"Gas System Census Tract Data – PGE" – Question 1 Data Assumptions

Updated with response to B.1 "Corrected Census Track Data" and B.2 "Additional Information Relating to Census Track Data" from 9/21/2022 Ruling and responses requested pursuant to the November 22, 2024 Ruling.

Column Name	Data Assumptions (provided in 5/20/2022 submittal)	Energy Division Feedback (9/21/2022)	PG&E Response (10/21/2022)	PG&E Response (1/13/2025)
TractID				
County				
City				
ZipCode				
ClimateZone	Based on Billing Thermal Unit (BTU) information in meters dataset, which was joined to Services to get the appropriate GEOID			
TransmZone		Provide the transmission zone which serves end use customers in the census tract.	Gas Transmission and Gas Distribution assets are mapped in two different systems. The Distribution pipe is unable to be traced upstream to the Transmission zone. Any "N/A" entries indicate that there is no Transmission in the census tract.	
HCA	Buffered HCA lines from Transmission out to 660' to find any intersecting Distribution lines			
MCA	Buffered MCA lines from Transmission out to 660' to find any intersecting Distribution lines			
Services	Active services only (no stubs)			
LargeCustomers	PG&E has a more conservative definition of "large volume customer" (LVC) than what is stated by the question, and the number of LVCs per PG&E's definition is what will be reported.	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	Per PG&E Utility Procedure TD-4125P-10, a Large Volume Customer is defined as "A customer served by PG&E gas facilities which have the capability of delivering	

		customers fitting the requested definition, i.e. customers that can receive more than 40,000 cubic feet/hour of gas.	40,000 standard cubic feet per hour (scfh) or more". This aligns with the requested data.	
DemandNodes	Please note, most systems with less than 500 customers are not modeled within Synergi.			
TotalLoad	There was not a direct match between meter ID location and census tract id for all customers. Data was provided for known customers.	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. Revise to include 100 percent of all types in TotalLoad except other wholesale and unmappable load. 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.	The original response was only 51% of the total consumption reported in “Consumption Data by Census Tract” because there was a large portion of customers that were unassigned to a census tract and were included within an “unknown” census tract in the “Consumption Data by Census Tract” file and not in the “Gas System Census Tract Data” file. The PG&E team has since been able to match the unassigned customers through a manual process to include the customer’s load within their census tract. These customers were unassigned because the datasets used to match customers to a census tract id are stored in different databases and are updated on different timeframes. This is typically not an issue for PG&E as Gas System	

			Planning work is not organized by census tract.	
PeakLoad	Based on historical systemwide noncore peak hour of Dec 15, 2021 at 10am. Noncore usage is metered hourly. All other customers are metered and billed monthly so were excluded.	Provide the systemwide total number of locations where throughput is measured at least hourly, excluding noncore customer meters. Please 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.	Systemwide total number of locations where throughput is measured at least hourly (flow meters): 11 Systemwide percentages of core customers with AMI: + Core Residential = 92% + Core Commercial = 5% + Core Industrial = 0% The frequency of load data collection for core customer AMI is every 6 hours.	
LoadChange	Source; teradata Census tract changes year to year.	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.	Upon further review, the above note was an early comment during the data collection period. Teradata was not used to provide this dataset and is not applicable.	
PressureDist	Pressure districts can span multiple census tracts and will be counted in each census tract			
OpDist		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	Provided.	

DistAvCost		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.	Average of 2023-2026 annual main replacement unit cost forecasts per mile by PG&E Division. 2023-2026 GRC forecast was based on 2017-2019 recorded costs and units. Note: if there are multiple values in OpDist column, the cost shown is based on the first Division shown in OpDist column	
HiPressMains	Transmission branches for Farm Tap services will not be included, so this will be 0			
MedPressMains	This includes the entire Gas Distribution Main dataset *with known NOP, unknown NOP is included in the new column “PressureUnk”			
HiPressServices	These don't exist in the Services dataset for Gas Distribution, so this will be 0	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.”	This includes a count of meters with a delivery pressure of over 60 psi, which includes “farm tap services”	
MedPressServices	This includes the entire Gas Service dataset		This now includes the entire Gas Service dataset with known NOP. Unknown NOP is included in the new column “PressureUnk”	
PressureUnk		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	This includes Gas Distribution Mains and Services that do not have a recorded NOP in the Gas Pressure System table or have no associated Gas Pressure System. Due to connectivity issues within	

			GD GIS for Services, there might be a higher number of services that do not show a related Gas Pressure System (HIS) Name.	
DiamUnk		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	Distribution Main mileage based off of Shape_Length/5280, Service mileage based off of Count Weight multiplied by average service length for reporting year 2021: (Count Weight*49.7)/5280.	
Diam2OrLess	Distribution Main mileage based off of Shape_Length/5280, Service mileage based off of Count Weight multiplied by average service length for reporting year 2021: (Count Weight*49.7)/5280.			
Diam2to4	Distribution Main mileage based off of Shape_Length/5280, Service mileage based off of Count Weight multiplied by average service length for reporting year 2021: (Count Weight*49.7)/5280.			
Diam4to8	Distribution Main mileage based off of Shape_Length/5280, Service mileage based off of Count Weight multiplied by average service length for reporting year 2021: (Count Weight*49.7)/5280.			
Diam8to12	Distribution Main mileage based off of Shape_Length/5280, Service mileage based off of Count Weight multiplied by average service length for reporting year 2021: (Count Weight*49.7)/5280.			
DiamOver12	Distribution Main mileage based off of Shape_Length/5280, Service mileage based off of Count Weight multiplied by average service			

	length for reporting year 2021: (Count Weight*49.7)/5280.			
EarlyAldylA	Used Installed Completion Date			
LaterAldylA	Used Installed Completion Date. Aldyl-A is present post-1985 but not included.			
UnkDateAldylA	All unknown Installed Completion Dates for Plastic Type = Aldyl-A			
NAPlastic	Includes all non-Aldyl-A plastic			
CPSteel	Queried based off of CP Type <> 'Unprotected'; includes unknowns as that relates to the type of protection being unknown, not the status of the protection itself			
NCPSteel	Queried based off of CP Type = 'Unprotected'			
Copper	There are no copper mains in the system so this will be 0			
Iron	Only includes wrought iron per the description (does not include cast iron)			
MaterialUnk		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	Currently, PG&E's data model does not allow for there to be unknown materials as this poses a safety risk. There are conservative assumptions made in some instances, but there is no comprehensive way to summarize these for reporting purposes.	
RiskScoreTop200				**NEW field: like top 5%, the top 200 risk miles of main were identified and pivoted by census tract. Each field to have 200.0 miles.**
RiskScore0201to0400				**NEW field: like top 200, the top 200-400 risk miles of main were identified and pivoted by census tract.**

RiskScore0401to0600				**NEW field: like top 200, the top 400-600 risk miles of main were identified and pivoted by census tract.**
RiskScore0601to0800				**NEW field: like top 200, the top 600-800 risk miles of main were identified and pivoted by census tract.**
RiskScore0801to1000				**NEW field: like top 200, the top 800-1000 risk miles of main were identified and pivoted by census tract.**
RiskScore1001to1200				**NEW field: like top 200, the top 1000-1200 risk miles of main were identified and pivoted by census tract.**
RiskScore1201to1400				**NEW field: like top 200, the top 1200-1400 risk miles of main were identified and pivoted by census tract.**
RiskScore1401to1600				**NEW field: like top 200, the top 1400-1600 risk miles of main were identified and pivoted by census tract.**
RiskScore1601to1800				**NEW field: like top 200, the top 1600-1800 risk miles of main were identified and pivoted by census tract.**
RiskScore1801to2000				**NEW field: like top 200, the top 1800-2000 risk miles of main were identified and pivoted by census tract.**
Oldest				
HighestRiskMains	Use: Liklihood of Failure (LoF), assumes top 5 % of overall system LoF values.	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	These data elements were re-calculated as requested.	**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by census tract of the top 5% LoF, by main mileage, was previously reported in units of leaks per year. No change in reported mileage**

		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.		**distribution. Values were corrected to reflect correct number of digits. Changed field name as requested.**
HighRiskMains	Use:Liklihood of Failure (LoF), assumes mileage count for those mains that have LoF scores with the 76-100% (highest quartile) of overall system LoF values			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of main mileage by census tract of the "highest quartile" LoF, by mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name, as requested.**
UpperRiskMains	Use:Likelihood of Failure (LoF), assumes mileage count for those mains that have LoF scores with the 51-76% (second highest quartile) of overall system LoF values			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by census tract of the "second highest quartile" LoF, by mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name, as requested.**
LowerRiskMains	Use:Likelihood of Failure (LoF), assumes mileage count for those mains that have LoF scores with the 26-50% (second lowest quartile) of overall system LoF values			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by census tract of the "second lowest quartile" LoF, by mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name, as requested.**
LowRiskMains	Use:Likelihood of Failure (LoF), assumes mileage count for those			**PG&E uses the term Likelihood of Failure (LoF) in**

	mains that have LoF scores with the 0-25% (lowest quartile) of overall system LoF values			**place of Probability of Failure. The distribution of mileage by census tract of the "lowest quartile" LoF, by mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name, as requested.**
HighestConsqMains	Use: Consequence of Failure (CoF), assumes top 5 % of overall system CoF values.			**PG&E previously reported the top 5% mileage distribution of mains Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
HighConsqMains	Use: Consequence of Failure (CoF), assumes mileage count for those mains that have CoF scores with the 76-100% (highest quartile) of overall system CoF values			**PG&E previously reported the "highest quartile" mileage distribution of mains Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
UpperConsqMains	Use: Consequence of Failure (CoF), assumes mileage count for those mains that have CoF scores with the 51-75% (second highest quartile) of overall system CoF values			**PG&E previously reported the "second highest quartile" mileage distribution of mains Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
LowerConsqMains	Use: Consequence of Failure (CoF), assumes mileage count for those mains that have CoF scores with the 26-50% (second lowest quartile) of overall system CoF values			**PG&E previously reported the "second lowest quartile" mileage distribution of mains Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
LowConsqMains	Use: Consequence of Failure (CoF), assumes mileage count for			**PG&E previously reported the "lowest quartile" mileage**

	those mains that have CoF scores with the 1-25% (lowes quartile) of overall system CoF values			**distribution of mains Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
UnkRiskMain		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	Risk scores are calculated for all mains mapped in GDGIS as of 1/15/2020. Differences in total mileage between risk-related columns and other columns are due to differences in the date of the GDGIS data snapshot.	
HighestRiskServices	Use: Likelihood of Failure (LoF), assumes top 5 % of overall system LoF values.			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by census tract of the top 5% LoF, by service mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name as requested.**
HighRiskServices	Use:Likelihood of Failure (LoF), assumes mileage count for those mains that have LoF scores with the 76-100% (highest quartile) of overall system LoF values			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by census tract of the "highest quartile" LoF, by service mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name as requested.**
UpperRiskServices	Use:Likelihood of Failure (LoF), assumes mileage count for those mains that have LoF scores with the 51-76% (second highest			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by**

	quartile) of overall system LoF values			**census tract of the "second highest quartile" LoF, by service mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name as requested.**
LowerRiskServices	Use:Likelihood of Failure (LoF), assumes mileage count for those mains that have LoF scores with the 26-50% (second lowest quartile) of overall system LoF values			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by census tract of the "second lowest quartile" LoF, by service mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name as requested.**
LowRiskServices	Use:Likelihood of Failure (LoF), assumes mileage count for those mains that have LoF scores with the 0-25% (lowest quartile) of overall system LoF values			**PG&E uses the term Likelihood of Failure (LoF) in place of Probability of Failure. The distribution of mileage by census tract of the "lowest quartile" LoF, by service mileage, was previously reported in units of leaks per year. No change in reported mileage distribution. Changed field name as requested.**
HighestConsqServices	Use: Consequence of Failure (CoF), assumes top 5 % of overall system CoF values.			**PG&E previously reported the top 5% mileage distribution of services Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
HighConsqServices	Use: Consequence of Failure (CoF), assumes mileage count for those mains that have CoF scores			**PG&E previously reported the "highest quartile" mileage distribution of services**

	with the 76-100% (highest quartile) of overall system CoF values			**Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
UpperConsqServices	Use: Consequence of Failure (CoF), assumes mileage count for those mains that have CoF scores with the 51-75% (second highest quartile) of overall system CoF values			**PG&E previously reported the "second highest quartile" mileage distribution of services Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
LowerConsqServices	Use: Consequence of Failure (CoF), assumes mileage count for those mains that have CoF scores with the 26-50% (second lowest quartile) of overall system CoF values			**PG&E previously reported the "second lowest quartile" mileage distribution of services Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
LowConsqServices	Use: Consequence of Failure (CoF), assumes mileage count for those mains that have CoF scores with the 1-25% (lowes quartile) of overall system CoF values			**PG&E previously reported the "lowest quartile" mileage distribution of services Consequence of Failure (CoF) in units of Significant Injury or Fatality (SIF) per leak. No change in reported mileage distribution.**
UnkRiskService		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	Risk scores are calculated for all services mapped in GDGIS as of 1/15/2020. Differences in total mileage between risk-related columns and other columns are due to differences in the date of the GDGIS data snapshot.	
AvMainRisk	Average calculated likelihood of failure (LoF), per year, of the entire service territory.	Provide average within each census tract, not across all census tracts.	Updated as requested.	

AvServiceRisk	Average calculated likelihood of failure (LoF), per year, of the entire service territory.	Provide average within each census tract, not across all census tracts.	Updated as requested.	
AvMainConsq	Average calculated consequence of failure (CoF), per year, of the entire service territory.	Provide average within each census tract, not across all census tracts.	Updated as requested.	
AvServiceConsq	Average calculated consequence of failure (CoF), per year, of the entire service territory.	Provide average within each census tract, not across all census tracts.	Updated as requested.	
AvMainRiskScore	Average calculated risk score, in terms of significant injury or fatality (SIF), per year.	Provide average within each census tract, not across all census tracts.	Updated as requested.	
AvServiceRiskScore	Average calculated risk score, in terms of significant injury or fatality (SIF), per year.	Provide average within each census tract, not across all census tracts.	Updated as requested.	
AvMainPressure	Will use NOP. Average pressure is based on systems with known NOP.	Explain NOP, what systemwide percentage of the distribution mains are in systems with known NOP and its frequency of measurement.	Normal Operating Pressure (NOP) is the pressure at which the downstream system operates under normal conditions. Generally, this is the set point of the working regulator. 99% of the distribution mains are in systems with a known NOP. The frequency of pressure measurements is approximately once every 20 to 90 seconds.	
AvMainYear	Will use oldest date we have attributed to each material between mains and services for all unknown installation dates (1892 for steel, 1921 for wrought iron, 1927 for cast iron, 1941 for copper, 1965 for plastic)			
AvServiceYear	Will use oldest date we have attributed to each material between mains and services for all			

	unknown installation dates (1892 for steel, 1921 for wrought iron, 1927 for cast iron, 1941 for copper, 1965 for plastic)			
AvSurvey	Based on last leak surveyed date of the leak survey grid the service is associated with			
AvMainLeaks	Open leaks only. Leaks associated with regulator stations included			
AvServiceLeaks	Open leaks only. Leaks associated with customer regulators included			
HistAvMainHazLeaks	Will only provide up to 2020. Leaks associated with regulator stations included.	Confirm that 2015-2020 is the time period covered or provide the years covered. Provide for 2015-2020 if not already	Confirming that 2015-2020 is time period covered (inclusive of 2015 and 2020). While reviewing, discovered that previous query excluded day of 2020-12-31. One Grade 1 Main leak was missed as a result. Spreadsheet data and query have been updated to correct this.	
HistAvServiceHazLeaks	Will only provide up to 2020. Leaks associated with customer regulators included	Confirm that 2015-2020 is the time period covered or provide the years covered. Provide for 2015-2020 if not already	Confirming that 2015-2020 is time period covered (inclusive of 2015 and 2020). While reviewing, discovered that previous query excluded day of 2020-12-31. Four Grade 1 Service leaks were missed as a result. Spreadsheet data and query have been updated to correct this.	
RetiredMain	Based off of abandoned pipe dataset. Does not include removals.	Clarify the note "Does not include removals" and whether pipe removed and not replaced is included.	Does not include removals" means we only provided data where the pipe was abandoned and left in the ground and did not include where pipe was removed completely	

			from the ground, regardless of whether that pipe was replaced or not.	
RetiredService	Based off of abandoned pipe dataset. Does not include removals. Utilized average service length (49.7') in combination with total counts.	Clarify the note "Does not include removals" and whether pipe removed and not replaced is included.	Does not include removals" means we only provided data where the pipe was abandoned and left in the ground and did not include where pipe was removed completely from the ground, regardless of whether that pipe was replaced or not.	
PlanGRCReplaceMains	Sum of main mileage inside WIP clouds with PM order numbers from DEP (as of 3/25/2022) in MATs 14A (pre-1941 steel) and 14D (pre-1985 plastic). Excluded MAT 50A order numbers (post-1940 steel and post-1984 plastic) to improve accuracy of column BV.	Include MAT 50A unless it does not yet exist by geography 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	Added 50A mileage. Work In Progress (WIP) clouds are GIS polygons that indicate areas of future work. These are associated with PM order number, which captures costs associated with future projects. The Distribution Execution Plan (DEP) provides a view into future gas distribution project timing. Maintenance Activity Type (MAT) provides a categorization of similar work for accounting purposes. Examples include MAT 14A for GPRP and MAT 14D for Plastic Pipe Replacement Program. Since MAT 50A is intended to address issues with post-1940 steel and post-1984 plastic, inclusion of this mileage in PlanGRCReplaceMains	**Deleted Column as Ruling states “This column is no longer required at this time”**

		operative, by replacement program.	would have necessitated inclusion of that mileage in the EstGRCReplaceMains column. However, the GRC request for MAT 50A does not include all post-1940 steel and post-1984 plastic; therefore, that mileage has not been included in EstGRCReplaceMain. The reference to column BV was intended to point to the EstGRCReplaceMains column. The time between project identification and execution varies based a number of factors including estimating and design duration, permitting, and street moratoriums.	
PlanGRCReplaceServices	Not available for main replacement programs (14A, 14D, and 50A) because those projects are recorded in units of feet of main, not services. For MAT 50B, count of WIP clouds with PM order numbers from DEP (as of 3/25/2022) in MAT 50B.	Provide response in miles. 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.	Confirmed that units are in miles. Sum of mileage based on count of pre-1985 service locations inside WIP clouds associated with MATs 14A, 14D, and 50A order numbers and count of all service locations inside WIP clouds associated with MAT 50B order numbers. Orders planned for 2023-2026 were determined based on status in the DEP (as of 3/25/2022). Assumed each service is 49.7 ft.	**Deleted Column as Ruling states "This column is no longer required at this time"**

EstGRCReplaceMains	Subtract known 2023-2026 replacement mileage (column BT = 390 miles) from 2023-26 forecast (875 miles). For eligible mileage in each census tract, apply percentage of remaining 2023-26 forecast mileage (485 miles) to systemwide mileage of pre-1941 steel and pre-1985 plastic (8,069 miles): 6.01%. Excluded MAT 50A because of the relatively small percentage of forecast mileage (60 miles) to systemwide mileage of post-1940 steel and post-1984 plastic (35,652 miles): 0.16%			**Deleted Column as Ruling states "This column is no longer required at this time"**
EstGRCReplaceServices	Not available for main replacement programs (14A, 14D, and 50A) because those projects are recorded in units of feet of main, not services. For MAT 50B, the total GRC forecast for 2023-2026 is 3,200 services, which is approximately 30 miles of pipe (using an average service length of 49.7 feet). After subtracting the planned 50B service replacement mileage in column BU, the remaining estimated mileage is 29 miles. This is less than 0.1% of the systemwide service population. Therefore, a prorated estimate of service replacement mileage for each census tract was not performed.		Sum of mileage based on count of pre-1985 service locations inside WIP clouds associated with MATs 14A, 14D, and 50A order numbers and count of all service locations inside WIP clouds associated with MAT 50B order numbers. Orders planned for 2023-2026 were determined based on status in the DEP (as of 3/25/2022). Assumed each service is 49.7 ft.	**Deleted Column as Ruling states "This column is no longer required at this time"**

GRCReplaceMains2030	Not available; main replacement projects are not currently known for this timeframe.			**Deleted Column as Ruling states "This column is no longer required at this time"**
GRCReplaceServices2030	Not available; main replacement programs (14A, 14D, and 50A) are recorded in units of feet of main, not services.			**Deleted Column as Ruling states "This column is no longer required at this time"**
GRCReplaceMainsPrograms	Not available; main replacement projects are not currently known for this timeframe.	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.	Includes all pre-1941 steel and pre-1985 plastic minus mileage in column "PlanGRCReplaceMains" and "EstGRCReplaceMains".	**A new approach was used, based on the Ruling's language:** Revise this column to show all main pipeline miles subject to the utility's programs to replace Aldyl-A plastic or aging steel mains. For PG&E, this consists of the Gas Pipeline Replacement Program and Plastic Pipeline Replacement Program. For SoCalGas, this consists of the Vintage Integrity Plastic Plan and Bare Steel Replacement Plan programs. Units or Comments: Miles **Processing approach is to report the amount of program eligible assets: GRCRReplaceMainsPrograms = SUM({ [Material = steel] AND [INSTALLATIONDATE <= 1940 + 1800] } + { [Material = plastic] AND [INSTALLATIONDATE <=1984] } / census tract, in miles**
GRCReplaceServicesPrograms	Not available; main replacement programs (14A, 14D, and 50A) are recorded in units of feet of main, not services.	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	Sum of mileage based on pre-1985 service locations (assumed each service is 49.7 feet) minus mileage from PlanGRCReplaceServices.	

		in order for those programs to be complete, if any.	Sum of mileage based on pre-1985 service locations (assumed each service is 49.7 feet) minus mileage from PlanGRCReplaceServices.	
RecentMains	Will include all 2021 jobs posted to GD GIS by 1/9/2022	Provide responding data with a start date of 2010 if not already. Define "GD GIS." Provide the beginning date used for reporting pipelines built.	Confirmed data was provided with a start date of January 1, 2010. GD GIS: Gas Distribution Geographical Information System. Within PG&E, this is the team that supports the application in various ways. Support contains, but is not limited to, mapping and analyzing facilities, analyzing and reporting on geospatial data and risk detection among PG&E's facilities. Data for this column contains distribution main installed since January 1st, 2010.	
RecentServices	Will include all 2021 jobs posted to GD GIS by 1/9/2022	Provide responding data with a start date of 2010 if not already.	Confirmed data was provided with a start date of January 1, 2010.	
PlannedMains	New D main is installed based on customer demand (no planned work). 2021 historical main installation is provided			
PlannedServices	New services are installed based on customer demand (no planned work). 2021 historical main installation is provided			
MainValves	Will include all valve types			
HiBranches	There are no Distribution line branching points >60 psi, so this will be zero			

HiPressRegs				**NEW Field: Includes count of transmission stations (outlet over 60 psig) as shown in SmallTransInfr. Includes only facilities identified as "RegStation" or "PressureLimitingStation" in SmallTransInfr. Does not include LVC-type facilities.**
MedPressRegs				**NEW Field: Includes count of pressure regulating facilities (regulator stations and regulator sets) where outlet pressure is 1-60 psig. Count based on FLOCs of GD.STAT.DIST, GD.STAT.HPRS, and GD.STAT.FTAP.**
LowPressRegs				**NEW Field: Includes count of pressure regulating facilities where outlet pressure is <1 psig. Count based on FLOCs of GD.STAT.LPRS.**
UnkPressRegs				**NEW Field: Number of regulator stations located in the census tract not included in HiPressRegs, MedPressRegs, or LowPressRegs. None entered.**
PGEHPR				**NEW Field: Includes pressure regulating facilities that are HPR-Type district regulator stations (GD.STAT.HPRS) and farm taps (GD.STAT.FTAP). Overlap with MedPressRegs column.**
RegStationType	MAOP measured in Water Column will be converted to psi to be classified in the given High, Medium, and Low pressure			**Does not include Farm Taps. Facilities marked as Unknown are those where outlet MAOP was not listed in GIS. Outlet pressure range can be**

	designations. Any unknown MAOP will be classified as 'Unknown'.			**determined from FLOC (see MedPressRegs and LowPressureRegs columns).**
RegStationCustomers	+ T & D Stations with Synergi model - Data readily available for # of customers by hydraulically independent system (HIS) but not granularity of # of customers supplied by specific reg station for HIS served by multiple stations. For example, if Reg A + B both feed 100 customers total in HIS C, Reg A = 100 custs and Reg B = 100 custs. + T & D Stations without Synergi model (not required for HIS less than 500 custs), customer count data is not readily available and HIS with “<500” in name listed as "<500". + Farm Taps - Assumes 1 to 2 customers	Describe the difference between regulator stations listed as "DataNotReadilyAvailable" and "<500," in terms of the physical characteristics of the regulator stations and what what causes them to be listed in one or the other of these categories. 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.	"DataNotReadilyAvailable" was listed for regulator stations which had an unknown hydraulically independent system, so could not assign customer count. "<500" was listed for regulator stations feeding hydraulically independent systems serving less than 500 customers. - Total # of hydraulically independent systems with less than 500 customers = 938 - Number of regulator stations serving HIS with less than 500 customers = 1,006 - Total # of hydraulically independent systems serving 500 or more customers = 283	
RegStationAge	Will calculate age in years based on the Installed Completion Date. Unknowns (1/1/1800) will be reported as unknown ages. 0 value refers to age less than 1 year.	Describe why the age of some regulator stations is not known and provide what is known about their age (e.g. maximum age).	The Install Dates of Regulator Stations was not previously captured in MET/AutoCAD, the mapping system used prior to GIS. When PG&E switched between AutoCAD and GIS a general rule was set that unless the map showed an install date, the default would be to input 1/1/1800	

			which is equivalent to Unknown. It was not within the scope of that conversion project to confirm all of the Install Dates from As-builts. The majority of the Regulator Stations with missing Install Dates fall into this category. There is no general information about the Regulator Stations, like maximum age. When available, the information should be found in the As-builts.	
RegStationGRC	2023-2026 GRC unit forecast is based on generic number of stations needed to mitigate or manage the risk and is at the programmatic level. It is not based on exact station location. Two exceptions are the Simple Station Rebuilds and Complex Station Rebuilds where stations are identified ahead of time. The locations for those 2 programs are included in this analysis.			
RegStationReplacement	Stations for rebuild/replacement/relocation/new constructions beyond 2026 have not been identified. They will be forecasted and identified as part of the 2027 Rate Case process.			
TransmMiles		Replace "Notransmission" with "0".	Replaced.	
TransmWallLoss	Wall loss call-outs from the latest ILI (MFL tool) projects on each pipeline that were not excavated.	Clarify the definition used to determine what anomalies were included and how "pipelines that were not excavated" were addressed.	In-Line Inspection anomaly data was provided for all anomalies with metal wall loss of greater than 40 percent. These anomalies have dimensions of length,	

		Include excavated pipelines if not already included.	width and depth where depth represents the deepest point within the anomaly. Anomalies are identified using Magnetic Flux Leakage (MFL) In-Line Inspection tools in accordance with the performance specification for the respective tool. PG&E incorporates a conservative process for selecting digs (which incorporates corrosion growth) to ensure anomalies will not grow to a critical size prior to the re-inspection with ILI. When a pipeline segment is excavated, all anomalies are examined and measured so they are no longer considered "predicted" wall loss and are not applicable in this response.	
AvTransmDiam				
AvTIMPScore	Risk output from the 2020 annual risk run converted into mileage percentiles, output was certified in 2021.	Provide absolute scores (risk score/mile-year) rather than percentiles.	Provided absolute scores (risk score/mile-year) rather than percentiles.	
CompressorStn	Compressor stations that are solely used to compress gas on the transmission lines are included. Storage compressors are not included.			
SmallTransmInfr	Includes farm taps, HPRs, distribution regulator stations with	Define HPR, MAOP, LVC and GT/GD-GIS.	HPR is a "High Pressure Regulator": A district	

	inlet MAOP above 60 psig, transmission regulator stations, LVCs, meter stations as show in GT/GD-GIS. Also includes valve lots and automated valve lots from GT-GIS or that have an operating diagram.		regulator station that uses any of the following spring-operated regulators: Fisher 621, 627, and 630; Reliance Model HPR 10, HPR 20, and HPR 268; Rockwell 141, 141A, 041; Sprague/Itron B35 MAOP is "Maximum Allowable Operating Pressure": The maximum pressure at which a pipeline segment or component is qualified to operate in accordance with the requirements of 49 CFR, Part 192. LVC is a "Large Volume Customer": A customer served by PG&E gas facilities which have the capability of delivering 40,000 standard cubic feet per hour (scfh) or more. GT-GIS is "Gas Transmission - Geographical Information System" GD-GIS is "Gas Distribution - Geographical Information System"	
LargeTransmInfr	1. Storage locations were consolidated to include compression, processing facilities and associated gas wells. 2.PG&E expects to begin decommissioning or complete sale	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	Gill Ranch has now been included	

	efforts related to the Pleasant Creek gas storage facility in 2022, but included in this list. 3. Gill Ranch gas storage field excluded from the list as PG&E does not operate the field. 4. PG&E has no wholesale gas receipt points since it does not resell gas to end-use customers.	indication of non-PG&E ownership.		
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.	There was an error in the query for cathodically-protected steel, where an attribute was left off and therefore reported less miles. This has been corrected and should address the ~21% difference in total pipeline mileage.	
Pipeline mileage		Explain why the total of pipeline mileage by risk are more than 1 percent lower than the total by pressure and what pipelines were not included in pipelines by risk.	Risk scores are calculated for all services mapped in Gas Distribution Geographical Informational System (GD GIS) as of 1/15/2020. Differences in total mileage between risk-related columns and other columns are due to differences in the date of the GDGIS data snapshot. This is also noted in the assumptions for "UnkRiskScore"	

Text Entry Terms Definition List

Text Entry	Spreadsheet Definition/Meaning
Unknown	Data requested is not known typically because past record keeping/documentation was not provided from previous ownership or not recorded in previous mapping systems.
N/A	Not Applicable. Typically due to the census tract not containing any Distribution mileage or Transmission mileage for a Distribution or Transmission specific dataset.
<500	This term is used in the "RegStationCustomers" column for regulator stations feeding hydraulically independent systems serving less than 500 customers and are not required to be modeled in Synergi.
DataNotReadilyAvailable	Data is not readily available. This term is used in the "RegStationCustomers" column for regulator stations which had an unknown hydraulically independent system, so could not assign customer count.
DataUnavailable	Requested data is not available for various reasons including differences in how PG&E records unit completion for projects or the timeframe for which projects are planned in advance.
Trans_Definition=Distribution	Pipe classification to show ownership by either Distribution or Transmission and is not based purely on pressure.