Attachment A: Data Request

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Project:	LS Power Grid's Collinsville 500/230 kV Substation Project
Title:	Data Request #3
From:	California Public Utilities Commission Panorama Environmental Inc.
To:	LS Power Grid California, LLC (LSPGC) Pacific Gas and Electric Company (PG&E)
Date:	April 10, 2025

DATA REQUESTS

Project Description

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Section 2.6.4, Project Description	**DR-1: In-water Work Window** Per coordination with LSPGC, the Admin Draft EIR Project Description schedule description has been revised as follows: Construction is anticipated to begin in ~~early~~ May 2026 and would take approximately 24 months to complete. Per the CAISO technical specifications, the Proposed Project is required to be energized by June 1, 2028. The proposed construction schedule is summarized in Table 2 10. The Proposed Project includes construction occurring on land and in water. The installation of the submarine cables is expected to take approximately 3 months. In-water work would be ~~restricted~~ scheduled to occur between July 1 and ~~November 30~~October 31 when listed fish are least likely to be present, which is consistent state and federal avoidance and minimization recommendations ~~to protect listed fish species~~. Work associated with the submarine segment outside this work window would consist of mobilization or demobilization and would not include activities that would disturb the Delta substrate. In-water work would not be scheduled to occur between November 1 and June 30; however, a possible emergency could arise that requires LSPGC to work beyond October 31 to complete the installation of a submarine cable which cannot be stopped once started, such as due to a storm event or equipment malfunction. If this occurred, LSPGC would notify the applicable agencies prior to continuing work beyond October 31. Land-based construction would occur year-round or as authorized by permits and authorizations.	A	Please confirm this revised description is accurate or provide requested revisions.	LSPGC
Data Request #2, DR-8	**DR-2: Proposed Substation Property Size** In response to Data Request #2 (DR-8), LSPGC stated: “The proposed parcel which the Proposed LSPGC Collinsville Substation would be located on is a 61.05-acre parcel (Parcel ID: 0090-12-0300) which also extends to the north of Stratton Lane. The area south of Stratton Lane is approximately 44 acres. The PEA Proposed approximately 32-acres of constructable area within the 44-acres south of Stratton Lane. This approximate area was chosen based on engineering feasibility for potential future expansion and being primarily in upland areas. The Proposed 32-acres should be revised to approximately 30 acres. (as shown in the GIS).” The CPUC has been provided with GIS data for workspaces and permanent substation features, but we have not received GIS showing the extent of the proposed substation property that identifies the described 30-acre area. If this area is the same as the staging area limits at the substation site (south and west of Stratton Lane), our GIS shows this feature area as 28.4 acres. Note that the CPUC adjusted this staging area based on comments from LSPGC to remove a small portion of it that covered Stratton Lane.	A	Please provide GIS data for the proposed substation property and confirm the correct acreage of the proposed property that should be used in the EIR.	LSPGC

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Deficiency Report #1, DEF 9 Section 3.3.4.2.1, page 3-39 Section 5.9.1.4	**DR-3: Induction Studies** LSPGC informed the CPUC that induction studies for their project components would be provided in Spring 2025. PG&E has informed the CPUC that induction studies for their project components would be completed in May 2025.	A	Please provide the LSPGC induction studies once completed.	LSPGC
		B	Please provide the PG&E induction studies once completed.	PG&E
Section 2.5.1, Project Description	**DR-4: Engineered Drainage Ditch Crossings** LSPGC's project information definitively states that no culverts would be installed as part of the Proposed Project; however, based on coordination between CPUC and SMUD, SMUD believes culverts or another crossing method (i.e., steel plates) would be needed to cross existing drainage ditches that run along existing wind access roads. Locations where culverts or steel plates may be needed include the junction of temporary and existing access roads identified for construction along the PG&E 500 kV interconnection corridor. The CPUC has drafted the following sentence to include in the Project Description regarding the use of culverts or steel plates to cross engineered drainage ditches: "The use of culverts or steel plates may be necessary under limited circumstances to establish construction access, such as but not limited to where temporary access roads would cross engineered drainage ditches that occur along existing wind energy access roads. The use of culverts or steel plates to cross jurisdictional water features is not anticipated."	A	Please confirm this revised description is acceptable or provide requested revisions.	PG&E accepts the proposed language.
Section 2.3.1, Project Description	**DR-5: Telecommunication Lines Fiber Hub/Hut** Following the PEA, the term "fiber hub" is primarily used in the Admin Draft EIR Project Description; however, the term "fiber hut" is used once and the feature in the GIS is identified as a "hut." Updates to Table 2-2 indicate there would be no above ground height for the proposed fiber hub/hut.	A	Please confirm which term is correct: fiber hub or fiber hut.	LSPGC
		B	Please confirm the fiber hub/hut would be entirely below grade to a depth of 4 feet and the feature would not extend above grade.	LSPGC
Data Request #2, DR-2 and DR-3	**DR-6: Submarine Cable Depth** In response to Data Request #2 (DR-2 A), LSPGC stated: "Initially, the proposed project aimed for an approximately 6-foot maximum burial depth. Since then, LSPGC, in coordination with the USACE, has identified that a deeper burial depth would be required. Based on the seabed morphology/scour analysis, LSPGC has identified that a depth of approximately 10 feet would reduce the potential exposure risk to less than 1% of the cable, over 25 years. LSPGC has also taken into account areas of high scour and has sited the submerged cables to avoid these higher risk areas. With this information,	A	Please clarify if the proposed submarine cable depths identified in the GIS and map provided in response to Data Request #2 (DR-3) meet the USACE requested minimum depths.	LSPGC

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	LSPGC aims for an approximate 10-foot burial depth across the majority of the river, with areas near shorelines being closer to 6 feet, and the USACE navigation channel crossings being closer to 15 feet." LSPGC provided a Google Earth KMZ and map showing the submarine cable depths. The data and map show 6-, 10-, and 12-foot minimum depths. No areas are shown at a 15-foot depth. Based on the CPUC's coordination with the USACE, the USACE's minimum submarine cable depth is 15 feet in the navigation channels and 10 feet outside of the navigation channel, but less than 10 feet is acceptable in some areas such as where the Delta is shallow near the shores.	B	Identify any areas where the minimum depths requested by USACE may not be possible for any reason and explain why.	LSPGC
Data Request #2, DR-2, DR-3, and DR-19	**DR-7: Jet-sled/Hydroplow Technology** In response to Data Request #2 (DR-2 A), LSPGC stated: "Jet-sled/hydroplow technology allows for installation up to approximately 15 feet." Additionally, Attachment F was provided by LSPGC in response to Data Request #2 (DR-19), which compares different submarine cable installation methods. In that document, LSPGC states the installation depth for hydroplow burial is up to 5 meters (or 16.4 feet). During our review, we found information that suggests typical jet-sled/hydroplow technology is capable of installing cables up to 1 to 3 meters (3.3 to 9.8 feet) beneath the riverbed depending on substrate conditions. More information is needed to verify the depth capabilities of the proposed installation method and that the USACE minimum depth requirements will be achieved (discussed above).	A	Please clarify the maximum depths beneath the riverbed that the proposed jet-sled/hydroplow installation method is capable of installing the submarine cables. Please provide verifiable documentation that supports the maximum depth value.	LSPGC
Data Request #2, DR-6	**DR-8: Wind Turbine Throw Distances** In response to Data Request #2 (DR-6), LSPGC stated: "LSPGC considered failure of a wind turbine when looking at the routing and siting of the proposed project. The risk of wind turbine failure (e.g., complete turbine failure and collapse/blade throw) of the surrounding infrastructure was taken into consideration during the routing and siting of the Proposed Project components. There is no national or state set regulation or law to define appropriate setback distances. A typical industry standard is 1.1 times tip height of the wind turbine to the nearest infrastructure. LSPGC and SMUD have discussed that a 1.1x tip height is appropriate for infrastructure near their turbines. All substation and 500kV transmission line components are located outside of the turbine failure buffer. All 230kV overhead transmission line structures are located outside of the turbine failure buffer with the exception of approximately Section/Page Reference CPUC Comment Request ID CPUC Request LSPGC Response 400 feet. The risk associated with this portion of the line was determined to be minimal; however, a minor alteration to the 230kV overhead alignment is being reviewed by LSPGC engineering to determine if the line can be completely removed from the turbine failure buffer. LSPGC will provide the CPUC with an update on the potential 230 kV route alteration by 04/25/25."	A	Please provide the CPUC with an update on the potential 230 kV route alteration referenced in the response. Please consider if the 230 kV line can also be positioned to avoid the 1.5x area. Currently, no other proposed structures are within these areas, except for the 230 kV overhead line.	LSPGC

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	Please note the CPUC team has identified examples where a 1.5x height buffer has been used to identify appropriate setbacks from wind turbines. This distance may also be considered in addition to the 1.1x height buffer.			
	DR-9: PG&E Solid Waste Volume Estimates In response to Data Request #2 (DR-5), PG&E stated construction of the substation and IT yard would result in 250 cubic yards of waste. PG&E also stated spoils from work at substation would generate 1,500 cubic yards of spoils; however, in a separate response PG&E stated that LSPGC would complete the civil work at the proposed substation site/communication yard.	A	Please clarify if this waste volume estimate includes solid waste for the substation modifications or an activity at the proposed Collinsville Substation site besides installation of telecommunication equipment at the telecommunication yard. If not provide the estimated waste for modifications at each substation.	The approximately 250 cubic yards of waste was listed as the total for PG&E substation modifications. The IT yard rough grade is anticipated to be completed by LS Power and the remaining civil activities such as equipment foundations, conduits, and perimeter security fencing will be constructed by PG&E.
		B	Please provide waste estimates for the transposition sites and each of the substation modification sites.	The T-line/distribution work estimate given in data request #2 of 360 cubic yards of waste reflects the total waste generated for construction of the T-line/distribution line including the transposition sites. For the substation modifications, PG&E estimates approximately 200 cubic yards for Pittsburg and 25 cubic yards for each at Vaca Dixon and Tesla substations.
		C	Please clarify what proposed project activity would generate 1,500 cubic yards of spoils.	The approximately 1,500 cubic yards of spoils will be generated via conduits, grounds, fencing, cable trench and foundation installation at the IT yard and all three substations.
Section 2.5.3, Project Description	**DR-10: Construction Process Narrative for the Northern and Southern Approaches of the Submarine Segment** More information is needed about the construction process for the northern and southern approaches of the submarine segment, including a narrative to include in the EIR project description similar to the information provided about the installation of submarine cables.	A	Please provide a detailed narrative of the construction process for the northern and southern approaches of the submarine segment. Include a description and approximate durations for each step of the process such as but not limited to preparing the approaches for construction; dewatering and water management procedures; excavation and trenching, including depths of excavation and estimated volumes of excavated material; spoils management; cable laying on-shore and connection to the riser structures/vault; and backfilling and compaction.	LSPGC
Deficiency Report #1, DR-9	**DR-11: Substation Site Drainage/Stormwater Management System** We understand your team is working on providing the Substation Site Drainage/Stormwater Management System drawings and design plan, and this is anticipated to be provided in Q2 of 2025. We are including this item in this data request list for tracking purposes.	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.	LSPGC
Deficiency Report #2, PG&E Comments	**DR-12: Helicopter Activities at Transposition Sites** In response to Data Request #2, including comments on the draft Project Description and in spatial data provided to CPUC, PG&E identified a new landing zone (LZ) workspace at Transposition Site D. We assume LZ refers to a "landing zone" for staging and helicopter landing proposed at Transposition Site D and potentially at the other three transposition sites.	A	Please explain what construction activities would occur at the proposed "LZ" at Transposition Site D, and how long it would be used. If helicopters would not be used at this work location, we recommend categorizing it as a staging/laydown area in the EIR.	We are planning to fly crews and tools to the northern-most tower of Site D for approximately 4 days at approximately 3 hours per day.
		B	Please clarify if the use of helicopters is proposed at any of the four transposition sites, and if so which and for what activities. Please provide a description of their use and durations.	In addition to Site D mentioned above, Site C's most northern tower will be accessed via helicopter from the mapped LZ near the 500 kV tap. Crews and tools flown approximately 4 days at approximately 3 hours per day.

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	Previous information provided to the CPUC stated that the use of helicopters was not anticipated at the four transposition sites. More information is needed about the new workspace at Transposition Site D and to determine if helicopters will be used anywhere besides during construction of the 500 kV interconnection lines in the vicinity of the proposed Collinsville Substation.	C	Please clarify if PG&E may use helicopters during construction of any other facilities besides the proposed 500 kV interconnection lines in the vicinity of the Collinsville Substation and if so where and provide a description of their use and durations.	No other helicopter use.

Air Quality

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PEA, Section 5.3.4.4, page 5.3-22 Deficiency Report #1, DEF-13 Data Request #1: DR-3 Data Request #2, DR-9	**DR-13: Health Risk Assessment** In Response #2 to Data Request #1, LSPGC provided a Health Risk Assessment (Ldn Consulting, Inc. February 2025). Staff with Baseline Environmental Consulting have identified the follow-up data requests listed in the columns to the right. Note that LSPGC has indicated they will provide an updated HRA to the CPUC on April 25, 2025. Staff with Baseline identified this additional request after Panorama sent out Data Request #2 (03/7/25).	A	Please provide the updated HRA once available, which LSPGC expects to provide on April 25, 2025.	LSPGC
		B	**Averaging Period Follow-up**: The HRA used the updated PGE schedule to calculate health risks associated with PGE Pittsburg substation modifications. The PGE schedule updates are considered as project modifications based on the Project Design Modification Memo dated Dec 30, 2024. However, the rest of the analysis seems to be based on the original project description (e.g. no mention of the sensitive receptors near the proposed PG&E 500 kV Transposition Structures). Specifically, on page 8, it seems that the averaging period used for Pittsburg Substation was estimated based on the updated schedule for PG&E Substation Modifications. Please clarify whether the HRA was based on the original project description (dated July 29, 2014) or the modified project design (dated February 6, 2025).	LSPGC
Attachment 1-3 AQ & GHG Emissions & excel sheet	**DR-14: Air Quality and Greenhouse Gases Emissions** The air quality modeling provided on 3/25/25 appears to include some equipment that is not included in the current Project Description. In addition, the Project Description includes use of multiple watercrafts, including survey vessels, tug boats, crew boat, and small boats for installation of the submarine cable. The watercraft emissions are not included in the air quality emissions modeling. Specialized air quality modeling is required for harborcraft and must be completed to support the analysis of air quality and greenhouse gas emissions impacts in the EIR.	A	Please either update the equipment list provided in the Project Description to include equipment in the air quality modeling that is not currently in the Project Description, or update the air quality modeling to remove those equipment that are no longer proposed as part of the project. Additionally, revise the calculations presented in Table 0-1 of the AQ revised PEA section accordingly. Similarly, revise the calculations presented in Table 1-8-1 of the Greenhouse Gas revised PEA section.	LSPGC
		B	Please provide emissions modeling and specify the model methodology used for harborcraft (Provide emission factors for watercraft (e.g. tug boat, crew boat, small boat, and support vessel)). Sacramento Metropolitan Air Quality Management District (SMAQMD) Harborcraft, Dredge, and Barge Emission Factors Calculator could be used for modeling of harborcraft as it provides estimated emission rates for harbor craft engines based on CARB emission estimation databases https://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools. Please provide both uncontrolled and controlled emissions for harborcraft. Please clarify if it is feasible to use Tier 4 engines (LSPGC APM Air-1) for harborcraft or if there are not harborcraft available with Tier 4 engines. If the implementation of Tier 4 engines for harborcraft is infeasible, please define which engines would be used in the controlled emissions scenario for harborcraft.	LSPGC
		C	The footnote provided in Table 2-9 of the Project Description states that "Each piece of equipment is conservatively assumed to operate for each day of construction." Table 15 of the AQ/GHG calculations provides column 'Days Used.' Explain the shorter durations used for certain pieces of off-road equipment. For instance, the workdays used for the	LSPGC

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			helicopter do not match the active workdays for P-06 and P-07 reported in Project Description Table 2-10, Proposed Construction Schedule and Workforce.	
		D	Regarding Table 15 of the AQ/GHG calculations, suggestion to set the Vibratory Roller_125 to hours per day value to zero since this piece of equipment has been removed from this construction phase.	LSPGC
		E	Regarding Table 15 of the AQ/GHG calculations, Jet Fuel Truck_300 should be 8 hours per day instead of 10 hours per day	LSPGC
		F	Regarding Table 15 of the AQ/GHG calculations, the workdays used for helicopter do not match the active workdays for L-11 reported in project description table 2-10, Proposed Construction Schedule and Workforce.	LSPGC
		G	Regarding Table 15 of the AQ/GHG calculations, rows 112 & 113, 138 through 141, and 207 & 208, please verify the off-road equipment count and ensure watercrafts are included.	LSPGC
		H	Regarding Table 17 of the AQ/GHG calculations, please ensure the watercrafts are included in this analysis.	LSPGC
		I	Regarding Table 33 of the AQ/GHG calculations, the construction phase working days value (13) does not match the working days for P-06 500 kV Interconnection Structure Installation. Project description Table 2-10, Proposed Construction Schedule and Workforce, shows 40 active workdays.	LSPGC
		J	Regarding Table 34 of the AQ/GHG calculations, the construction phase working days values (12 and 6) do not match the working days provided for P-07 and L11.	LSPGC
		K	Please update the tables included in the revised Air Quality (Table 1.3-1) and Greenhouse Gas (Table 1.8-1) PEA sections to reflect the calculation changes requested above.	LSPGC
		L	Please ensure the AQ/GHG calculations address all of PG&E's proposed helicopter activities, including those that would be conducted at the four transposition sites if applicable (refer to DR-12).	For the two transposition locations, the helicopter will need to be used for a total of approximately 24 hours of non-continuous use.

Geology, Soils, and Paleontology

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Deficiency Report #1, items DEF-29 and DEF-30	**DR-15: Geotechnical Reports** We understand your team is working on providing the geotechnical analyses, we are including this item in this data request list for tracking purposes.	A	Please provide a status update on the Southern Shore Geotech Report and Northern Shore Geotech Report.	LSPGC

Biological Resources

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n/a	**DR-16: Permit Applications** The CPUC requests copies of agency permit applications and associated materials to ensure the EIR resource assumptions and potential mitigation can be aligned with agency permitting to the extent possible.	A	Please provide the CPUC with copies of applications submitted to other regulatory agencies (e.g., U.S. Army Corps of Engineers, and if applicable wildlife agencies) at the time of filing, including the Biological Assessment.	LSPGC

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