Vierra Reinforcement Project
Data Request Set No. 3 – Initial PG&E Responses
December 18, 2018

Vierra Data Request No. 3 includes data requests for the following technical areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Project Description
- Transportation and Traffic
- Utilities and Service Systems

Aesthetics

AE-1 It does not appear that Figure 3.1-3b in Section 3.1, Aesthetics of the PEA showing a photo simulation of the expanded Vierra Substation includes the new 100-foot microwave tower (lattice) in proper proportion to the surrounding towers. Please update the photo simulation to include the new tower in proper comparison to the poles surrounding it. Also, Figure 2.0-7 in Section 2, Project Description of the PEA showing a profile drawing of the expanded Vierra Substation does not appear to include the new 100-foot microwave lattice tower. If the tower is not included in the profile drawing, please update to include the new tower.

PG&E Response: This update is in progress.

Air Quality

AQ-15 PG&E's Initial Responses to Data Request AQ-7 stated that PG&E is amenable to including additional measures in **APM AIR-1** with the exception of 'store and handle material in a three-sided structure.' However, PG&E did not update **APM AIR-1** in the response. AQ-14 of data request set 2 asked PG&E to revise **APM AIR-1**, but PG&E did not revise it in their responses to data request set 2 dated November 20, 2018. Please revise **APM AIR-1** to include all the fugitive dust control measures (with the exception of 'store and handle material in a three-sided structure') that are applicable to the proposed project. These elements should be included to make sure **APM AIR-1** is consistent with the SJVAPCD 2015 Guidance for Assessing and Mitigating Air Quality Impacts and SJVAPCD Regulation VIII. This more comprehensive **APM AIR-1** is needed to ensure that it includes all control measures applicable to the project and which may be included in the actual dust control plan required by the SJVAPCD. Please provide the updated APM in track changes mode to clearly show the text changes.

PG&E Response: Please replace APM AIR-1 with the following APM:

APM AIR-1: Fugitive dust emissions minimization. Pursuant to SJVAPCD Regulation VIII, a Dust Control Plan will be submitted to the SJVAPCD for approval at least 30 days prior to commencing construction activities. Based on the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD

2015), the following are examples of fugitive dust control measures that may be included in the Dust Control Plan to minimize dust emissions:

- Apply water to unpaved surfaces and areas
- Use non-toxic chemical or organic dust suppressants on unpaved roads and traffic areas
- Limit or reduce vehicle speed on unpaved roads and traffic areas
- Maintain areas in a stabilized condition by restricting vehicle access
- Install wind barriers
- During high winds, cease outdoor activities that disturb the soil
- Keep bulk materials sufficiently wet when handling
- When storing bulk materials, apply water to the surface or cover the storage pile with a tarp
- Don't overload haul trucks. Overloaded trucks are likely to spill bulk materials
- Cover haul trucks with a tarp or other suitable cover. Or, wet the top of the load enough to limit visible dust emissions
- Clean the interior of cargo compartments on emptied haul trucks prior to leaving a site
- Prevent trackout by installing a trackout control device
- Clean up trackout at least once a day. If along a busy road or highway, clean up trackout immediately
- Monitor dust-generating activities and implement appropriate measures for maximum dust control

Biological Resources

BIO-3 In the November 5, 2018 letter titled "Data Request Set No. 1 - Additional Responses", in response to Data Request BIO-3, PG&E provided a table (shown below) breaking down areas of temporary and permanent impacts of the proposed project, identified by land vegetation type. Please confirm if the figures in this table include lands impacted by work proposed in the remote-end substation improvements described in Section 2, page 2.0-2 of the PEA. If not, please provide this information (table figures and GIS data) for the proposed remote-end improvements.

Work Area	***Vegetation Type***	***Approximate Acres***
Temporary Impacts		
Temporary Impacts (Access Road, Guard Structure Work Area, Pole Work Areas, Pull Sites, Staging Areas)	*Agriculture*	*8.01*
	Bare Ground	*0.10*
	Developed	*1.88*
	Ornamental Landscaping	*0.40*
	Ruderal Herbaceous	*2.00*

Work Area	*Vegetation Type*	*Approximate Acres*
Permanent Impacts		
Substation	*Agriculture*	*2.63*
	Developed	*0.04*
	Ruderal Herbaceous	*0.12*
Poles	*Agriculture*	*0.00432*
	Bare Ground	*0.00144*
	Developed	*0.00108*
	Ornamental Landscaping	*0.00036*
	Ruderal Herbaceous	*0.00072*

Assumptions and Notes:

1. *TSPs average 5 feet in diameter (15.7 square feet, or 0.00036 acre).*
2. *Poles located within the substation footprint were not calculated separately.*
3. *Only SA-1 is included as only one staging area will be required. This is the preferred staging area and larger than the two alternative staging areas.*

PG&E Response: The table does not include lands impacted by work at remote-end substations. Work at remote-end substations will be within existing graveled substation yards. No vegetation will be impacted.

Cultural and Paleontological Resources

CR-1 PEA Section 2 Project Description and PEA Section 3.5 Cultural Resources do not include the date of completion of construction of the Vierra Substation. In order to provide a complete historic context for the setting of the project area it is necessary to reference the construction completion date in the IS/MND.

1. Please provide the date that the Vierra Substation was completed and placed into service.

PG&E Response: Based on existing archival drawings, the substation was planned in 1997 and was placed into service in 1998.

CR-2 PEA Section 2.3.2 Work at Other Substations lists eight substations where upgrades related to the project will be installed. In order to determine whether any of the facilities connected to the project are of historic age, and therefore historical resources might be impacted by the addition of new equipment, it is necessary to know their dates of construction and any modifications to the facilities made in the intervening years. Power plants and substations in the early 20th Century often featured buildings of architectural merit, designed to convey a "corporate image of permanence, utility and beauty in the public mind" (Baker 2003, p. 14). In addition, it is necessary for the cultural resources analysis to take into consideration potential impacts to historical resources within the footprint and in the vicinity of the remote upgrade projects, as well as assessing the potential for encountering as-yet unknown buried archaeological resources. Please provide the following information for all eight locations:

1. For those substations or communications facilities less than 45 years old:

a. Dates of construction and subsequent modifications;

b. General description of the facility, including any on-site buildings, and of the setting, including but not limited to: rural setting, commercial/industrial setting, inclusion of or adjacency to any historic structures or districts;

2. For those substations or communications facilities 45 years or older:

a. A DPR 523a Primary Record evaluation and related 523 forms (for example: 523j and 523l) are needed for the substation or communication facilities. Include a description of the facility, including any on-site buildings, and of the setting, including but not limited to: rural setting, commercial/industrial setting, inclusion of or adjacency to any historic structures or districts;

3. Results of a literature search with a 0.5-mile radius from the boundary of each substation site performed at the appropriate Information Center, either the California Central Information Center (CCIC) or Northwest Information Center (NWIC).

PG&E Response: Section 2.3.3 of the PEA lists eight substations at which it was anticipated that system protection equipment would be installed to integrate the new line into the existing system. Further telecommunications planning determined the following:

- Planned work will no longer be required at San Joaquin Cogen Substation and Thermal Cogen Substation as the facilities are scheduled to be decommissioned.
- Telecommunications work at Howland Road Substation is being performed as a separate project in advance of the Vierra Reinforcement Project.
- At Ripon Cogen Substation and Tesla Substation, work will be limited to updating automation equipment in the control room.

What follows is a list of substations remaining within the scope of the Vierra Reinforcement Project, including the approximate date that those substations were established. They are divided by age:

Modern substations not meeting the age threshold for significance:

- Vierra Substation, built 1997-1998
- Tracy Substation, located at 17201 Kelso Road in San Joaquin County, built 1974
- Ripon Cogen Substation, located at 944 S Stock Avenue in the City of Ripon, San Joaquin County, built 1978

1. When substations or communications facilities are less than 45 years old and modifications are proposed that have the potential to impact previously recorded resources (i.e., ground disturbing activities), a records search will be completed in order to identify previously recorded resources in and adjacent to the substation.

   When the substation is not historic in age, an exhaustive list of modifications and alterations is not pertinent to the cultural resources impact analysis, as these substations have not achieved an age warranting the consideration of significance and are generally not considered cultural resources. In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource.

Historic-era substations meeting age threshold for significance:

- Tesla Substation, located at 16116 Patterson Pass Road in Alameda County, built 1947
- Kasson Substation, located at 23851 Kasson Road in San Joaquin County, built 1965
- Manteca Substation, located at 245 Elm Avenue in the City of Manteca, San Joaquin County, built 1964

2. When substations or communications facilities are more than 45 years old and modifications are proposed that have the potential to impact previously recorded resources (i.e., ground disturbing activities), a records search will be completed in order to identify previously recorded resources in and adjacent to the substation.

   Additionally, when modifications are proposed to a historic-period substation that will alter the configuration, layout, location, design, setting, workmanship or feeling of the substation, a formal evaluation by a qualified architectural historian will be completed and documented in a brief report to which appropriate DPR 523 forms will be appended.

3. When modifications to the substation such as pole installation or ground disturbing activities are proposed and thus a records search is warranted to determine the potential to impact a previously recorded cultural resource in or adjacent to the substation, this information will be collected from the appropriate information center. In this case, a records search is warranted for the work at Tracy, Kasson and Manteca substations because minor ground disturbing activities will occur at those substations. An addendum report is being prepared and will be submitted when completed.

CR-3 PEA Section 2.1 Project Description Overview briefly describes remote end upgrades at eight substations that would occur as a result of the proposed project. These upgrades include construction of slab foundations at three substations, Kasson, Tracy, and Manteca, and it is unclear how this construction could impact as-yet unknown buried archaeological resources given the 11' x 11' x 4' foundation excavation that would occur (PEA section 2.5.4.1). To fully analyze the impacts to cultural resources from these remote end upgrades, please provide the following information:

1. A geotechnical report or other documentation that describes the depth of fill at the locations where the slab foundations will be constructed, i.e., the Kasson, Tracy, and Manteca substations.
2. A description of the horizontal and vertical extent of ground-disturbance of the slab foundations in relation to any fill deposits, i.e., a determination if the construction will encounter intact native soils.

References:

Baker 2003 – Cindy L. Baker. The Lights Went On All At Once: The History of Electricity in California. Prepared for the California Energy Commission. February 2003.

PGE 2018a – Pacific Gas & Electric Company (PGE). Proponents Environmental Assessment. June 6, 2018.

http://www.cpuc.ca.gov/environment/info/CEC/VierraReinforcement/PDFs/VierraPEA/00a%20Exhibit%20B%20-%20Vierra%20PTC%20Application.pdf

PG&E Response: This information is forthcoming.

Hazards and Hazardous Materials

HH-2 PEA section 2.5.2 states that a battery building would be built in the substation and includes the dimensions of the building. However, there is no additional information about what the battery building would contain during substation operation. To ascertain the operational impact to the environment, please provide the type and quantity of batteries or any other hazardous materials that would be stored in the building. Please list any design features that would be included in the battery building to ensure worker safety and prevent an impact to the environment based on the type of battery technology used.

PG&E Response: The battery building will contain one battery system composed of 60 lead acid battery cells that can deliver 577 ampere hours of energy at 125 volts of direct current. Also within the building will be one 75-amp, 3-phase battery charger. Design features of the battery building include an emergency eye wash station, fire detection/suppression alarms, a spill containment battery plan, a battery acid containment mat, and hazardous material and no smoking signs.

HH-3 The data response for HH-1 provides a good overview of the worker safety programs that would be used during construction. Please add that information to **APM HM-1** to ensure the health and safety are adequately addressed. Please provide the updated APM in track changes mode to clearly show the text changes.

PG&E Response: Below is the revised APM HM-1 with the added requirement underlined.

APM HM-1: Worker Environmental Training Program. An environmental training program will be established to communicate environmental concerns and appropriate work practices to all construction field personnel. The training program will emphasize site-specific physical conditions to improve hazard prevention, and will include: an overview of Personal Protection Equipment (PPE) (safety vest and hard hat requirements); fire safety and fire control (general requirements, preventative steps, and PPE); personal health and safety, electrical safety, and safety procedures and protocols; and a review of the Stormwater Pollution Prevention Plan (SWPPP), which will also address spill response. The worker environmental training program will be provided to CPUC staff for review prior to construction.

HH-4 **APM HM-2** states in part "The expanded substation will be equipped with a retention basin that meets SPCC Guidelines (40 Code of Federal Regulations 112). Prior to operation of the project, PG&E will update the existing SPCC Plan and HMBP for Vierra Substation to include all new equipment and on-site hazardous materials associated with the substation expansion, and to address containment from an accidental spill." The basin referred to in this APM is also proposed for use of storm water infiltration.

Please provide an explanation of how a storm water infiltration basin can be used for containment of spilled hazardous waste.

PG&E Response: All transformers and other equipment within the substation yard that contain oil are connected with remote oil level and/or malfunction alarms to PG&E system operators located at the Stockton Dispatch Office and Tesla Grid Control Center. Upon detection of a change in the oil level or a malfunction alarm, PG&E personnel are dispatched to the substation to safely shut off the equipment, stop the source of discharge, and execute the corresponding decontamination or cleanup procedure. The prescribed actions are to be completed within 48 hours of discovery of the hazardous spill.

Hydrology and Water Quality

HYDRO-7 "**APM HYD-1: Storm Water Pollution Prevention Plan**" does not reference the SWRCB General Permit for Storm Water Discharges Associated with Construction Activity. Compliance with this permitting program would be required for the project and should be cited in the APM. In recent projects such as the Ravenswood – Cooley Landing 115 kV Reconductoring Project, PG&E included an APM that specifically cited this permit and specific elements that would be complied with to ensure no impacts from storm water discharges unique to the project. The APM should include reference to the required permitting program so the appropriate level of compliance can be ensured. Please provide a revised APM as shown below:

APM HYD-1: Storm Water Pollution Prevention Plan

PG&E will prepare and implement a SWPPP to prevent construction-related erosion, sediment runoff, and discharge of other pollutants into adjacent waterways and onto neighboring properties. Because project activities will result in ground disturbance of more than one acre, PG&E will obtain coverage under the SWRCB General Permit for Storm Water Discharges Associated with Construction Activity Order No. 2009-0009-DWQ (and as amended by 2010-0014-DWQ and 2012-006-DWQ). To obtain coverage under the permit, PG&E will develop and submit permit registration documents—including a Notice of Intent, SWPPP, risk assessment, site map, construction drawings, certification by Legally Responsible Person (LRP), contractor contact information, and annual fee—to the State of California's SMARTS database and obtain a WDID number prior to initiating construction activities.

PG&E will prepare and implement a SWPPP to help stabilize disturbed areas and reduce erosion and sedimentation. A monitoring program will also be established to ensure that the prescribed BMPs are followed during project construction. A qualified SWPPP practitioner will oversee the implementation of the SWPPP and associated BMPs. The following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the project:

- All BMPs will be on site and ready for installation before the start of construction activities.
- BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and wattles.

- Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.

If the project is exempt from local post-construction storm water BMP requirements, the permit registration documents shall contain:

- A post-construction storm water system design
- Demonstrated compliance with post-construction water balance calculator

PG&E Response: PG&E accepts APM HYD-1 as stated above.

Project Description

PD-11 On page 2.0-15, Section 2.5.4.1 of the Vierra PEA, it indicates that "One 4-foot microwave dish will be installed on each tower." However, on page 2.0-24, Section 2.7.10 of the PEA, it indicates that "Construction personnel will climb the existing towers and install two 4-foot microwave dishes at each tower location." Please indicate the correct number of microwave towers to be installed on existing telecommunications towers at Mount Oso and Highland Park.

PG&E Response: This response is forthcoming.

PD-12 Section 2.5.3 of the PEA Project Description details the remote end substation work that will be required at third party substations or generation facilities to modify existing protection equipment.

Please explain why these modifications are necessary for the operation of the expanded Vierra Substation and new 115 kV power line. Do microwave dishes and antennas constitute "protection equipment" or telecommunications equipment?

PG&E Response: The expanded Vierra Substation and new 115 kV power line will connect into the Tesla 115 kV system. Third party substations are a part of this system and thus contain protection facilities that support the 115 kV system. Microwave dishes and antennas are telecommunications equipment that constitute protection equipment.

PD-13 All told, the PEA details the following new construction at the Vierra, Kasson, Manteca, and Tracy substations: one 100-foot microwave tower (at Vierra), and three approximate 60-foot microwave monopoles (at Kasson, Manteca, and Tracy). Eight microwave dishes will be placed on this new telecommunications infrastructure (microwave tower). When added to the one or two microwave dishes to be installed at Mount Oso and one or two microwave dishes at Highland Park's existing telecommunications towers, the project would install a total of 10 or 12 4-foot microwave dishes. Please provide the following information:

1. Please explain why are these 10 or 12 microwave dishes needed for the operation of the expanded Vierra Substation and new 115 kV power line?
2. Please explain why the four 12-foot antennas on microwave facilities located at Ripon Cogen, Thermal Cogen, San Joaquin Cogen, and Howland Road Substations are needed?

PG&E Response: This information is forthcoming.

PD-14 With the exception of the Vierra Substation, there are few details in the PEA about the construction at the eight substations and Mount Oso and Highland Peak, where remote end upgrades and telecommunication equipment installations would be performed. Please provide the following information:

1. Please provide a description of the environment in the vicinity of each substation and the Mount Oso and Highland Peak sites. The description should include some discussion of the topography, land use patterns, and general biological environment.
2. Please provide a description of the regulatory environment/context (Federal, State, Local) for each substation and the Mount Oso and Highland Peak sites.
3. List all known permits required for remote end upgrades and telecommunication equipment installations at each substation and the Mount Oso and Highland Peak sites.
4. Please identify temporary staging areas, including size and land cover type (e.g. gravel, paved, soil, ruderal vegetation), that would be needed for any remote end work and telecommunication equipment installations.
5. Please provide a site map showing the location of construction disturbance, including new towers and all temporary staging areas.
6. Please identify and provide the estimated quantity of soil or other solid waste and wastewater to be generated during construction of remote end work, and where it will be disposed (e.g. Vasco Road Landfill).
7. For the Kason, Manteca, and Tracy substations, please identify any soil or water contamination that could be encountered during subsurface excavation and mitigation required, if any.

PG&E Response: This information is forthcoming.

PD-15 As shown in the PEA Appendix A, Project Route Map page 1 of 4, the new double circuit line would terminate at pole #1. We have the following questions related to how the connection of the new double circuit line to the existing Tesla-Stockton Cogen 115 kV line would be facilitated: would there be any additional segment of the new line that would parallel the railroad track spur located on Crossroads Commerce Center Owners Association property? For example, to connect to the existing Tesla-Stockton Cogen Junction 115 kV Power Line at an existing pole?

1. If there is the need for a new parallel line, please indicate the distance between the new transmission line from the centerline of the railroad spur.

2. Please provide a detailed description of how the new line at pole #1 connects with the existing Tesla-Stockton Cogen line, and provide a structure diagram consistent with the description. Is an additional pole needed (addition to pole #1) to facilitate the connection of the new and existing lines?
3. Please provide an aerial diagram that shows any additional project components that would need to be installed to facilitate the connection of the new line at pole #1 with the existing Tesla-Stockton Cogen line. Please show the location of the additional components with respect to the existing setting.

PG&E Response:

1. There is no need for a new line parallel to the railroad spur. The new double circuit line will cross the railroad at 90° and connect to pole #1 on the west side of the railroad spur.
2. Pole #1 will be located between existing poles on the Tesla-Stockton CoGen line. It will create a break in the existing Tesla-Stockton CoGen line in order to connect the new double-circuit power line, comprised of the Tesla-Vierra and Vierra-Stockton Cogen Junction 115 kV power lines. In addition, pole #1 will support the Kasson-Louise 60kV line and a shield wire. Please see the attached diagram.
3. Please see attached diagram.

Transportation and Traffic

T-5 Regarding Union Pacific Railroad's (UPRR's) comment letter (dated October 30, 2018). Please address the project's consistency with UPRR's requirements discussed in the letter and referenced under the links UPRR provided in the letter. Please include a discussion of whether the transmission line crossing of the railroad section parallel to Howland Road can be relocated to achieve a crossing angle of 90 degrees, and if not, why the crossing angle needs to be at less than 90 degrees.

PG&E Response: The proposed railroad crossing between poles 10 and 11 is 73°. It would be difficult to relocate pole 10 by 135' to the northeast in order to achieve the 90° crossing of the railroad for the following reasons:

- It would significantly increase the pole and foundation size to counter the transverse loading that would be present due to the new line angle.
- It would increase the line angle on pole 11, resulting in a larger structure and foundation.
- It could require pole 10 to be moved into the percolation pond, possibly necessitating construction of an island and an elevated access road to the structure to enable routine maintenance or emergency work.

The proposed alignment of 73° is closer to 90° than 45°and meets the UPRR requirement of being "as close to 90° as possible without going beyond the degree range of forty-five."

T-6 Regarding UPRR's comment letter (dated October 30, 2018). If PG&E and UPRR have discussed the proposed project, please summarize the results of these discussions, including proposed mitigation measures that would address UPRR's concerns as

outlined in their letter. Please also provide any copies of written agreements between PG&E and UPRR.

PG&E Response: PG&E contacted UPRR as part of the stakeholder outreach conducted during siting of the new power line, and on December 5, 2016 received a response letter specifying the same requirements identified in the October 30, 2018 letter from UPRR received by the CPUC. PG&E briefed Thomas Cappucci, Manager of Environmental Field Operations for UPPR, on November 23, 2016. During this teleconference, PG&E provided information about the project, including the current status and process. Mr. Cappucci did not raise any concerns and provided additional contacts for future updates. There were no further discussions between PG&E and UPPR. The project as proposed meets UPRR's requirement that the crossing of UPRR's right of way by the power line will be as close to 90^{O} as possible without going beyond the degree range of forty-five (45^{o}). PG&E will obtain an encroachment permit from UPRR three to four months prior to construction in accordance with UPRR encroachment planning procedures.

T-7 Regarding PEA Section 2.3.1. This section of the PEA states that the rail spur crossing Nestle Way is privately owned, but GIS information indicates that it is owned by UPRR. Please provide information on ownership and control of the spur line crossing Nestle Way.

PG&E Response: GIS data identifying the ownership of the spur is not available. The land right's review performed by PG&E identifies the property on which the rail spur is located as owned by PW Fund B Limited Partnership. Sandy Turner, Association Manager for the Crossroads Commerce Center Owner's Association and General Manager of Brekke Real Estate Inc., confirmed via email on August 18, 2017 that the rail spur is privately owned. On November 21, 2017, Ms. Turner indicated via e-mail that PG&E will need to contact the occupants of the buildings that use the track to coordinate construction activities so as not to impact train operations. At the time of correspondence, only two businesses were using the rail spur: Berry Plastics located on the north side at 601 Nestle Way, and Del Monte Foods located on the south side at 2 Nestle Way.

Utilities and Service Systems

USS-2 The Project Description section of the PEA mentions the construction of microwave monopoles at the Manteca, Kasson, and Tracy substations (page 2.0-24). Construction of those monopoles would require construction of 11 feet square by 4 feet deep foundations. However, no details about the specific location of the monopoles was provided (apart from being installed within the existing fence line). Also, no information was provided regarding the sources of water for foundation construction, or the methods used for management of the construction wastewater such as wash down of concrete equipment, or dewatering of foundation excavations. Please provide the following information:

- Site map showing the microwave monopole locations at Manteca, Kasson, and Tracy substations.
- The source and volume of water that will be used for construction activities at Manteca, Kasson, and Tracy substations.
- Proposed methods of construction dewatering and wastewater management.

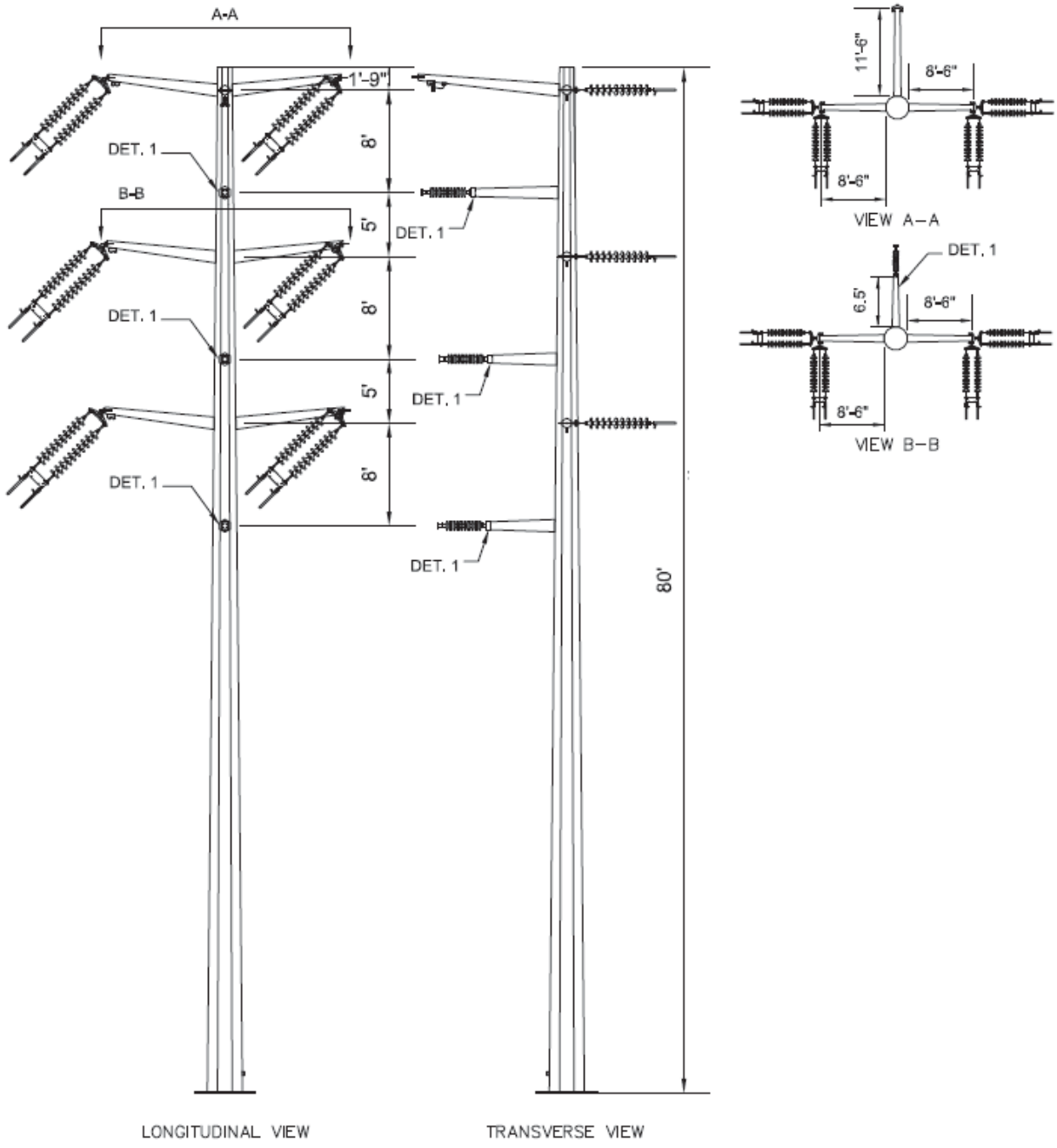
PG&E Response: This information is forthcoming.

USS-3 The letter of commitment provided by the applicant states that the city of Lathrop approves service for use of about 640,000 gallons of water. There is no information indicating what the water would be used for. Please provide a list of water uses that were included in this approval and the estimated amount of water needed for each use such as dust suppression for the various stages of construction, concrete mixing and washout, fill placement, and equipment wash down. Please also discuss other potential water uses for the remote end upgrade substations for tower construction and the sources for those water supplies.

PG&E Response: As indicated in the letter from the City of Lathrop, PG&E anticipates water needs during construction to consist of approximately 10,000 gallons of water a day during an eight-week period of substation construction, and approximately 5,000 gallons a week during the three- to four-month period of construction of the power line. At the substation site, the estimated 10,000 gallons a day of water will be used for dust suppression and compaction during construction of the substation pad. The period of 8 weeks is a conservative (high-side) estimate of the time frame for water usage. The estimated 5,000 gallons of water a week during construction of the power line is also for dust suppression, and includes dust suppression at the helicopter landing zone for the two days helicopter use is anticipated. This estimate is also conservative and subject to site conditions at the time of construction. No water is needed for concrete mixing and washout. Concrete arrives at the site pre-mixed in the truck, and the chutes have an on-board, self-contained washout system.

Minimal water use (less than 100 gallons) is anticipated for the work at the remote end substations. The sources of water at those locations is not known at this time.

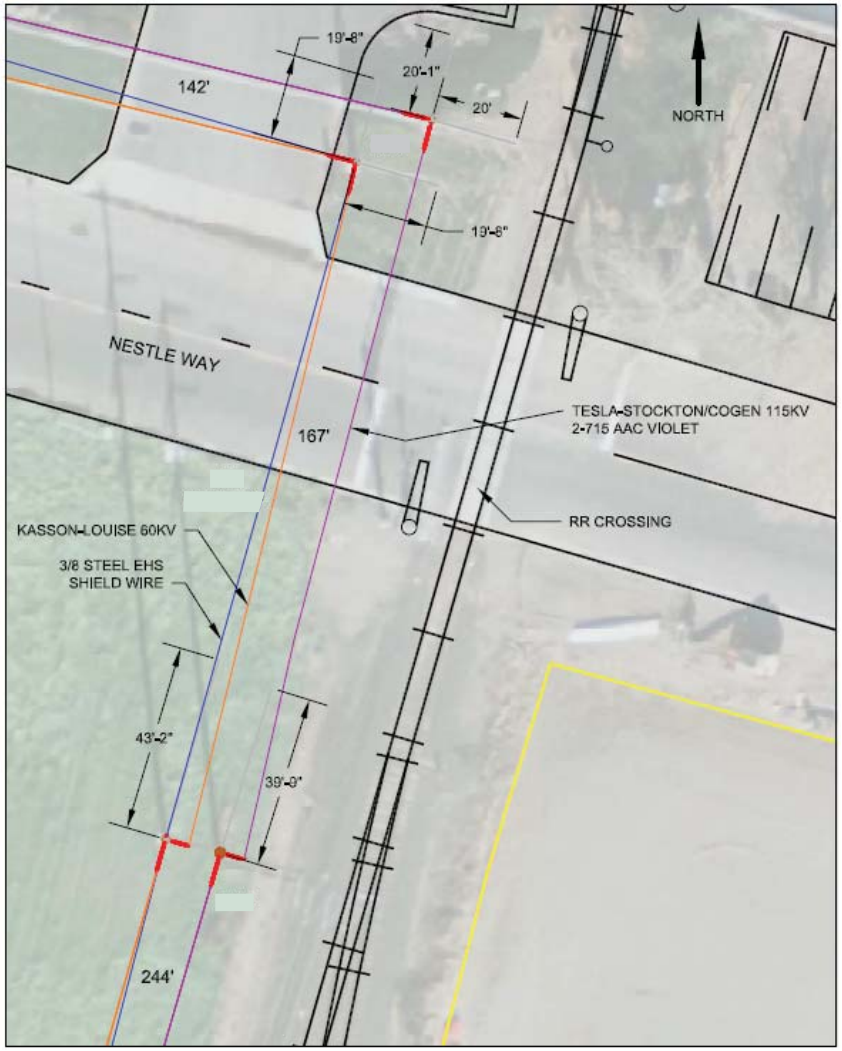
Structure Diagram of Pole 1



Preliminary Engineering; Subject to Final Design

Configuration of Power Lines at Nestle Way

Existing



Post-Construction