January 23, 2025

VIA EMAIL

Ms. Connie Chen
California Environmental Quality Act Project Manager
California Public Utilities Commission Energy Division
505 Van Ness Avenue
San Francisco, California 94201

RE: LSPGC Response to CPUC Data Request #14 for LS Power Grid California, LLC's Collinsville 500/230 Kilovolt Substation Project (A.24-07-018)

Dear Ms. Chen,

As requested by the California Public Utilities Commission (CPUC), LS Power Grid California, LLC (LSPGC) has collected and provided the additional information that is needed to continue the environmental review of the Collinsville 500/230 kilovolt (kV) Substation Project (Application 24-07-018). This letter includes the following enclosures:

- A Response to Data Request Table providing the additional information requested in Data Request #14, received January 12, 2025.
    - Attachment A: Bay Walk Mixed Use Project and Alternatives
    - Attachment B: Department of Toxic Substance Control Comment Letter
    - Attachment C: Approved Project Sponsor Agreement, Appendix A
    - Attachment D: Project Sponsor Selection Report

The attachments listed above can be accessed via the following link:

LSPGC Response to CPUC DR-14

Please contact us at (925) 808-0291 or djoseph@lspower.com with any questions regarding this information. If needed, we are also available to meet with you to discuss the information contained in this response.

Sincerely,

Dustin Joseph

Dustin Joseph

Director of Environmental

Enclosures

cc: Jason Niven (LSPGC)
Doug Mulvey (LSPGC)
Lauren Kehlenbrink (LSPGC)
Clayton Eversen (LSPGC)
David Wilson (LSPGC)
Michelle Wilson (CPUC)
Aaron Lui (Panorama)
Susanne Heim (Panorama)

16150 Main Circle Drive, Suite 310, Chesterfield, MO 63017
lspower.com +1 636 532 2200

Attachment A: Data Request

Project:	LS Power Grid's Collinsville 500/230 kV Substation Project
Title:	Data Request #14
From:	California Public Utilities Commission Panorama Environmental, Inc.
To:	LS Power Grid California, LLC (LSPGC) Pacific Gas & Electric Company (PG&E)
Date:	January 12, 2026

DATA REQUESTS

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC/PG&E Response
n/a	**DR-1: Feasibility of Pittsburg Substation Site Alternatives** In LSPGC's Response #3 to Data Request #2, LSPGC provided Attachment C: Alternatives Substation Site Analysis, which includes information about the feasibility of two conceptual substation sites in the Pittsburg area near PG&E's existing Pittsburg Substation (discussed as Scenarios D and E). Constructing the proposed substation on the southern side of the Delta in the Pittsburg area would require that the 500 kV interconnection lines be extended beyond the proposed substation site by roughly 6 miles and across the Delta, and the proposed 230 kV transmission line would then be shortened to roughly 0.7 mile. The proposed 230 kV overhead and submarine segments would be replaced with 500 kV segments, and the 500 kV and 230 kV segment alignments would be modified. The following analysis was provided by LSPGC for Scenario D and E, which are the two Pittsburg area substation site alternatives that were considered: 1. Would develop on the abandoned PG&E Power Plant site. High probability of unknown contaminates on the property and increase cut/fill values consequently leading to high air pollutant emissions during construction due to increased truck trips. 2. Future housing development planned - environmental review for redevelopment plans of the property are in progress. Including a substation and duct banks at this location would substantially impact redevelopment plans that are supported by the City of Pittsburg. 3. Siting the substation on the south shore will require routing 500 kV cables across the Sacramento River. The approved cable rating has not been developed for submarine use. To meet the required rating, 12 500kV submerged transmission cables would need to be routed from the north shore, through the narrow available area of the bay, to the south shore. 4. Any future expansion would require additional 500kV submerged transmission cables to cross the river to reach the substation. 5. Additional submarine cables will cause significantly more impact to sand mining lease area. 6. Two seasonal windows will be required to install 12 submarine cables, causing the cable installation to occur after the required in-service date. As well, would create additional	1	Please review the analysis submitted to CPUC regarding the conceptual Pittsburg substation site alternatives (referenced in the left column), confirm the information provided by LSPGC is accurate, or provide revisions/additional information explaining the feasibility considerations for the conceptual substation alternatives.	LSPGC proposes the following revisions: • Siting the substation on the south shore will require routing 500 kV cables across the Sacramento River. The approved cable rating has not been developed for submarine use. CAISO would need to review the proposed design to ensure that this meets the Project purpose. ~~To meet the required rating, 12 500kV submerged transmission cables would need to be routed from the north shore, through the narrow available area of the bay, to the south shore.~~ • ~~Two seasonal windows will be required to install 12 submarine cables, causing the cable installation to occur after the required in-service date. As well, would create additional hazards to navigation as 12 hydroplow runs would be required.~~ • Submerged transmission cables capable of 500kV have limited global manufacturing capability. Additionally, there is only one known completed project utilizing submarine 500kV cable in the world. ~~are not currently limited commercially available~~.
		2	Please explain why 12, submerged 500 kV cables would be needed to cross the Delta instead of the proposed 4, 230 kV cables (bullets 3 and 6).	LSPGC's approach for the Proposed Project was to utilize single-core 500-kV submarine cables to achieve the required ampacity rating. Although the installation of 12 single-core cables would satisfy the ampacity requirement, this configuration would effectively double the overall capacity rating and is therefore considered conservative. Accordingly, LSPGC agrees that 12 single-core cables would not be necessary; rather, six single-core cables would be sufficient to achieve the same capacity. If tricore 500-kV cables were utilized for the Proposed Project, only four submarine cables would be required, which would be comparable to the Proposed Project configuration. For ease of comparison against the Proposed Project (i.e., four cables vs four cables), LSPGC's responses in this data request pertain to tricore 500kV cables rather than single core 500kV cables. Tricore 500-kV submarine cables are commercially limited on a global scale. To LSPGC's knowledge, only a single project worldwide currently employs tricore 500-kV submarine cables. Given the limited real-world deployment and operational experience associated with tricore 500-kV submarine cabling, LSPGC would not typically propose this emerging technology for a proposed project due to the associated technical and commercial risks. While LSPGC acknowledges that the use of tricore 500-kV cables is technically feasible, it is not considered a commercially viable option for the Proposed Project, as discussed further in response to DR-1, Part 4.
		3	A public comment on the DEIR suggests there is substantial evidence that indicates submarine cables have been deployed at other projects including the following United States (the Neptune project connecting New Jersey and New York); United Kingdom (the Western HVDC Link connecting Scotland with Wales and England); China (500 kV submarine cable "connecting offshore installations, Ningbo and Zhoushan); and Scandinavia (the Skagerrak 4 HVDC Light link connecting Norway and Denmark). The commentor also asserts "…A 2024 report analyzing switching transients in the proposed 500 kV Java-Bali Connection submarine cable project in Indonesia observed that "[s]elf-contained fluid-filled	The majority of these projects listed are high voltage direct current (HVDC) submarine cables, which are fundamentally different from HVAC systems in terms of design, operation, equipment, requirements, conversion terminals, and commercial availability. The Collinsville Substation Project is an AC transmission project and would require HVAC submarine cables to cross the Delta. The only project from this list that is relevant is the Ningbo-Zhoushan 500 kV submarine cable project. The project has only been in operation since 2019 and is widely recognized as first-of-its-kind of 500 kV HVAC submarine cable technology. Publicly available information indicates that this cable type of only been manufactured by one company thus far, reflecting very limited global manufacturing capability. While this demonstrates that a 500 kV HVAC submarine cable does exist, the technology has extremely limited deployment history, minimal supplier availability, and no track record of routine commercial use at scale.

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC/PG&E Response
	hazards to navigation as 12 hydroplow runs would be required. 7. A combination of the 500kV and 230kV duct banks needed for the initial scope and the existing Transbay duct banks will completely enclose this substation location and prevent future lines planned in the Ultimate Substation configuration specified by CAISO from being able to connect. 8. Submerged transmission cables capable of 500kV are not currently commercially available. **9.** Dual landing points on the north shore will require two separate 500kV corridors to avoid wind turbine throw distance buffers. Additional information is needed regarding the feasibility of the conceptual Pittsburg area substation sites and the feasibility of construction a 500 kV submarine interconnection across the Delta instead of 230 kV transmission lines, and how these alternatives would or would not meet the CAISO's determine need for the project and technical specifications.		and cross-linked polyethylene are the two technologies that can be employed for high-power submarine cable application." Please substantiate the accuracy of the statement in bullet 8 that 500 kV transmission cables needed to cross the Delta are not commercially available. If the prior statement is not accurate, please explain and revise it to be accurate. Please review the example projects and statements in the DEIR comment above, and explain if these examples are comparable to the 500 kV interconnection submarine cables that would be needed to cross the Delta under the conceptual alternatives.	
		4	Please elaborate and provide any other technical details that may not have been included in LSPGC's prior response regarding the installation of a 500 kV interconnection across the Delta, including the feasibility of installing the required equipment. Please identify any additional or associated equipment that would be required for the 500 kV submarine interconnection to function properly, if any.	LSPGC estimates that a tricore 500-kV submarine cable would be approximately twice the diameter of a tricore 230-kV submarine cable. This significant increase in size introduces multiple material uncertainties and risks for the Proposed Project. First, an approximate doubling of cable diameter would result in a corresponding increase in both the storage footprint and weight (increasing approximately by a factor of 4) of the cable on the installation barge. At this time, LSPGC cannot confirm that the barge currently proposed for the Project would be capable of physically supporting a tricore 500-kV cable, either due to limitations associated with turntable size or maximum allowable weight. If a larger or modified barge were required—which cannot be determined at this stage—larger propulsion systems would likely be necessary to maneuver the barge. Such modifications would reasonably be expected to increase fuel consumption and associated air emissions. Second, because tricore 500-kV submarine cabling's diameter and weight would substantially increase, it is uncertain whether conventional hydroplow equipment could be used to install the cable beneath the riverbed. At a minimum, LSPGC anticipates that substantial modifications to the hydroplow arm would be required to accommodate the increased cable diameter and weight. More realistically, an alternative installation method may be necessary to achieve the required burial depth, such as a vertical injection system, which would introduce additional construction complexity, cost, and environmental impacts. Such a vertical injector system would likely need to be designed and built specifically to accommodate the larger cable, creating additional technical and schedule risk. Additionally, vertical injectors are limited in shallow water column depths. If a vertical injector was required to install the tricore 500kV submarine cable, then areas near the shorelines would require a different form of installation, likely mechanical trenching. This mechanical trenching would occur on both shorelines extending approximately 1,000 to 1,500 feet waterward of the shoreline, until water depth was suitable for vertical injector installation. Third, the increased diameter of a tricore 500-kV submarine cable would necessitate a larger minimum bend radius during installation. This increased turning radius within the river would expand the installation corridor and result in greater disturbance within the existing sand mining lease area compared to the proposed 230-kV submarine cable configuration. Collectively, these unresolved technical, logistical, and environmental risks further demonstrate that the use of tricore 500-kV submarine cables is not a commercially feasible or practicable alternative for the Proposed Project.
		5	Please elaborate and provide any other technical details that may not have been included in LSPGC's prior response regarding the two conceptual substation sites, including the associated 500 kV interconnection Delta crossing.	The southern shore's proposed substation locations have a high likelihood of encountering soil and groundwater contamination during earth working activities, as the Pittsburg Power Plant is a known source of contamination. These contamination concerns highlight the need to minimize disturbance

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC/PG&E Response
				at this site. See response to part 7 for more information. LSPGC has linked the Envirostor page for the Pittsburg Power Plant. https://www.envirostor.dtsc.ca.gov/public/hwmp_profile_report?global_id=CAT080011695&starttab=
		6	Please provide an update regarding LSPGC's (and PG&E's if any) coordination with the landowner/applicant of the Bay Walk Mixed Use Project, Integral Communities, where the conceptual substation sites are located in Pittsburg (bullet 2). Please describe where the two conceptual substation sites and associate transmission line are in relation to the planned features of the Bay Walk Mixed Use Project.	LSPGC has provided an image depicting the proposed substation layouts overlaid on the Bay Walk Mixed Use Project footprint, sourced from the Notice of Preparation for the CEQA document associated with that project. As shown in **Attachment A**, the proposed substation would be located directly within the planned residential development area. Based on this overlap, LSPGC anticipates substantial opposition from the Bay Walk Mixed Use Project proponents, as the introduction of a major electrical substation within the development footprint would fundamentally conflict with the approved land use plan. The presence of the proposed substation would be incompatible with the planned residential uses and would likely preclude development of the housing project as currently proposed, potentially resulting in cancellation or significant redesign of the Bay Walk Mixed Use Project. As of the latest available records (2024-2025), the Bay Walk Mixed Use Project has not yet completed its entitlement process and remains in CEQA Environmental Impact Review phase following issuance of the April 2024 Notice of Preparation. Agency comments were received throughout 2024, and no subsequent approvals or advancement into formal entitlement hearings have been reported. https://ceqanet.lci.ca.gov/2022100572/2
		7	Please elaborate regarding the likelihood of encountering unknown contaminates during construction of the conceptual substation sites (bullet 1). Please explain the process for potential remediation and potential remediation timelines in relation to the proposed construction schedule. Please explain the statement about a potential increase in cut/fill values and truck trips associated with remediation (bullet 1).	The proposed substation locations on the southern shore at the Pittsburg Power Plant site have a high likelihood of encountering contaminated soil and groundwater during earth-moving and grading activities due to the site's long industrial history and ongoing environmental concerns. The Pittsburg Power Plant operated as a large fossil-fueled generating facility for decades, with significant infrastructure and associated industrial activities that historically involved fuel storage, combustion processes, and ancillary support operations. Documented contamination concerns at the site include: • Active environmental oversight and cleanup: The site is tracked in the California Department of Toxic Substances Control's EnviroStor database, which tracks investigation and corrective action at properties with known or suspected contamination issues. This indicates that the property has a documented history of contamination and remediation oversight. Please see the link below. • Potential contaminated media: In environmental reviews for nearby reuse projects (Bay Walk Mixed Use Project), the Department of Toxic Substances Control (DTSC) specifically noted that remedial actions at the former Pittsburg Power Plant would need to address contamination in soil, soil vapor, groundwater, sediment, and surface water. This reflects that multiple environmental media at the site have been impacted by past industrial operations and are recognized as areas of concern for redevelopment work. See **Attachment B.** • Industrial legacy and infrastructure: Historic operations at fossil-fuel power plants commonly involve storage and handling of fuels (including natural gas and backup oil), combustion residuals, transformer oils, and other industrial chemicals. Such operations often result in residual contaminants in subsurface soils and groundwater that can pose exposure hazards when disturbed.

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC/PG&E Response
				• Corrective action oversight: DTSC and the San Francisco Bay Regional Water Quality Control Board have oversight of corrective action at the site, which signifies contamination that has required formal environmental investigation and cleanup planning. For these reasons, major grading, excavation, and other earthwork activities at the site could uncover contaminated soils, volatile vapors, and potentially affected groundwater, exposing workers to hazardous conditions if not properly managed. While LSPGC does propose excavation for the transition vaults and duct banks, LSPGC believes the likelihood of encountering contaminated soils or groundwater in this area to be low, based on relative location to the Power Plant and geotechnical analysis. LSPGC does not have this level of comfort with the proposed substation locations. LSPGC has linked the Envirostor profile for the Pittsburg Power Plant here: https://www.envirostor.dtsc.ca.gov/public/hwmp_profile_report?global_id=CAT080011695&starttab=
		8	Please explain how the conceptual Pittsburg Substation alternatives, including the associated 500 kV interconnection Delta crossing, would or would not address CAISO's determined need for the project.	The CAISO 2021–2022 Transmission Plan, Appendix G, Figure G2-2 (Interconnection to Collinsville 500-kV and Pittsburg 230-kV Substation) indicates that the 230-kV transmission lines exiting the proposed Collinsville Substation would not be constructed by PG&E. The figure further shows that a portion of the 230-kV line would consist of submarine/underground cable. This configuration is consistent with the scope contracted by LSPGC with CAISO under the Approved Project Sponsor Agreement (APSA), as reflected in Appendix A of the APSA, provided as **Attachment C.** The Project Sponsor Selection Report (PSSR; **Attachment D**) for the Collinsville Substation Project further demonstrates that all four competing proposals identified the use of SMUD-owned property along the northern shoreline as the preferred location for the proposed Collinsville Substation. This SMUD property is immediately adjacent to the existing PG&E 500-kV transmission line and provides a proximate and efficient point of interconnection. In addition, Appendix G of the CAISO Transmission Plan and the PSSR includes a cost estimate for 500-kV line extensions of approximately $5 million per mile per circuit, which is indicative of overhead transmission construction. By comparison, LSPGC estimates that submarine transmission lines are approximately $15 million per mile per circuit for tricore 230kV. This cost differential further supports CAISO's planning assumption that the 500-kV interconnection to the Collinsville Substation would be overhead rather than submarine. In addition, the PSSR stated that where a project sponsor located the new Collinsville Substation would directly impact the cost to PG&E. The PSSR goes on to describe that LSPGC's close proximity was an important consideration for the CAISO. This further reinforces the statement that reducing costs to PG&E by nearby location of the Collinsville Substation to the existing 500kV lines is an important aspect of this Proposed Project. If the substation was to be located on the southern shoreline, PG&E would be responsible for building out the 500kV line over to the substation, including onshore and submarine cables. Not only would the PG&E cost far exceed what was contemplated by CAISO for the Proposed Project, but PG&E would have to scope, procure, permit, and construct the submarine 500kV cables. As previously mentioned, the tricore 500kV cables are globally commercially limited, and procurement of said cables would be on the scale of multiple years. LSPGC's timeframe to procure commercially available tricore 230kV cables is over 2 years. This alone would not meet the required CAISO in-service date of June 1, 2028. Additionally, LSPGC has been working on submitting permit and lease applications for over two years for the submarine cables from various federal, state, and local

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC/PG&E Response
				agencies. PG&E would be restarting this permitting clock and need to submit their own applications for the 500kV submarine cables to permitting agencies, thus further delaying the required in-service date. This would be a substantial setback, as PG&E would also need to do their own investigations into the riverbed to determine the best route for the tricore 500kV submarine cables. The functional specifications for the Collinsville Substation contemplate ultimate buildout to accommodate future system expansion. Consistent with these specifications, the APSA (**Attachment C**) between LSPGC and CAISO provides for a substation configuration capable of accommodating up to six 500-kV circuits and up to six 230-kV circuits. If the substation were instead located on the southern shoreline, future interconnections would be constrained to either (1) installing additional 500-kV submarine cables within an already constrained river corridor, or (2) identifying alternative overhead transmission pathways into the Pittsburg substation area, which is already highly congested with existing transmission infrastructure. Due to these constraints on both submarine and overhead transmission options, a southern shoreline substation location would not satisfy CAISO's functional specifications for long-term expandability, as future interconnections would be impractical or infeasible. Accordingly, while a southern shoreline location might arguably satisfy the immediate objectives of the current Project, it would not meet CAISO's future expansion requirements for the Collinsville Substation as described in the APSA (**Attachment C**). Moreover, even the assumption that a southern shoreline location would meet the current functional specification is not guaranteed. As previously described, CAISO's planning assumptions were based on a relatively short overhead 500-kV interconnection to the Collinsville Substation and the use of 230-kV submarine cables. CAISO has not evaluated a project configuration that includes an extended 500-kV submarine cable. Relocating the substation would alter the impedance of the 500-kV transmission line, resulting in cascading impacts on the system upgrades required at the Vaca Dixon and Tesla substations. In addition, this relocation would change both the number and locations of required transposition structures. Relocating the substation to the southern shoreline would therefore constitute a materially different project configuration that would require reevaluation by CAISO to determine compliance with the applicable functional specifications. As such, it would be premature to assume that a southern shoreline substation would serve the same system purpose as a substation located proximate to the existing 500-kV transmission line.
		9	Please explain how the conceptual Pittsburg Substation alternatives, including the associated 500 kV interconnection Delta crossing, would or would not address CAISO's technical specifications established for the project.	Please see response provided above in part 8.
n/a	**DR-2: Access Restriction for In-water Construction** A public comment on the DEIR notes that additional details are needed regarding public access restrictions including buffers surrounding barges and vessels during in-water construction.	1	Please explain if public restriction buffers would be required for the in-water work activities. Please explain when and where such buffers would be implemented and provide the anticipated distances of potential access restriction buffers. Please explain the methods for establishing such buffers, such as using temporary buoys, spud piles, or other navigation markers. Please cite any established guidelines for such restrictions that would be implemented.	At fixed points, such as the open trenching locations at the shoreline, it would be expected that buoys or similar technology would be utilized to clearly define that work was occurring near the shoreline. This technology would be near the in-water silt fencing. These buoys would act as a delineation of a work area and direct vessels to avoid the area. For unfixed working locations, such as the hydroplow installation, this work would be treated as all vessel traffic would be treated. The barge would constantly be moving, and thus buoys or navigation markers would not necessarily be effective. Vessel traffic and buffers to vessels would be discussed and determined with USCG, Vessel Traffic Service, and Harbor Master.

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC/PG&E Response
n/a	**DR-3: Proposed Changes to APM REC-1** Based on the DEIR comment above, the CPUC proposes the following changes to APM REC-1: **APM REC-1: Access Restrictions in the Delta.** Construction crews would coordinate with the USCG's San Francisco Waterways Branch, the San Francisco VTC, and the City of Pittsburg's harbor master prior to any temporary in-water access restrictions to ensure that Delta users are aware of upcoming restrictions. In addition, a Local Notice to Mariners would be submitted to the USCG's District 11 at least 15 days prior to the start of each phase of in-water construction. Public access would be restricted surrounding in-water construction when required to ensure public and worker safety, as necessary. The distance and methods for restricting public access would be determined based on the specific work activity requirements, and determined in coordination with USCG, Vessel Traffic Service, the Harbor Master, and other applicable agencies, as required.	1	Please confirm the proposed changes to APM REC-1 are acceptable or propose alternative revisions that address the concern about public access restrictions.	LSPGC agrees with this proposed edit.
n/a	**DR-4: Home Port(s) of Barges and Vessels during Construction** A public comment on the DEIR requests that the project description identify the home port location for work barges and vessels that would be used during construction, as well as distances from the port(s) to project construction area. This information would inform potential impact considerations for the spread and introduction of aquatic invasive species, ensure that vessel emissions are accurately calculated as part of project generated emissions analyses, and potentially be incorporated into discussion of impacts to transportation resources.	1	Please identify the home port location(s) for work barges and vessels that would be used during construction, as well as distances from the port(s) to project construction area if feasible. If the home port location is not known, provide the geographic area/region where you expect the vessels to come from.	LSPGC anticipates that companies will have accessible assets situated in the San Francisco Bay Area, approximately 45 miles from the project site. The barges are stationed in Richmond, about 42 miles from the project site, while the tug and crew boats are based in San Francisco, also approximately 45 miles from the project location.
n/a	**DR-5: PG&E Wetland Delineation and Aquatic Resources Delineation Report** On Page 8 of 10 of PG&E's DEIR comment letter, the following comment is included: "PG&E also suggests eliminating the Hydrology and Water Quality measure, MM HYD-1, for two reasons. First, PG&E has now completed the wetlands delineation effort in Solano County and has determined that all work on PG&E's interconnection facilities can be accomplished without impacting waters of the State or United States.[10] Given the lack of a potentially significant impact, no mitigation is justified. Further, even if jurisdictional waters could be impacted by project activities, PG&E would consult with the USACE and the relevant regional water	1	Please provide the wetland delineation data and Aquatic Resources Delineation Report for CPUC review and consideration. This report was previously requested and the data has not been provided. Please provide this report to the CPUC by January 30, 2026. If the report cannot be provided by that date, please explain the reason for the delay.	PG&E to respond.

Section/Page Reference	CPUC Comment	Request ID	CPUC Request	LSPGC/PG&E Response
	board to determine which permits would be required. The requirements set forth in MM HYD-1 are not necessarily consistent with any likely USACE or water board permits, and those agencies have jurisdiction over the requirements." *Footnote 10: "The Aquatic Resources Delineation Report has not yet been finalized pending landowner approvals in Contra Costa County, where no wetland impacts are expected. The Report will be submitted to the CPUC when it is completed." The wetland delineation data and Aquatic Resources Delineation Report are needed to support PG&E's comment regarding the elimination of MM HYD-1.			
n/a	**DR-6: PG&E Microwave Tower** A public comment on the DEIR requests that the microwave tower be constructed using a monopole structure instead of the proposed lattice steel tower (LST) to reduce potential avian impacts, consistent with the transmission structure changes described for Alternative 3.	1	Please explain the feasibility of constructing the proposed microwave tower at the proposed Collinsville Substation communication yard using a monopole structure instead of the proposed lattice structure. According to general research, it appears PG&E has used monopoles for microwave towers on other projects, such as Vierra Reinforcement Project described in the Final IS/MND. In addition, Federal Communication Commission records indicate at least one existing PG&E microwave tower located at Kasson Substation in Tracy, CA. If a monopole structure is not feasible at the Collinsville Substation, please provide specific reasons, such as but not limited to the required height, soil or geological conditions, seismic considerations, site and surrounding topography, etc.	PG&E to respond.
		2	Please respond to the same questions above, but with consideration to the microwave tower at the sites of the Collinsville Substation considered with Alternatives 1 and 2. Explain any feasibility differences between the Proposed Project and these alternatives.	PG&E to respond.
		3	Please explain any differences in construction between installing the microwave tower on a monopole structure vs. the proposed lattice structure.	PG&E to respond.
		4	Please explain what if any avian nesting or perching deterrents or guidelines would be incorporated into PG&E's design and construction of the proposed microwave tower on a lattice structure. Provide references to applicable guidelines and specific deterrent examples that would be implemented for this type of structure vs. a transmission tower.	PG&E to respond.