
Horizon West Transmission and Pacific Gas and Electric Company Estrella Substation and Paso Robles Reinforcement Project Proponent's Environmental Assessment (A.17-01-023)

Updated Response to Data Request No. 5

The California Public Utilities Commission (CPUC) requested additional data from Horizon West Transmission, LLC (Horizon West) and Pacific Gas and Electric Company's (PG&E) Proponent's Environmental Assessment (PEA) for the Estrella Substation and Paso Robles Reinforcement Project (project). Below are responses to Data Request No. 5 issued by the CPUC on November 13, 2019. Each data request is numbered according to the list, followed by Horizon West's and PG&E's response.

Request #5-1:

Please explain why the construction schedule for Alternative SE-PLR-2 is projected to take longer (10-12 months; refer to the response to Data Request No. 2, Exhibit 2-5a) than the Proposed Project new 70 kV power line (7 months), despite the shorter length of Alternative SE-PLR-2.

Response:

The originally proposed project schedule was an accelerated schedule to support a project energize date in 2019 with the use of multiple PG&E and contract crews to support the schedule. The original plan was to acquire easements for the new line during the permitting process so the greenfield portion would be ready to construct once the PTC is issued. This would have required multiple crews working on both the new and reconducted section at the same time. Due to the uncertainty of the project scope and the current wildfire events which reduces the availability of transmission line construction resources, an accelerated schedule is no longer a viable option. A revised schedule for the proposed project is provided in Exhibit 5-1a. In addition, schedules for alternatives SE-PLR-2, PLR-1A, and PLR-1C have also been revised for better alignment with the proposed project schedule, which are provided in Exhibits 5-1b, 5-1c, and 5-1d. As a result of these schedule changes the number of days provided for the estimated daily worker and truck trips for construction of the proposed project and alternatives SE-PLR-2, PLR-1A, and PLR-1C have also been revised in Exhibits 5-1e, 5-1f, 5-1g, and 5-1h.

Exhibit 5-1a. Preliminary Construction Activity and Schedule for the Proposed Project Power Line Route

Project Phase	Task	Original Estimated Work Dates*	Revised Estimated Work Dates*	Revised Estimate Work Months
Reconductoring Segment	Site Work Area Preparation Mobilization	November 2018	August 2022	Month 1
	Pole Installation / Transfer / Distribution / Removal	December–February 2019	September 2022–February 2023	Month 2–7
	Conductor Installation	March–April 2019	October 2022–February 2023	Month 3–7
	Cleanup and Restoration	May 2019	March 2023	Month 8
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	November 2018	March 2023	Month 8
	Pole Foundation Installations / Pole Installations	December–February 2019	April–November 2023	Month 9–16
	Conductor, Fiber, and Common Neutral Installation	March–April 2019	December 2023–January 2024	Month 17–18
	Cleanup and Restoration	May 2019	February 2024	Month 18

Notes: This table is preliminary and subject to change based on CPUC requirements, final engineering, and other factors.

* Dates are provided for duration estimates.

Exhibit 5-1b. Preliminary Construction Activity and Schedule for SE-PLR-2

Project Phase	Task	Original Estimated Work Months	Revised Estimated Work Months
New 70 kV Power Line	Site Work Area Preparation Mobilization	Month 2–3	Month 1
	Pole Foundation Installations / Pole Installations	Month 3–9	Month 2–7
	Conductor, Fiber, and Common Neutral Installation	Month 4–10	Month 8–9
	Cleanup and Restoration	Month 10–12	Month 9

Note: This table is preliminary and subject to change based on CPUC requirements, engineering, and other factors.

Exhibit 5-1c. Preliminary Construction Activity and Schedule for PLR-1A

Project Phase	Task	Original Estimated Work Months	Revised Estimated Work Months
Reconductoring Segment	Site Work Area Preparation Mobilization	Month 1–2	Month 1
	Pole Installation / Transfer / Distribution / Removal	Month 3–11	Month 2–13
	Conductor Installation	Month 4–12	Month 3–14
	Cleanup and Restoration	Month 12–13	Month 15
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	Month 1–3	Month 15
	Pole Foundation Installations / Pole Installations	Month 3–14	Month 16–30
	Conductor, Fiber, and Common Neutral Installation	Month 4–15	Month 30–33
	Cleanup and Restoration	Month 15–17	Month 34

Note: This table is preliminary and subject to change based on CPUC requirements, engineering, and other factors.

Exhibit 5-1d. Preliminary Construction Activity and Schedule for PLR-1C

Project Phase	Task	Original Estimated Work Months	Revised Estimated Work Months
Reconductoring Segment	Site Work Area Preparation Mobilization	Month 1–2	Month 1
	Pole Installation / Transfer / Distribution / Removal	Month 3–11	Month 2–13
	Conductor Installation	Month 4–12	Month 3–14
	Cleanup and Restoration	Month 12–13	Month 15
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	Month 1–2	Month 15
	Pole Foundation Installations / Pole Installations	Month 2–13	Month 16–29
	Conductor, Fiber, and Common Neutral Installation	Month 3–14	Month 29–32
	Cleanup and Restoration	Month 14–16	Month 33

Note: This table is preliminary and subject to change based on CPUC requirements, engineering, and other factors.

Exhibit 5-1e. Estimated Daily Worker and Truck Trips for Construction of the Proposed Project Power Line Route

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Original Number of Days	Revised Number of Days	Maximum Number of Daily Round-Trips
<i>Reconductoring Segment</i>					
Site Development	6	5	24	24	11
Conductor Spreading / Pole Installation / Transfer Distribution / Pole Removal	9	7	72	86	16
Conductor Installation	9	5	64	76	14
Clean-up and Site Restoration	6	3	12	6	9
<i>70 kV Power Line Segment</i>					
Site Preparation / Mobilization	6	5	24	6	11
Pole Foundation Installations / Pole Installations	9	6–8	72	192	17
Conductor, Fiber, and Common Neutral Installation	9	5	48	48	14
Clean-up and Site Restoration	6	4	12	24	10

Note: The volume of soil/material to be exported/imported and the associated number of vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

Exhibit 5-1f. Estimated Daily Worker and Truck Trips for Construction of SE-PLR-2

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Original Number of Days	Revised Number of Days	Maximum Number of Daily Round-Trips
<i>SE-PLR-2 70 kV Power Line Segment</i>					
Site Preparation / Mobilization	6	5	52	24	11
Pole Foundation Installations / Pole Installations	9	6–8	182	144	17
Conductor, Fiber, and Common Neutral Installation	9	5	182	36	14
Clean-up and Site Restoration	6	4	78	12	10

Note: The volume of soil/material to be exported/imported and the associated number of vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

Exhibit 5-1g. Estimated Daily Worker and Truck Trips for Construction of PLR-1A

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Original Number of Days	Revised Number of Days	Maximum Number of Daily Round-Trips
<i>PLR-1A Reconductoring Segment</i>					
Site Development	6	5	52	24	11
Conductor Spreading / Pole Installation / Transfer Distribution / Pole Removal	9	7	234	172	16
Conductor Installation	9	5	234	152	14
Clean-up and Site Restoration	6	3	52	6	9
<i>PLR-1A 70 kV Power Line Segment</i>					
Site Preparation / Mobilization	6	5	78	6	11
Pole Foundation Installations / Pole Installations	9	6-8	312	348	17
Conductor, Fiber, and Common Neutral Installation	9	5	312	84	14
Clean-up and Site Restoration	6	4	78	24	10

Note: The volume of soil/material to be exported/imported and the associated number of vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

Exhibit 5-1h. Estimated Daily Worker and Truck Trips for Construction of PLR-1C

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Original Number of Days	Revised Number of Days	Maximum Number of Daily Round-Trips
<i>PLR-1C Reconductoring Segment</i>					
Site Development	6	5	48	24	11
Conductor Spreading / Pole Installation / Transfer Distribution / Pole Removal	9	7	96	172	16
Conductor Installation	9	5	72	152	14
Clean-up and Site Restoration	6	3	24	6	9
<i>PLR-1C 70 kV Power Line Segment</i>					
Site Preparation / Mobilization	6	5	48	6	11
Pole Foundation Installations / Pole Installations	9	6-8	72	326	17
Conductor, Fiber, and Common Neutral Installation	9	5	72	82	14
Clean-up and Site Restoration	6	4	24	24	10

Note: The volume of soil/material to be exported/imported and the associated number of vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

Request #5-2:

Please explain why the number of days associated with worker and truck trips for construction of PLR-1A (Exhibit 2-8b [pg. 13] in the response to Data Request No. 2) is so much greater than the that for construction of Alternative PLR-1C (Exhibit 2-8c [pg. 14] in the response to Data Request No. 2). For example, Exhibit 2-8b shows 234 days for conductor spreading / pole installation / transfer distribution / pole removal, as well as conductor installation, for the Alternative PLR-1A reconductoring segment; whereas Exhibit 2-8c shows 96 and 72 days, respectively, for these same tasks for the Alternative PLR-1C reconductoring segment. This discrepancy does not align with the construction schedules for these two alternatives, which are identical for the reconductoring segment phase (see Exhibits 2-5b and 2-5c), and our understanding of these two alternatives, which is that the reconductoring segments are identical and the new 70 kV power line segments are quite similar.

Response:

The number of construction days trucks trips presented in Exhibit 2-8c for PLR-1C is erroneous and should be adjusted as shown above in Exhibit 5-1g for PLR-1C. The corrected table is provided above to reflect the double-circuit section of PLR-1C being slightly shorter than the double-circuit section of PLR-1A.

Request #5-3:

Please provide a shapefile showing temporary and permanent impacts for each of the following alternatives: SS-1, PLR-1A, PLR-1C, PLR-3, SE-1, SE-PLR-2. (This could be similar to the shapefile entitled "Project_Area_Impacts_and_Vegetation_Removal" which was provided for the Proposed Project as part of the proponent's environmental assessment [PEA]). The GIS data provided on alternatives to date show different types of temporary and permanent impact areas (e.g., pole work areas, crossing structure work areas, etc.); however, many of these layers overlap and it is difficult to determine the total temporary and permanent impact areas associated with each alternative.

Please also confirm which types of access road types, as identified within the GIS data, would require improvements for construction of different alternatives. The data provided pursuant to Data Request #2 showed access roads for alternatives that fell under the following categories: (1) existing footpath; (2) existing paved; (3) existing unpaved; (4) new unpaved. Please confirm which of these road types would require temporary or permanent improvements as part of alternative construction and/or operation.

Response:

Shapefiles showing temporary and permanent impacts for alternatives SS-1, PLR-1A, PLR-1C, SE-1, and SE-PLR-2 were provided separately on February 6, 2020. Shapefiles showing permanent access roads for alternatives SS-1 and SE-1 are confidential and will be provided separately as part of a submission of confidential information that includes data responsive to items 7 and 8, below.

Shapefiles showing temporary and permanent impacts for alternative PLR-3 will be provided in the response to Data Request No. 4 upon completion of engineering.

Existing footpaths may require vegetation removal as necessary for safety and fire-prevention purposes. Existing paved roads would not require improvements. Existing unpaved roads may require improvements within the existing road prism. These improvements may include minor grading/blading and the placement of dirt and/or gravel. New unpaved roads would require grading/blading and the placement of dirt and/or gravel. All of these access roads would be temporary with the exception of the access roads to and within the alternative substation sites (SS-1 and SE-1).

Request #5-4:

See Questions and Answers 1 through 12.

Response:

The responses to Questions 1 through 12 of the Electric Distribution Resources Plan Request ED_019_Q01-18_Rev01 was submitted to the CPUC on November 4 and 7, 2019.

Request #5-5:

- a. *How many 21-kV lines can be accommodated by the proposed 70/21-kV, 30 MW system (initial system)? The PEA notes that three 21-kV lines will initially be served to the proposed Estrella Substation. What is the number at the full 30 MVA capacity?*
- b. *At full buildout, how many 21-kV lines can be accommodated if the 70/21-kV is expanded in the future to full design capacity (90 MW)?*

Response:

- a. For the initial system, three 21 kV feeders can be accommodated per 30 MVA transformer bank. No additional feeders will be added to this bank.
- b. At full buildout, three 30 MVA transformer banks would accommodate a total of nine 21 kV feeders.

Request #5-6:

Provide the latest IEPR forecast disaggregation results for solar and storage for the Paso Robles, San Luis Obispo, and Cholame DPAs.

Response:

The disaggregated values for solar and storage are at the feeder level and are not available for these DPAs for the most recent LoadSEER data provided. The LoadSEER data relied on the 2017 IEPR, which applied the DER load reduction at the system level. That data is publicly available on the CEC's website at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=222472>.

Request #5-7:

Refer to PG&E's response to Deficiency Letter #5 (June 2018) for the types of data requested and received for the PR and SLO DPAs. Provide the same data for the Cholame DPA. See also the request below.

Response:

The data responsive to this request is confidential, other than weather data. The data will be provided separately as part of a submission of confidential information that includes data responsive to Item 4, above, and Item 8, below. A chart summarizing the files that contain data responsive to this request is attached as Exhibit A.

Request #5-8:

In Deficiency Letter #5 (June 2018), we requested the following data. Upon further review, we have determined that the responses to Item 3 were helpful but are missing DER online dates. Please provide the DER type, size and **online dates** for all DERs in the three DPAs. We intend to prepare a graphic that shows PV and storage adoption in each DPA over time.

Geospatial (entire PR and SLO DPAs and Cholame DPA):

- i. Existing and proposed transmission lines;
- ii. Existing and proposed substations;
- iii. Current distribution infrastructure and lines (primaries and secondaries);
- iv. Service address/location IDs or meter IDs;
- v. Known distributed generation (DG; in front of and behind the meter) with system sizing information, including in front or behind the meter position; and
- vi. Bulk Power generation resources (if any) with system sizing information

Non-geospatial (entire PR and SLO DPAs and Cholame DPA):

- i. Service address/location or meter ID and circuit association table for all load;
- ii. Identification of any advanced metering infra-structure (AMI) opt-out locations;
- iii. **DG type, size, online date, and circuit association for all Distributed Energy Resources;**
- iv. Circuit and transformer association for all circuits;
- v. Transformer and substation association for all transformers; and
- vi. Customer class and service location/meter association for all service locations/meters.

Response:

The data responsive to this request is confidential. The data will be provided separately as part of a submission of confidential information that includes data responsive to Items 4 and 7, above. A chart summarizing the files that contain data responsive to this request is attached as Exhibit A.

**Horizon West Transmission and
Pacific Gas and Electric Company
Estrella Substation and Paso Robles Reinforcement Project
Proponent's Environmental Assessment (A.17-01-023)
Updated Response to Data Request No. 5
Exhibit A**

Summary of Files/Data Provided in Response to CPUC Data Request No. 5, Items 7 & 8

No.	Request	Date Provided	File Name(s)	Comments
CHOLAME DPA				
Distribution Planning Area Data				
1.	Hierarchy showing relationships between banks and feeders		CONF-Cholame Distribution Hierarchy.xlsx	
2.	Available SCADA data for each substation transformer bank and feeder in the planning area. Data provided shall be in the units of MW for transformer bank loading and in amps for feeder loading. Up to five years of historic data will be provided, depending on historic SCADA data availability for each asset		CONF-Cholame DPA 5year SCADA data.xlsx	Data range to match previous SCADA data provided for Paso Robles and San Luis Obispo DPAs

3.	Feeder and bank load shapes (576-hour) developed by Integral Analytics for use in the LoadSEER tool.		CONF-Base Shape – CHOLAME 1101.csv CONF-Base Shape – CHOLAME 2102.csv	PG&E does not have larger load shapes for these profiles. Load shapes for transformer banks are not provided because they are the same as for the circuit each transformer serves; i.e., Cholame Bank 1 only serves Cholame 1101, and Cholame Bank 2 only serves Cholame 2102.
4.	Annual electric load growth forecast for each feeder from the adopted 2016 IEPR.		CONF-Cholame DPA Feeder Growth from 2016 IEPR.xlsx	
5.	Annual non-residential PV growth forecast for each feeder from the adopted 2016 IEPR.		CONF-Cholame DPA DER Forecast Adjustments from 2016 IEPR.xlsx	
6.	Annual residential PV growth forecast for each feeder from the adopted 2016 IEPR.		CONF-Cholame DPA DER Forecast Adjustments from 2016 IEPR.xlsx	
7.	Annual EV growth forecast for each feeder from the adopted 2016 IEPR.		CONF-Cholame DPA DER Forecast Adjustments from 2016 IEPR.xlsx	
8.	Annual AAEE growth forecast for each customer-class on each feeder from the adopted 2016 IEPR.		CONF-Cholame DPA DER Forecast Adjustments from 2016 IEPR.xlsx	
9.	Annual LMDR (Load Modifying Demand Response) growth forecast for each feeder from the adopted 2016 IEPR.		CONF-Cholame DPA DER Forecast Adjustments from 2016 IEPR.xlsx	

10.	576 hour shapes for Non-Residential PV, Residential PV, EV, AAEE, and LMDR.		CONF-PV Non-Res Profile.xlsx CONF-PV Res Profile.xlsx CONF-EV Charging Profile.xlsx CONF-Cholame DPA AAEE Agr Profile.xlsx CONF-Cholame DPA AAEE Com Profile.xlsx CONF-Cholame DPA AAEE Ind Profile.xlsx CONF-Cholame DPA AAEE Res Profile.xlsx CONF-LMDR Profile.xlsx	PG&E does not have larger load shapes for these profiles.
11.	576 hour shapes for 4 customer classes in the Cholame DPA: Industrial, Commercial, Residential, and Agricultural		CONF-Cholame DPA AAEE Agr Profile.xlsx CONF-Cholame DPA AAEE Com Profile.xlsx CONF-Cholame DPA AAEE Ind Profile.xlsx CONF-Cholame DPA AAEE Res Profile.xlsx	576 hour shapes for four customer classes are same as provided AAEE profiles
12.	Hourly weather data for the Paso Robles weather station (PPRB) from 4/1/1983 to 9/30/2017		Paso Robles Weather Station Data.xlsx	PG&E relies on the Paso Robles Weather Station for assessing conditions in the Cholame DPA.
13.	Future known new loads, by feeder, indicating relevant customer-class		CONF-Cholame DPA New Large Load Applications.xlsx	
14.	Feeder and bank capabilities. Data provided shall be in the units of MW for transformer bank capabilities and in amps for feeder capabilities		CONF-Cholame DPA Bank and Feeder Capabilities.xlsx	
GIS Infrastructure Data [either ESRI shape files (preferred) or Google KMLs]				
15.	Existing and proposed transmission lines		CONF_ElecTransOH	Electric transmission line locations clipped to the boundary of the DPA. No new transmission lines in DPA are proposed.
16.	Existing and proposed substations		CONF_SUBSTATION	No new substations in DPA are proposed.

17.	Current distribution infrastructure lines (primaries and secondaries)		CONF_PriOH CONF_PriUG CONF_SecOH CONF_SecUG	Primary and secondary overhead and underground distribution line conductors within the DPA.
18.	Service address/location IDs or meter IDs (to be able to be paired with meter data described below)		CONF_ServiceLocations_ALLDATA	List locations of service points and related customer classes; advanced metering infrastructure (AMI) opt-out customers; associated circuits and transformers; and associated distributed energy resources (if any)
19.	Known distributed generation (DG; in front of and behind the meter) with system sizing information, including in front or behind the meter position; system sizing information must identify if it is nameplate, AC, or CEC de-rated		CONF-Cholame DER PTO Date.xlsx	All distributed generation listed is behind the meter. The system size information is provided as an effective rating, which is the CEC de-rated value.
20.	Bulk Power generation resources within the DPA (if any) with system sizing information; system sizing information must identify if it is nameplate, AC, or CEC de-rated		CONF-BulkPower	The bulk power system generally means generation and transmission facilities and their control systems, but not the local distribution of electric energy. We interpret this request as for generation sources within the Cholame DPA that are connected to the transmission system.

Non-GIS Infrastructure Data [CSV (preferred) or Excel formats are acceptable]				
21.	Service address/location or meter ID and circuit association table for all load		CONF-Cholame DPA ServicePoint_Info_GIS_Data.xlsx	
22.	Identification of any advanced metering infra-structure (AMI) opt-out locations		CONF_Cholame_SPIDs_w_OptOut.xlsx	
23.	DG type, size, online date, and circuit association for all Distributed Energy Resources		CONF-Cholame DER PTO Date.xlsx	CEC derated values provided
24.	Circuit and transformer association for all circuits		CONF-Cholame Distribution Hierarchy.xlsx	
25.	Transformer and substation association for all transformers		CONF-Cholame Distribution Hierarchy.xlsx	
26.	Customer class and service location/meter association for all service locations/meters		CONF-Cholame DPA ServicePoint_Info_GIS_Data.xlsx	
Load Data				
27.	SCADA data for all circuits, where available, for a period of 5 full years		CONF-Cholame DPA 5year SCADA data.xlsx	
28.	SCADA data for all substations, where available, for a period of 5 full years		N/A	SCADA data not available at substation level

29.	AMI meter data (interval) for all meters, where available, for a period of 1 full year (12 full months of data), ending with the most recent month for which a full month of data is available		CONF-Cholame Interval Data 1of27.csv CONF-Cholame Interval Data 2of27.csv CONF-Cholame Interval Data 3of27.csv CONF-Cholame Interval Data 4of27.csv CONF-Cholame Interval Data 5of27.csv CONF-Cholame Interval Data 6of27.csv CONF-Cholame Interval Data 7of27.csv CONF-Cholame Interval Data 8of27.csv CONF-Cholame Interval Data 9of27.csv CONF-Cholame Interval Data 10of27.csv CONF-Cholame Interval Data 11of27.csv CONF-Cholame Interval Data 12of27.csv CONF-Cholame Interval Data 13of27.csv CONF-Cholame Interval Data 14of27.csv CONF-Cholame Interval Data 15of27.csv CONF-Cholame Interval Data 16of27.csv CONF-Cholame Interval Data 17of27.csv CONF-Cholame Interval Data 18of27.csv CONF-Cholame Interval Data 19of27.csv CONF-Cholame Interval Data 20of27.csv CONF-Cholame Interval Data 21of27.csv CONF-Cholame Interval Data 22of27.csv CONF-Cholame Interval Data 23of27.csv CONF-Cholame Interval Data 24of27.csv CONF-Cholame Interval Data 25of27.csv CONF-Cholame Interval Data 26of27.csv CONF-Cholame Interval Data 27of27.csv	AMI data provided for 2/1/2017-1/31/2018 to correspond with SCADA data range and with AMI data previously provided for Paso Robles and San Luis Obispo DPAs
30.	Monthly KWh for all AMI opt-out customers		CONF_Cholame_SPIDs_w_OptOut_Monthly_Usage.xlsx	Monthly usage data for AMI opt-out customers in the DPA for period February 1, 2017 to January 31, 2018.
PASO ROBLES DPA				
31.	Online date and circuit association for all DERs		CONF-Paso Robles DER PTO Date.xlsx	

SAN LUIS OBISPO DPA				
32.	Online date and circuit association for all DERs		CONF-San Luis Obispo DER PTO Date.xlsx	