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SDG&E 2019 GRC – A.17-10-007
SDG&E RESPONSE
DATE RECEIVED: JANUARY 31, 2018
DATE RESPONDED: FEBRUARY 20, 2018

Exhibit Reference: SDG&E-04-R and SDG&E-04-WP-R
SDG&E Witness: Orozco-Mejia
Subject: Gas Distribution

Please provide the following:

1. In reference to Ex. SDG&E-04-WP-R, page 22, Summary of Adjustments to Forecast, provide 2017 recorded data for Measurement & Regulation, broken down by labor and non-labor.

SDG&E Response 01:

Financial data for year-end 2017 is not yet available.

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2. In reference to Ex. SDG&E-04-WP-R, page 63, explain and provide supportive documentation to substantiate the decrease on labor expense from year 2014 to 2015 for Measurement & Regulation category.

SDG&E Response 02:

The decrease in labor expense from year 2014 to 2015, totaling $80,000 as shown in the Summary of Results table in Exhibit SDG&E-04-WP-R, page 63, was due to vacancies as a result of retirements in the Measurement & Regulation workgroup.

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3. In reference to Ex. SDG&E-04-R, page GOM-51 and GOM-52, explain and provide a list and supportive documentation of SDG&E aging station components requiring increased maintenance. Provide location and age in service these components are. Provide a list of name and location of SDG&E's added stations due to gas system growth by year.

SDG&E Response 03:

SDG&E objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure to the extent it seeks the production of name and location information that is neither relevant to the subject matter involved in the pending proceeding nor is likely reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, SDG&E responds as follows:

A list of aging components in SDG&E's district gas regulator stations that require maintenance is provided below:

- Regulators replaced (Grove 829, Rockwell 621, Mooney)
- Regulator internal parts (regulator diaphragms, seats)
- Regulator pilots (Fisher EXR, Fisher 310 Series 32, Fisher 627 built in pilot)
- Regulator pilot internal parts (seats and stems)
- Inlet and outlet station valves (Hyperseal, Rockwell, Cameron)
- Piping and piping components caused by atmospheric corrosion
- Vault and vault concrete deteriorating – patching or replacement
- Vault lids, springs, and hinges particularly in street traffic and landscaping water

A listing of aging components by component age and location is not readily available since replaced aging components are not tracked separately from station data. However, for regulator station aging analysis, Column 5 of Table 1 below shows the total regulator stations at year end by installation year. These stations have annual inspections and aging parts that may or may not be replaced depending on their condition and tested performance.

A listing of district regulator stations installed by year including the number replaced or removed is shown in the Table 1 below. A listing of name and location of SDG&E's added stations due to just gas system growth by year, is not available since system growth is not a separate parameter. Regulator Station additions are not separately accounted for. The reasons for a new installation besides growth include adding a station to provide an additional supply to a single fed area and relocations to change the station location that is currently in an unsafe location (e.g., high traffic zone) to provide maintenance.

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SDG&E Response 03 Continued:

Table 1

2019 GRC SDG&E Gas Distribution – ORA-SDGE-115-MCL
Regulator Station Age Table

1 Year	2 Number Installed	3 Number Replaced[2]	4 Number Removed	5 Total at Year End
1961	1	N/A[1]	N/A[1]	1
1962	0	N/A[1]	N/A[1]	1
1963	0	N/A[1]	N/A[1]	1
1964	1	N/A[1]	N/A[1]	2
1965	0	N/A[1]	N/A[1]	2
1966	0	N/A[1]	N/A[1]	2
1967	0	N/A[1]	N/A[1]	2
1968	1	N/A[1]	N/A[1]	3
1969	1	N/A[1]	N/A[1]	4
1970	8	N/A[1]	N/A[1]	12
1971	16	N/A[1]	N/A[1]	28
1972	24	N/A[1]	N/A[1]	52
1973	31	N/A[1]	N/A[1]	83
1974	20	N/A[1]	N/A[1]	103
1975	20	N/A[1]	N/A[1]	123
1976	2	N/A[1]	N/A[1]	125
1977	13	N/A[1]	N/A[1]	138
1978	16	N/A[1]	N/A[1]	154
1979	13	N/A[1]	N/A[1]	167
1980	11	N/A[1]	N/A[1]	178
1981	5	N/A[1]	N/A[1]	183
1982	20	N/A[1]	N/A[1]	203
1983	11	N/A[1]	N/A[1]	214
1984	14	N/A[1]	N/A[1]	228
1985	15	N/A[1]	N/A[1]	243
1986	16	N/A[1]	N/A[1]	259
1987	16	N/A[1]	N/A[1]	275
1988	18	N/A[1]	N/A[1]	293
1989	20	N/A[1]	N/A[1]	313
1990	26	N/A[1]	N/A[1]	339
1991	10	N/A[1]	N/A[1]	349
1992	3	N/A[1]	N/A[1]	352

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1993	5	N/A[1]	N/A[1]	357
1994	7	N/A[1]	N/A[1]	364
1995	6	N/A[1]	N/A[1]	370
1996	7	N/A[1]	N/A[1]	377
1997	12	N/A[1]	N/A[1]	389
1998	7	N/A[1]	N/A[1]	396
1999	9	N/A[1]	N/A[1]	405
2000	8	N/A[1]	N/A[1]	413
2001	4	N/A[1]	N/A[1]	417
2002	12	N/A[1]	N/A[1]	429
2003	10	N/A[1]	N/A[1]	439
2004	4	N/A[1]	N/A[1]	443
2005	9	N/A[1]	N/A[1]	452
2006	1	N/A[1]	N/A[1]	453
2007	4	N/A[1]	N/A[1]	457
2008	5	N/A[1]	N/A[1]	462
2009	4	N/A[1]	N/A[1]	466
2010	14	N/A[1]	1	479
2011	6	N/A[1]	7	478
2012	11	3	7	482
2013	2	N/A[1]	2	482
2014	2	N/A[1]	3	481
2015	2	2	4	479
2016	3	N/A[1]	2	480
2017	6	N/A[1]	6	480

Notes:

1/ Data provided is from SAP (SDG&E's system of record) and reflects what was entered in 2010. Any regulator stations removed or replaced prior to our go-live 2010 date in SAP are not represented in the data provided above. Please note, all active regulator stations are in our SAP system of record.

2/ Not all regulator stations removed will be replaced. If it is a replacement, this information is noted on the station record, when available.

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4. In reference to Ex. SDG&E-04-R, page GOM-51 and GOM-52:

   a. Explain and provide supporting documentation regarding SDG&E's inspection procedures for electronic pressure monitors used to measure and record in the distribution system.

   b. How often are these inspections done for the electronic pressure monitors? Provide an Excel spreadsheet showing the cost per year for inspection for SDG&E's electronic pressure monitors used for SDG'E's distribution system.

SDG&E Response 04:

a. SDG&E's electronic pressure monitor (EPM) inspection procedures are contained in an SDG&E Gas Standard D8166. This standard provides procedures for installing, inspecting, and calibrating EPMs. This standard is provided in the accompanying document (filename ORA-SDGE-115-MCL-Q4). The accompanying document has been redacted to remove non-responsive, non-relevant employee, contact, and instrument code information.

b. EPM installations are recorded in Click software, which tracks and sends out a list of instruments due for an annual inspection/calibration to SDG&E's scheduling center for distribution to the Gas Instrument Shop. The Gas Instrument Shop then dispatches an Instrument Technician to perform the annual inspection. The instrument technicians follow Gas Standard D8166 for procedures to inspect & calibrate the EPMs.

   The instrument inspection and calibrations are performed at the same time and the costs of calibration alone cannot be separated from total costs. See the calculation below for the total approximate annual cost for the combined inspection/calibration annual maintenance based on historical data:

   - Instrument Technician labor rate = $41/hour
   - Average time to calibrate/inspect each unit including transportation = 3 hours
   - Total active EPM Units = 330

   Annual calibration/Inspection cost = $41 x 3 x 330 = $40,590 annual inspection/calibration maintenance cost/year (Direct costs in 2016$)

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5. In reference to Ex. SDG&E-04-R, page GOM-51 and GOM-52, provide an Excel spreadsheet showing the cost per year of calibration costs of SDG&E's electronic pressure monitors for SDG&E's distribution system.

SDG&E Response 05:

See the response to Question 4.b.

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6. In reference to Ex. SDG&E-04-R, page GOM-51 and GOM-52, provide an Excel spreadsheet showing 2016 and 2017 recorded costs and calculation costs for SDG&E's inspection cost and calibration cost for electronic pressure monitors.

SDG&E Response 06:

Recorded costs for inspection and calibration of EPMs for 2016 were $46,079. Calculated costs for the combined annual calibration/inspection of EPMs are provided in response to Question 4.b. Financial data for year-end 2017 is not yet available.

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7. In reference to Ex. SDG&E-04-R, page GOM-51 and GOM-52, provide an Excel spreadsheet showing how SDG&E arrived to the 2018 and 2019 forecast for SDG&E's inspection cost and calibration cost of the electronic pressure monitors used for SDG&E's distribution system.

SDG&E Response 07:

A description of the Measurement & Regulation (M&R) workgroup expenses can be found in Exhibit SDG&E-04-R, pages GOM-50 to 53. A more detailed showing of the expenses including historical expenses can be found in Exhibit SDG&E-04-WP-R, pages 62-67. In that document, the 2018 forecast for the Measurement & Regulation workgroup is $4,032,000 and the 2019 forecast is $4,216,000.

This forecast was developed as a whole using the five-year linear trend methodology based on the 2012 to 2016 historical data. It includes all the activities in the Measurement & Regulation workgroup as described on page 63 of Exhibit SDG&E-04-WP-R. Also included in this forecast amount are the electronic pressure monitor (EPM) expenses. These expenses were not forecasted separately, but included as a total forecast for the M&R workgroup. However, a calculation for maintenance and calibration was calculated in response to Question 4.b. These expenses will follow the five-year linear trend used for the whole M&R forecast through the year 2019.