**A.14-11-003 and A.14-11-004 Sempra Utilities’ 2016 TY GRC**

**TURN Data Request**

**Data Request Number:** TURN-SCG-7 (Gas Distribution)

**Date Sent:** March 20, 2015

**Response Due:** April 3, 2015

Please provide an electronic response to the following questions. A hard copy response is unnecessary. The response should be provided on a CD sent by mail or as attachments sent by e-mail to the following:

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| --- | --- | --- |
| Bob Finkelstein  The Utility Reform Network (TURN)  785 Market Street, Suite 1400  San Francisco, CA 94103  [bfinkelstein@turn.org](mailto:bfinkelstein@turn.org) | Garrick Jones  JBS Energy  311 D Street, Suite A  West Sacramento, CA 95605  [garrick@jbsenergy.com](mailto:garrick@jbsenergy.com) |  |

For each question, please provide the name of each person who materially contributed to the preparation of the response. If different, please also identify the Sempra Utilities witness who would be prepared to respond to cross-examination questions regarding the response.

For any questions requesting numerical recorded data, please provide all responses in working Excel spreadsheet format if so available, with cells and formulae functioning.

For any question requesting documents, please interpret the term broadly to include any and all hard copy or electronic documents or records in the possession of either of the Sempra Utilities.

1. At SCG-08, page MTM-17, the utility states, “Each year, SoCalGas targets 55 miles of replacement above and beyond routine replacements in accordance with DIMP regulations.” In the workpapers for 08-CWP, p. 32 of 40, the utility provides a “Forecast Adjustment Detail” for $30 million that states, “Revising forecast to add $30M DIMP DREAMS. Increasing the amount of miles to around 55 miles per year replacement of non state of the art pipe.” At pages 38-39 of the same workpapers, SoCalGas presents a “Forecast Methodology” that includes the average yearly replacement of about 55 miles.
   1. Is SoCalGas’s forecast of replacing 55 miles of pipe per year determined based on the number of “planners dedicated to the DREAMS replacement project”?
   2. If the response to the previous subpart is anything other than an unqualified affirmative, please explain in detail the basis SoCalGas used to determine that 550 miles of pipe over ten years was the appropriate forecast for pipe replacements under the DREAMS program.
   3. Please describe in detail the basis for determining that this replacement rate achieves the appropriate level of investment for system safety. Please also provide all documents and analyses (whether prepared by SoCalGas or prepared by a third party and provided to SoCalGas).
2. In the workpapers for SCG-08-CWP, p. 32 of 40, the utility provides “Forecast Adjustment Details” for 2014 of negative $21 million, for 2015 of negative $11 million and adding $30 million for 2016. The explanation for 2014 and 2015 is “Revising forecast to reflect long period to ramp up DREAMS activity”, and the explanation for 2016 is “Revising forecast to add $30M DIMP DREAMS. Increasing the amount of miles to around 55 miles per year replacement of non state of the art pipe.”
   1. Please identify and explain the reasons for the adjustments reducing DREAMS expenditures for 2014 and 2015 shown on this workpaper, including but not limited to a discussion of any difficulty experienced in “ramping up” from the 2012 GRC forecast of 45.3 miles replaced in 2012 (as shown in 2012 GRC, Exh. 5-CWP, p. 81).
   2. Please provide the number of miles of gas main replaced under the DREAMS Program in each year from 2011 through current efforts in 2015, with annual labor cost, non-labor cost .and total cost, broken out by steel pipe and plastic pipe.

1. At pages 38-39 of the same workpapers, SoCalGas presents a “Forecast Methodology” that includes a reference to “historic data” that was used to develop the average cost of replacement per foot for both steel and plastic of $225.
   1. Please provide the historical data that were used to develop the $225 average cost of replacement, broken out by year and by material (steel vs. plastic).
   2. Please explain in detail what has changed the per-foot cost of replacement since the forecast cost of $119/Ln ft. of Main replacement used in SoCalGas’ 2012 GRC, exh. 5-CWP p. 81.
2. In the workpapers for SCG-08-CWP, p. 38 of 40, the utility states, “Since the ratio of the steel population is twice as large as the plastic population the replacement ratio is 2:1.”
   1. Please explain whether the ratio of steel population to plastic population reflects the mileage of each population, the investment in each population, or some other factor.
   2. Please explain in detail the basis for determining that twice as much unprotected steel pipe as vintage plastic pipe should be replaced in each year.
   3. For each of year from 2005-14, inclusive, for replacements that occurred outside of the DREAMS Program please state the footage of unprotected steel pipe replaced each year, and the footage of vintage plastic pipe replaced each year, and the recorded costs for each category in each year.

1. In the workpapers for SCG-08-CWP, p. 39 of 40, the utility uses the terms “pending leaks per segment” and “total leaks per segment.” Please provide a detailed explanation of the terms “pending leaks per segment” and “total leaks per segment” as used in the workpapers, including but not limited to highlighting and explaining any differences between the two terms.
2. Please provide a clear explanation of how SoCalGas determines what non-state of the art pipe segments to replace in a given year, including but not limited to a clear delineation of the role of the criteria used in the DREAMS risk ranking algorithm and the risk rankings the model provides, the role of “pending leaks” and “total leaks” per segment, and the characteristics monitored in “monitoring system performance”. Please use a flow chart if it helps explain the response.
3. Please discuss SoCalGas’s risk ranking algorithm mentioned in the workpapers for SCG-08-CWP, p. 38 of 40, including:
   1. Explain how “risk” is defined and measured for SoCalGas’s system,
   2. Identify and describe each criterion used to determine the risk a pipeline segment poses,
   3. the range of values for each criterion and the coefficient assigned it in the risk model.
   4. the marginal segment risk of unprotected steel pipe at the end of 2013, and the marginal segment risk of plastic pipe at the end of 2013.
   5. the marginal segment risk that SoCalGas is using in 2014 to select steel pipe for replacement, and to select plastic pipe for replacement.
   6. The forecast marginal segment risk of unprotected steel pipe at the beginning of 2016, and the forecast marginal segment risk of plastic pipe at the beginning of 2016.
4. SoCalGas’s response to TURN-DR-SEU 3-4f.ii. states that SoCalGas is monitoring systems performance rather than setting a threshold for “high-risk” in targeting pipe replacement.
   1. Please explain how the “systems performance” characteristics SoCalGas is monitoring are weighted in determining what segments of pipe SoCalGas replaces.
   2. Please explain how the replacement decisions based on “systems performance” would differ from replacement decisions made with a focus on “high risk”, as developed through DREAMS.
5. Regarding the GIPP, as presented in SoCalGas Exh. 08-CWP, p. 40,
   1. Please explain in detail the term “Standard Mitigation” and the term “Non-Standard Mitigation” and the differences between the two.
   2. Please explain in detail the term “FSR Vault Mitigation”
   3. Please identify and explain in detail each reason for the increase of non-standard mitigations between 2014 and 2016, and provide any documents and analysis supporting the growth in the number of non-standard mitigation projects.
   4. Please explain the difference in number of non-standard mitigations in each year displayed in Exh. 08-CWP p. 40 and displayed in Exh. 08-WP p.32.
   5. The testimony on Exh. 08-WP, p.31 states, regarding GIPP costs, “Average costs were used for the various O&M tasks of site inspections, Non Standard Mitigation, and FSR Vault Mitigation. Please provide historical labor and non-labor costs of GIPP site inspections, non-standard mitigation and FSR Vault Mitigation, by year, from 2009 through 2013.
6. In SoCalGas’s response to TURN-DR-SEU 3-4e, SoCalGas states that since 2013 it evaluates the entire population of NSOTA main segments.
   1. Is this evaluation of the entire population performed annually? If not, please state how often on average this evaluation takes place for a NSOTA main segment.
   2. Please describe in detail how the evaluation of the NSOTA main segments is conducted.
   3. Please identify with specificity the information on pipe segments that is updated in the evaluation.
7. Regarding Aldyl-A Gas Main and Services,
   1. Please provide the number of feet of Aldyl-A pipe in SoCalGas’s distribution main system.
   2. Please provide the number of services containing Aldyl-A pipe on SoCalGas’s system.
   3. Please provide SoCalGas’s forecast removal schedule for Aldyl-A main segments,
   4. Please provide SoCalGas’s forecast removal schedule for services containing Aldyl-A pipe.
   5. Please provide all analysis conducted or contracted by SoCalGas to determine priorities for replacing Aldyl-A main, service lines or fittings.
   6. Please provide any analysis conducted or contracted by SoCalGas related to risk from Aldyl-A pipe fittings, and any SoCalGas initiative to mitigate these risks.
   7. Is removal of Aldyl-A pipe included in SoCalGas’s DIMP forecast of 55 miles of pipe replaced per year?
8. Regarding pre-1940 steel main and services, please provide any data and analyses developed or contracted by SoCalGas to determine the relative risk posed by pre-1940 steel main and services, and describe in detail all SoCalGas initiatives to mitigate these risks dating from 2009.
9. Regarding SoCalGas’s response to TURN SCG-DR-02-4:
   1. Please provide a narrative explanation of the “gas leak backlog” as that term is used in SoCalGas’s testimony
   2. Please explain why for most of the locations and codes the backlog is growing over the period from 2010 or 2011 through 2013, as shown in the response.
   3. Please provide the number of main gas leaks found by grade and by year, from 2009 through 2013.
10. Following up on SoCalGas’s response to TURN SCG-DR 5-2.a, regarding remediation of cathodic protection packages:
    1. Please provide annual spending on cathodic protection package remediation to which SoCal refers for each year from 2009 through 2013.
    2. Please provide the number of of packages to be remediated, backlogged at the end of each year from 2009 through 2013.
    3. Please explain why, given the importance of records regarding historical maintenance information in assessing gas system safety, SoCalGas has adopted a record keeping system, not immediately compatible with legacy systems, that makes cathodic protection system maintenance and remediation information prior to 2011 unavailable.
    4. Please identify any ofher DIMP-related activities, for which SoCalGas’ new SAP tracking technology makes legacy system data difficult to retrieve and/or analyze.
11. Following up SoCalGas’s response to ORA 21-7.c. and d.
    1. When SoCalGas states that “it would take some time to ramp up activities to address the backlog” of cathodic protection packages requiring remediation, what is the utility’s best forecast of how many years it would take to achieve such “ramp up” and address the backlog? Please provide the supporting calculations for that forecast.
    2. When did SoCalGas first become aware that a backlog of cathodic protection packages requiring remediation was developing?
    3. Please describe the steps to address that backlog that SoCalGas has taken since first becoming aware of the backlog, including but not limited to the year in which each step was initiated.
12. Following up on SoCalGas’s response to TURN SEU-03-5.b:
    1. Please identify and describe in detail the new technology that SoCalGas is using to canvas areas of non-state of the art main segments.
    2. Please describe in general terms the area covered by the new technology in 2013, and provide SoCalGas’s best estimate of the approximate footage of main segments present in the area covered in 2013.
    3. Does use of this new technology make continuation of other leak survey efforts unnecessary on these segments? Please explain your answer.
    4. Please explain in detail how SoCalGas’s data and database software permit the utility to match the areas surveyed with new technology with the underlying pipeline segments in order to know whether a particular segment has subjected to the new technology. Please be sure the response explains in full how SoCalGas can demonstrate which non-state-of-the-art footage it has or has not surveyed with the new technology.
    5. Please provide the leak find rate found with the new technology, and the related leak find rates of NSOA pipelines with traditional survey methods, and discuss the results by type of pipeline material.
13. Regarding the Transmission Integrity Management Program O&M expenses, Account 2TD000.000 in 2016 GRC Exh. 8-WP, p. 15: in SoCalGas’s 2012 GRC, TIMP expenses appear to be reflected in Acct. 2EN001.000 (2012 GRC Exh. WP-05, p. 30). The 2009 spending in that account, of $$17M, shown in the 2016 GRC, as opposed to the spending shown in the 2012 GRC of $11M.
    1. Using the SoCalGas 2012 GRC accounts that correspond with 2016 GRC Account 2TD000.000, please provide annual TIMP expenses, recorded from 2005 through 2009 and forecast through 2012, in 2009 dollars, broken down by labor and non-labor expenditures.
    2. Please list the 2012 GRC accounts that correspond with 2016 GRC TIMP account 2TD000.000.
14. Regarding the Distribution Integrity Management Program O&M expenses, 2009 expenditures in Account 2TD000.001 in SoCalGas’s 2016 GRC filing, $6.45M, (Exh. 08-WP, p. 23) do not appear to correspond to 2009 DIMP expenditures, $6.57M, in SoCalGas’s 2012 GRC DIMP filing for Acct. 2EN002.000 (Exh. 05-WP, p. 40).
    1. Do the costs shown in Account 2EN002.000 correspond with the costs shown in 2016 GRC Account 2TD000.001?
    2. If the expenditures in these accounts do not correspond, please provide annual DIMP expenditures, from 2005 through 2009, in 2009 dollars, corresponding with the expenditures shown in Account 2TD000.001, broken out by labor and non-labor expenditures.
    3. If the expenditures in these accounts do not correspond, please provide the costs forecast in SoCalGas’s 2012 GRC, in 2009 dollars, that correspond with the expenditures recorded in SoCalGas’s 2016 GRC.
15. Regarding Gas Engineering, Account 2EN000.000, shown in 2012 GRC Exh. 05-WP, p. 3, and 2016 GRC Exh. 07-WP, p. 5,
    1. Please explain the difference in recorded 2009 expenditures, $10,189 in 2009 dollars in the 2012 GRC and $8,674 in 2013 dollars in the 2016 GRC.
    2. If the costs included in this account have changed between the two GRCs, please provide a table, similar to that shown on p. 3 of 2012 GRC Exh. 05-WP, with costs, in 2009 dollars, that correspond to the costs shown for this account in the 2016 GRC.
16. Regarding Gas Distribution, 2016 GRC Exhibit 04-WP, Cathodic Protection, Workpaper 2GD003.000, p. 31, the adjusted recorded expenditures for 2009 of $12.36M, do not match the expenditures for this account in 2012 GRC Exh. 02-WP, p. 152 of $7.19M.
    1. Please provide the annual forecast 2010 through 2012 expenditures for accounts that correspond to 2016 workpaper 2GD003.000, broken out by account.
    2. If expenditures shown in 2012 GRC, Exh. 02-WP p. 55 for Workpaper 2GD000.006 are not included in a. above, please explain where these expenditures appear in 2016 GRC documentation.
17. Regarding Gas Distribution Exhibit 04-WP: Tools, Fittings and Materials. Workpaper 2GD000.005,
    1. Please explain the difference between the 2009 recorded expenditure in 2012 GRC Exh. 2-WP, p. 133, $8.6M, and 2016 GRC Exh. 04-WP p. 73 expenditure of $6.8M for Workpaper 2GD000.005
    2. If the accounts represented by this Workpaper number in 2016 differs from 2012, please provide the annual recorded and forecast expenditures for those accounts shown in the SoCalGas’s 2012 GRC application, with account number or other identifier used in SoCalGas’s application.
18. Regarding Gas Distribution Exhibit 04-WP: Asset Management, Workpaper 2GD001.000,
    1. Please explain the difference between the 2009 recorded expenditure in 2012 GRC Exh. 2-WP, p. 143 of $6.78M, and 2016 GRC Exh. 04-WP p. 81 expenditure of $5.2M .
    2. If the accounts represented by this Workpaper in 2016 differ from 2012, please provide the annual recorded and forecast expenditures for the accounts in this workpaper in SoCalGas’s 2012 application, with account number or other identifier used in SoCalGas’s GRC application.