



**FILED**

09/21/22

03:42 PM

R2001007

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Safe and Reliable Gas Systems in California and perform Long-Term Gas System Planning.

Rulemaking 20-01-007

**ADMINISTRATIVE LAW JUDGE'S RULING SEEKING  
REVISED DATA FROM CALIFORNIA'S GAS UTILITIES**

**Summary**

Rulings issued on February 9 and March 1, 2022, directed California's investor-owned gas utilities, Pacific Gas and Electric Company, Southern California Gas Company, San Diego Gas and Electric, and Southwest Gas Company (*collectively referred to as gas investor-owned utilities (IOUs) or gas utilities*) to provide specified information about their gas systems. On May 20, 2022, the gas IOUs provided most of the requested information, including information on pipeline age, material, and assessed risk; gas consumption; and replacement costs.

Each of the gas utilities' responses was incomplete. Examples of incomplete information include assessed distribution pipeline risk by census tract, gas demand by census tract, and other information. The gas utilities also used different methodologies to calculate costs. Based on their review of documents previously submitted, staff seeks additional information, including

risk assessment method descriptions and geographically differentiated cost information.

This ruling directs the gas utilities to submit the missing information and the additional information. In some cases, it also directs the gas utilities to substitute simpler information in place of the originally requested information. The information requested from each gas utility differs, reflecting differences among them in the information they have already provided. Information required by this ruling is described in Appendix and is due by October 21, 2022.

The gas utilities need not produce information originally requested regarding geographically specific identification of pipelines slated for replacement by 2027, 2030, or 2045 because they do not plan pipeline replacement that far in advance. This issue may be revisited at a later point.

**IT IS RULED** that:

1. Pacific Gas and Electric Company, Southern California Gas Company, San Diego Gas and Electric Company, and Southwest Gas Company shall supply the information requested in the Appendix to this ruling no later than October 21, 2022.

2. Information supplied in response to this ruling shall be served in comma-separated values (CSV) or Excel as indicated in the Appendix and filed in PDF format.

Dated September 21, 2022, at San Francisco, California.

/s/ KARL J. BEMESDERFER

Karl J. Bemesderfer  
Administrative Law Judge

# APPENDIX

## INFORMATION TO BE PROVIDED

### A. Applicable to All Utilities

#### 1. *Risk Assessment Methods (New Request)*

Pacific Gas and Electric Company, Southern California Gas Company, San Diego Gas and Electric Company, and Southwest Gas Company shall each provide a description of their distribution pipeline risk and consequence assessment methods, including all input variable definitions, data sources for inputs, equations or descriptions of equations sufficient to recreate them, and output variable definitions. A description of the defining characteristics of distribution pipelines subject to this analysis and of the distribution pipelines not subject to this analysis shall also be provided. Documents provided in other proceedings or data requests may be resubmitted to fulfill this requirement if they include the required information. If the complete document(s) constitute more than 10 pages, the utility shall also provide a one-page summary.

#### 2. *PHMSA Distribution Pipeline Mileage and Repairs Reports (New Request)*

Pacific Gas and Electric Company, Southern California Gas Company, San Diego Gas and Electric Company, and Southwest Gas Company shall each provide copies of their “Annual Report for 2021 Gas Distribution System” most recently submitted to the federal Pipeline Hazards and Safety Administration in compliance with 49 CFR Part 191.

B. Utility-Specific

Pacific Gas and Electric shall provide the following information:

1. *Corrected Gas System Census Tract Data*

Provide a CSV spreadsheet file entitled “Gas System Census Tract Data – PG&E.csv” as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <b>Column Name (where to make the change)</b> | <b>Change Request</b>                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OpDist (new column)                           | Provide this new column and place it immediately after the column “PressureDist.” Column Description: Division (PG&E), Operating District (SoCalGas), Construction and Operations Center serving the census tract (SDG&E), or Jurisdiction (SW Gas). Units or Comments: Numeric or text                         |
| DistAvCost (new column)                       | Provide this new column and place it immediately after the column “District.” Column Description: Average cost per mile to replace distribution pipeline in the OpDistrict as defined above. Units or Comments: \$/mi. Since average is calculated across the OpDistrict, many tracts will have the same value. |
| PressureUnk (new column)                      | Provide this new column and place it immediately after the column “MedPressServices.” Column Description: Miles of main or service distribution pipeline with unknown pressure. Units or Comments: Miles                                                                                                        |
| DiamUnk (new column)                          | Provide this new column and place it immediately after the column “DiamOver12.” Column Description: Miles of main or service distribution pipeline with unknown diameter. Units or Comments: Miles                                                                                                              |
| MaterialUnk (new column)                      | Provide this new column and place it immediately after the column “Iron.” Column Description: Miles of main or service distribution pipeline with unknown material. Units or Comments: Miles                                                                                                                    |
| UnkRiskMain (new column)                      | Provide this new column and place it immediately after the column “LowConsqMains.” Column Description: Miles of main distribution pipeline with uncalculated risk. Units or Comments: Miles                                                                                                                     |

|                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UnkRiskService (new column)                                                                                                                                                            | Provide this new column and place it immediately after the column "LowConsqServices." Column Description: Miles of service distribution pipeline with uncalculated risk. Units or Comments: Miles                                                                                                                                                                                                                                                                                                                                                                     |
| TransmZone                                                                                                                                                                             | Provide the transmission zone which serves end use customers in the census tract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| TotalLoad                                                                                                                                                                              | As noted below, the total gas consumption data reported in "TotalLoad" is only 51 percent of the total consumption reported in "Consumption Data by Census Tract," excluding other wholesale consumption. Revise to include 100 percent of all load types in TotalLoad except other wholesale and unmappable load.                                                                                                                                                                                                                                                    |
| HiPressServices                                                                                                                                                                        | Provide the data under this column name for any customers receiving gas at this pressure. These may be classified by PG&E as "farm tap services."                                                                                                                                                                                                                                                                                                                                                                                                                     |
| HighestRiskMains, HighRiskMains, UpperRiskMains, LowerRiskMains, LowRiskMains, HighestConsqMains, HighConsqMains, UpperConsqMains, LowerConsqMains, LowConsqMains, HighestRiskServices | The current totals provided do not add up to the 5 percent or quartiles requested. For example, HighestRiskMains was requested to represent the miles with the highest 5 percent risk, but the total mileage reported for HighestRiskMains, 1,763, is only 4.06 percent of the 43,385 total mileage reported for HighRiskMains, UpperRiskMains, LowerRiskMains and LowRisk Mains. Please recalculate and provide the requested data so that the total mileage is accurate to within 1/100th of a percent. This will facilitate equitable comparison across utilities. |
| AvMainRisk                                                                                                                                                                             | Provide average within each census tract, not across all census tracts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AvServiceRisk                                                                                                                                                                          | Provide average within each census tract, not across all census tracts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AvMainConsq                                                                                                                                                                            | Provide average within each census tract, not across all census tracts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AvServiceConsq                                                                                                                                                                         | Provide average within each census tract, not across all census tracts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AvMainRiskScore                                                                                                                                                                        | Provide average within each census tract, not across all census tracts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| AvServiceRiskScore                                                                                                                                                                     | Provide average within each census tract, not across all census tracts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| HistAvMainHazLeaks                                                                                                                                                                     | Provide for 2015-2020 if not already.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| HistAvServiceHazLeaks                                                                                                                                                                  | Provide for 2015-2020 if not already.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                         |                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PlanGRCReplaceMains     | Include MAT 50A unless it does not yet exist by geography.                                                                                                                                                                                                                                                                                  |
| PlanGRCReplaceServices  | Provide response in miles.                                                                                                                                                                                                                                                                                                                  |
| GRCReplaceMainsPrograms | Provide responding data by tract for all miles of distribution main pipeline included in material-based pipeline replacement programs after subtracting miles planned for replacement in 2023-2026 (PlanGRCReplaceMains) or estimated for replacement in 2023-2026 (EstGRCReplaceMains). This represents mileage to be replaced after 2026. |
| RecentMains             | Provide responding data with a start date of 2010 if not already.                                                                                                                                                                                                                                                                           |
| RecentServices          | Provide responding data with a start date of 2010 if not already.                                                                                                                                                                                                                                                                           |
| TransmMiles             | Replace "Notransmission" with "0".                                                                                                                                                                                                                                                                                                          |
| TransmWallLoss          | Include excavated pipelines if not already included.                                                                                                                                                                                                                                                                                        |
| LargeTransmInfr         | Include Gill Ranch and any other large transmission infrastructure, as defined, located within census tracts in PG&E service territory, regardless of ownership. Name may include indication of non-PG&E ownership.                                                                                                                         |
| AvTIMPScore             | Provide absolute scores (risk score/mile-year) rather than percentiles.                                                                                                                                                                                                                                                                     |
| all                     | For all text representing data not applicable or available, if any two entries are not different in meaning (e.g. "NA" and "N/A"), then use the same text for both.                                                                                                                                                                         |

2. *Additional Information Relating to Gas System Census Tract Data*

Provide the requested information below, relating to Gas System Census Tract Data, in a table in a PDF filing. Where feasible, update the "Data Assumptions" in the filing to include this information.

| <b>Related Name in Original Request</b> | <b>Information Request</b>                                                                                                                                                                                                                                                                             |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LargeVolumeCustomers                    | Provide the definition of "large volume customers" used by PG&E for this response, the total number of customers fitting this definition, and an estimate of the total number of customers fitting the requested definition, i.e., customers that can receive more than 40,000 cubic feet/hour of gas. |

|                       |                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TotalLoad             | Explain why the total gas consumption data reported in "TotalLoad" is only 51 percent of the total consumption reported in "Consumption Data by Census Tract," excluding other wholesale consumption. These totals should be equal unless data is missing or from inconsistent sources.                                                                           |
| TotalLoad             | Provide the systemwide percentage of customers included in TotalLoad summed across all census tracts and explain why it is not possible to identify a location for every customer.                                                                                                                                                                                |
| PeakLoad              | Provide the systemwide total number of locations where throughput is measured at least hourly, excluding noncore customer meters. Also provide the systemwide percentages of core residential, commercial, and industrial customers with advanced metering infrastructure (AMI) and the frequency of load data collection from each of these customer categories. |
| LoadChange            | Clarify what is meant by the note "Source; teradata Census tract changes year to year," including defining "teradata" and its load data temporal and spatial granularity.                                                                                                                                                                                         |
| DiamUnk               | Explain why there are pipelines with unknown diameter.                                                                                                                                                                                                                                                                                                            |
| pipeline mileage      | The total of pipeline mileage reported by material is over 21 percent less than the total by diameter or pressure. Explain why this is and what pipeline materials, if any, are not included.                                                                                                                                                                     |
| pipeline mileage      | Explain why the total of pipeline mileage by risk is more than 1 percent lower than the total by pressure and what pipelines were not included in pipelines by risk.                                                                                                                                                                                              |
| AvMainPressure        | Explain NOP, what systemwide percentage of the distribution mains are in systems with known NOP and its frequency of measurement.                                                                                                                                                                                                                                 |
| HistAvMainHazLeaks    | Confirm that 2015-2020 is the time period covered or provide the years covered.                                                                                                                                                                                                                                                                                   |
| HistAvServiceHazLeaks | Confirm that 2015-2020 is the time period covered or provide the years covered.                                                                                                                                                                                                                                                                                   |
| RetiredMain           | Clarify the note "Does not include removals" and whether removals, not included here, were replaced with new pipe.                                                                                                                                                                                                                                                |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RetiredService             | Clarify the note “Does not include removals” and whether removals, not included here, were replaced with new pipe.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| PlanGRCReplaceMains        | Define “WIP clouds,” “PM order numbers,” “DEP” and “MAT.” Explain how the scheduling process for 50A pipeline replacement differs from the scheduling process for pipeline replacement activities included here, whether 50A is inaccurate, and what would cause MAT 50A to cause inaccuracy in “PlanGRCReplaceServices,” per note “Excluded MAT 50A order numbers (post-1940 steel and post-1984 plastic) to improve accuracy of column BV.” State the typical amount of time between identifying locations for replacement (approximate completion of project identification list) and the time when a replaced segment is installed and operative, by replacement program. |
| PlanGRCReplaceServices     | Clarify whether main replacement programs 14A, 14D and 50A include only mains or also include replacement of services and provide the total mileage of services to be replaced in those programs during 2023-2026, if any. Confirm that the units used for reporting “PlanGRCReplaceServices” were miles or provide units used.                                                                                                                                                                                                                                                                                                                                               |
| GRCReplaceServicesPrograms | Clarify whether main replacement programs 14A, 14D, and 50A include only mains or also include replacement of services, and provide the total mileage of services to be replaced in those programs in order for those programs to be complete, if any.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| RecentMains                | Define “GD GIS.” Provide the beginning date used for reporting pipelines built.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| RecentServices             | Provide the beginning date used for reporting pipelines built.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| RegStationCustomers        | Describe the difference between regulator stations listed as “DataNotReadilyAvailable” and “<500,” in terms of the physical characteristics of the regulator stations and what causes them to be listed in one or the other of these categories.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| RegStationCustomers        | Provide the total number of hydraulically independent systems with less than 500 customers, the number of regulator stations serving those                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



|                 |                                                                                                                                                                                                     |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | systems, and the total number of hydraulically independent systems serving 500 or more customers.                                                                                                   |
| RegStationAge   | Describe why the age of some regulator stations is not known and provide what is known about their age (e.g., maximum age).                                                                         |
| TransmWallLoss  | Clarify the definition used to determine what anomalies were included and how “pipelines that were not excavated” were addressed.                                                                   |
| SmallTransmInfr | Define HPR, MAOP, LVC and GT/GD-GIS.                                                                                                                                                                |
| all columns     | Provide a list of all text entries used to represent unknown or unavailable data, e.g., “Unknown”, “#N/A,” “N/A,” or “DataNotReadilyAvailable,” and the differences in meaning between them if any. |

3. *Corrected Consumption Data by Census Tract*

Provide a CSV spreadsheet file entitled “Consumption Data by Census Tract - PG&E.csv” as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| Column or Row Name (where to make the change)     | Change Request                                                                                                                                                                                                             |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| selected rows                                     | There are fewer census tracts listed in this file than in the “Gas System Data by Census Tract” file. Include the same census tracts in both files, even if the values in the “Consumption Data by Census Tract” are zero. |
| CoreIndLoad, NCEORLoad, CoreIndCust and NCEORCust | Provide this data if there are any such customers; if not, mark “0”.                                                                                                                                                       |

4. *Additional Information Relating to Consumption Data by Census Tract*

Provide the requested information below, relating to Consumption Data by Census Tract, in a table in a PDF filing. Where feasible, update the “Data Assumptions” in the filing to include this information.

| Related Name in Original Request | Information Request                                                                                                                                                                                                                                  |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| "Unknown" row                    | Explain the reasons for this data being unmappable, state whether it is believed that the customers in question will continue to use gas after 2022. Explain the process and number of weeks necessary to provide the unmapped data by census tract. |
| Affected rows                    | Explain why this file did not include all the census tracts included in the "Gas System Data by Census Tract" file.                                                                                                                                  |

5. *Corrected Consumption Data by Zip Code*

Provide a CSV spreadsheet file entitled "Consumption Data by Zip Code - PG&E.csv" as ordered in the March 1, 2022 ruling, with changes to be consistent with corrected consumption data by census tract.

6. *Corrected Gas System Summary Statistics*

Provide an Excel spreadsheet file with summary statistics entitled "Gas System Summary Statistics - PG&E.csv" as ordered in the March 1, 2022 ruling, with the following corrections:

| Column or Row Name (where to make the change) | Change Request                                                                                                       |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| All                                           | Reflect all changes requested above.                                                                                 |
| All                                           | Provide systemwide statistics across all rows, including those for which more granular data was marked confidential. |

7. *Corrected Supplemental Data*

Provide an Excel spreadsheet file with summary statistics entitled "Supplemental Data - PG&E.xlsx" (mistakenly identified as .csv in original ruling) as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| Tab and Column or Row Name (where to make the change) | Change Request                                       |
|-------------------------------------------------------|------------------------------------------------------|
| "Distribution Costs and Plans," Average cost of new   | Provide the average cost of a new regulator station. |

|                                                                         |                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| regulator station or regulator station replacement                      |                                                                                                                                                                                                                                                                                                                                      |
| "Distribution Costs and Plans," Items 10-13, 17                         | Revise as needed to include all pipeline replacement, including services. Estimates may be used, such as estimated length of a service. Include a description of the calculations.                                                                                                                                                   |
| "Distribution Costs and Plans," all repair, replacement and cost rows   | For all information provided based on the 2023 General Rate Case, or to be provided herein, provide values separately for each year (2023, 2024, 2025, 2026).                                                                                                                                                                        |
| "Distribution Costs and Plans," all repair, replacement and cost rows   | For all information provided based on the 2023 General Rate Case, or to be provided herein, provide an <i>alternate version</i> showing actual values for 2019, 2020 and 2021.                                                                                                                                                       |
| "Distribution Costs and Plans," Items 20-24 (cost per mile by diameter) | Describe how diameter does or does not affect average cost per mile to replace distribution pipeline. Include the factors contributing to pipeline costs and whether purchasing pipeline itself (as opposed to labor and other costs) constitutes more than 10 percent of cost to replace distribution pipeline.                     |
| "Program-Specific," GRC MAT Code (new row)                              | Provide MAT code used in the General Rate Case filings which covers the column's costs.                                                                                                                                                                                                                                              |
| "Program-Specific," Planning Period (new row)                           | Provide the typical length of time to determine the project list (list specifying locations to be repaired/replaced) and the length of time between when the project list is finalized and when the work is installed and operative.                                                                                                 |
| "Program-Specific," all rows                                            | If not already, include columns reflecting all distribution pipeline or regulator station repair or replacement, by cost code (MAT) or by program, whichever is more narrow.                                                                                                                                                         |
| "Program-Specific," all rows                                            | If forecasts are not available, provide historical data based on 2019-2021.                                                                                                                                                                                                                                                          |
| "Program-Specific," "Main Program Data Source"                          | Provide a description of the primary means of collecting data used in the risk models mentioned, e.g., fleet information. For "field observations" and "material failures," state the usual occasion of the observations, e.g., leak surveys or customer-initiated investigation. Define "SAP" and "Integrated Investment Planning." |

|                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>“Program-Specific,” “Aspects Contributing to Risk of Failure” and “Aspects Contributing to Consequences of Failure”</p> | <p>Provide text stating the data types and data sources contributing to the aspects already stated, e.g., pipeline material (utility fleet records), population density (census data), soil liquefaction potential (leak surveys, or specify other source), or weather data (NOAA). Constants that do not vary by pipeline segment need not be addressed.</p> |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The Southern California Gas Company shall provide the following information:

1. *Corrected Gas System Census Tract Data*

Provide a CSV spreadsheet file entitled “Gas System Census Tract Data – SoCalGas.csv” as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <p><b>Column Name (where to make the change)</b></p> | <p><b>Change Request</b></p>                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>OpDist (new column)</p>                           | <p>Provide this new column and place it immediately after the column “PressureDist.” Column Description: Division (PG&amp;E), Operating District (SoCalGas), Construction and Operations Center serving the census tract (SDG&amp;E), or Jurisdiction (SW Gas). Units or Comments: Numeric or text</p>                 |
| <p>DistAvCost (new column)</p>                       | <p>Provide this new column and place it immediately after the column “District.” Column Description: Average cost per mile to replace distribution pipeline in the OpDistrict as defined above. Units or Comments: \$/mi. Since average is calculated across the OpDistrict, many tracts will have the same value.</p> |
| <p>PressureUnk (new column)</p>                      | <p>Provide this new column and place it immediately after the column “MedPressServices.” Column Description: Miles of main or service distribution pipeline with unknown pressure. Units or Comments: Miles</p>                                                                                                        |
| <p>DiamUnk (new column)</p>                          | <p>Provide this new column and place it immediately after the column “DiamOver12.” Column Description: Miles of main or service distribution pipeline with unknown diameter. Units or Comments: Miles</p>                                                                                                              |

|                                                                    |                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MaterialUnk (new column)                                           | Provide this new column and place it immediately after the column "Iron." Column Description: Miles of main or service distribution pipeline with unknown material. Units or Comments: Miles                                                                                                                    |
| UnkRiskMain (new column)                                           | Provide this new column and place it immediately after the column "LowConsqMains." Column Description: Miles of main distribution pipeline with uncalculated risk. Units or Comments: Miles                                                                                                                     |
| UnkRiskService (new column)                                        | Provide this new column and place it immediately after the column "LowConsqServices." Put all service mileage here if risk calculations are not conducted for services. Column Description: Miles of service distribution pipeline with uncalculated risk. Units or Comments: Miles                             |
| AvMainPressure                                                     | Provide the main pipeline operating pressure, averaged (by length) across any main pipelines in the tract which operate at different pressures.                                                                                                                                                                 |
| TotalLoad                                                          | As noted below, the total gas consumption data reported in "TotalLoad" is 3 percent below the total consumption reported in "Consumption Data by Census Tract", excluding other wholesale consumption. Revise to include 100 percent of all load types in TotalLoad except other wholesale and unmappable load. |
| pipeline mileage by diameter, material, risk and consequence       | Include any mileage not previously included if possible.                                                                                                                                                                                                                                                        |
| HighestRiskMains and other main risk and consequence columns       | Include any mileage not previously included if possible.                                                                                                                                                                                                                                                        |
| HighestRiskServices and other service risk and consequence columns | Include any mileage not previously included if possible.                                                                                                                                                                                                                                                        |

2. *Additional Information Relating to Gas System Census Tract Data*

Provide the requested information below, relating to Gas System Census Tract Data, in a table in a PDF filing. Where feasible, update the "Notes" Excel file in the filing to include this information.

| <b>Related Name in Original Request</b> | <b>Information Request</b>                                                                                                                                                                                |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DemandNodes                             | Explain the process and number of weeks necessary to provide the number of demand nodes by census tract.                                                                                                  |
| TotalLoad                               | Explain why the total gas consumption data reported in "TotalLoad" is nearly 3 percent below the total consumption reported in "Consumption Data by Census Tract", excluding other wholesale consumption. |
| HiPressMains                            | State the systemwide highest maximum allowable operating pressure on high pressure mains.                                                                                                                 |
| UnkRiskMains                            | Describe the pressure, material, age, and other characteristics defining distribution mains for which risk and consequence evaluations are not conducted.                                                 |
| UnkRiskServices                         | Describe the pressure, material, age and other characteristics defining distribution services for which risk and consequence evaluations are not conducted.                                               |
| Pipeline mileage                        | Explain why the total of pipeline mileage by diameter is more than 1 percent lower than the total by pressure and what pipelines were not included in pipelines by diameter.                              |
| Pipeline mileage                        | The total of pipeline mileage reported by material is 8 percent less than the total by diameter. Explain why this is and why some pipeline materials are unknown.                                         |
| Pipeline mileage                        | Explain why the total of pipeline mileage by risk is more than 1 percent lower than the total by pressure and what pipelines were not included in pipelines by risk.                                      |

3. *Corrected Consumption Data by Census Tract*

Provide a CSV spreadsheet file entitled "Consumption Data by Census Tract - SoCalGas.csv" as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <b>Column or Row Name (where to make the change)</b> | <b>Change Request</b>                                                                                 |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| selected rows                                        | There are fewer census tracts listed in this file than in the "Gas System Data by Census Tract" file. |

|                                        |                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | Include the same census tracts in both files, even if the values in the “Consumption Data by Census Tract” are zero.                                                                                                                                                                                                                    |
| CoLoad                                 | Provide the requested information for information where location is known (e.g., may exclude some Lost and Unaccounted for Gas (LUAF)). This should include load at facilities with known locations, such as compressor stations or offices.                                                                                            |
| Columns reflecting number of customers | SDG&E and PG&E provided numbers of customers, including for categories where the gas consumption was marked as confidential. Please provide all the number of customers information requested or provide a confidentiality declaration with a justification specifically addressing why the number of customers should be confidential. |

4. *Additional Information Relating to Consumption Data by Census Tract*  
 Provide the requested information below, relating to Consumption Data by Census Tract, in a table in a PDF filing. Where feasible, update the “Data Assumptions” in the filing to include this information.

| <b>Related Name in Original Request</b> | <b>Information Request</b>                                                                                                                                                                                                                           |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “Unmappable” row                        | Explain the reasons for this data being unmappable, state whether it is believed that the customers in question will continue to use gas after 2022. Explain the process and number of weeks necessary to provide the unmapped data by census tract. |
| affected rows                           | Explain why this file did not include all the census tracts included in the “Gas System Data by Census Tract” file.                                                                                                                                  |

5. *Corrected Consumption Data by Zip Code*  
 Provide a CSV spreadsheet file entitled “Consumption Data by Zip Code - SoCalGas.csv” as ordered in the March 1, 2022 ruling, with changes to be consistent with corrected consumption data by census tract.

6. *Corrected Gas System Summary Statistics*

Provide an Excel spreadsheet file with summary statistics entitled “Gas System Summary Statistics – SoCalGas.csv” as ordered in the March 1, 2022 ruling, with the following corrections:

| <b>Column or Row Name (where to make the change)</b> | <b>Change Request</b>                                                                                                |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| all                                                  | Reflect all changes requested above.                                                                                 |
| all                                                  | Provide systemwide statistics across all rows, including those for which more granular data was marked confidential. |

7. *Corrected Supplemental Data*

Provide an Excel spreadsheet file with summary statistics entitled “Supplemental Data – SoCalGas.xlsx” (mistakenly identified as .csv in original ruling) as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <b>Tab and Column or Row Name (where to make the change)</b>                                                                                       | <b>Change Request</b>                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “Program-Specific,” Program Goal: Main Program Data Source for Bare Steel Replacement Plan                                                         | Provide any necessary corrections.                                                                                                                                                                                    |
| “Program-Specific,” all rows                                                                                                                       | Include columns reflecting all distribution pipeline or regulator station repair or replacement, by cost code (MAT), program, cost area or activity (e.g., Vintage Integrity Plastic Plan), whichever is more narrow. |
| “Program-Specific,” Total Pipeline Miles or Count of Regulator Stations to be Replaced by Program During Years Covered by most recent GRC per year | Provide an estimate consistent with the most recent GRC.                                                                                                                                                              |
| “Program-Specific,” GRC MAT Code (new row)                                                                                                         | Provide MAT code used in the General Rate Case filings which covers the column’s costs.                                                                                                                               |
| “Program-Specific,” Planning Period (new row)                                                                                                      | Provide the typical length of time to determine the project list (list specifying locations to be repaired/replaced) and the length of time between                                                                   |



|                                                                                                                                                    |                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                    | when the project list is finalized and when the work is installed and operative.                                                                                                                                                                                                          |
| “Program-Specific,” all rows                                                                                                                       | If forecasts are not available, provide historical data based on 2019-2021.                                                                                                                                                                                                               |
| “Program-Specific,” Pipelines Miles with Locations Yet to be Determined to be Replaced by Program During Years Covered by Most recent GRC per year | Provide an estimate consistent with the most recent GRC.                                                                                                                                                                                                                                  |
| “Distribution Costs & Plans,” all average cost rows                                                                                                | Include expense and capital costs, including labor and non-labor. For comparison, note that in the current GRC, capital cost and mileage forecasts in Exhibits 04 and 09 imply costs of approximately \$1.5 million per mile.                                                             |
| “Distribution Costs & Plans,” Average cost per mile to replace distribution main pipeline                                                          | Provide an estimate consistent with the most recent GRC.                                                                                                                                                                                                                                  |
| “Distribution Costs & Plans,” Average costs per mile to replace distribution main pipeline with specified diameters                                | Describe how diameter does or does not affect average cost per mile to replace distribution pipeline. Include the factors contributing to pipeline costs and whether purchasing pipeline itself constitutes more than 10 percent of cost to replace distribution pipeline.                |
| “Distribution Costs & Plans,” all repair, replacement and cost rows                                                                                | For all information provided based on historical data, provide values separately for each year (2019, 2020, 2021).                                                                                                                                                                        |
| “Distribution Costs & Plans,” all repair, replacement and cost rows                                                                                | For all information provided based on 2019-2021 actuals, or to be provided herein, provide an <i>alternate version</i> showing estimated forecasts by year for 2022 ad 2023 based on the previous GRC’s approved amounts and for 2024, 2025 and 2026 based on the 2024 General Rate Case. |
| “Distribution Costs & Plans,” Total gas distribution system costs per year                                                                         | Report capital and expense separately. Include assets outside of pipeline mains and services (e.g., distribution facilities and meters), as well as support costs and program costs that are not tied to specific assets.                                                                 |
| “Distribution Costs & Plans,” Total gas distribution system costs per distribution mains                                                           | Divide the gas distribution system costs per year by the gas distribution miles owned by the utility.                                                                                                                                                                                     |

|                                      |  |
|--------------------------------------|--|
| and services pipeline miles per year |  |
|--------------------------------------|--|

8. *Amended Gas System Census Tract Demand Nodes Data*

Resubmit the CSV spreadsheet file entitled “Gas System Census Tract Data-Demand Nodes - SoCalGas.csv” as provided in response to the March 1, 2022 ruling, with the following additions:

| <b>Column Name (where to make the change)</b>    | <b>Change Request</b>                                                                                                                                                                                                                                                              |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “Number of Core Customer Meters” (new column)    | Provide this new column and place it immediately after the column “Number of Customer Meters.”<br>Column Description: Count of core customer meters.                                                                                                                               |
| “Number of Noncore Customer Meters” (new column) | Provide this new column and place it immediately after the column “Number of Core Customer Meters.”<br>Column Description: Count of noncore customer meters.                                                                                                                       |
| MaxPressure (new column)                         | Provide this new column and place it immediately after the column “Number of Non-Core Customer Meters.” Column Description: Maximum operating pressure of the pressure district.                                                                                                   |
| HiPressRegs (new column)                         | Provide this new column and place it immediately after the column “RegStationCustomers.” Column Description: ID numbers of high-pressure regulator stations serving the pressure system, following the pressure definitions provided for “RegStationType” in the March 1 ruling.   |
| MedPressRegs (new column)                        | Provide this new column and place it immediately after the column “RegStationCustomers.” Column Description: ID numbers of medium-pressure regulator stations serving the pressure system, following the pressure definitions provided for “RegStationType” in the March 1 ruling. |

San Diego Gas and Electric shall provide the following information:

1. *Corrected Gas System Census Tract Data*

Provide a CSV spreadsheet file entitled “Gas System Census Tract Data – SDG&E.csv” as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <b>Column Name (where to make the change)</b> | <b>Change Request</b>                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OpDist (new column)                           | Provide this new column and place it immediately after the column "PressureDist." Column Description: Division (PG&E), Operating District (SoCalGas), Construction and Operations Center serving the census tract (SDG&E), or Jurisdiction (SW Gas). Units or Comments: Numeric or text                         |
| DistAvCost (new column)                       | Provide this new column and place it immediately after the column "District." Column Description: Average cost per mile to replace distribution pipeline in the OpDistrict as defined above. Units or Comments: \$/mi. Since average is calculated across the OpDistrict, many tracts will have the same value. |
| PressureUnk (new column)                      | Provide this new column and place it immediately after the column "MedPressServices." Column Description: Miles of main or service distribution pipeline with unknown pressure. Units or Comments: Miles                                                                                                        |
| DiamUnk (new column)                          | Provide this new column and place it immediately after the column "DiamOver12." Column Description: Miles of main or service distribution pipeline with unknown diameter. Units or Comments: Miles                                                                                                              |
| MaterialUnk (new column)                      | Provide this new column and place it immediately after the column "Iron." Column Description: Miles of main or service distribution pipeline with unknown material. Units or Comments: Miles                                                                                                                    |
| UnkRiskMain (new column)                      | Provide this new column and place it immediately after the column "LowConsqMains." Column Description: Miles of main distribution pipeline with uncalculated risk. Units or Comments: Miles                                                                                                                     |
| UnkRiskService (new column)                   | Provide this new column and place it immediately after the column "LowConsqServices." Put all service mileage here if risk calculations are not conducted for services. Column Description: Miles of service distribution pipeline with uncalculated risk. Units or Comments: Miles                             |

2. *Additional Information Relating to Gas System Census Tract Data*

Provide the requested information below, relating to Gas System Census Tract Data, in a table in a PDF filing. Where feasible, update the “Notes” Excel file in the filing to include this information.

| <b>Related Name in Original Request</b>                                                         | <b>Information Request</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PeakLoad                                                                                        | Provide the systemwide total number of locations where throughput is measured at least hourly, excluding noncore customer meters. Also provide the systemwide percentages of core residential, commercial and industrial customers with advanced metering infrastructure (AMI) and the frequency of load data collection from each of these customer categories. Provide the systemwide percentage of noncore customers whose throughput is measured at least hourly and the minimum, average and maximum frequency of load data collection for noncore customers. |
| pipeline mileage                                                                                | The total of pipeline mileage by diameter is more than 2 percent lower than the total by pressure. Explain why this is and why some pipeline diameters are unknown.                                                                                                                                                                                                                                                                                                                                                                                                |
| pipeline mileage                                                                                | The total of pipeline mileage reported by material is 2 percent less than the total by diameter. Explain why this is and why some pipeline materials are unknown.                                                                                                                                                                                                                                                                                                                                                                                                  |
| UnkRiskMains                                                                                    | Describe the pressure, material, age, and other characteristics defining distribution mains for which risk and consequence evaluations are not conducted.                                                                                                                                                                                                                                                                                                                                                                                                          |
| UnkRiskServices                                                                                 | Describe the pressure, material, age, and other characteristics defining distribution services for which risk and consequence evaluations are not conducted.                                                                                                                                                                                                                                                                                                                                                                                                       |
| PlanGRCReplaceMains,<br>PlanGRCReplaceServices,<br>EstGRCReplaceMains,<br>EstGRCReplaceServices | Clarify the comment “All known Distribution main and service replacements or additions are provided. Distribution main and service replacements or additions are not available at this time by geographic location.” and explain what information is provided in these columns.                                                                                                                                                                                                                                                                                    |

|                     |                                                       |
|---------------------|-------------------------------------------------------|
| RegStationCustomers | Explain what information was provided in this column. |
|---------------------|-------------------------------------------------------|

3. *Corrected Consumption Data by Census Tract*

Provide a CSV spreadsheet file entitled “Consumption Data by Census Tract - SDG&E.csv” as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| Column or Row Name (where to make the change) | Change Request                                                                                                                                                                                                             |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| selected rows                                 | If accurate, replace “N/A” with “0”.                                                                                                                                                                                       |
| selected rows                                 | There are fewer census tracts listed in this file than in the “Gas System Data by Census Tract” file. Include the same census tracts in both files, even if the values in the “Consumption Data by Census Tract” are zero. |
| "Unmappable" row                              | If any data was unmappable, provide it in a separate row.                                                                                                                                                                  |

4. *Additional Information Relating to Consumption Data by Census Tract*

Provide the requested information below, relating to Consumption Data by Census Tract, in a table in a PDF filing. Where feasible, update the “Data Assumptions” in the filing to include this information.

| Related Name in Original Request        | Information Request                                                                                                                                                                                                                       |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| several                                 | Explain the meaning of marking “N/A” for some categories.                                                                                                                                                                                 |
| CoLoad                                  | Describe how CoLoad was calculated.                                                                                                                                                                                                       |
| NCCommLoad, NCIndLoad, NCEGLoad, NCLoad | Amounts are marked “CONFIDENTIAL” in cases where there are no reported customers in these categories. In such cases, provide that the value is not confidential and is 0, or provide a motion for confidentiality addressing this matter. |

5. *Corrected Consumption Data by Zip Code*

Provide a CSV spreadsheet file entitled “Consumption Data by Zip Code - SDG&E.csv” as ordered in the March 1, 2022 ruling, with changes to be consistent with corrected consumption data by census tract.

6. *Corrected Gas System Summary Statistics*

Provide an Excel spreadsheet file with summary statistics entitled “Gas System Summary Statistics – PG&E.csv” as ordered in the March 1, 2022 ruling, with the following corrections:

| <b>Column or Row Name (where to make the change)</b> | <b>Change Request</b>                |
|------------------------------------------------------|--------------------------------------|
| all                                                  | Reflect all changes requested above. |

7. *Corrected Supplemental Data*

Provide an Excel spreadsheet file with summary statistics entitled “Supplemental Data – SDG&E.xlsx” (mistakenly identified as .csv in original ruling) as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <b>Tab and Column or Row Name (where to make the change)</b>                                      | <b>Change Request</b>                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “Distribution Costs and Plans,” Total distribution main pipeline miles to be replaced per year    | Provide actual values for 2019, 2020 and 2021 estimated forecasts by year for 2022-2023 based on the previous GRC’s approved amounts and estimates for 2024, 2025 and 2026 based on the 2024 General Rate Case. |
| “Distribution Costs and Plans,” Total distribution service pipeline miles to be replaced per year | Provide actual values for 2019, 2020 and 2021 estimated forecasts by year for 2022-2023 based on the previous GRC’s approved amounts and estimates for 2024, 2025 and 2026 based on the 2024 General Rate Case. |
| “Distribution Costs and Plans,” Total distribution main pipeline miles to be added per year       | Provide actual values for 2019, 2020 and 2021 estimated forecasts by year for 2022-2023 based on the previous GRC’s approved amounts and estimates for 2024, 2025 and 2026 based on the 2024 General Rate Case. |
| “Distribution Costs and Plans,” Total distribution service pipeline miles to be added per year    | Provide actual values for 2019, 2020 and 2021 estimated forecasts by year for 2022-2023 based on the previous GRC’s approved amounts and estimates for 2024, 2025 and 2026 based on the 2024 General Rate Case. |
| “Distribution Costs and Plans,” Average costs per mile to replace distribution main               | Provide estimates. Summarize the basis of the estimates, which need not be the recent GRC.                                                                                                                      |

|                                                                                                                                 |                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pipeline with specified diameters                                                                                               |                                                                                                                                                                                                                                                                            |
| "Distribution Costs and Plans," Average costs per mile to install new distribution main pipeline                                | Provide the requested information for pipeline in a new location (not replacement) or clarify that the information already provided answers this question.                                                                                                                 |
| "Distribution Costs and Plans," Average costs per mile to install new distribution service pipeline                             | Provide the requested information for pipeline in a new location (not replacement) or clarify that the information already provided answers this question.                                                                                                                 |
| "Distribution Costs and Plans," Average cost of regulator station repair/upgrade (excluding whole station replacement)          | Provide an estimate consistent with the most recent GRC.                                                                                                                                                                                                                   |
| "Distribution Costs and Plans," all repair, replacement and cost rows                                                           | For all information provided based on the 2023 General Rate Case, or to be provided herein, provide an <i>alternate version</i> showing actual values for 2019, 2020 and 2021.                                                                                             |
| "Distribution Costs and Plans," Total gas distribution system costs per distribution mains and services pipeline miles per year | Divide the 2023 gas distribution system costs per year by the gas distribution miles owned by the utility.                                                                                                                                                                 |
| "Distribution Costs and Plans," all rows after "Program Forecasts," for "RAMP Main and Service Replacements"                    | Provide the requested information.                                                                                                                                                                                                                                         |
| "Distribution Costs and Plans," GRC MAT Code (new row)                                                                          | Provide MAT code used in the General Rate Case filings which covers the column's costs.                                                                                                                                                                                    |
| "Distribution Costs and Plans," Items 20-24 (cost per mile by diameter)                                                         | Describe how diameter does or does not affect average cost per mile to replace distribution pipeline. Include the factors contributing to pipeline costs and whether purchasing pipeline itself constitutes more than 10 percent of cost to replace distribution pipeline. |
| "Program-Specific," all rows                                                                                                    | Include columns reflecting all distribution pipeline or regulator station repair or replacement, by cost code (MAT) or by program, whichever is more narrow.                                                                                                               |

|                                                                                                                                                    |                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| “Program-Specific,” all rows                                                                                                                       | If forecasts are not available, provide historical data based on 2019-2021.                                                                                                                                                          |
| “Program-Specific,” Planning Period (new row)                                                                                                      | Provide the typical length of time to determine the project list (list specifying locations to be repaired/replaced) and the length of time between when the project list is finalized and when the work is installed and operative. |
| “Program-Specific,” Pipelines Miles with Known Locations to be Replaced by Program During Years Covered by Most Recent GRC, Per Year               | Provide an estimate consistent with the most recent GRC.                                                                                                                                                                             |
| “Program-Specific,” Pipelines Miles with Locations Yet to be Determined to be Replaced by Program During Years Covered by Most recent GRC per year | Provide an estimate consistent with the most recent GRC.                                                                                                                                                                             |
| “Program-Specific,” Total Pipeline Miles or Count of Regulator Stations to be Replaced by Program During Years Covered by most recent GRC per year | Provide an estimate consistent with the most recent GRC.                                                                                                                                                                             |
| “Program-Specific,” Staff Contact Name and Email                                                                                                   | Provide the requested information.                                                                                                                                                                                                   |

Southwest Gas shall provide the following information:

1. *Corrected Gas System Census Tract Data*

Provide a CSV spreadsheet file entitled “Gas System Census Tract Data – Southwest Gas.csv” as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <b>Column Name (where to make the change)</b> | <b>Change Request</b>                                                                                                                                                                                |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OpDist (new column)                           | Provide this new column and place it immediately after the column “PressureDist.” Column Description: Division (PG&E), Operating District (SoCalGas), Construction and Operations Center serving the |



|                             |                                                                                                                                                                                                                                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | census tract (SDG&E), or Jurisdiction (SW Gas). Units or Comments: Numeric or text                                                                                                                                                                                                                              |
| DistAvCost (new column)     | Provide this new column and place it immediately after the column "District." Column Description: Average cost per mile to replace distribution pipeline in the OpDistrict as defined above. Units or Comments: \$/mi. Since average is calculated across the OpDistrict, many tracts will have the same value. |
| PressureUnk (new column)    | Provide this new column and place it immediately after the column "MedPressServices." Column Description: Miles of main or service distribution pipeline with unknown pressure. Units or Comments: Miles                                                                                                        |
| DiamUnk (new column)        | Provide this new column and place it immediately after the column "DiamOver12." Column Description: Miles of main or service distribution pipeline with unknown diameter. Units or Comments: Miles                                                                                                              |
| MaterialUnk (new column)    | Provide this new column and place it immediately after the column "Iron." Column Description: Miles of main or service distribution pipeline with unknown material. Units or Comments: Miles                                                                                                                    |
| UnkRiskMain (new column)    | Provide this new column and place it immediately after the column "LowConsqMains." Column Description: Miles of main distribution pipeline with uncalculated risk. Units or Comments: Miles                                                                                                                     |
| UnkRiskService (new column) | Provide this new column and place it immediately after the column "LowConsqServices." Put all service mileage here if risk calculations are not conducted for services. Column Description: Miles of service distribution pipeline with uncalculated risk. Units or Comments: Miles                             |
| Services                    | Provide the requested information.                                                                                                                                                                                                                                                                              |
| LargeCustomers              | Provide the requested information.                                                                                                                                                                                                                                                                              |
| DemandNodes                 | Provide the requested information, if Southwest Gas conducts hydraulic modeling of its system in California.                                                                                                                                                                                                    |
| TotalLoad                   | Provide the requested information. Load is gas supplied to customers. Customer location is known and can be mapped to census tracts. Please see the Census Bureau as necessary for census tract maps.                                                                                                           |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AvMainRisk            | Provide the requested information. For example, if the census tract contains 2 miles of main pipeline with an estimated risk of 1.4 and 1 mile of main pipeline with an estimated risk of 1.7, then report that the average main pipeline risk is 1.5.                                                                                                                                                                                                                     |
| AvMainLeaks           | Identify the census tracts where the leaks are located and provide this information in the spreadsheet.                                                                                                                                                                                                                                                                                                                                                                    |
| HistAvMainHazLeaks    | Identify the census tracts where the 33 leaks were found and repaired and provide this information in the spreadsheet.                                                                                                                                                                                                                                                                                                                                                     |
| HistAvServiceHazLeaks | Identify the census tracts where the 72 leaks were found and repaired and provide this information in the spreadsheet.                                                                                                                                                                                                                                                                                                                                                     |
| RegStationCustomers   | For tracts with multiple regulator stations, please report the number of customers served by each station, separated by semicolons, similar to the format for RegStationAge. That is, to produce this information, (1) for each regulator station, identify the total number of customers served by that regulator station, regardless of census tract; (2) report that number of customers in this column, in the census tract which the regulator station is located in. |

2. *Additional Information Relating to Gas System Census Tract Data*

Provide the requested information below, relating to Gas System Census Tract Data, in a table in a PDF filing.

| <b>Related Name in Original Request</b> | <b>Information Request</b>                                                                                                                                                                                                                                                   |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PeakLoad                                | Provide the frequency of load data collection, by customer types with differing frequency e.g., noncore and core residential. Provide the systemwide (California) total number of locations where throughput is measured at least hourly, excluding noncore customer meters. |
| LoadChange                              | Provide the average annual gas demand change from 2015 to 2020 (as a percentage) for Southwest Gas' Northern California; Southern California; and South Lake Tahoe areas.                                                                                                    |
| HiPressMains                            | State the systemwide highest maximum allowable operating pressure on high pressure mains.                                                                                                                                                                                    |

|                     |                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCPSteel            | Southwest Gas' note says "Southwest Gas does not have any copper in its system." Please provide an appropriate note for NCPSteel.                                                                                                                                                                                                                                                 |
| MainValves          | Southwest Gas' note says "Count of Essential Valves within Census Tract." Define "Essential Valve" as used in this data, define any valve types which are not "Essential Valves," and describe the major differences in functionality among these valve types if any. Provide a count or estimate the total number of non-essential valves in Southwest Gas' (California) system. |
| RegStationCustomers | Describe what information was provided, including why there is a number greater than zero for census tracts reported to have no regulator stations.                                                                                                                                                                                                                               |
| several             | Explain why the total of pipeline mileage reported by diameter is less than the total by material or pressure.                                                                                                                                                                                                                                                                    |
| several             | The total of high and medium pressure main mileage is less than the total main mileage by risk level. Explain why and what main pipelines are not included in HiPressMains or MedPressMains, if any.                                                                                                                                                                              |

3. *Additional Information Relating to Consumption Data by Census Tract*

Provide the requested information below, relating to Consumption Data by Census Tract, in a table in a PDF filing.

| Related Name in Original Request | Information Request                                                              |
|----------------------------------|----------------------------------------------------------------------------------|
| All                              | Explain the process and number of weeks necessary to provide the data requested. |

4. *Corrected Consumption Data by Zip Code*

Provide a CSV spreadsheet file entitled "Consumption Data by Zip Code - Southwest Gas.csv" as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| Column or Row Name (where to make the change) | Change Request                                                                                      |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------|
| All load data                                 | Provide the load data as average annual daily consumption in hundreds of cubic feet per day (ccfd). |

5. *Additional Information Relating to Consumption Data by Zip Code*

Provide the requested information below, relating to Consumption Data by Zip Code, in a table in a PDF filing.

| <b>Related Name in Original Request</b> | <b>Information Request</b>                                                       |
|-----------------------------------------|----------------------------------------------------------------------------------|
| CoLoad                                  | Explain whether the utility has any company use or lost and unaccounted for gas. |

6. *Corrected Gas System Summary Statistics*

Provide an Excel spreadsheet file with summary statistics entitled “Gas System Summary Statistics – Southwest Gas.csv” as ordered in the March 1, 2022 ruling, with the following corrections:

| <b>Column or Row Name (where to make the change)</b> | <b>Change Request</b>                                                                                     |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| all                                                  | Reflect all changes requested above.                                                                      |
| all                                                  | Provide systemwide totals for all columns, including those for which more granular data was not provided. |

7. *Corrected Supplemental Data*

Provide an Excel spreadsheet file with summary statistics entitled “Supplemental Data – Southwest Gas.xlsx” (mistakenly identified as .csv in original ruling) as ordered in the March 1, 2022 ruling, with the following corrections or changes:

| <b>Tab and Column or Row Name (where to make the change)</b>                                   | <b>Change Request</b>                                                                   |
|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| “Distribution Costs and Plans,” GRC MAT Code (new row)                                         | Provide MAT code used in the General Rate Case filings which covers the column's costs. |
| “Distribution Costs and Plans,” Total distribution main pipeline miles to be replaced per year | Provide actual values for 2019, 2020 and 2021.                                          |
| “Distribution Costs and Plans,” Total distribution                                             | Provide actual values for 2019, 2020 and 2021.                                          |

|                                                                                                        |                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| service pipeline miles to be replaced per year                                                         |                                                                                                                                                                                                                                                                            |
| "Distribution Costs and Plans," Total distribution main pipeline miles to be added per year            | Provide actual values for 2019, 2020 and 2021.                                                                                                                                                                                                                             |
| "Distribution Costs and Plans," Total distribution service pipeline miles to be added per year         | Provide actual values for 2019, 2020 and 2021.                                                                                                                                                                                                                             |
| "Distribution Costs and Plans," Number of new regulator stations to be built during GRC period         | Provide actual values for 2019, 2020 and 2021.                                                                                                                                                                                                                             |
| "Distribution Costs and Plans," Number of regulator stations to be replaced during GRC period          | Provide actual values for 2019, 2020 and 2021.                                                                                                                                                                                                                             |
| "Distribution Costs and Plans," Number of regulator stations to be repaired/upgraded during GRC period | Provide actual values for 2019, 2020 and 2021.                                                                                                                                                                                                                             |
| "Distribution Costs and Plans," Average cost to replace distribution main by pipeline diameter         | Describe how diameter does or does not affect average cost per mile to replace distribution pipeline. Include the factors contributing to pipeline costs and whether purchasing pipeline itself constitutes more than 10 percent of cost to replace distribution pipeline. |
| "Program-Specific," all rows                                                                           | Confirm that the responses provided refer to only California customers and if not, correct them to reflect all and only California customers.                                                                                                                              |
| "Program-Specific," all rows                                                                           | Include columns reflecting all distribution pipeline or regulator station repair or replacement, by cost code (MAT) or by program, whichever is more narrow.                                                                                                               |
| "Program-Specific," all rows                                                                           | If forecasts are not available, provide historical data based on 2019-2021.                                                                                                                                                                                                |
| "Program-Specific," Planning Period (new row)                                                          | Provide the typical length of time to determine the project list (list specifying locations to be repaired/replaced) and the length of time between                                                                                                                        |

|                                                                                                                                                                       |                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                       | when the project list is finalized and when the work is installed and operative.                                                                                                                                                                                                  |
| "Program-Specific," all rows                                                                                                                                          | Confirm that there are no pipeline or regulator station replacement activities in California expected by the utility during 2021-2025 other than those reflected in the programs reported. If there are, add them as columns in this sheet and provide the requested information. |
| "Program-Specific," Risk Score: Minimum Possible, Maximum Possible, Minimum, and Maximum                                                                              | Provide the requested information.                                                                                                                                                                                                                                                |
| "Program-Specific," Risk Score Value at Which Prioritized in Most Recent GRC                                                                                          | Provide the requested information.                                                                                                                                                                                                                                                |
| "Program-Specific," Risk Score Value at Which Immediate Action Taken, If Any                                                                                          | Provide the requested information.                                                                                                                                                                                                                                                |
| "Program-Specific," Aspects Contributing to Risk of Failure                                                                                                           | Provide the requested information.                                                                                                                                                                                                                                                |
| "Program-Specific," Aspects Contributing to Consequences of Failure                                                                                                   | Provide the requested information.                                                                                                                                                                                                                                                |
| "Program-Specific," Discussion of Risk Scoring Approach                                                                                                               | Provide the requested information.                                                                                                                                                                                                                                                |
| "Program-Specific," Targeted Pipe Replacement Program - pre-1961 High Pressure Distribution Steel and Targeted Pipe Replacement Program - pre-1961 Distribution Steel | Explain the difference in the types of pipelines covered by these two programs.                                                                                                                                                                                                   |
| "Customer Data," all rows                                                                                                                                             | Confirm that the responses provided refer to only California customers and if not, correct them to reflect all and only California customers.                                                                                                                                     |

(END OF APPENDIX)