



825 NE Multnomah, Suite 2000
Portland, Oregon 97232

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Michael Rosauer
CPUC Project Manager
CPUC Energy Division
505 Van Ness Avenue, Room 4205
San Francisco, CA 94102
michael.rosauer@cpuc.ca.gov

Iain Fisher
Dudek
605 Third Street
Encinitas, CA 92024
ifisher@dudek.com

Re: CA A.15-11-005
CPUC Set 2 – Lassen Sub PEA Completeness Review

Please find enclosed PacifiCorp's Responses to CPUC Set 2.

The following attachments are provided on the enclosed disc: PEA 3.0, 3.0 c, 4.1 a, 4.1 b, and 4.1 c.

If you have any questions, please call me at (503) 813-5934.

Sincerely,

A handwritten signature in cursive script that reads "Cathie Allen".

Cathie Allen
Manager, Regulation

ATTACHMENT A
Permit to Construct
PacifiCorp Lassen Substation Project
Proponent's Environmental Assessment (PEA) Completeness Review
Data Request 2.0

The California Public Utilities Commission, their environmental consultant, Dudek, and PacifiCorp (project applicant) conducted a field visit to the proposed Lassen Substation Project site, including the existing and proposed substation sites on December 16, 2015. During the field visit questions arose that require additional clarification by PacifiCorp. Data Request 2.0 consists of the questions that arose during the field visit and the follow-up applicant/agency/consultant team call held on January 11, 2016.

2.0 PROJECT PURPOSE AND NEED

- a. To assist in establishing the utility of the proposed substation please provide a summary of the increased maintenance activity, which has led to the conclusion that the existing substation is nearing the end of its useful life. How does this differ from the expected standard frequency of maintenance activity?

RESPONSE:

As age of equipment increases, likelihood of failure increases. As equipment approaches the projected end of life, a significant fault is more likely to be a terminal event whereas equipment earlier in projected life has a higher likelihood of surviving the same fault.

The remotely-operated 69 kilovolt transmission switches at Mt Shasta substation (3G225/3G227) are obsolete and no longer supported by the manufacturer. They are hydraulically operated switches and one hydraulic operator was rebuilt in 2015. Repair parts were custom made due to the lack of available spare parts for the switches. The current company standard for these switches utilize an electric motor, vice hydraulic pressure, to operate the switches.

The type of interrupter inside the load tap changer drives the maintenance frequency of the unit; the three phase regulator and the LTC for the installed transformer are scheduled for a maximum of 6 years between overhauls. The type of tap changer on the new transformer for Lassen substation would have a maximum time of 18 years between overhauls, based on the type of interrupters in the load tap changer. A scheduled overhaul was performed in 2015 on the load tap changer (LTC) for transformer T-3521.

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One of four distribution circuit breakers in service at Mt Shasta substation utilizes SF6 as the interrupting medium. The other circuit breakers use vacuum interrupters. It is no longer company standard to use SF6 for distribution breakers. Removing the SF6 distribution breaker will reduce the SF6 inventory and reduce environmental liability.

The wooden structure that supports the bus work and switches is old and exposed to the elements. The new structure will be enclosed switchgear and metal structures.

3.0 PROJECT DESCRIPTION

- a. Provide the expected support pole and conductor line heights that would cross Interstate 5 (I-5).

RESPONSE:

Please refer to PEA 3.0a – Interstate 5 Crossing Illustration. The expected support poles for the Interstate 5 crossing are 55 foot, class H1. The expected conductor pole attachment height as measured from the Interstate 5 road surface is 38.4 feet. The expected conductor heights at mid span above the Interstate 5 road surface are from 27.5 feet at maximum conductor load to 34.8 feet at a conductor temperature of -10 degrees F. The conductor sag is based on a 430 foot span.

- b. Please acquire the as-built plans for the existing conduit (under I-5) to determine the suitability for use by the proposed project in-lieu of overhead lines. Provide as-built plans for review. If infeasible, please provide a written justification of why the proposed lines cannot be routed through this existing subsurface facility.

RESPONSE:

As-built plans are not available for the existing conduit under I-5.

Please refer to PEA 3.0 b – Jessie Street Aerial View April 18, 2005. Caltrans provided the aerial view of the cable route; however, it does not distinguish where the conduit is located in Caltrans' culvert. The proposed overhead line in-lieu of installing line in the existing underground route is to accommodate Caltrans' request to remove the existing power cables from Caltrans' culverts.

- c. Provide a detailed inventory of trees that would remain on the new substation property, specifically identify those that would serve to screen the substation from the adjacent South Old Stage Road.

RESPONSE:

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Please refer to Attachment PEA 3.0 c. All trees inside the red demarcation line will be removed. All trees outside the red demarcation line will be left in place.

- d. During the field visit it was indicated by PacifiCorp that decommissioning activities include leaving the existing foundation and substation pad in place. Please indicate whether the existing substation site will remain in control of PacifiCorp following decommissioning activities.

RESPONSE:

The existing site will remain in PacifiCorp's control after construction of the new substation. The site will be used for storage of new poles by the district lineman.

- e. Provide a full list of which substation features (for example concrete and gravel pads, fencing, non-electric components, etc.) will remain onsite following decommissioning activities and which features will be permanently removed.

RESPONSE:

Only the larger foundations, the yard rock covering, and fence will remain onsite after decommissioning is completed.

- f. As stated in discussions with the applicant, standard practice when decommissioning a substation is to remove all surface and subsurface features, and regrade the site to match adjacent grades. Please provide an explanation as to why this project would not remove subsurface features and regrade the site per decommissioning standards. Further, please provide the method by which PacifiCorp would ensure that any toxic contamination of the site resulting from the long term use as a substation, would be identified and remediated if subsurface components are to be left *in situ* and no grading will be undertaken.

RESPONSE:

The local district lineman have requested the use of this site for storage of new poles so that they have a local area that can act as a staging site for future line work and during emergency repair on the local distribution system.

After the site equipment is removed, the smaller foundations, which PacifiCorp plans to demolish, and the soil surrounding them will be sampled for oil and PCB contamination. If any contamination is detected at concentrations above acceptable state or federal risk levels the areas will be remediated in accordance with current regulatory requirements.

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4.0 ENVIRONMENTAL IMPACT ASSESSMENT SUMMARY

4.1 Aesthetics

- a. In addition to View Point 3, please provide a new visual simulation from southbound Old Stage Road that depicts the pre- and post-project condition from a location adjacent to the northwest corner of the substation pad looking east to show the old and new substations in the same view. The old substation should be simulated to accurately show the final proposed condition after decommissioning and the new substation beyond (and should be consistent with features described in Question 3.0(e) above).

RESPONSE:

Viewpoint 3 has been revised to illustrate pre- and post-project conditions of the existing substation site and the proposed substation site in the same view. Viewpoint 3 is provided as Attachment PEA 4.1a.

- b. Figure 3-6 in the PEA project description shows cross arms that are side by side for the future condition, similar to the existing condition. However, in Viewpoint 6 (the simulation running adjacent to I-5), shows the cross arms for the 69kV transmission staggered down the pole, depicting more lines than in Figure 3-6. Please clarify which view is correct. If Figure 3-6 is correct, please provide an updated Viewpoint 6 visual simulation that reflects the configuration described in the project description.

RESPONSE:

Figure 3-6 in the PEA is correct; Viewpoint 2 and Viewpoint 6 have been revised to illustrate the transmission line configuration shown Figure 3-6. Viewpoints 2 and 6 are provided as Attachment PEA 4.1 b.

- c. In Viewpoint 10, please provide any records of discussions with Caltrans regarding the proposed overhead line traversing I-5, which crosses the Volcanic Legacy Scenic Byway, a federally designated scenic highway. Further, please provide contact details of any Caltrans personnel that have been contacted concerning this project.

RESPONSE:

Please refer PEA 4.1 c Attachments for communications PacifiCorp was able to identify with CalTrans in the last five years regarding the proposed overhead line:

- PEA 4.1 c -1 – Request for Utility Relocation Estimate – Mt. Shasta 11-29-2012
- PEA 4.1 c -2 – Mount Shasta Interstate 5 Crossing 12-09-2012
- PEA 4.1 c -3 – Meet to discuss Mt. Shasta electric Relocation 02-05-2013
- PEA 4.1 c -4 – Mt. Shasta Electric Relocation 08-06-2013

Note that these files can be accessed in a single link on the webpage in the data request table under Data Request 1 Attachments: PEA_4.1.c.1-5_Caltrans

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- PEA 4.1 c -5 – Relocation 08-16-2013

4.5 Biological Resources

During the field visit it was observed that the wetland areas immediately adjacent to the north and east of the existing substation could potentially be characterized as ACOE jurisdictional wetlands.

- a. Please provide a map depicting the extent of the wetlands surrounding the existing substation.

RESPONSE:

Within Appendix D of the PEA is the Project's Jurisdictional Delineation (JD) Report. In Section 4.0, third paragraph, the report states "On September 15 and 16, 2011 and on July 15 and 16, 2015, POWER biologists Allison Carver and Melissa Lippincott conducted a survey of potentially jurisdictional features adjacent to the proposed Lassen Substation site or crossed by the PacifiCorp ROW and proposed access routes anticipated to be used to access the ROW during construction of the Project area. Wetlands and other waters that are located outside the ROW and not within anticipated areas of Project-related ground disturbance would not be affected by the Project and were therefore not delineated." Because no ground disturbance would occur outside the ROW no impacts to these wetlands would occur.

What is not stated is that at the time of the surveys landowners whose property was crossed by the PacifiCorp ROW refused permission for POWER biologists to leave the ROW – and therefore only the ROW was surveyed. However, as stated in the JD Report on page 19, paragraph 7, "The parcels between West Lake Street and the existing Mt. Shasta Substation (APNs 036-220-040, 036-210-050, 036-210-060, and 036-220-110) form the Morgan-Merrill Wildlife Preserve (Siskiyou County 2000), a wildlife habitat and wetlands mitigation area containing natural wetlands, man-made wetlands, and non-wetland natural areas. This preserve is bisected by Cold Creek, which begins at springs Near Jessie and Spring Streets in the City of Mt. Shasta on the east side of I-5. The natural wetlands occur north of Cold Creek; south of Cold Creek are man-made mitigation wetlands (Theiss and Associates 1990), with non-wetlands located on both sides of the creek." Therefore, while POWER biologists were not permitted to survey outside of the PacifiCorp ROW, due to the legal status of these properties as wetland mitigation areas and wildlife preserve (located northwest, north, and northeast of the existing substation; west of the substation is an upland area, and south of the substation are private properties that are not involved as part of the project description and thus not a part of these surveys) we decided to accord the entirety of APNs 036-220-040, 036-210-050, 036-210-060, and 036-220-110 wetland status.

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Page 15 of the JD Report is Figure 3, which depicts the extent of National Wetland Inventory wetlands in the immediate project area.

- b. Provide a detailed description of likely impacts to wetlands immediately adjacent to the existing substation including determination if adjacent wetlands are jurisdictional pursuant to ACOE criteria.

RESPONSE:

In the JD Report located in Appendix D of the PEA, Figure 5C can be found on page 29. On the figure are the areas of impacts to wetlands (because, for reasons stated in (a) above, these parcels are being given the classification of “wetland”). The wetlands adjacent to the existing substation have been given the designation W-2-11. Detailed description of W-2-11, including Project-related impacts, begins in Section 6.2 on page 22 of the JD Report and continues to page 35, paragraph 4. Due to the afore-mentioned refusal by landowners to permit the biologists to survey outside of the existing PacifiCorp ROW, we were unable to conduct wetland sampling outside the ROW; additionally, due to the legal status of these adjacent parcels as wetland mitigation areas and wildlife preserve, for the purposes of this Project these parcels have been deemed to be wetlands. Given the status of these lands, both legal and as assumed in the JD Report, and given landowner opposition, PacifiCorp does not plan to work outside of their legal ROW and thus impacts to wetlands immediately adjacent to the existing substation are not likely, except as described in detail in Section 6.2 (page 22) of the JD Report.

- c. Demonstrate that construction and decommission activities would avoid and minimize impacts to existing wetlands.

RESPONSE:

Please refer to the Company’s response to 4.5 b above.

4.9 Hydrology and Water Quality

- a. During the field visit, an on-site groundwater well was observed in addition to evidence of shallow groundwater, confirming conditions as described in the geotechnical report. The preliminary geotechnical study gives several methods by which the site may be dewatered (PEA Appendix E, Section 7.9.1.2 [pg. 25-26]), without determining which would be most suitable for the site and project. The geotechnical report suggests a predrainage or cutoff system may be necessary for the project, but only describes the sump and pump methodology. Please clarify which method or combination of methods would be used, describe the implications on the construction scenario, and the anticipated discharge location for dewatered groundwater.

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RESPONSE:

Please refer to the Company's response to PEA Completeness Review Set 1 question 3.6 g, that was provided on January 19, 2016.