

**PACIFIC GAS AND ELECTRIC COMPANY
PSEP Update
Application 13-10-017
Data Response**

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| PG&E Data Request No.: | ORA_004-05 | | |
| PG&E File Name: | PSEP-Update_DR_ORA_004-Q05 | | |
| Request Date: | February 13, 2014 | Requester DR No.: | ORA 4 |
| Date Sent: | February 28, 2014 | Requesting Party: | Office of Ratepayer Advocates |
| PG&E Witness: | Sumeet Singh | Requester: | Tom Roberts/Alaine James |

SUBJECT: PWC QUALITY ASSURANCE: PIPELINE PROGRAM DATA VALIDATION PROCESS

QUESTION 5

Within each project included in the audit, ORA understands that PwC used a second calculator, or used the project sampling calculator for a second time, to determine the number of segments within the project to be reviewed.

- a) Was this second level of sampling used to determine the number of segments to be reviewed (in which case all critical data fields for the sampled segments were reviewed), or was it used to determine the number of data points to be reviewed (in which case all critical data fields for the sampled segments would not be reviewed.)
- b) Was there a minimum number of segments or critical data points in a project below which all critical data points in a project were reviewed?
- c) How did PwC determine the specific segments or data points to be reviewed? Describe the method used and how it deviated from the process described on the top of page 3C-10 of PG&E's Testimony. Also address the fact that data on the data validation tab begins at row 6, not row 1.
- d) Was there any non-random evaluation used to determine the segments or data points to be reviewed, e.g. was the sample designed to focus on data points that impacted project cost, or did all segments or data points have the same probability of being included in the audit?
- e) Provide all available information that supports that the segments or data points audited were determined on a purely random basis, or the degree to which programs were selected on a random basis.
- f) Does PwC have a record of which segments or data points in a project were reviewed? If so, provide this information for all projects included in the audit.

ANSWER 5

- a) The second level of sampling was used only for the second part of QA4, which tested the import of pipeline attributes from the completed MAOP Validation PFL(s) into the PSEP Data Validation workbook(s). It was used to determine the number of sample segments in which 19 critical data fields were reviewed.
- b) No minimum number of segments or critical data points was formally set in the QA procedure.
- c) Determination of the specific segments or data points to be reviewed is described below, as filed in the PSEP Update Testimony page 3C-9.

5.3.3.4

Test Steps - QA team member uses a randomly selected sample of project workbooks to conduct a test to confirm segment and split data captured in project workbook matches the data used in the corresponding PFL for a given route. This test will be performed on a representative sample of segments in each workbook.

- 1) QA team member selects a PSEP project out of the defined sample population
- 2) To determine segments for review, randomly select a representative sample of segments in each workbook. Determine sample size to be tested by multiplying the total number of segments available in a given workbook x the number of critical fields to be reviewed (the 19 critical fields are listed below in 6.a & 6.b below). Enter this total available population into the sample calculator (see 5.2) and use 5% estimated error rate and 4% precision to determine the representative sample of reviewable attributes for a given workbook.
- 3) The review of the attributes will be conducted on a segment level. In order to determine the number of segments that comprise the sample, divide the target sample of reviewable attributes by the number of critical fields (19) to determine the number of segments to review.
- 4) Once the number of target segments to review are determined, randomly select the segments for review as follows:
 - a. Use the RANDBETWEEN(1,[#total segments in wkbk]) function in Excel to determine which segments in a given workbook will be reviewed. For example, if a workbook contains 30 segments, and the target number of segments to be reviewed would be 6, perform the RANDBETWEEN(1,30) function to generate 6 random digits. These 6 random digits will be the rows in the workbook to be tested which correspond to segments in the workbook.

- b. Select the rows in the project workbook that correspond with the randomly generated numbers for testing.

Treat the first segment as “row 1.” The first row of data (“row 1”) happens to begin on row 6 of the Excel workbook lines and is simply a formatting result. There is no significance to this.

- d) No. All had the same probability.
- e) Please see response to Question 5c above.
- f) Please see attachment “PSEP-Update_DR_ORA_004-Q05Aтч01.”