STATE OF CALIFORNIA Gavin Newsom, Governor

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

August 28, 2024

Dustin Joseph, AICP
LS Power Grid California, LLC
16150 Main Circle Drive, Suite 310
Chesterfield, MO 63017

Re: Completeness Review of the LSPGC Collinsville 500/230 Kilovolt (kV) Substation Project (A.24-07-018) Proponent's Environmental Assessment and Certificate of Public Convenience and Necessity (CPCN) Application

Dear Mr. Joseph:

The California Public Utilities Commission (CPUC) Energy Division CEQA Unit has completed its review of LS Power Grid California, LLC's (LSPGC) Certificate of Public Convenience and Necessity (CPCN) Application (A.24-07-018) and Proponent's Environmental Assessment (PEA) for the Collinsville 500/230 Kilovolt (kV) Substation Project. Section 15101 of the California Environmental Quality Act (CEQA) Guidelines requires the agency responsible for the certification of a proposed project to assess the completeness of the project proponent's application. The Energy Division uses *CPUC's Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (November 2019) as a guide for determining the adequacy of project applications; however, the CPUC, in its judgment, may also identify other required information deemed necessary for completing CEQA review.

After review of LSPGC's application for the Collinsville 500/230 Kilovolt (kV) Substation Project, the Energy Division finds that the information contained in the PEA is incomplete. While it is thorough in many sections, there are information gaps in critical areas that would prevent preparation of an adequate EIR in a timely manner. The report contained in Attachment A (Deficiency Report #1) identifies the portions of the application found to be deficient. Information provided by LSPGC in response to the Energy Division's finding of deficiency should be filed as supplements to Application A.24-07-018. In addition to deficiencies, Deficiency Report #1 includes a series of data need requests that do not rise to the level of deficiencies; however, the information is requested nonetheless to support the CPUC's review of the project.

One set of responses should be sent to the Energy Division and one to our consultant Panorama Environmental, Inc. (Panorama) in electronic format. We request that LSPGC respond to this report no later than September 30, 2024. Upon receipt of this information, we will review it within 30 days and determine if it is adequate to accept the PEA and application as complete. We are available to meet with you at your convenience to discuss these items. The Energy Division reserves the right to request additional information at any point in the application proceeding and during subsequent construction of the project should LSPGC's CPCN be approved.

Please direct questions related to this application to me at Connie.Chen@cpuc.ca.gov.

Sincerely,

connie chen

Connie Chen
Project Manager, CEQA and FERC Branch, Energy Division

Attachment A: Deficiency Report #1

cc: Aaron Lui, Panorama
Michelle Wilson, Program and Project Supervisor

Attachment A: Submittal Review Form

Document(s) Submitted:	Application and Proponent's Environmental Assessment (PEA) for LS Power Grid's Collinsville 500/230 kV Substation Project (project)
Review Form Number:	1
Description:	Deficiency Report #1
From:	California Public Utilities Commission (CPUC) and Panorama Environmental Inc. (Panorama)
To:	LS Power Grid California, LLC (LSPGC)
Date Submitted:	August 28, 2024

DETERMINATION

☐ Meets CPUC Requirements, No Additional Information Needed

☒ Does not Meet CPUC Requirements (see Deficiencies below)

☒ Additional Data Needed (see Data Requests below)

REPORT OVERVIEW

The California Public Utilities Commission (CPUC) has identified deficiencies in LS Power Grid California, LLC's (LSPGC) Application (A.24-07-018) and Proponent's Environmental Assessment (PEA) for a Certificate of Public Convenience and Necessity (CPCN) for the Collinsville 500/230 Kilovolt (kV) Substation Project. Deficiencies were identified using the CPUC Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments (November 2019) (PEA Checklist). Deficiencies are presented in Table 1. Data requests are presented in Table 2.

TABLE 1 DEFICIENCIES

Application and PEA Chapter 1: Executive Summary, Chapter 2: Introduction, Chapter 3: Project Description

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Application, pages 2 and 9-10 PEA Chapter 3, page 3-1 Section 3.3.1	**DEF-1: PG&E Project Activities and Application Participation** The Application states: "…Certain Interconnection Facilities, Network Upgrades, and Distribution Upgrades to support the Project will be the responsibility of Pacific Gas & Electric Company (PG&E) and are analyzed in the Proponent's Environmental Assessment (PEA) included with this Application, but such PG&E facilities are not a part of the "Project" for which LSPGC seeks a CPCN pursuant to this Application." The Application also states: Also described in the PEA are certain PG&E facilities that are separate and distinct from the Project and which are not a part of this Application, but will be completed by PG&E to support the operation of the Project. The additional facilities include: 1. Interconnection Facilities – a. Modifications to the existing Vaca Dixon, Tesla, and Pittsburg Substations. b. 500 kV interconnection of the existing Vaca Dixon – Tesla 500 kV line into the Collinsville Substation. 2. Network Upgrades – PG&E is undertaking a facility scope requirements study and system studies to identify any required network upgrades. No network upgrades have been identified by PG&E or affected systems as of the date of the filing. 3. Distribution Upgrades – installation of extended distribution line facilities near the Collinsville Substation. The introduction in Chapter 3 states: "…Although PG&E's Interconnection Facilities are part of the Proposed Project being evaluated under California Environmental Quality Act (CEQA), PG&E's construction is not part of this application and does not require authorization under this specific California Public Utilities Commission (CPUC) decision. However, PG&E's work to interconnect the LSPGC facilities into PG&E's electrical system would be subject to all applicable regulatory requirements. In addition, PG&E would implement Construction Measures (CMs) during construction of its Proposed Project components, and these CMs would be considered by the CPUC in its environmental review of the Proposed Project."	A	PG&E is not a co-applicant; however, LSPGC states major portions of the proposed project would be constructed by PG&E and there is insufficient information in the PEA regarding PG&E work activities and impact areas. LSPGC has suggested CPUC coordinate directly with PG&E regarding the project. The application and PEA are considered deficient until the CPUC can resolve questions related to PG&E's scope of work, PG&E's anticipated GO 131-D requirements and their reliance on the EIR for CEQA compliance, and implications for the project if PG&E's CMs are determined to be inadequate to avoid or reduce impacts to less-than-significant levels and if mitigation measures are required.	
Section 3.3.1, page 3-14 Section 3.3.5, page 3-39	**DEF-2: Modifications at PG&E's Existing Vaca Dixon and Tesla Substations** Section 3.3.1 of the Project Description states: "LSPGC has completed approximately 30 percent of the engineering design, and PG&E has completed approximately 30 percent of the engineering design on the Proposed Project. As such, the information in this document is based on preliminary engineering designs and is subject to change based on additional and/or final engineering designs; further studies to be performed by PG&E; regulatory requirements;	A	Please identify all proposed or potential temporary and permanent impact areas for PG&E's existing Vaca Dixon and Tesla substations. Provide GIS data and figures.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	conditions on the ground; and/or ongoing coordination discussions among LSPGC, PG&E, the CPUC, and CAISO." Section 3.3.5 states: "Modifications to PG&E's existing Vaca Dixon and Tesla substations would involve modifying the line relays in addition to potential series capacitor modifications at PG&E's existing Vaca Dixon Substation. Microwave modifications may also be needed at these substations to provide a high-speed communication path to the proposed LSPGC Collinsville Substation…" The potential temporary and permanent impact areas at PG&E's existing Vaca Dixon and Tesla substations have not been identified.			
Section 3.5.4.2, page 3-45	**DEF-3: Transbay Cable Crossing** Section 3.5.4.2 states: "…it is not anticipated that any underground utilities would be identified along any of the Proposed Project components. In the event underground utilities are identified, LSPGC and/or PG&E would work with the owner of those utilities to determine if design changes can be made or if relocation procedures and locations are necessary." During the group site visit, LSPGC identified a location near the Pittsburg Substation where the two underground 230 kV lines would cross the Transbay Cable. In a separate response, LSPGC stated: **"**At this time, it has not been determined if crossing the Transbay Cable would be required. LSPGC would coordinate with Transbay Cable LLC/NextEra Energy Transmission LLC if crossing the cable is necessary." More information is needed about the potential Transbay Cable crossing, and why this is not currently known based on the Transbay Cable location and proposed 230 kV line location.	A	Please clarify if the Transbay Cable would be crossed by the project, and the process for crossing the line and coordinating with Trans Bay Cable LLC/NextEra Energy Transmission, LLC. If this will take time to determine and coordinate with Trans Bay Cable, please explain why and when the information will be available.	
Section 3.5.13.2 Section 3.8 Section 3.8.5 Section 5.9	**DEF-4: Minimum Vegetation and Equipment/Structure Clearances Distances** GO 95 is referenced in Section 3.5.13.2 of the Project Description in relation to fire breaks. GO 95 is also discussed in Section 5.9: Hazards, Hazardous Materials, and Public Safety, where it states the project would be constructed and maintained to meet GO 95 vegetation clearances for fire prevention and equipment clearances for electric shock prevention. Section 3.8 states: "The Proposed Project would be operated and maintained to meet all GO 95 requirements, including minimum vegetation and equipment clearances, in addition to the vegetation clearance requirements in California PRC Section 4292 and Title 14, Section 1254 of the California CCR." Section 3.8.f states: "In accordance with fire break clearance requirements in GO 95, PRC Section 4292 and Title 14, Section 1254 of the CCR, LSPGC and PG&E would trim or remove flammable vegetation in the area surrounding the Proposed Project and all other safety hazards. Proposed Project-specific vegetation clearances would be determined by the CPUC. One-person crews typically conduct this work using mechanical equipment consisting of weed trimmers, rakes, shovels, and leaf blowers. State-approved herbicides would also be applied to treat bare-ground areas, as needed, during O&M activities. Pesticides would not be used during O&M activities. The proposed LSPGC 230 kV Transmission Line and Collinsville Substation would be inspected on an annual	A	Please provide a table(s) that identify the minimum vegetation and equipment/structure clearance distances identified in the referenced regulations for the proposed project equipment voltages (230 and 500 kV). Please provide both vertical and horizontal distances that would be maintained, which will inform a potential three-dimensional impact area surrounding the proposed facilities.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	basis to determine if vegetation trimming or clearing is required. LSPGC and PG&E vegetation management activities would ensure a continuous defensible area around the substation and within transmission line ROW." The CPUC would not define project-specific vegetation distances beyond what is already required by GO 95 and California PRC Section 4292 and Title 14, Section 1254 of the California CCR.			
Section 3.6.5, page 3-116 Table 3-15: Applicant-Proposed Measures Table 3-16: PG&E Construction Measures	**DEF-5: Power Clearances and Potential Night Work** Section 3.6.5 states: "…Night work is not anticipated to be necessary, but could be required in limited circumstances, such as clearance restrictions…." The use of temporary lighting is discussed in APMs and CMs.	A	Please provide a detailed description of power clearances for the project and potential night work that may be required to accommodate the power clearance windows mentioned in the PEA.	
		B	Identify the locations of potential night work associated with power clearances and provide an estimate for the number of days night work could be required to ensure associated impacts are adequately considered.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Section 3.2.2.1.1, page 3-6 Section 3.3.6.1, page 3-40 Figure 3-4 and Attachment 3-A: Detailed Route Maps (page 8)	**DEF-6: Initial vs. Ultimate Substation Buildout** Section 3.2.2.1.1 of the Project Description states: "The initial buildout of the proposed LSPGC Collinsville Substation would be a breaker-and-a-half (BAAH) configuration with two 500/230 kV transformer banks, two 230 kV bays with six circuit breakers, and two 500 kV bays with six circuit breakers. The ultimate configuration, per the CAISO specifications for future buildout, includes adding two 500 kV bays with six circuit breakers and three 230 kV bays with nine circuit breakers. The substation footprint depicted in Figure 3 4: Proposed Substation General Arrangement does not depict the expansion area for the ultimate buildout. Each 500/230 kV transformer bank would consist of three single phase 500 megavolt-ampere (MVA) transformers, providing 1,500 MVA. A 3,000 ampere (A), 16.1-ohm series capacitor would be installed at the proposed LSPGC Collinsville Substation, on PG&E's existing Vaca Dixon-Telsa 500 kV Transmission Line, as depicted in Figure 3 4: Proposed Substation General Arrangement to provide series compensation." Section 3.3.6.1 states: "While LSPGC is not planning to implement modifications to the Proposed Project facilities described previously; the Proposed Project has incorporated sufficient space within the proposed LSPGC Collinsville Substation property to allow for potential future modification of the substation to support increased future renewable energy-generating capacity on the electrical grid. If implemented, the potential future modification would require the proposed LSPGC Collinsville Substation's western fence line to be extended approximately 220 feet to the west, adding approximately 4 acres to the site's footprint. This modification would allow for the addition of two 500 kV bays and three 230 kV bays. The substation site has sufficient space to accommodate this and future modification should it be required. The potential modification would be determined by CAISO planning or as needed by interconnection agreements. The estimated time frame would be approximately 10 years after the energization of the proposed LSPGC Collinsville Substation." The initial substation layout is shown in Figure 3-4. Both the initial and future substation expansion area are shown in Attachment 3-A: Detailed Route Maps (page 8). Also refer to **DR-5**.	A	The future substation buildout perimeter is shown in Attachment 3-A: Detailed Route Maps (page 8) to the west of the initial substation buildout; however, the permanent grading impact area that would be required to extend the pad is not identified, consistent with the initial buildout. Please provide the extent of anticipated permanent impact areas associated with the future buildout beyond the minimum fenced footprint. Please provided the GIS data associated with the permanent impact area/grading area.	
Section 3.3.4.1.1, page 3-18 Section 3.3.5, page 3-38 Section 5.9.4.1.8, page 5.9-26	**DEF-7: Potential Aviation Hazard Determinations, and Potential Aviation Lighting and Marking** Section 3.3.4.1.1 states: "…The tallest structure within the proposed LSPGC Collinsville Substation would be the approximately 199-foot-tall microwave communication tower." Section 3.3.5 states: "According to Title 14, Section 77.9.e.1 of the Code of Federal Regulations (CFR), any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic	A	Please issue advanced formal notice to FAA pursuant to Title 14, Section 77.9 of the CFR to determine if the proposed aboveground substation features and all overhead powerline structures could result in potential aviation hazards, and if FAA may require aviation lighting and/or marking. Please ensure the maximum potential heights are disclosed for all aboveground features are provided with consideration to their position on the final engineered grade above existing ground level. Please ensure all proposed aboveground structures are included in the notice. It is common to issue formal notice regardless of the noticing criteria tool results because the FAA could still identify the need for aviation lighting and marking.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Attachment 5-9D: FAA Notice Criterial Tool Results	features of equal or greater height and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation does not require the filing of notice for construction or alteration. Multiple wind turbines greater than 200 feet in height are located adjacent to the Proposed Project. In addition, all structures have been screened with the FAA's online tool, and none have triggered the need for official noticing. As a result, additional noticing to the FAA and any other entities is not warranted and aviation markings or lighting are not anticipated to be required for the Proposed Project. Upon completion of the final design, LSPGC would confirm these results and file any official notices with the FAA for official study and determination of lighting and/or marking requirements for all structures." The proposed project and substation are located in the vicinity of wind turbines but also adjacent to a major waterway that may be subject to increased air traffic. In addition, as shown on Figure 5.9-1, the project site is approximately 12 miles southeast of Travis Airforce Base (Travis AFB or TAFB) and within the Travis AFB Airport Influence Area. Because the 199-foot microwave tower would be installed on the elevated grade of the substation, it appears the tower height could exceed the Federal Aviation Administration's (FAA) 200-foot height threshold and aviation lighting or marking may be required. In addition, Section 5.9.4.1.8 states: "…Prior to construction, LSPGC would submit the required Notice of Proposed Construction or Alteration to the FAA pursuant to Title 14, Section 77.9 of the CFR. Screening of the LSPGC and PG&E Proposed Project components using the FAA Notice Criteria Tool concluded that no LSPGC or PG&E Proposed Project components would pose a hazard to air navigation, and the results are contained in Attachment 5.9 D: FAA Notice and Criteria Tool Results. Although not anticipated, if the height of cranes used during construction reaches 200 feet or higher above ground level, the appropriate noticing would be filed with the FAA, and the Proposed Project would adhere to all FAA recommendations. Furthermore, numerous wind turbines exist in the vicinity of the Proposed Project that are significantly taller than the LSPGC and PG&E Proposed Project components, and thus it is unlikely that the addition of infrastructure of a lesser height would pose a hazard to TAFB or other aircraft operations…." Attachment 5-9D includes FAA Notice Criteria Tool Results for a total of 20 structures; however, the documentation is informal and does not appear to include all of the key project structures. The GIS data for project structures appears to identify 28 proposed aboveground structures, excluding the microwave tower and distribution poles and other existing structures. It is not clear if the microwave tower is identified in the list or if it was omitted, as none of the structure names indicate a microwave tower. More information is needed about potential aviation hazards and how they would be addressed, as well as information about potential aviation lighting and marking to evaluate associated visual impacts. The preliminary review described in the Project Description and reliance on the FAA's noticing tool is not sufficient alone due to microwave tower height and the project's location within the Travis AFB Airport Influence Area.	B	Please provide FAA's formal response, once received. A preliminary FAA determination is requested based on the current design and worst-case/greatest-height assumptions to inform the impact analysis and determine whether and where lighting or marking may be required. We understand additional pre-construction and post-construction notice may also be required separately.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	Also refer to **DR-6**.			
Section 3.5.7.2, page 3-69	**DEF-8: Substation Site Grading Plan and GIS Data** Section 3.5.7.2, states: "…The proposed slope of the substation would be approximately 1 percent from north to south, toward the stormwater detention basin. Final elevation profiles, and resulting storm water flow directions, have not been engineered and would be developed during the detailed engineering phase of the Proposed Project. Initial grading contours have been included in the geographic information system data that has been submitted under separate cover." No GIS data was found with the materials provided for the grading contours, other than the outer limits of grading/permanent impacts surrounding the substation site.	A	Please provide GIS data for the proposed grading contours. Please ensure the grading contours reflect the current substation design and footprint (refer to **DEF-6** regarding questions about the substation arrangement and access driveways).	
		B	In addition to the GIS data, please provide a detailed grading plan design drawings in PDF format for the substation site with contours and elevation profiles for the engineered slopes and substation surface features. Please ensure the grading plan reflect the current substation design and footprint (refer to **DEF-6** regarding questions about the substation arrangement and access driveways).	
Section 3.3.4.2.1, page 3-39 Section 5.9.1.4	**DEF-9: Gas Pipeline and Potential Cathodic Protection/Grounding from Induced Current** Section 5.9.1.4 states: "One gas transmission pipeline crosses the Delta and Lower Sherman Island approximately 0.6 mile east of the proposed LSPGC 230 kV Submarine Cable. Additionally, this gas transmission pipeline travels through Solano County, and the proposed LSPGC Collinsville Substation would be approximately 0.5 mile west of the pipeline. The proposed PG&E 500 kV Interconnection would parallel this pipeline along an unnamed access road off Talbert Lane for approximately 0.4 mile." This pipeline appears to be identified on Figure 5.9-2 and a potentially associated land scar along the pipeline corridor visible in Google Earth imagery indicates that the pipeline may be roughly 80 to 130 feet away from the base of proposed 500 kV structures. Section 3.3.4.2.1 states: "…PG&E would conduct an induction study to evaluate the potential effects of the proposed PG&E 500 kV Interconnection on the pipelines in the vicinity, and would follow applicable standards of the NESC pertaining to the need for interference analysis and anti-corrosion/cathodic protection, pending final design and engineering of the interconnections…" LSPGC's APM UTL-1 identifies the need for an induction study to evaluate the potential effects of the Proposed Project on pipelines in its vicinity. There is no equivalent PG&E CM describing an induction study. In a separate response, LSPGC stated: "LSPGC is performing an induction study; however, the nearest pipeline to the proposed LSPGC 230 kV Overhead Segment is approximately 1,500 feet away and should not be a problem. On the southern shore, the proposed LSPGC 230 kV Underground Segment would	A	Please provide a description of the potential induction remediation solutions (i.e., cathodic grounding methods and options) that could be required and identify the limits of potential facilities and impact areas/workspace where such activities may be required outside of other previously identified project work areas.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	cross several abandoned pipelines; however, crossing pipelines does not typically cause induction issues." Geneal project activities such as cathodic grounding or the installation of similar facilities are standard and foreseeable actions, particularly due to the 500 kV line's proximity to the existing gas line, and they should be defined as part of the proposed project, so the associated impacts and impact areas are considered in the EIR.			

PEA Section 5.1: Aesthetics

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Attachment 5.1-A: Visual Technical Report Figure 5.1-12 through Figure 5.1-17	**DEF-10: Visual Simulation Corrections** The proposed project facilities depicted in the visual simulations appear lighter in color than typical facilities (i.e., KOPs 1 and 2). In addition, the elevation of the proposed substation base and facilities appear too low and below the existing grade shown in the baseline image; the engineered/graded substation pad and slopes are not depicted; the 30-foot firebreak surrounding the substation (maintained free of vegetation) is not depicted; and the microwave tower is not depicted. The substation wall and suspended conductor also appear too light and nearly white. The Visual Technical Report should be updated to reflect the requested changes to the visual simulations.	A	Please evaluate and update the facility colors depicted in the visual simulations to include darker (typical galvanized steel color) or provide supporting documentation to demonstrate the lighter gray colors used are accurate, such as photographs of similar existing facilities under similar conditions. Please also evaluate the color of the substation wall and conductor and update the simulations accordingly.	
		B	Please evaluate the position of the substation base elevation as it relates to the existing grade and proposed substation pad and slopes and update the simulations accordingly.	
		C	Please add the following features to the simulations where they would be visible: • Microwave tower • Engineered/graded slopes surrounding the substation • North driveway and access gate • 30-foot firebreak surrounding the substation	
		D	Please update the Visual Technical Report to reflect the requested changes to the simulations.	
Attachment 5.1-A: Visual Technical Report Figure 5.1-12 through Figure 5.1-17	**DEF-11: High Resolution Aesthetics Images with Metadata** High resolution images are needed in TIFF format for the existing and simulated condition photos/figures. The TIFF files should include camera metadata information so the camera model and lens information can be reviewed, as well as the date and time taken.	A	Please provide all existing and simulated condition images in high resolution TIFF format with camera metadata.	

PEA Section 5.3: Air Quality

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Attachment 5.3-A: Air Quality	**DEF-12: O&M Trips**	A	Please clarify the correct O&M trip values and update the calculations as applicable.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
and GHG Calculations	Attachment 5.3-A does not include the O&M trips assumptions. Please provide assumptions for O&M annual trips and trip length. According to Attachment 5.3-A Table 39, O&M would generate 60 trips per year. One-way trip distance was assumed to be 120 miles. In addition, for Welding Truck_395 (activity index P-19), one-way trip distance was assumed to be 10 miles. Attachment 5.3-A, Table 39, does not include consistent assumptions defined as table notes.	B	Please verify the one-way trip distance assumptions for Welding Truck.	
		C	Please add table notes for assumptions on Table 39.	
Section 5.3.4.4, page 5.3-22	**DEF-13: Pittsburg Receptors and HRA** Section 5.3.4.4: Health Risk Assessment states: "Review of Office of Environmental Health Hazard Assessment (OEHHA) guidance (OEHHA 2015) indicates that a Health Risk Assessment is not required for the Proposed Project because it does not include operation of new stationary sources that would result in the emissions of TACs. Proposed Project construction is anticipated to take approximately 26 months, and the nearest sensitive receptor to planned construction activities in Solano County is a group of residences approximately 0.4 mile away. No other sensitive receptors are located within 1,000 feet of the Proposed Project and associated construction areas in Solano County. In Contra Costa County, numerous residences, Marina Community Center, and St. Peter Martyr School would be located adjacent to the proposed LSPGC Telecommunications Line. In addition, multiple residences would be located within approximately 0.1 mile of a staging area located adjacent to PG&E's existing Pittsburg Substation. Construction of this Proposed Project component is anticipated to last approximately 4 months; however, construction would proceed in a generally linear fashion at discrete work areas along the proposed route. As a result, construction at one location is anticipated to last less than the 2-month minimum time for evaluating cancer risks following OEHHA guidance. As a result, a Health Risks Assessment would be performed for the Proposed Project and would be submitted to the CPUC once complete."	A	Please complete a Health Risk Assessment for the project.	

PEA Section 5.4 Biological Resources

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Section 5.4.4.1.1, page 74 Section 5.4.4.1.3, page 83	**DEF-14: Water Quality and Turbidity Impacts** Within the special-status aquatic species subsection of Section 5.4.4.1.1, it states that inwater project activities (i.e., pile driving, horizontal drilling, trenching) may cause aquatic impacts such as increased turbidity. However, it is not made clear to what extent turbidity is expected to increase (i.e., reasonable/average NTU increase from specific activities), and no associated mitigation measures are referenced in this section. There is also no mention within the PEA of turbidity thresholds for special-status aquatic species. Increased turbidity within aquatic habitat is known to decrease dissolved oxygen and have other deleterious effects on fish species and other aquatic species should be addressed if substantial turbidity increases are expected from project related activity.	A	Please provide the results of the sediment dispersion modeling. If a sediment monitoring program is proposed, provide the detailed framework and proposed thresholds for consideration.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	In a separate response, LSPGC stated: "Sediment dispersion modeling is being conducted to assess whether a monitoring program is needed. The results of the modeling will be provided to the CPUC once complete. The anticipated timeline for completion is the fourth quarter of 2024."			
Section 5.4.4.1.1	**DEF-15: Pile Driving Details, and Acoustic Modeling/Analysis** Section 5.4.4.1.1 states that project related pile driving would result in "minimal permanent conversion of aquatic habitat" but doesn't provide a quantitative value for the impact area. Representative results from underwater noise modeling conducted at the project site should be presented followed by discussion of potential adverse effects to fish and marine mammals.	A	Please provide underwater noise modeling to inform the impact analysis on fish and marine mammals.	
Attachment 5.4-B: Aquatic Resources Technical Report	**DEF-16: Aquatic Species Status** The Aquatic Resources Technical Report (ARTR) Table 5.4-6: Special-Status Aquatic Wildlife Species Present within the Aquatic Survey Area, appears to incorrectly identify the listing status of species, such as but not limited to delta smelt and longfin smelt. Delta smelt was listed as threatened under the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) in 1993. Longfin smelt are currently listed as threatened under CESA and endangered under FESA.	A	Please review the aquatic species status identified in the ARTR and correct where inaccurate.	

PEA Section 5.5: Cultural Resources

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Attachment 5.5-A: Cultural Resources Technical Report	**DEF-17: GIS Data for Cultural Resources** The survey area and confidential resource location GIS has not been provided, as is required by the checklist.	A	Please provide the cultural resources GIS data for maps in the CRTR (i.e., site/resource boundaries, research/study areas, survey areas, etc.) for both the underwater and terrestrial report data.	
Attachment 5.5-A: Cultural Resources Technical Report	**DEF**-18**: Geoarchaeology Analysis** Project areas adjacent to permanent bodies of water are frequently highly sensitive for buried resources. Near Collinsville and underwater, these resources are mostly likely to be precontact era. Near Pittsburg buried resources may include fill associated with the historic era use of the Project Area as well as deeply buried prehistoric era resources. The information provided by Chronicle does not sufficiently support their argument that the Project Area is low sensitivity. Additional discussion and maps showing buried site sensitivity levels are required, following the standards established by Caltrans, in order to develop appropriate mitigation measures for the project. Buried site sensitivity analyses have been required for multiple projects in southern CA.	A	Please revise the Cultural Resources Technical Report to include the requested buried site sensitivity analysis, including for the urban areas of Pittsburg.	
Attachment 5.5-A: Cultural Resources Technical Report	**DEF-19: Architectural Historian Review and Built Environment Survey/Report** An architectural historian was not involved in the inventory. Note: The Transbay Cable had a standalone built environment report, but it has been nearly 20 years	A	Please conduct desktop research examining what resources might be present along the route both below and above ground. In addition, conduct a built environment pedestrian survey of the line to identify potential impacts to built environment resources. The built environment surveys should also cover existing PG&E facilities and substations that would be modified by the Proposed Project for any facilities greater than 50 years in age.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	since it was prepared, and there may be new resources that have turned 50 years old during that time which may need to be considered. On the Pittsburg side, the project area needs to be surveyed for built environment resources. The built environment surveys should also cover existing PG&E facilities and substations that would be modified by the Proposed Project. In a separate response, LSGPC stated: "Impacts from the proposed LSPGC Telecommunications Line would be underground and temporary in nature within the public ROW; therefore, a built environment assessment is not required." The CPUC must analyze the whole of the project based on evidence. The argument for the lack of survey is not appropriate or sufficient. The nature and severity of any project impacts cannot be identified if a survey has not been conducted and resources identified. This is a Madera decision issue (see DEF-20).			
Section 5.5.6.1, page 5.5-26	**DEF-20: Completion of Cultural Resource Surveys and Madera Decision** APM CUL-2 states that "Cultural resource surveys would be performed for any portion of the Proposed Project area not yet surveyed". This measure cannot be implemented as currently written. The Madera decision (Madera Oversight Coalition, Inc. v. County of Madera) concludes that the determination whether a site is a historical resource must be made before certification of the EIR, which means that it must be identified prior to that point as well. In a separate response, LSGPC stated: "Some areas of the Proposed Project will require survey once landowner access is granted. LSPGC will provide the CPUC with updates to the CRTR as any previously unsurveyed areas are surveyed."	A	The application is deficient until the cultural resource surveys are completed for the entire project and resources have been evaluated. Please provide a map showing the areas that have been surveyed and when surveys are anticipated to be complete.	
Attachment 5.5-A: Cultural Resources Technical Report	**DEF-21: Archaeological Resources Management Reports (ARMR) Guidelines** Attachment 3 of the checklist requires that the report meets CA SHPO ARMR Recommend Contents and Format. ARMR guidelines state that this section should include, "An undertaking location map consisting of photocopies of relevant portions of appropriate USGS quadrangles clearly delineating the undertaking boundaries. Indicate the undertaking name, quad name, quad scale, township/range, and sections on each copy."	A	Please include the required map showing the Project Area over USGS quadrangle backgrounds (this should be included in addition to Figures 1-1 through Figure 1-26, which show the APE/API and impact areas over aerial image backgrounds).	
Attachment 5.5-A: Cultural Resources Technical Report, Section 1.2 Area of Potential Affects	**DEF-22: Terrestrial Section 106 Area of Potential Effect (APE) and CEQA Area of Potential Impact (API)** More information is needed regarding the development of the APE/API and the required interagency coordination. Coordination efforts should be included in the report and documentation of federal agency approval should also be provided. The revision related to explain the 50-meter buffer could not be identified.	A	Please discuss the coordination that has taken place with cultural resources specialists at the federal lead agency to define the APE and include discussion on interagency coordination.	
		B	Please provide written documentation that the federal agency has approved the proposed APE.	
		C	Please identify the section and page where explanation of why the 50-meter buffer was included.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Attachment 5.5-A: Cultural Resources Technical Report, Section 3.1 Environmental Setting	**DEF-23: Environmental Setting** The text of Section 3.1 mentions that "The geology of the Project area is mapped by Graymer et al. (2002) at a scale of 1:100,000 (Figure 3, Figure 4, and Figure 5)." These maps are not provided. The following valuable information regarding the study area being underwater was provided in response to a prior comment. A portion of the comment content is included in the CRTR, but not all of the information is included. "Relative to the potential for submerged prehistoric sites within the Project APE/API, sea levels were much lower (22,000 to 15,000 years before present [BP]). To the west and downstream of the APE/API, the "California River" and other smaller streams and rivers drained through the "Franciscan Valley" west through the mouth of the Golden Gate channel toward the Farallon Islands, where the water drained into what was then the shoreline of the Pacific Ocean (Meyer and Rosenthal 2007). Sea levels rose and began to flood the lowest portions of the Franciscan Valley floor and most of the continental shelf Between 15,000 and 11,000 years BP. As the waters continued to rise, freshwater marshes began to form and sediments began to accumulate on the floor of the Valley allowing human occupation of the region circa 11,000 B.C. The Suisun Bay and Delta, including the APE/API, may have, at least initially, been exposed. However, sediment deposition and continued tidal flow has likely hid or destroyed evidence of this occupation. Underscoring this point, the APE/API is located in an area of a braided stream with channels that have constantly shifted and truncated any what were then intact paleo-landforms. Subsequently, the area is not conducive for locations that would contain in situ archaeological deposits."	A	Please provide the referenced geology map(s).	
		B	Please ensure the underwater description of the study area shown is included in the CRTR setting.	
Attachment 5.5-A: Cultural Resources Technical Report, 6 Cultural Resource Evaluations	**DEF-24: Cultural Resource Evaluations** Several of the historic era resources are associated with community members who, for example, founded Collinsville. These resources could be eligible under Criteria B/2 at the local level. The current version of the report includes evaluations under criteria 1 and 2 that consistently say: "No evidence was found to link xxx site with a specific event of importance in American history or with a pattern of events making a significant contribution in the development in Solano County, California, or the United States". However, the sources that were checked to form this conclusion were not cited, and the assertion is not supported with the necessary citations. Were historical newspapers and censuses checked? If so, they should be cited. Were the histories cited in the historical context reveal this level of detail? If so, they should be cited.	A	Please revise all of the evaluations to include citations related to historic events and people.	
Attachment 5.5-A: Cultural Resources Technical	**DEF-25: Structure Identified Near River during Site Visit** During the CPUC site visit a structure was identified next to the river, and potentially within 30 meters of the artifact scatter. Pinon asked to describe this potential resource and conduct historical research to determine its age. If it is	A	Please identify the structure identified by Pinon and respond accordingly. Is the structure 50 years old or older? If so, please record it either as part of AG-001 or as a different site. Please include a statement or discussion on association or negative association between the artifact scatter and the structure.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Report, 6.7 AG-001	older than 50 years, either include it in the AG-001 boundary, or record it separately. In a separate response, JN-01 was added to the report. JN-01 is a different structure than the one noted in the Pinon comment. The structure is immediately adjacent to AG-001, and perhaps a 1/4 mile south of JN-01.			
Attachment 5.5-A: Cultural Resources Technical Report, 2.1 Historic Context	**DEF-26: Historic Context – Maritime Use** The following requests were provided previously, and LSPGC stated the report was updated accordingly, but the revisions could not be identified.	A	Please revise this section to discuss the possibility that Collinsville and/or Pittsburg (formerly New York) was a stop during these various historical eras. Or specify a section and page number where this information is provided.	
		B	Please explain how the history you are reviewing is relevant to the current project, or specify a section and page number where this information is provided.	
Attachment 5.5-A: Cultural Resources Technical Report 2.1.2 California State Lands Commission Shipwreck Database 2.1.4 Other Shipwreck Sources	**DEF-27: Shipwreck Descriptions** Table 2-1 lists shipwrecks in the vicinity of the APE as identified by this database. Tables 2-3 and 2-4 lists vessels identified in *A Map and Record Investigation of Historical Sites and Shipwrecks Along the Sacramento River Between Sacramento City and Sherman Island,* as in or near the APE/API. Table 4-1 in Draft 2 is an updated version of Table 2-1 in Draft 1. The table was revised to include information on propulsion and captains, but the information added to the table is highly limited. Vessel dimensions and tonnage columns are included on the table, but most fields are empty, possibly due to lack of information. If information about vessel dimensions and tonnage tends to be limited. Table 4-2 in Draft 2 appears to be the equivalent of Table 2-2 in Draft 1. No revisions to Table 4-2 are apparent. Table 4-3 in Draft 2 is an updated version of Table 2-3 in Draft 1. Table 4-3 includes additional descriptive details and more information in general than table 2-3 in Draft 1, however, additional information about the physical properties of the vessels included in table remains limited.	A	Please state that information about the vessel dimensions, tonnage, and physical properties tends to be limited in the report, where referenced in the tables.	
3.1.2 Remote Sensing Survey Equipment	**DEF-28: Magnetometer** Section 5.1 Draft 2 does not include additional discussion on use of 2 or more magnetometers.	A	Please revise to address this question.	
4.3 Subbottom Profiler Results	**DEF-29: Geotechnical Investigations**	A	Please include a statement or discussion on the on-going geotechnical investigations.	

PEA Section 5.7: Geology, Soils, and Paleontological Resources

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
n/a	**DEF-30: Geotechnical Reports** In a separate response, LSGPC stated: "It is anticipated that an in-river geotechnical report, underground geotechnical report, and substation geotechnical report will be submitted to the CPUC in the fourth quarter of 2024."	A	Please provide the geotechnical reports.	

PEA Section 5.8: Greenhouse Gas Emissions

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Attachment 5.3-A: Air Quality Calculations, Table 33 and 34	**DEF-31: Emission Assumptions** CO2 emission factor should be 72.22 kg CO2/MMBtu, and high heat value should be 0.135 MMBtu/gallon.	A	Please correct the high heat value and CO2 emission factor reported in the first table, and provided an updated version of Attachment 5.3-A.	

PEA Section 5.11: Land Use and Planning

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Attachment 5.11-B: Land Use Plans and Policies Consistency Analysis	**DEF-32: Delta Plan** Attachment 5.11-B explains that "The proposed PG&E 12 kV Distribution Line would cause the loss of approximately 0.8 acre of land in the priority habitat restoration area. The proposed PG&E 12 kV Distribution Line would not have a significant impact on the opportunity to restore habitat as the area of permanent impacts would be negligible when compared to the entire extent of the Suisun Marsh priority habitat restoration area. As a result, the Proposed Project would not have a significant impact on the protection, restoration, and enhancement of the Delta ecosystem. In addition, the Proposed Project would have no impact on the water supply or government-sponsored flood control programs. Therefore, the Proposed Project would not be subject to ER P3 (23 CCR Section 5007)." While the regulation requires that "significant adverse impacts to the opportunity to restore habitat as described in section 5006, must be avoided or mitigated. Impacts referenced in subsection (a) will be deemed to be avoided or mitigated if the project is designed and implemented so that it will not preclude or otherwise interfere with the ability to restore habitat as described in section 5006. Impacts referenced in subsection (a) shall be mitigated to a point where the impacts have no significant effect on the opportunity to restore habitat as described in section 5006. Mitigation shall be determined, in consultation with the California Department of Fish and Wildlife, considering the size of the area impacted by the covered action and the type and value of habitat that could be restored on that area, taking into account existing and proposed restoration plans, landscape attributes, the elevation map shown in Appendix 4, and other relevant information about habitat restoration opportunities of the area." Using the extent of the Delta is not consistent with this regulation. Appendices 3 and 4 imply the use of conservation actions to ensure the restoration of habitat.	A	State if CDFW has been contacted and provide information on why this loss of 0.8 acres would not impact the 'opportunity to restore habitat.'	

PEA Section 5.13: Noise

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Table 5.13-5 Attachment 5.13-A: Noise and Vibration Impact Assessment Report	**DEF-33: Noise and Vibration Impact Assessment Report** Table 5.13-5 does not contain the equipment. In fact, it appears no table includes the equipment. The technical report does not provide equipment information by phase/project component. The Noise Technical Report does not list any equipment that would be used for in-water work. We suggest adding a brief discussion on the potential noise impacts of these in-water construction activities on onshore human receptors to justify the exclusion. The Project Description references several types of helicopters not mentioned in the noise section or noise technical report. The noise technical report references the Hughes 500 model [MD500] and Kaman K-Max Model. The Project Description references the Hughes 500 model for light duty, however, there is no mention of the Kaman K Max model. Is this heavy duty and similar to those mentioned in the Project Description. The Noise section identifies an unoccupied cultural resources site in the vicinity of the proposed substation site as a noise receptor. This site should not be identified as a noise receptor because it is unoccupied.	A	Please review and confirm that the working days and construction equipment types listed in Table 5-1 through Table 5-8 of Noise Technical Report align with those presented in Table 3-11 of the Project Description and update the technical report as applicable.	
		B	Please provide the assumptions used for Table 5-8: Staging Yard Establishment and Use Noise Levels by Phase. As helicopter landing zones would be included within staging areas, please include helicopters in the table and update the analysis or provide justification for the exclusion.	
		C	Please add a brief discussion to the technical report on the potential noise levels and impacts of the in-water construction activities on onshore human receptors to justify the exclusion.	
		D	Please provide the equations used to calculation construction and operational noise levels.	
		E	Please update noise technical report Table 5-4 to include use of an impact hammer.	
		F	Please clarify and update the noise technical report with helicopter noise information/models consistent with the proposed models identified in the Project Description.	

TABLE 2 DATA REQUESTS

Application and PEA Chapter 1: Executive Summary, Chapter 2: Introduction, Chapter 3: Project Description

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Section 1.3, page 1-4 Section 3.3.4.1.2, page 3-27 Table 3 15: Applicant-Proposed Measures	**DR-1: U.S. Coast Guard (USCG) Coordination, In-River Structure Lighting and Marking, Submarine Construction Coordination, Navigation Study** The description of the overhead segment in Section 3.3.4.1.2 states: "…Any potential lighting or other markings associated with the in-river transition structure would be determined in consultation with the United States (U.S.) Coast Guard (USCG) as required by APM TRA-1. This APM would require a Navigational Study to be prepared and presented to the USCG for its review." In a separate response, LSPGC stated: "Any temporary or permanent lighting for navigation will be determined during consultation with the USCG. At this time, it is anticipated that navigational lighting will be on the fence surrounding the in-river transition structure. All lighting is pending approval and coordination with the USCG." APM TRA-1 states a "LSPGC would submit a Navigational Study to the USCG documenting the potential effects of the construction and O&M of the Proposed Project on boat navigation within the Suisun Marsh and the Delta. Following the USCG's review, LSPGC would provide the study to the CPUC for its records prior to in-river construction."	A	More information is needed regarding the potential for lighting of the in-river transition structure to complete the impact analysis (i.e., aesthetics). Consistent with the description of other project lighting, please provide a description of the anticipated/potential in-river structure lighting, including the number and types of potential lighting fixtures anticipated, locations, heights, and colors. Please provide an example photograph or link to similar lighting.	
		B	The Navigational Study prepared per USCG request to determine potential effects on boat navigation should be prepared prior to completing the impact analysis and publishing a Draft EIR. Methods to address potential impacts that may by required by USCG, such as physical changes to the project (i.e., location adjustments or other features) and/or construction procedures, should be disclosed in the EIR Project Description.	
Section 1.3, page 1-4 Table 3 15: Applicant-Proposed Measures Section 3.5.6.4.1, page 3-67	**DR-2: Scour Analysis** Section 1.3 of the Executive Summary states USACE shared specific permit condition requirements relating to the installation of the 230 kV submarine cables and requested that LSPGC perform a scour analysis…" In a separate response, LSPGC stated: "LSPGC will submit the scour analysis once the report is completed and once it has been reviewed by the USACE. We anticipate that the study will be completed in the fourth quarter of 2024." APM GEN-1: Scour Analysis. LSPGC will submit a Scour Analysis to the USACE evaluating the appropriate burial depth of the proposed LSPGC 230 kV Submarine Segment's cables. The evaluation would consider the potential scour and dredging activities along the cables' alignment. Following the USACE's review, LSPGC would provide the study to the CPUC for their records. Existing dredging operations are described Section 3.5.6.4.1: Hydroplow, however, the depths of dredging activities are not provided.	A	Please provide the Scour Analysis once available, as well as USACE's requests related to the results and direction on submarine cable depth that should be considered in the EIR project description. APM GEN-1 will not be needed because the Sour Analysis must be completed prior to publishing the Draft EIR.	
		B	Please provide the maximum dredging depths where dredging occurs along the submarine segment. If dredging activities occur or could occur at, or close to, the proposed submarine cable depth (6 to 15 feet), please clarify a safe depth and separate distance to ensure no conflicts would occur.	
Section 3.3.4.1.1, page 3-21	**DR-3: Substation Profile Features** Three pages showing different profile views are provided as Figure 3-5.	A	Please clarify if the second page is showing the series capacitor or identify what substation features are shown.	
Section 3.8.4.1.2, page 3-92	**DR-4: Inspection and Maintenance Access to Structures** Section 3.8.4.1.2 states: "…Should structures require direct access during maintenance, overland access consistent with easement access rights and in coordination with the landowner would be utilized…."	A	Please consider the adoption of permanent overland access routes to demonstrate the likely and least impactful routes that would be used to access structures during operation and maintenance of the project. If this is an acceptable change, the temporary construction access road routes can be considered permanent overland routes for analysis in the EIR.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	In a separate response, LSPGC stated "…All maintenance access will be overland travel and may be different than original construction access and dependent on easement access rights with the landowner(s)." During operation and maintenance, structure and line inspections would be required and direct vehicle access to reach the structures is a foreseeable action, which would result in occasional, long-term ground impacts. To minimize impacts to a larger area and potential issues with ground stability, use of overland routes during maintenance should follow the same temporary access road routes used during construction. Further, variable overland roads could result in higher risk for inadvertently impact sensitive resources that may be present. If LSPGC does not commit to using consistent maintenance routes on an as needed basis, whether maintained or not, additional mitigation may be required for such access considerations to minimize potential impacts.			
Section 3.2.2.1.1, page 3-6 Section 3.3.6.1, page 3-40 Figure 3-4 and Attachment 3-A: Detailed Route Maps (page 8)	**DR-5: Initial vs. Ultimate Substation Buildout** Refer to **DEF-6**.	A	Figure 3-4 does not include a legend or complete labels for all features shown. Please provide a figure with a complete legend or labels for all features shown on the map.	
Section 3.3.4.1.1, page 3-18 Section 3.3.5, page 3-38 Section 5.9.4.1.8, page 5.9-26 Attachment 5-9D: FAA Notice Criterial Tool Results	**DR-6: Potential Aviation Hazard Determinations, and Potential Aviation Lighting and Marking** Refer to **DEF-7**.	A	In Attachment 5-9D, please clarify: • Does the list include all proposed aboveground structures, excluding distribution poles? Note: 20 are listed in the table and 28 appear to be included in the GIS data, not including the microwave tower. • Is the microwave tower included and if so by what name in the table? • What do the table fields "Rounded Up Gnd. Elevation (ft)" and "Structure Height + Reveal (ft)" specifically refer to? Note: the values in this table do not appear to be consistent with the GIS data attributes for project structures.	
		B	Please consult with the appropriate Travis AFB representatives about the project and maximum potential heights of all facilities, after site grading, and obtain a "Determination of No Hazard" confirming the assumptions presented in Section 5.9.4.1.8. Reliance on the FAA's noticing tool is not sufficient alone because the project is within the AFB influence area and DOD needs to independently make their own determination, separate from the FAA's screening tool. Please submit the documentation to CPUC when available. (refer to DEF-7)	
		C	Please clarify why a crane greater than 200 feet tall is not anticipated with the proposed height of the microwave tower (199 feet).	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Sections 3.1.1, 3.3.4.1.1, 3.3.8, and 3.3.9	**DR-7: Substation Microwave Tower** The Project Description describes a new microwave tower that would be constructed, owned, and operated by PG&E within the proposed Collinsville Substation. There is insufficient information about the microwave tower design and visual characteristics included in the Project Description. While the PEA states PG&E would construct the microwave tower, basic information is needed about the structure and construction methods.	A	Please provide a description of the microwave tower design and form, including the tower type (i.e., monopole or lattice), surface color(s) and finish(es), foundation, construction methods, etc. Specify if the substation tower would/could require guy wires or support structures, or if it would be self-supporting.	
Section 3.3.4.1.1, page 3-18 Figure 3-4 and Attachment 3-A: Detailed Route Maps (page 8)	**DR-8: Substation Security Wall/Fence, Access Roads, and Access Gates** Section 3.3.4.1.1 states: "The substation would be surrounded by a prefabricated interlocking security wall that would be 10 feet tall with 1 foot of barbed wire on top. The access gate would open approximately 24 feet wide." No profile diagram or representation was observed in the Project Description or Aesthetics section of the PEA. Attachment 3-A: Detailed Route Maps (page 8) shows two access roads and locations where apparent gates would be installed, one on the north side and one on the east side of the substation. Figure 3-4 shows what appears to be one access point on the north side and no access point on the east side. The location of the microwave tower and other facilities shown on Figure 3-4 appear to conflict with the access roads and gate show on page 8 of Attachment 3-A.	A	Please clarify the locations of proposed substation access roads/driveways and the number of substation gates and their dimensions (if different).	
		B	Please clarify if the substation arrangement shown in Figure 3-4 is out of date and provide a revised version of the figure if the arrangement as changed with new locations for the microwave tower, storage facility, and telecom room, as applicable.	
		C	Please provide a profile diagram of the proposed substation fence and driveway gates.	
		D	Please provide a description of the typical colors, materials, and finishes of the fence and gate.	
Section 3.5.7.2, page 3-69 Section 3.5.9.3, page 3-71	**DR-9: Substation Site Drainage/Stormwater Management System** Section 3.5.7.2, states: "…A proposed stormwater detention basin at the southern boundary of the proposed LSPGC Collinsville Substation has been included in the preliminary design, as depicted in Attachment 3 A: Detailed Route Map…" Section 3.5.7.2 also states: "…The BASMAA Post-Construction Manual recommends preliminarily sizing basin facilities at 4 percent of the tributary's impervious area. The proposed stormwater detention basin would be 4 to 5 percent of the impervious area created by the proposed LSPGC Collinsville Substation components. The basin's current design assumes that the entire 11 acres would be considered impervious during a 2-inch rain event. As a result, the basin would measure approximately 3 feet deep, 75 feet wide, and 355 feet long. In total, approximately 6,700 cubic yards of material would be excavated to prepare for the basin, which would be constructed using an excavator and typical compaction machinery. The stormwater detention basin's design would be refined once geotechnical investigations are complete, which would identify groundwater level ranges in the vicinity of the substation site." Section 3.5.9: Runoff states: "…The proposed LSPGC Collinsville Substation pad would be graded as part of the Proposed Project. The stormwater detention basin would be installed on the southern portion of the proposed LSPGC Collinsville Substation, as depicted in Attachment 3 A: Detailed Route Map, to	A	Please provide a detailed design drawing for the substation site drainage/stormwater management system (as currently anticipated). Please identify the locations of engineered drainages and flow direction where stormwater would be directed, and ultimately channeled to the detention basin.	
		B	Please clarify the correct dimensions of the detention basin. The text says it would be 3 feet deep, 75 feet wide, and 355 feet long. The GIS dimensions of the detention basin are approximately 75 feet wide and 532 feet long.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	help facilitate the return of water captured on site to the groundwater basin. The stormwater detention basin would be at or below the substation grade to collect storm water runoff from the substation's graded pad, depending on the final detailed design and in accordance with the BASMAA's Low Impact Development standards, which aim to mimic pre-project site hydrology. All storm water runoff from the Proposed Project would filter through the surrounding soil into the groundwater basin or evaporate." In a separate response, LSPGC stated: "…Preliminarily, the substation will rely on sheet-flow to direct stormwater to the basin." More details are needed regarding the stormwater management system and proposed design to verify the assumptions are adequate and stormwater would be appropriately controlled.	C	Please identify the groundwater level ranges at the substation site in relation to the surface level and depth of the bioretention basin and explain assumptions about how the basin would filter water into the groundwater basin described in Section 3.5.9.3. This information is needed to determine if the anticipated basin design and substation grade are sufficient to manage stormwater conditions and ensure discharge is controlled to prevent impacts to downslope wetlands south of the substation site.	
Table 3-8 Table 3-9	**DR-10: Work Area Disturbance and Grading Volume Values** It appears the substation dimensions may have changed, and it's unclear if the work area disturbance values presented in Table 3-8 and the grading volumes presented in Table 3-9 are current and accurate. For example, refer to the comments above regarding the substation access driveways show on Figure 3-4 vs. the Attachment 3-A detail maps (**DEF-8**) and the detention basin dimensions. Attachment 3-A shows two driveways and the Project Description information indicates only one driveway would be installed.	A	Please verify the accuracy of or update the disturbance and grading volumes presented in Table 3-8 and Table 3-9. If the values change, please provide a word document with the updated table values.	

PEA Section 5.4 Biological Resources

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
n/a	**DR-11: Completed and Pending Survey Summary Table** Section 7 of Attachment 5.4-A indicates that fully floristic surveys are recommended in April and July to capture the bloom periods of all non-perennial plant species with the area(s) they would potentially occur. It's unclear if these surveys occurred as planned. A survey summary table would be helpful for clarity that lists all completed survey information as well as planned surveys to be completed.	A	Please provide a survey summary table listing all completed (i.e., dates, areas covered/not covered, findings, etc.) and planned biological surveys (i.e., timing and locations, etc.).	
Attachment 5.4-D, page 1	**DR-12: California Tiger Salamander** Designation of Low Potential to occur for California tiger salamander (CTS) is not substantiated based on the project location. Suitable habitat exists within the project area and CNDDB has occurrences between 1 and 5 miles of the project area. CTS are known to be capable of migrating over 1 mile and lack of occurrences closer to the project area may indicate lack of focused surveys conducted in the area and does not necessarily mean that CTS does not occur closer to project area. It is recommended that the potential to occur designation for CTS be reanalyzed and a formal habitat assessment for CTS is conducted using the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (USFWS 2003). If suitable	A	A formal habitat assessment for CTS is required to substantiate the designation of Low Potential to occur, for the reasons described in the comment. If a formal habitat assessment is not completed that demonstrates the species is not present or has Low Potential to occur, the CPUC will consult with CDFW and USFWS to determine if protocol surveys are required, and/or the need for additional mitigation measures and permits.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	habitat is present, protocol surveys may be required according to CDFW and USFWS guidelines. In a separate response, LSPGC stated: "The potential to occur designation for this species in the PEA is consistent with the three California tiger salamander habitat assessments that were conducted for the Solano 4 Wind Project. The study area of these assessments overlaps substantially with the Proposed Project area north of the Delta. These studies (the most recent of which was conducted in 2018) concluded that lack of suitable aquatic habitat, multiple barriers to movement/dispersal, ongoing land use practices, and a lack of suitable burrows contributed to a low potential for occurrence of this species within the Study Area. The reconnaissance-level surveys performed in support of the Proposed Project and the protocol-level assessments previously conducted in the Proposed Project area have consistently supported the "Low Potential" determination in the BRTR and PEA, and no further habitat assessments are necessary. The BRTR and the PEA have been updated to clarify this information." Though the project site does not contain vernal pools, suitable aquatic habitat does exist on the project site, with wetlands present in multiple locations. Studies cited did not overlap completely with the project area.			
Attachment 5.4-D, page 1	**DR-13: Burrowing Owl** Suitable habitat for burrowing owl exists within the project area and CNDDB has occurrences within 2 miles of the project (less than two miles away east along Talbert Lane and approximately two miles west in Montezuma (2010 and 2011 records)). Lack of occurrences closer to the project area may indicate lack of focused surveys conducted in the area and does not necessarily mean that BUOW does not occur closer. A formal habitat assessment is recommended using the Burrowing Owl Survey Protocol and Mitigation Guidelines (PDF) (The California Burrowing Owl Consortium, 1993) and the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game, 2012). In a separate response, LSPGC stated: "Two habitat assessments for burrowing owl were conducted within the Proposed Project area in support of the Solano 4 Wind Project. These habitat assessments documented anecdotal SMUD accounts of overwintering owls in the vicinity of Talbert Lane. The conclusions of this habitat assessment are largely consistent with the findings in the PEA and BRTR (i.e., lack of suitable burrows, lack of ground squirrel activity, land is actively managed/disturbed); however, the assessment acknowledges that during periods of inactivity on grazed or farmed land, ground squirrels and other burrowing mammals may re-establish and facilitate the reintroduction of burrowing owls to grassland habitats.	A	An updated formal habitat assessment for burrowing owl is required. The CPUC will consult with CDFW regarding the potential to occur determinations based on available information and any habitat assessments that may be provided by LSPGC, which will be used to inform the need for any associated mitigation.	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
	The findings of these habitat assessments are sufficient to revise the potential-to-occur determination for burrowing owl to moderate for nesting owls and high for overwintering owls. Further, given that a habitat assessment for burrowing owls was recently conducted within a substantial portion of the Proposed Project area, a second assessment is not deemed necessary to support this potential-to-occur determination. The BRTR and PEA potential-to-occur discussions have been adjusted and species profiles added/updated as appropriate. In addition, recommendations for protocol-level surveys have been included in the BRTR, as appropriate. Lastly, an additional impact discussion related to burrowing owl has been added to the PEA, including an APM addressing surveys and avoidance." A formal habitat assessment for burrowing owl over the full project area is still recommended, especially considering that the last habitat assessment was six years ago. Additionally, the East Contra Costa County HCP requires planning surveys for burrowing owl habitat prior to applying for coverage and preconstruction surveys for burrowing owl (if suitable habitat is identified).			
Section 5.4-46 Section 5.4-85 Attachment 5.4-D Terrestrial Potential to Occur Table	**DR-14: Northwestern Pond Turtle** The PEA refers to northwestern pond turtle (*Actinemys marmorata*) whereas the BRTR refers to western pond turtle (*Actinemys marmorata*).	A	It is recommended that the BRTR references to western pond turtle be updated to northwestern pond turtle consistent with the PEA Biology Section.	
Table 5.4-8	**DR-15: Aquatic Habitat Impacts** LSPGC stated that Table 5.4-8 specifies less than 0.1 acre of benthic habitat would be permanently impacted; however, the table value indicates 0.01 acre would be impacted (not less than).	A	Please clarify if the impact identified in Table 5.4-8 is 0.01 as shown in the table or if it should be <0.01.	
Attachment 5.4-D, Page 1 & 3	**DR-16: Antioch Dunes Buckwheat and Showy Golden Madia** Within the Special-Status Plant Species with the Potential to Occur table, Antioch Dunes buckwheat and showy golden madia are designated as having "no potential to occur" even though the species has been documented between 1 and 5 miles from the survey area based on CNDDB records and suitable habitat and conditions for this species are present within the survey area.	A	It is recommended that these species be upgraded to "low potential to occur" due to nearby occurrences and presence of suitable habitat. Plants not being observed during floristic surveys doesn't necessarily confirm they have no potential to occur.	

PEA Section 5.13: Noise

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
Section 5.13.1.2.3, page 5.13-6 Attachment 5.13-A: Noise	**DR-17: Ambient Noise Level Measurements** The PEA states that existing ambient noise measurements were taken at two locations in proximity to the Proposed Project. Long-term measurements were taken for 24 hours near the LSPGC Collinsville Substation site, and short-term measurement were conducted for 1-hour during the day and 1-hour at night in	A	Please clarify the selection of methods for each location, (e.g., please state explicitly that short-term measurements were conducted instead of long-term measurement due to the risk of theft).	

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC Response
and Vibration Impact Assessment Report	proximity to the existing Pittsburg Substation. However, the PEA doesn't explain why one location involved long term measurements and why the other location involved short term measurements. In a separate response, LSPGC stated: "A note has been added to the PEA indicating that the noise measurement equipment was at risk of theft while in use at PG&E's existing Pittsburg Substation. As a result, staff were present throughout the duration of the short-term measurements to prevent theft." The added note doesn't explain why this method was chosen.			