:** Moraga-Oakland X Project

*Please be sure to include your name, address, and phone number on all comments.*

**Public Comment Deadline:** (5 p.m.) September 26, 2025

**Project Webpage:**

<https://ia.cpuc.ca.gov/environment/info/aspen/moraga-oakland/moraga-oakland.htm>

# Discussion Guidelines

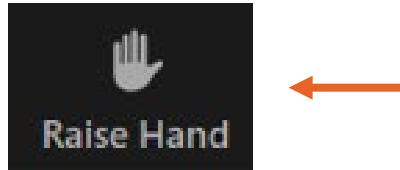
- Please state your name & affiliation
- Be concise
- Stay on topic
- Respect others' opinions
- Comments will be recorded
- Written comments are encouraged



# Public Comments

## Via the Zoom Platform

- Click the **RAISE HAND** icon to be called on



## By Telephone

- Dial \*9 to request to raise hand
- Dial \*6 to unmute yourself when asked





# Thank you for joining!

**E-mail:** [MOX@aspeneg.com](mailto:MOX@aspeneg.com)

**Address to:** Tharon Wright, CPUC

**Subject line:** Moraga-Oakland X Project



**Draft EIR public comments will be accepted through September 26, 2025.**

**Webpage:** <https://ia.cpuc.ca.gov/environment/info/aspen/moraga-oakland/moraga-oakland.htm>