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**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 JUDGES' RULING  
SEEKING DATA FROM CALIFORNIA'S GAS UTILITIES**

**SUMMARY**

This ruling directs California's investor-owned gas utilities, Pacific Gas and Electric Company, Southern California Gas Company, and Southwest Gas Company (*collectively referred to as, Gas IOUs*) to provide specified information about their gas systems by April 22, 2022. This ruling encourages the gas utilities owned by the cities of Long Beach, Palo Alto, and Vernon (*Gas MOUs*) to provide the same information by April 22, 2022. The Gas IOUs and MOUs shall submit the requested information in the format specified in the Appendix to this ruling. Future rulings may order updates to the requested information.

**1. DISCUSSION**

The Revised Scoping Memo and Ruling (Scoping Ruling) issued on January 5, 2022 identifies long-term gas planning strategy issues to be addressed in Track 2 of this proceeding. These issues relate to determining priorities for increasing, maintaining, or retiring parts of the current gas infrastructure. To better understand the current gas infrastructure and how to plan for its future, the gas IOUs and MOUs are requested to provide the information specified in

the Appendix. While the Appendix requests the information be submitted via comma separated values (CSV), the gas IOUs and MOUs shall file PDF versions of the CSV file to the docket card for this proceeding. The gas IOUs and MOUs must serve the electronic CSV file(s) on the service list for the instant proceeding.

Much of the information sought by this ruling focuses on gas distribution systems. For purposes of this ruling, a gas distribution system consists of:

- (1) Distribution main pipelines, which transport gas from transmission pipelines to distribution service pipelines;
- (2) Distribution service pipelines, which transport gas from distribution main pipelines to customers;
- (3) Regulator stations, which reduce the pressure in a pipeline as it gets closer to customers in a given area;
- (4) Valves, which enable parts of the system to be taken out of service for repairs; and
- (5) Meters and other supporting equipment, which for brevity are not addressed here.

The information sought in this ruling also includes each pipeline's age, material, assessed risk, and when it is scheduled for replacement.

In addition to seeking information on the gas distribution system, the data requests also seek information on gas consumption (sometimes referred to as load, demand, or throughput).

As more fully detailed in the Appendix to this ruling, information produced in response to this ruling shall be broken down by census tract.

**IT IS RULED that:**

1. Pacific Gas and Electric Company, Southern California Gas Company and Southwest Gas Company shall supply the information requested in the Appendix to this ruling no later than April 22, 2022.

2. The cities of Long Beach, Palo Alto and Vernon are requested to supply the information requested in the Appendix to this ruling no later than April 22, 2022.

3. Information supplied in response to this ruling shall be served in comma separated values or Excel and filed in PDF.

Dated February 9, 2022, at San Francisco, California.

/s/ KARL J. BEMESDERFER

Karl J. Bemesderfer  
Administrative Law Judge

/s/ SASHA GOLDBERG

Sasha Goldberg  
Administrative Law Judge

# APPENDIX

**APPENDIX  
INFORMATION TO BE PROVIDED**

1. *Gas System Census Tract Data*

Provide a CSV spreadsheet file entitled "Gas System Census Tract Data - [Utility Name].csv" with each census tract in a row, with the following data about each census tract in columns in the order stated. Omit spaces within responses (e.g., Los Angeles becomes "LosAngeles"). Unless otherwise noted, each data item refers to what is within the census tract.

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
Census tract ID #	TractID	Numeric
City	City	Text
County	County	Text
Zip code	ZipCode	Numeric
Climate zone	ClimateZone	Numeric. As used for gas billing purposes.
Gas transmission zone (SoCalGas) or gas transmission district (PG&E)	TransmZone	Text
Overlaps a High Consequence Area?	HCA	"Yes" or "No". This refers to a federal Pipeline and Hazardous Materials Safety Administration (PHMSA) definition of populated areas near transmission pipelines, where accidents would have higher human consequences.
Overlaps a Moderate Consequence Area?	MCA	"Yes" or "No". This refers to a federal Pipeline and Hazardous Materials Safety Administration (PHMSA) definition of moderately populated areas or four-lane roads near transmission pipelines.
Number of services	Services	Count. Services typically serve one customer each.

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
Number of large volume customers (customers that can receive more than 40,000 cubic feet/hour of gas)	LargeCustomers	Count
Number of demand nodes as represented in Synergi hydraulic model	DemandNodes	Count
Average annual daily gas consumption in 2021	TotalLoad	Hundreds of cubic feet per day (ccfd). Base on billing data plus company use and lost/unaccounted for gas, i.e., all gas use.
Peak hourly gas consumption in 2021	PeakLoad	Millions of cubic feet per hour (MMcfh). Base on all gas use which is metered hourly; exclude use not metered hourly.
Annual gas demand change from 2015 to 2020	LoadChange	Percent
Number of pressure districts	PressureDist	Count
Miles of high pressure (above 60 pounds per square inch (psi)) distribution main pipeline	HiPressMains	Miles
Miles of medium pressure (60 psi or below) distribution main pipeline	MedPressMains	Miles
Miles of high pressure (above 60	HiPressServices	Miles

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
psi) distribution service pipeline		
Miles of medium pressure (60 psi or below) distribution service pipeline	MedPressServices	Miles
Miles of distribution main and service pipeline with diameter of 2" or less	Diam2OrLess	Miles
Miles of distribution main and service pipeline with diameter over 2" through 4"	Diam2to4	Miles
Miles of distribution main and service pipeline with diameter over 4" through 8"	Diam4to8	Miles
Miles of distribution main and service pipeline with diameter over 8" through 12"	Diam8to12	Miles
Miles of distribution main and service pipeline with diameter over 12"	DiamOver12	Miles
Miles of distribution main and service pipeline made of Aldyl-A plastic installed in 1965-1972	EarlyAldylA	Miles. Vintage Aldyl-A is identified as a hazard and targeted for replacement. Aldyl-A manufactured in 1965-1972 is a higher hazard.
Miles of distribution main and service pipeline made of	LaterAldylA	Miles. Aldyl-A manufactured with an improved approach in 1970-1983 is less hazardous than

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
Aldyl-A plastic installed in 1973-1985		earlier Aldyl-A. Since pipe may be installed after manufacture, 1985 is the cutoff used in replacement programs.
Miles of distribution main and service pipeline made of Aldyl-A plastic with unknown manufacturer or installation year	UnkDateAldylA	Miles
Miles of distribution main and service pipeline made of non-Aldyl-A plastic (polyethylene)	NAPlastic	Miles. All plastic other than vintage Aldyl-A.
Miles of distribution main and service pipeline made of steel with cathodic protection	CPSteel	Miles
Miles of distribution main and service pipeline made of steel without cathodic protection	NCPSteel	Miles. Steel without cathodic protection is identified as a hazard and targeted for replacement or addition of cathodic protection.
Miles of distribution service pipeline made of copper	Copper	Miles. Copper services are identified for replacement. There are no copper mains.
Miles of distribution main and service pipeline made of wrought iron	Iron	Miles
Miles of distribution main and service pipeline older than	Oldest	Miles



<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
1941 or with unknown installation date		
Miles with calculated probability of leak per year, or risk of failure, in highest 5 percent of distribution main pipelines systemwide	HighestRiskMains	Miles. Utility-defined approach reflected in utilities' Distribution Integrity Management Program plans.
Miles with calculated probability of leak per year, or risk of failure, in highest quartile of distribution main pipelines systemwide	HighRiskMains	Miles
Miles with calculated probability of leak per year, or risk of failure, in second highest quartile of distribution main pipelines systemwide	UpperRiskMains	Miles
Miles with calculated probability of leak per year, or risk of failure, in second lowest quartile of distribution main pipelines systemwide	LowerRiskMains	Miles
Miles with calculated probability of leak per year, or risk of failure, in lowest quartile of distribution main pipelines systemwide	LowRiskMains	Miles
Miles with calculated probability of serious safety incident given	HighestConsqMains	Miles. Utility-defined approach reflected in utilities' Distribution

Column Description	Column Name	Units or Comments
leak, or consequence of failure, in highest 5 percent of distribution main pipelines systemwide		Integrity Management Program plans.
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in highest quartile of distribution main pipelines systemwide	HighConsqMains	Miles
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in second highest quartile of distribution main pipelines systemwide	UpperConsqMains	Miles
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in second lowest quartile of distribution main pipelines systemwide	LowerConsqMains	Miles
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in lowest quartile of distribution main pipelines systemwide	LowConsqMains	Miles

Column Description	Column Name	Units or Comments
Miles with calculated probability of leak per year, or risk of failure, in highest 5 percent of distribution service pipelines systemwide	HighestRiskServices	Miles. Utility-defined approach reflected in utilities' Distribution Integrity Management Program plans.
Miles with calculated probability of leak per year, or risk of failure, in highest quartile of distribution service pipelines systemwide	HighRiskServices	Miles
Miles with calculated probability of leak per year, or risk of failure, in second highest quartile of distribution service pipelines systemwide	UpperRiskServices	Miles
Miles with calculated probability of leak per year, or risk of failure, in second lowest quartile of distribution service pipelines systemwide	LowerRiskServices	Miles
Miles with calculated probability of leak per year, or risk of failure, in lowest quartile of distribution service pipelines systemwide	LowRiskServices	Miles
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in highest 5 percent of	HighestConsqServices	Miles. Utility-defined approach reflected in utilities' Distribution Integrity Management Program plans.

Column Description	Column Name	Units or Comments
distribution service pipelines systemwide		
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in highest quartile of distribution service pipelines systemwide	HighConsqServices	Miles
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in second highest quartile of distribution service pipelines systemwide	UpperConsqServices	Miles
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in second lowest quartile of distribution service pipelines systemwide	LowerConsqServices	Miles
Miles with calculated probability of serious safety incident given leak, or consequence of failure, in lowest quartile of distribution service pipelines systemwide	LowConsqServices	Miles
Calculated probability of leak per year, or risk of failure,	AvMainRisk	Unitless

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
averaged across distribution main pipeline miles		
Calculated probability of leak per year, or risk of failure, averaged across distribution service pipeline miles	AvServiceRisk	Unitless
Calculated probability of serious safety incident given leak, or consequence of failure, averaged across distribution main pipeline miles	AvMainConsq	Unitless
Calculated probability of serious safety incident given leak, or consequence of failure, averaged across distribution service pipeline miles	AvServiceConsq	Unitless
Risk score averaged across distribution main pipeline miles	AvMainRiskScore	Unitless. Risk score for a given pipeline segment is risk of failure times consequence of failure.
Risk score averaged across distribution service pipeline miles	AvServiceRiskScore	Unitless. Risk score for a given pipeline segment is risk of failure times consequence of failure.
Set pressure, averaged across distribution main pipeline miles	AvMainPressure	Psi

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
Year pipeline was installed, averaged across distribution main pipeline miles	AvMainYear	Year. Define segments with unknown year as installed in earliest known year for their material type.
Year pipeline was installed, averaged across distribution service pipeline miles	AvServiceYear	Year. Define segments with unknown year as installed in earliest known year for their material type.
Date of most recent leak survey, averaged across distribution main and service pipeline miles	AvSurvey	Date
Main leaks identified in leak surveys, excluding repaired or removed leaks, averaged across distribution main pipeline miles	AvMainLeaks	Leaks/mile
Service leaks identified in leak surveys, excluding repaired or removed leaks, averaged across distribution service pipeline miles	AvServiceLeaks	Leaks/mile
Main hazardous leaks (grade 1) repaired in 2015-2020, averaged across distribution main pipeline miles	HistAvMainHazLeaks	Leaks/mile. Other comparison period can be used upon utility request.
Service hazardous leaks (grade 1) repaired in 2015-2020, averaged across distribution service pipeline miles	HistAvServiceHazLeaks	Leaks/mile. Other comparison period can be used upon utility request.

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
Miles of distribution main pipeline retired/abandoned since 2010	RetiredMain	Miles
Miles of service pipeline retired/abandoned since 2010	RetiredService	Miles
Miles of distribution main pipeline planned for replacement in 2023 through 2026	PlanGRCReplaceMains	Miles. Include all pipeline replacement programs where location is known (Aldyl-A, pre-1941 steel, etc.).
Miles of service pipeline planned for replacement or relocation in 2023 through 2026	PlanGRCReplaceServices	Miles. Include all pipeline replacement programs where location is known (Aldyl-A, pre-1941 steel, etc.).
Estimated miles of additional distribution main pipeline planned for replacement in 2023 through 2026	EstGRCReplaceMains	Miles. Include all pipeline replacement where location is not yet known. Estimate mileage to be replaced in census tract based on total utility-wide mileage or other method of utility's choice.
Estimated miles of additional service pipeline planned for replacement in 2023 through 2026	EstGRCReplaceServices	Miles. Include all pipeline replacement where location is not yet known. Estimate mileage to be replaced in census tract based on total utility-wide mileage or other method of utility's choice.
Miles of distribution main pipeline planned for replacement in 2027 through 2030	GRCReplaceMains2030	Miles. Include all pipeline replacement programs where location is known (Aldyl-A, steel, etc.).

<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
Miles of service pipeline planned for replacement or relocation in 2027 through 2030	GCRReplaceServices2030	Miles. Include all pipeline replacement programs where location is known (Aldyl-A, steel, etc.).
Miles of distribution main pipeline identified for replacement after 2030	GCRReplaceMainsPrograms	Miles. Include all pipeline replacement programs where location is known (Aldyl-A, steel, etc.).
Miles of service pipeline identified for replacement after 2030	GCRReplaceServicesPrograms	Miles. Include all pipeline replacement programs where location is known (Aldyl-A, steel, etc.).
Miles of distribution main pipeline built since 2010	RecentMains	Miles
Miles of service pipeline built since 2010	RecentServices	Miles
Miles of new planned distribution main pipeline planned for 2023-2026	PlannedMains	Miles
Miles of new planned service pipeline planned for 2023-2026	PlannedServices	Miles
Number of valves on distribution main pipelines	MainValves	Count. Portions of the system can be isolated by closing two or more valves.
Number of high pressure (60 psi or above) distribution line branching points	HiBranches	Count. High-pressure only since branches on lower pressure lines are numerous, typically following streets.



<b>Column Description</b>	<b>Column Name</b>	<b>Units or Comments</b>
Presence of regulator station in census tract and whether it is a high-pressure regulator station (reduces pressure to pressure above 60 psi), medium-pressure (pressure of 1 through 60 psi) or low-pressure (to less than 1 psi)	RegStationType	"High," "Medium," "Low," or "None." Use semicolon to separate multiple items, e.g. "High;Medium" or "Medium;Medium."
Number of customers served by the regulator station(s) in the census tract if any such station	RegStationCustomers	Count
Ages of regulator stations in the census tract	RegStationAge	Years. Use semicolon to separate multiple items.
Number of regulator stations in the census tract identified for replacement, relocation, or to be newly constructed in 2023-2026	RegStationGRC	Count
Number of regulator stations identified in regulator station replacement program for replacement, relocation, or to be newly constructed after 2026	RegStationReplacement	Count
Transmission pipeline total mileage	TransmMiles	Miles

Column Description	Column Name	Units or Comments
Number of transmission pipeline anomalies with predicted metal wall loss of greater than 40 percent or other anomalies utility considers equally concerning	TransmWallLoss	Count. Such anomalies are typically identified for monitoring but not necessarily repair. Wall loss of 80 percent or greater requires immediate repair.
Diameter of transmission pipeline, averaged across transmission pipeline miles	AvTransmDiam	Inches
Risk score of transmission pipeline, averaged across transmission pipeline miles	AvTIMPScore	Unitless. Approach reflected in utilities' Transmission Integrity Management Program plans.
Name of compressor station serving the area	CompressorStn	Text. May be located outside the census tract.
Name(s) of station, regulator, regulator set, valve, and/or valve set connected to transmission, other than included at facilities in "LargeTransmInfr" below	SmallTransmInfr	Text. Use semicolon to separate multiple items. Specify which type of item it is, e.g., "XYZFarmTapRegulatorSet." Include all located in census tract regardless of ownership. Valves or other items part of a facility included in "LargeTransmInfr" below need not be stated in "SmallTransmInfr."
Name(s) of underground gas storage field,	LargeTransmInfr	Text. Use semicolon to separate multiple items. Specify which type of facility

Column Description	Column Name	Units or Comments
compressor station, gas terminal, or wholesale gas receipt point		it is, e.g., "ABCGasReceiptPoint." Include all located in census tract regardless of ownership.

2. *Consumption Data by Census Tract*

Provide a CSV spreadsheet file entitled "Consumption Data by Census Tract - [Utility Name].csv" with each census tract in a row, with the following data for each census tract in columns reflecting the gas consumption of the consumers in the category shown in the order stated. Base this response on billing data, or company data in the case of company use, for annual consumption in 2021.

Customer Category Description	Column Name
Core California Alternative Rates for Energy (CARE) residential	CARELoad
Core residential excluding CARE	CoreResLoad
Core commercial	CoreCommLoad
Core industrial	CoreIndLoad
Core NGV	CoreNGVLoad
Noncore commercial	NCCommLoad
Noncore industrial excluding refinery	NCIndLoad
Noncore refinery	NCREfLoad
Noncore enhanced oil recovery (EOR)	NCEORLoad
Noncore electric generation (EG)	NCEGLoad
Other wholesale (delivered to other utilities/wholesale including international)	WhLoad
Company use	CoLoad
Core subtotal	CoreLoad
Noncore subtotal	NCLoad
Other subtotal (Other wholesale plus company use)	OtherLoad
Number of customers served	Customers
Number of customers: Core CARE residential	CARECust
Number of customers: Core residential excluding CARE	CoreResCust
Number of customers: Core commercial	CoreCommCust

Number of customers: Core industrial	CoreIndCust
Number of customers: Core NGV	CoreNGVCust
Number of customers: Noncore commercial	NCCommCust
Number of customers: Noncore industrial (including refinery)	NCIndCust
Number of customers: Noncore refinery	NCREfCust
Number of customers: Noncore enhanced oil recovery (EOR)	NCEORCust
Number of customers: Noncore electric generation (EG)	NCEGCust
Number of customers: Other wholesale (delivered to other utilities/wholesale including international)	WhCust
Number of customers: Core subtotal	CoreCust
Number of customers: Noncore subtotal	NCCust
Number of customers: Other subtotal	OtherCust

3. *Consumption Data by Zip Code*

Provide a CSV spreadsheet file entitled "Consumption Data by Zip Code - [Utility Name].csv" with each zip code (zip code tabulation area) in a row, with columns as described above for item 2. Consumption Data by Census Tract., reflecting the gas consumption for each zip code.

4. *Gas System Summary Statistics*

Provide an Excel spreadsheet file with summary statistics about items 1, 2 and 3 above. Title the file "Gas System Summary Statistics - [Utility Name].xlsx," with tabs titled "Gas System Census Tract Data," "Consumption Data by Census Tract," and "Consumption Data by Zip Code." In the tab "Gas System Census Tract Data," provide column headings matching the column headings used in item 1. Gas System Census Tract Data. Provide rows showing the total, average, median, standard deviation, minimum, and maximum, of the rows (census tracts) which were provided in item 1. These are summary statistics for the census tract data. Similarly, in the tab "Consumption Data by Census Tract," use column headings shown in item 2. Consumption Data by Census Tract, and provide rows showing the total, average, median, standard deviation, minimum, and maximum, of the rows (census tracts) which were provided in item 2. These are consumption data summary statistics by census tract. Finally, in the tab "Consumption Data by Zip Code," use column headings shown in item 3. Consumption Data by Zip Code, and provide rows showing the total, average, median, standard deviation, minimum, and maximum, of the rows (zip codes) which were

provided in item 3. These are consumption data summary statistics by zip code.

5. *Supplemental Data*

Provide an Excel spreadsheet file containing information about utility-wide general rate case (GRC) approved programs and customer data entitled "Supplemental Data - [Utility Name].csv" with the following three tabs of information: "Distribution Costs and Plans," "Program Specific," and "Customer Data."

- a. For the tab "Distribution Costs and Plans" base all information on that submitted or, if approved information is available, as approved, in the most recent GRC for which an application has been submitted (identified as "Most recent GRC proceeding" in the spreadsheet). For averages, average across years covered by the most recent GRC proceeding, starting with the test year. Using the format below, provide the requested information in the empty cells:

<b>GRC Distribution Pipeline General Costs and Plans Information</b>	
Most Recent GRC proceeding name	
Most Recent GRC proceeding number	
Most Recent GRC proceeding years covered, starting with test year	
Open or Upcoming GRC proceeding name if any	
Open or Upcoming GRC proceeding number if any	
Open or Upcoming GRC proceeding years covered, starting with test year	
Total distribution main miles	
Total distribution service miles	
Average length of service pipeline (miles per service)	
Total distribution main pipeline miles to be replaced per year	
Total distribution service pipeline miles to be replaced per year	
Total distribution main pipeline miles to be added per year	
Total distribution service pipeline miles to be added per year	
Number of new regulator stations to be built during GRC period	
Number of regulator stations to be replaced during GRC period	
Number of regulator stations to be repaired/upgraded during GRC period	
Average cost per mile to replace distribution pipeline (mains and services)	
Average cost per mile to replace distribution main pipeline	

Average cost per mile to replace distribution service pipeline	
Average cost per mile to replace distribution main pipeline with diameter of 2" or less	
Average cost per mile to replace distribution main pipeline with diameter over 2" through 4"	
Average cost per mile to replace distribution main pipeline with diameter over 4" through 8"	
Average cost per mile to replace distribution main pipeline with diameter over 8" through 12"	
Average cost per mile to replace distribution pipeline with diameter over 12"	
Average cost per mile to install new distribution main pipeline	
Average cost per mile to install new distribution service pipeline	
Average cost of new regulator station or regulator station replacement	
Average cost of regulator station repair/upgrade (excluding whole station replacement)	
Total gas distribution system costs per year	
Total gas distribution system costs per distribution mains and services pipeline miles per year	

- b. For the tab "Program-Specific," use one column for each program affecting distribution pipelines or regulator stations, e.g., the Plastic Pipe Replacement Program. In the first column, provide information aggregated across all distribution pipeline programs, i.e., including all distribution pipelines, for all cells not greyed out. In the "Program Goal" row, provide a brief description of the focus of the program. In the "Main Program Data Source" row, provide a description of the primary means of collecting data used to prioritize pipelines for replacement in that program, e.g., leak surveys. In "Total Pipeline Miles Subject to Program," include all miles potentially eligible for replacement under the program (e.g., subject to leak surveys or made of relevant materials). For "Calculated probability of leak per year, or risk of failure,," "Consequences of Failure or Calculated probability of serious Safety Incident Given Leak" and "Risk Score," provide the values at the thresholds indicated, i.e., enter the minimum possible risk of failure, maximum possible risk of failure, the minimum risk of failure calculated for

any pipeline segment in the utility's system, the risk of failure that 25 percent of the utility's pipeline miles are at or below (25<sup>th</sup> percentile), the average risk of failure across the utility's distribution pipelines, etc. To find the "minimum possible" and "maximum possible," use the theoretical extremes for each data input used in the calculation. Risk scores are the product of probability of leak per year (SoCalGas terminology) or risk of failure (PG&E terminology) and likelihood of serious incident given leak (SoCalGas terminology) or consequences of failure (PG&E terminology). In the "Aspects Contributing to Risk of Failure" and "Aspects Contributing to Consequences of Failure" rows, provide text stating these aspects and their data sources, such as pipeline age (utility data), population density (census data), etc.

Include both main and service distribution pipelines. For regulator station programs, provide counts of stations instead of miles and exclude these programs from the "Pipeline Program Total" column. Define programs as reflected in the most recent GRC proceeding. Using the format below, provide the requested information in the empty cells.

<b>GRC Distribution System Plans and Risks Information by Replacement Program</b>					
Program Information	Program Name	Pipeline Program Total	[First Program Name]	[Second Program Name]	...
	Program Goal				
	Main Program Data Source				
	Materials of Pipelines Covered by Program				
	Ages of Pipelines Covered by Program				
	Program Includes Mains, Services or Both?				
Program Forecasts	Pipelines Miles with Known Locations to be Replaced by Program During Years Covered by Most Recent GRC, Per Year				
	Pipelines Miles with Locations Yet to be Determined to be Replaced by Program During Years Covered by Most Recent GRC, Per Year				
	Total Pipeline Miles or Count of Regulator Stations to be Replaced by Program During Years Covered by Most Recent GRC, Per Year				
	Total Pipeline Miles to be Replaced by Program for Program Completion, If Applicable				
	Total Pipeline Miles Subject to Program				
	Expected Year of Completion Per Utility's Goals, If Applicable				
Calculated Probability of Leak per	Minimum Possible				
	Maximum Possible				
	Minimum				



<b>GRC Distribution System Plans and Risks Information by Replacement Program</b>					
Year, or Risk of Failure	25th Percentile				
	Average				
	75th Percentile				
	95th Percentile				
	Maximum				
Calculated Probability of Serious Safety Incident Given Leak, or Consequence of Failure	Minimum Possible				
	Maximum Possible				
	Minimum				
	25th Percentile				
	Average				
	75th Percentile				
	95th Percentile				
Risk Score	Minimum Possible Risk Score				
	Maximum Possible Risk Score				
	Minimum Risk Score				
	25th Percentile Risk Score				
	Average Risk Score				
	75th Percentile Risk Score				
	95th Percentile Risk Score				
	Maximum Risk Score				
	Risk Score Value at Which Prioritized in Most Recent GRC				
	Risk Score Value at Which Immediate Action Taken, If Any				
Risk Scoring Discussion and Further Information	Aspects Contributing to Risk of Failure				
	Aspects Contributing to Consequences of Failure				
	Discussion of Risk Scoring Approach				
	Staff Contact Name and Email				

- c. For the tab titled "Customer Data," report the requested data for 2021. Use the systemwide peak hour in 2021 as the basis of all "during peak hour" amounts in this section. "Metered hourly" refers

to having meters that record hourly usage. Using the format below, provide the requested information in the empty cells.

<b>Customer Data</b>	
Total customers	
Annual core consumption (MMcfd)	
Annual noncore consumption (MMcfd)	
Annual wholesale consumption (MMcfd)	
Annual company use and lost/unaccounted for gas (MMcfd)	
Systemwide peak hour (date and hour)	
Annual core consumption metered hourly (MMcfd)	
Annual noncore consumption metered hourly (MMcfd)	
Annual company use and lost/unaccounted for gas metered hourly (MMcfd)	
Annual wholesale consumption metered hourly (MMcfd)	
Core consumption during peak hour, for core metered hourly (MMcfh)	
Noncore consumption during peak hour, for noncore metered hourly (MMcfh)	
Wholesale consumption during peak hour, for wholesale metered hourly (MMcfh)	
Company use and lost/unaccounted for gas during peak hour, for wholesale metered hourly (MMcfh)	
Estimated core consumption during peak hour, for core not metered hourly (MMcfh)	
Estimated noncore consumption during peak hour, for noncore not metered hourly (MMcfh)	
Estimated wholesale consumption during peak hour, for other not metered hourly (MMcfh)	
Estimated other consumption during peak hour, for other not metered hourly (MMcfh)	

**(END OF APPENDIX)**