# Clarifications and Follow-up Items from Data Request No. 4

*Sent via email from Mike Monasmith, April 22 and 23, 2019*

**APRIL 22**

We hope you will be able to clarify the conflicting data and missing information for Data Responses Set No. 4 by COB on Tuesday, April 23, 2019. We may also need to schedule a conference call once we receive your responses and clarifications if we have questions. Apologies for the rush, but we need the conflicts resolved, and the missing information provided, so we can finish the remaining sections of the Administrative Draft IS/MND and submit to the CPUC for review.

**Air Quality**

Still needed are the Air Quality and Greenhouse Gas emissions estimates for the construction modifications to be performed at Howland Road Substation; they were not provided in Data Responses Set No. 4 (AQ-16), but it was indicated that updated vehicle trips and GHG estimates would be sent by the end of the week of April 15, 2019 (but were not).

Response: Air Quality and GHG emissions estimates for the Howland Road Substation modifications is being prepared. Refer to clarifications provided below.

Can you confirm that all of the emissions calculations for all construction activities include the emissions from the truck trips for the project and that they are based on "big belly" haul trucks with 25 cubic yard capacity?

Response: Emissions estimates provided previously, pursuant to CPUC Data Request No. 1, Question AQ-6, including all hauling trips completed using haul trucks with capacity of 25 cubic yards (cy). Emissions for the Howland Road Substation modifications will be prepared/updated assuming the same capacity hauling trucks. See additional information in the responses below.

If this is the case, Data Responses Set No. 4 may contain incorrect information because it states 56 one-way haul trips will be needed for the movement of approximately 507 cubic yards of soil (required to be moved off-site by Howland Road construction) and 18 cubic yards of soil would be required to be moved off-site by foundation auguring required for TSP foundation installation -- a total of 525 cubic yards of soil movement off-site.

Response: The Howland Road Substation modifications construction equipment information (DR4, Question AQ-16) has been updated use of 25 cy capacity haul trucks, as well as clarified total materials handled. Specifically, the Howland Road Substation will require hauling of approximately 1,020 cy of material, as detailed in Table A below. These 1,020 cy of materials will require 41 haul trips, each of constitute 2 one-way trips (on trip to the construction site, and one trip back).

**Table A: Howland Road Substation Material Hauling Summary**

| Component | Volume of Export | Volume of Import | Total Volume Hauled |
|---|---|---|---|
| Trenching | 556 cy | 444 cy | 1,000 cy |
| Equipment Foundations | 18.5 cy | 0 cy | 18.5 cy |
| | | GRAND TOTAL | 1,018.5 cy |
| | | ROUNDED TOTAL | 1,020 cy |

| | |
|---|---|
| HAUL TRUCK CAPACITY | 25 cy |
| TOTAL HAUL TRIPS REQUIRED | 41 two-way trips |

The Data Responses Set No. 4 spreadsheet says that 6 trucks would be working 10 hour days for 30 days in order to handle 507 cubic yards of soil.

Response: To clarify, the trucks listed in the previously provided excel spreadsheet, as well as the Table 1 in the updated response to DR4, Question AQ-16, refer to work trucks, such as pick-up trucks and bucket trucks. The haul truck trips were listed in notes at the bottom of the previously provided excel spreadsheet. This is also clarified in Table 1 provided with the revised response to DR4, Question AQ-16 by adding the haul trucks to the body of the table. As noted above in Table A, the total material to be hauled has also been clarified and updated.

One or more of these factors is incorrect because 6 trucks, working 10 hour days for 30 days, averaging 20 round trips-day (data provided in Data Responses Set No. 1, AQ-6) would result in hauling 1,800 cubic yards of soil. We are confused on how 507 cubic yards of soil was determined to require 6 trucks working 10 hour days for 30 days with 20 round trips per day. One or more of these numbers is incorrect.

Response: See responses above. Within the previous response to DR4, Question AQ-16, the missing factor was the use of the 25 cy capacity haul trucks. This has been corrected above and within the revised response to DR4 Question AQ-16.

Data Responses Set No. 1, AQ-6 indicated that 25 cubic yard trucks would be necessary in order to haul in 10,000 cubic yards of fill working 4 weeks at 20 round trips per day. Here too, one or more of the numbers is incorrect. Because 10,000 cubic yards moved for 30 days (at 20 round trips per day) would mean 1 truck would be needed to move 16.6 cubic yards of fill per trip. We assume more than one truck would be utilized for the Vierra Substation Expansion.

Response: To clarify, Response to DR1 Question AQ-6 included the following assumptions and inputs:

- 10,000 cy of total material required to hauled on or off site.
- 25 cy capacity haul trucks would be use to haul all of the material.
- Hauling 10,000 cy, using the 25 cy capacity haul trucks, would require a total of 400 trips (by definition two-way trips).
- Material hauling would occur over a 4 week period, assuming work 5 days per week (20 total days of hauling material).
- 400 total hauling trips, averaged over 20 working days, gives us the average of 20 daily haul trips.

And if, as with Howland Road, you have 6 trucks at your disposal, each capable of hauling 25 cubic yards of soil for 30 days at 20 round trips per day, you would have the potential capability of moving 90,000 cubic yards of fill. Please clarify how many truck trips (and of what size) would be required to move 10,000 cubic yards of fill (for the Vierra Expansion effort), how many truck trips (of what size) would be required to move 525 cubic yards of soil (for the Howland Road Substation trenching), and how many trucks (of what size) would be required to move 18 cubic yards of fill (for TSP foundation construction).

Response: refer to previous responses. Hauling trips are also summarized below in Table B, by construction phase.

**Table B: Total Haul Trips by Construction Phase**

| Construction Phase | Total Material Hauled | Haul Truck Capacity | Total Haul Trips |
|---|---|---|---|
| Vierra Substation | 10,000 cy | 25 cy | 400 trips |
| Howland Road Substation Modifications [1] | 1,020 cy | 25 cy | 41 trips |

Notes:
[1] Howland Road Substation modifications include trenching and equipment foundations. Refer to Table A above for details.

If not already provided, we also need to know how many trucks and how many truck trips per day would be required to disposes of the soil generated by the creation of the microwave monopole foundations (11' x 11' x 4') at the Tracy, Kasson and Manteca Substations?

Response: The foundations required at the Tracy, Kasson, and Manteca Substation will each require approximately 18 cy of export. This will require one haul trip (round trip) per substation site.

Also, If the truck carrying capacities are different between the various activities (Howland Road construction, Vierra Substation expansion and Tracy, Kasson and Manteca Substation foundation construction) we need to know the total number of trucks, carrying capacity and number of round trips required per day to move soil off-site at Howland Road, Kasson, Tracy and Manteca Substations, and move fill into the site for the Vierra Substation expansion.

Response: Refer to the previous responses above. All hauling trips will utilize the same 25 cy capacity trucks.

Please list the various air emissions calculations that will need to be factored for the various activities that comprise the over-all Vierra project in a table for ease of reading and comprehension?

Response: Updated project-wide emissions summary tables are currently being prepared. This will include the newly identified Howland Road Substation modifications as well as previously provided emissions for all other phases of construction of the over-all Vierra Reinforcement Project.

**Cultural Resources**
PG&E prepared and submitted a Cultural Resources Constraints Report (CRCR) for the Howland Road Substation as part of the Data Responses Set No. (CR-4). The CRCR is found in Attachment A. On page 5 of 6 of Attachment A, references are listed, including:

> *Walker, Matt. 2019. Preliminary Background Research for PG&E's Howland Road Substation. Cardno, Inc. Prepared for Pacific Gas & Electric Company, Sacramento, California*.

We did not receive a complete answer to Data Request Set No. 4, CR-4, Question #1, which requested a description of the Howland Road substation and its setting. We are requesting a copy of the referenced

Walker research report to make a determination on the general description of the Howland Road facility for ourselves, including any on-site buildings, and of the setting.

**Project Description**

When comparing project details from previous data responses to the responses provided in Data Responses Set No. 4, we found some inconsistencies that raised the following questions:

Number of Workers: The number of workers for the Howland Road Substation modifications is 24 (estimated maximum needed over the stated three phase period). Total maximum workers for the Vierra substation expansion work and 115 kV power line construction is stated in the PEA to be 5-20. It is challenging for us to determine the correct range of necessary workers for the Vierra project because in the PEA, substation expansion and 115 kV power line construction wasn't broken down into three phases like Data Responses Set No. 1 (12-18 month Vierra Substation expansion construction period) and Data Responses Set No. 4 (Howland Road Construction). Please clarify.

Response: Estimated number of workers for the Howland Road Substation modifications has been adjusted to more accurately address the range of workers on site. The overall range of workers on site for the Howland Road Substation modifications is 5 – 10 workers. As shown in Table 1 (PG&E response to DR4, Question AQ-16), civil construction workforce can range from 5 – 10, as well as potential overlap of civil construction and equipment installation and outdoor electrical construction.

Beginning of Construction: Data Responses Set No. 1 (PD-1) indicated that the earliest substation expansion was estimated to occur in the Spring of 2020. Data Responses Set No. 4 has the Howland Substation work commencing in May of 2021. This inconsistency needs to be elaboration (or perhaps the overall schedule should be updated or changed). We need to be consistent in what the Project Description indicates in terms of construction start, and what we are stating in the individual sections regarding construction commencement.

Response: Spring of 2020 is the best case scenario that is being used as the goal for Project construction. Therefore, the start target start date of construction for the Howland Road Substation modifications will be May of 2020, consistent with the previous updates to the over-all Vierra Reinforcement Project description document.

Pull Rig: While not an urgent matter, we were curious why a Pull Rig was necessary for the original substation expansion (foundation construction) where ground disturbing activity is going to occur, but not necessary for Howland Road construction (where considerably more ground disturbing activity is planned to occur). Please clarify.

Response: The Pull Rig is used to pull the new power line into the substation at Vierra. We will not need a Pull Rig at Howland because we are not pulling in new power line. The identified pull rig has been removed from the Howland Road Substation equipment list.

Workforce Numbers: Does the Howland Road Substation Upgrade Equipment List spreadsheet replace the equipment and workforce list provided in the project refinement (PG&E edits and comments to draft Project Description)? If not, the workforce numbers are inconsistent. Please clarify.

Response: Correct. The information provided in response to DR4, Question AQ-16 should replace the equipment information previously provided as tracked changes to the Draft Initial Study Project Description (Table 4-3a).

**APRIL 23**

Hi Bob and Jo Lynn,

One more discrepancy we just noticed was the size of soil to be removed and disposed for the work at the remote substations.

The draft Project Description that you reviewed used to say 18 cubic yards, the edited version we got back said 575. That would mean that Howland Road Substation would dispose 557 cubic yards. Is that correct?

Was the 18 cubic yards for all of the remote substations in total or 18 for each substation for a total of 54 cubic yards in total for the three subs? In that case, Howland Road Sub would dispose of 521 cubic yards.

Response: Refer to responses above. Corrected and clarified values have been provided. Specifically, the volume of material hauled for the various phases of construction in question are as follows:

- Vierra Substation – 10,000 cy of material.
- Howland Substation Modifications – 1,020 cy of material.
- Remote substations (Tracy, Kasson and Manteca) approximately 18 cy each.

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**Re: Preliminary Background Research for PG&E's Howland Road Substation**

Dear Ms. Sakowicz:

Cardno is pleased to provide you with this brief Technical Memorandum in support of preliminary background research for PG&E's Howland Road Substation, a small distribution substation located in Lathrop, San Joaquin County, California. PG&E approached Cardno in March 2019 to identify the precise construction date of Howland Road Substation, which was unclear prior to this effort. This Technical Memorandum presents the results of the preliminary background research effort, outlining the research methods employed and the findings of the investigation.

## Research Methods

Architectural Historian Matt Walker (MA and 4 years of experience) conducted focused archival and desktop research in order to determine the precise construction date of Howland Road Substation. Preliminary research included review of historic United States Geological Survey (USGS) topographic maps and historic period aerial photography in an attempt to confirm the substation's date of construction. Because this effort was not conclusive, Mr. Walker conducted additional research and reviewed records requested from the PG&E Engineering Archives. These records included original plans, drawings, and GM and WO files.

## Conclusions

Cardno conducted this preliminary background research in an effort to uncover the precise construction date of Howland Road Substation. Based on the review of historic aerial photography and PG&E's engineering records, it appears that Howland Road Substation was completed in 1977. While it is likely that an earlier substation sharing the same name was located just south of the present Howland Road Substation, this substation was likely completely dismantled in the mid-1970s. Work commenced on the current 115/4 kV Howland Road Substation in February 1976, with the substation placed into service one year later in February 1977.

If you have any questions or require additional information, please contact Matt Walker, Architectural Historian, at our Cardno Sacramento office at (916) 386-3810.

Sincerely,

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