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APPENDIX B

DIRECTIONS TO UTILITIES, INCLUDING INFORMATION TO BE PROVIDED

DRAFT FOR COMMENT

The Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SoCalGas), San Diego Gas and Electric (SDG&E), and Southwest Gas (California gas utilities) shall provide maps and the associated information and documentation described below, together known as "gas maps," according to the following directions regarding procedures, formatting, and content.

A. Procedures

Gas utilities shall provide gas maps complying with this ruling by July 1, 2025.

The gas utilities, jointly or individually, shall file an update in this proceeding by April 15, 2025 that includes (a) informing the Commission of their progress towards complying with this ruling; (b) an attached draft of their user guide, with incomplete data if needed; and (c) an attached draft or formatting mockup of their dedicated gas map webpage, which will in turn host the ArcGIS link and user guide, including a draft of any explanatory webpage text.

For all formatting details not specified herein, the gas utilities shall work together to agree on and shall implement consistent formatting, with the exception of optionally provided information. For example, but not limited to, map colors for each item, scales, basemap, and labeling arrangements shall be the same across utilities. The utilities may each host their own map, or request to use a third-party contractor or select one among the utilities (thus known as the "map host") to host or coordinate the maps by filing a motion in this proceeding consisting of that request, which request will not be unreasonably denied. If the utilities each host their own maps, any overlapping areas shall appear with the

same information on all maps (i.e., shall include the necessary information from all utilities). In either case, each utility is responsible for the accuracy and completeness of maps of its areas.

Each gas utility or the map host shall designate a data facilitator who can provide assistance to parties, other jurisdictions, and members of the public in accessing and understanding the gas maps. The data facilitator will also be responsible for facilitating and disposing of requests for mapping of building electrification programs as discussed below.

B. Formatting

Gas maps shall be provided by each of the utilities, or the map host, doing the following:

a. Hosting a dedicated gas map webpage with links from it to an ArcGIS map that has the information, formatting, and functionality specified below;

b. Providing, on the same dedicated gas map webpage, links to download the user guide and the building electrification guidance specified below; and

c. Filing and serving to the proceeding list a compliance filing in this proceeding describing the compliance activities and including the URL of the dedicated gas map webpage and ArcGIS webpage, an attachment of the user guide specified below, an attachment of the building electrification guidance specified below, phone and email information to reach the data facilitator, and directions on how to receive a convenient hard copy (e.g., hard disk) of the complete datasets upon request.

1. *ArcGIS Maps and Functionality*

Maps shall be provided using ArcGIS Online. Thus, users shall be able to view the map, zoom in and out, produce summary statistics such as totals and ranges for data within geographic boundaries of their choice (e.g. city, tribe, or census tract, or user-designated boundary) and conduct other analyses using ArcGIS Online tools, and download data or subsets of data in ArcGIS, Excel, or csv formats. Users shall not be required to register.

2. *User Guide*

Each gas utility, or the map host, shall provide a user guide that describes how to access the ArcGIS map and how to use it, including how to summarize information from the map across geographic boundaries of their choice. The user guide shall also include the following for each data field across the gas utility's service territory:

- its definition and units;
- the field's total, average, median, minimum, maximum, and standard deviation; or for categorical values, the number and total pipeline length (if applicable) in each category,[1] or total count if there are no subcategories[2]
- the count of unknown values,
- the units,
- the definition,
- and the causes or differentiating characteristics of objects with unknown values, if any have unknown values.

3. *Additional Guidance*
    a. *Contacting the Data Facilitator*

[1] E.g., number and total miles of Aldyl-A pipeline segments.

[2] E.g., number of counties.

Each gas utility, or the map host, shall provide contact information for and guidance on contacting their data facilitator.

b. Requesting Mapping of Existing Building Electrification Programs and Potential Community Partners

Each gas utility, or the map host, shall provide directions on how local governments, community-based organizations, or other community partners may request that their jurisdictional or program boundary be added to the map as the site of a building electrification and/or gas decommissioning research or implementation program. These directions shall include how to contact the data facilitator to make such requests and instructions to copy the Commission on any such request. The gas utility or map host will add the entity to the map within 14 days of receiving a request, unless it believes the request is spurious or inappropriate, in which case it will notify Commission staff who will review the request. Commission staff may direct the gas utility or map host to add or remove such information from the map.

4. Map Landing Page

Each gas utility's or the map host's map, as first viewed when visiting its ArcGIS website, shall default to show:

- Gas distribution mains with risk score layers[3] (will show after sufficiently zoomed in)
- Disadvantaged community layers
- Tribal boundaries
    - For federally recognized tribes
    - For California-recognized tribes by July 1, 2026
- Overlaid on a street map.

[3] HighestRiskScoreLocations.

5. *Census Tract Page*

Each gas utility or the map host shall provide an alternative ArcGIS landing page or link, which shall default to prioritize the previously provided ruling data by census tract.

6. *Definitions*

The Assigned Commissioner's Scoping Memo ("Scoping Memo") asked, "How should the Commission interpret the undefined terms in Section 661, including 'submit,' 'potential,' and 'foreseeable'?"[4] Public Utilities Code Section 661(a) requires each gas corporation to "submit" a map to the Commission. Public Utilities Code Section 661(a)(1) requires the map to include the location of all "potential" gas distribution line replacement projects identified in a gas corporation's distribution integrity management plan and any "foreseeable" gas distribution pipeline replacements. The Public Utilities Code does not define the terms "submit," "potential," and "foreseeable."

For purposes of this ruling, "submit" as in "submit to the commission a map" requires the gas corporations to file and serve to the proceeding list a compliance filing describing the compliance activities and including the URL of the dedicated gas map webpage and ArcGIS webpage, an attachment of the user guide specified below, an attachment of the building electrification guidance specified below, phone and email information to reach the data facilitator, and directions on how to receive a convenient hard copy (e.g., hard disk) of the complete datasets upon request.

[4] Rulemaking (R.) 24-09-012, *Assigned Commissioner's Scoping Memo and Ruling,* January 31, 2025, https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M555/K960/555960635.PDF.

"Potential gas distribution line replacement projects identified in [a gas corporation's] distribution integrity management plan" requires gas utilities to map gas distribution pipeline segments with materials and ages as described in the gas utility's distribution integrity management plan.

"Foreseeable gas distribution pipeline replacements" requires gas utilities to map any segments identified for replacement and already sent to the gas utility or contractor's project mapping department as well as all segments with risk scores in the highest 5 percent across the utility or the top 2,000 segments for PG&E and SoCalGas, the top 700 for SDG&E, and the top 300 for Southwest Gas.

C. Information to Be Provided:

Each gas map shall include the information described below.

Each gas utility's map shall extend beyond its service area, insofar as it owns land or infrastructure outside of its service area. The utility is responsible for mapping all required information within its service area. Outside its service area, the utility need only map infrastructure information. Unless otherwise specified, the data shall be as of any date between January 1, 2025, and June 30, 2025, as long as the same date is used by all the gas utilities.

The following information and attributes shall be provided for each mapped point or boundary:

1. *Jurisdictional Boundaries and Census Tracts within Utility Service Territories*

Description (FieldName)	**Definition**
Gas utility service area (GasServiceArea)	Name of gas utility and boundary of area where the gas utility provides service, and name of gas utility and boundary of any areas in the map where other gas

	utilities provide service. Responding gas utilities should also ensure that the name and service area boundaries of all investor-owned or publicly owned gas utilities in California are shown on at least one of their gas maps. Core transport agents need not be included.
County (County)	Name and boundary of each county.
City (City)	Name and boundary of each city.
Federally recognized tribal land (FedTribe)	Tribe name and boundary of land managed by each federally recognized tribe. Note these are also defined as disadvantaged communities. Their boundaries, including reservation and off-reservation trust land, are provided by the California Office of Environmental Health and Hazard Assessment (OEHHA).[5]
State tribal land (CATribe)	Tribal name and point location representing the area of interest for each state-recognized tribe as determined in consultation with the Native American Heritage Commission (NAHC) or tribal representatives identified by the NAHC, consistent with the Commission's tribal consultation policy[6] and Public Resources Code section 21073. If additional time is needed for consultation to identify these areas, this information may be provided after July 1 and on or before July 1, 2026.
Zip code (ZipCode)	Five-digit number and boundary of each zip code.
Census tract ID # (TractID)	10-digit census tract number and boundary of each census tract as defined for 2020.
Census tract ID # (TractID2010)	10-digit census tract number and boundary of each census tract as defined for 2010. 2010 census tracts are used by CalEnviroScreen.
Removal jurisdictions (RemJurisdictions)	Name and boundary of each permitting jurisdiction that requires that all gas distribution replacement projects remove retired distribution pipeline, rather

[5] Data and dictionary provided at California Office of Environmental Health Hazard Assessment (OEHHA), *SB 535 Disadvantaged Communities*, https://oehha.ca.gov/calenviroscreen/sb535.

[6] CPUC, *Tribal Consultation Policy*, April 2018, https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/bco/tribal/tribal-consultation-policy-approved.pdf.

	than retiring it in place. If a jurisdiction requires this for some projects and not others, include it if the requirement was applied to more than half of the utility's gas distribution replacement projects in that jurisdiction since 2020.
Electricity provider service area (ElecServiceArea)	Name and boundary of each electricity service provider overlapping the gas utility's service area.
Building decarbonization program (DecarbProgram)	Organization name, contact information, and jurisdictional or program boundary reflecting a building electrification and/or gas decommissioning research or implementation program, added upon their request.

2. Gas Infrastructure, Including Foreseeable Pipeline Replacement

Point or path locations of:

Description (FieldName)	**Definition or Details**
Service (Service)	Locations of services that receive medium-pressure gas (60 pounds per square inch gauge (psig)or below, including below 1 psig), shown as points on the map where the service connects to the main.
High pressure distribution service pipeline (HiPressService)	High-pressure (above 60 psig) service locations, shown as lines on map from connection with meter to connection with main.
High pressure distribution main pipeline (HiPressMain)	High-pressure (above 60 psig) distribution main locations, shown as lines on map.
Medium pressure distribution main pipeline (MedPressMain)	Medium-pressure (60 psig or below) distribution main locations, shown as lines on map.
Distribution main pipeline retired/abandoned since 2010 (RetiredMain)	Retired distribution main locations, shown as lines on map.
Service pipeline retired/abandoned since 2010 (RetiredService)	Retired service locations, shown as points on map.

Meter sets that serve more than one end-use customer (MultiCustMeterSets)	Point locations of meter sets that serve multiple end-use customers. Meters and regulators serving individual small customers need not be shown because service locations are already shown.
Meter sets that serve large customers (LargeCustMeterSets)	Meter sets which serve large volume customers (customers that can receive more than 40,000 cubic feet/hour of gas). If they connect directly to the transmission system instead of to distribution mains, these are sometimes known as farm taps.
Regulator station (RegStation)	Regulator stations, including district regulator stations and larger and smaller regulator stations, if not shown in LargeCustMeterSets. Transmission system regulator stations need not be shown.
Valves on distribution main pipelines (MainValve)	Valve or valve set on the distribution system, if not part of or at another structure already shown (e.g., regulator station) and not at a customer meter.
RNG receipt point (RNGPoint)	Point at which utility receives only renewable natural gas (RNG) directly onto the distribution system.
LNG vehicle fueling station (LNGVehStation)	LNG fueling station using fuel provided by the utility, whether or not owned by the utility.
Decommissioned year (DecomYear)	Attribute of any of the above facilities that were previously active during or after 2020 and have been decommissioned, i.e. placed permanently out of service. Show the year the facility was taken out of service. Do not include facilities replaced with a similar facility at the same location.
Decommissioned category (DecomDone)	Indicator of what utility program initiated the decommissioning or if it was customer-initiated without utility funding.
Planned changes (GO177Plan)	Attribute of any of the above facilities that were included in the utility's most recently submitted Report of Planned Gas Investments submitted per GO 177, Section X, providing a link to the report. Include reference as an

	attribute of any map object proposed in these plans if the proposed investment has neither been completed nor disallowed.

Area boundaries related to gas infrastructure:

Column Description	**Column Name**
Pressure district (PressureDistrict)	ID number and boundary of pressure district, also referred to as a hydraulically independent system (PG&E).
Pressure district pressure (MaxDistrictPressure)	Maximum typical pressure of pressure district during the preceding year.
Region (Region)	Name or number and boundary of each of PG&E's 18 "Divisions" or SoCalGas' approximately 50 "gas districts." SDG&E and SW Gas may define "regions" consistent with their system operations.
High Consequence Area (HCA)	Boundary of each high consequence area, following federal Pipeline and Hazardous Materials Safety Administration (PHMSA) definitions. These represent populated areas near transmission pipelines, where accidents would have higher human consequences.
Moderate Consequence Area (MCA)	Boundary of each moderate consequence area, following federal Pipeline and Hazardous Materials Safety Administration (PHMSA) definitions. These represent moderately populated areas or four-lane roads near transmission pipelines.

Attributes of each segment of distribution main pipeline shown as one object on the map:

Description (FieldName)	**Categories and Comments**
Utility (GasUtility)	Gas utility that owns the pipeline.
Length (Length)	Length of the mapped segment, in feet.
Diameter (Diameter)	Category identifying whether the pipeline's diameter is 2" or less; up to 4"; up to 8"; up to 12"; or above 12".

Material (Material)	Category identifying whether the pipeline's material is Aldyl-A plastic installed in 1965-1972 (EarlyAldylA); Aldyl-A plastic installed in 1973-1985 (LaterAldylA); Aldyl-A plastic with unknown manufacturer or installation year (UnkDateAldylA); non-Aldyl-A plastic (polyethylene) (NAPlastic); steel with cathodic protection (CPSteel); steel without cathodic protection (NCPSteel); copper (Copper); or wrought iron (Iron).
Maximum allowable operating pressure (MAOP)	The pipeline's MAOP, in psig.
Year installed (Year)	Year the pipeline was installed. If unknown, give oldest year possible.
Risk score percentile (RiskScorePercentile)	Percentile rank of the risk score, across all the utility's distribution main miles that are assigned risk scores.
Risk Score (RiskScore)	Risk score of the pipeline (estimated probability of leak times consequences of leak, as calculated for DIMP or RAMP risk score).
Highest risk score locations (HighestRiskScoreLocations)	Indicator reflecting which of the top 10 sets of 200 highest-risk-score miles across the gas utility's service territory the pipeline is in, or not in any of them. For SDG&E, use 70 miles; for SW Gas, use 30 miles.
Quartile or top 5 percent risk score locations (QuartilePlusRiskScoreLocations)	Indicator reflecting whether the pipeline is in the top 5 percent, next 20 percent, next 25 percent (second quartile), next 25 percent (third quartile), or last 25 percent (last quartile) of main miles by risk score across the utility.
DIMP segment identifier (DIMPID)	Unique identification number for each mapped pipeline segment or set of segments that are assessed as a single unit for purposes of calculating its risk

	score. Multiple pipeline objects on the map may have the same DIMPID.
Current DIMP project (DIMPCurrent)	Pipeline identified by the gas utility for upcoming DIMP replacement and sent to the utility's or its contractor's project design staff.
Current non-DIMP project (NonDIMPReplaceCurrent)	Pipeline identified by the gas utility for upcoming non-DIMP replacement and sent to the utility's or its contractor's project design staff.
Utility-identified potential decommissioning site (UtilPotentialDecom)	Pipeline identified by the gas utility as a potential opportunity to avoid replacement by decommissioning the pipeline. If the utility identifies different potential sites for different programs, indicate which program. For example, include PG&E's Alternative Energy Program and each of its Zonal Electrification Equity Programs.

Attributes of each regulator station:

Description (FieldName)	**Definition or Details**
Station name (Name)	Utility's name for the station.
Pressure District (PressureDistrict)	ID number of the pressure district served by the regulator station, if it is a district regulator station.
Downstream customers (RegStationCustomers)	Number of customers downstream of the regulator station.
Regulator station type (RegStationType)	Whether the station is a high-pressure regulator station (reduces pressure to pressure above 60 psig), medium-pressure (reduces to pressure of 1 through 60 psig, and is not "HPR-type") or low-pressure (reduces to pressure less than 1 psig), or reduces to pressure of 1 through 60 psig and is an "HPR-type" regulator station. "HPR-type" refers to a regulator station that uses any of the following

	spring-operated regulators: Fisher 621, Fisher 627, Fisher 630, Reliance Model HPR 10, Reliance Model HPR 20, Reliance Model HPR 268, Rockwell 141, Rockwell 141A, Rockwell 041, Sprague/Itron B35.
Design capacity (DesignCapacity)	The regulator station's design capacity.
Maximum differential pressure (PressureDifferential)	Maximum differential between inlet pressure and outlet pressure, per the station's design.
Minimum outlet pressure (OutletPressure)	The minimum design pressure at the outlet of the regulator station, in psig.
Age (RegStationAge)	Year built or year that most of the primary components (weighted by replacement cost) were replaced, whichever is more recent.
Number of pressure regulators (StationPressRegs)	Number of pressure regulators at the regulator station. Pressure regulators control gas pressure within the system.
Number of other valve assemblies (StationValves)	Number of valve assemblies at the regulator station, not including pressure regulators. Valve assemblies can be isolation valves, release valves, control valves, safety shut-off valves, or other valves.
Number of filtration devices (Filters)	Number of filtration devices at the regulator station. Filtration devices filter contaminants out of the gas stream.
Station operation (StationOperation)	Indicator of whether the station's regulators are primarily pilot-operated, spring-operated, or controller-operated.
Release valve release days (ReleaseDays)	Count of days that release valves at the regulator station released gas in the preceding calendar year.
Risk Score (RiskScore)	Risk score of the regulator station (estimated probability of leak times

	consequences of leak, as calculated for DIMP or RAMP risk score).
Risk group identifier (RiskID)	Unique identification number and identification number for each mapped pipeline segment or set of segments that are assessed as a single unit for purposes of calculating its risk score. Multiple pipeline objects on the map may have the same RiskID.
Identified for replacement (RegStationReplacement)	Identified for replacement in the utility's last regulator station review cycle or previously and not yet replaced.
Identified for repair (RegStationComponentRept)	Identified for major repairs in the utility's last regulator station review cycle or previously, i.e., replacement of major components, and not yet repaired.
Identified for relocation (RegStationRelocation)	Identified for relocation in the utility's last regulator station review cycle or previously, and not yet relocated.

3. *Customers and Community*

Attributes of each service shown on the map:

Description (FieldName)	**Definition or Details**
Number of customers served (Customers)	Provide the number of customers served by this service. Consider multiple meters for the same customer to be one customer.
Type of Customers Served (CustType)	Types: residential (non-master-metered), master-metered residential, core commercial, core industrial, core NGV, noncore commercial, noncore non-refinery industrial, noncore refinery, noncore enhanced oil recovery,

	noncore electric generation, other wholesale. If there are customers of more than one type served by the same service, indicate how many of each type.
Number of large volume customers (LargeCustomers)	Number of customers that can receive more than 40,000 cubic feet/hour of gas)

Area boundaries related to customers and community:

Description (FieldName)	**Definition or Details**
Climate zone (ClimateZone)	Boundary and name or number of each climate zone used for gas billing purposes. Also indicate the maximum Tier 1 gas usage as defined for each zone and the average temperature of the zone during the previous calendar year.
Heating degree day or other weather data	*Optionally*, the gas utility or map host may include heating degree days, cooling degree days, or other historic or forecast weather data, at a spatial resolution of their choice.

Attributes of 2010 census tracts:

Description (FieldName)	**Definition**
CalEnviroScreen 4.0 score (CalEnviroScreen)	CalEnviroScreen 4.0 score.[7]
Disadvantaged Community (DAC)	Indicator of whether the tract is or is not designated as a disadvantaged community.[8]
DAC category (DACCategory)	For disadvantaged communities, parameter that the census tract met to determine DAC status: "CalEnviroScreen 4.0 Top 25%" census tracts receiving

[7] Data and data dictionary provided at OEHHA, *SB 535 Disadvantaged Communities*, https://oehha.ca.gov/calenviroscreen/sb535.

[8] Ibid.

	the highest 25 percent of overall scores in CalEnviroScreen 4.0; "2017 Disadvantaged Community (CalEnviroScreen 3.0 only)" census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; "CalEnviroScreen 4.0 High Pollution Burden Score, Low Population Count" census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores" per SB535 Disadvantaged Communities List (2022) Data Dictionary.[9]
Low-income (LowIncome)	Indicator of census tract average income below 80 percent of state or area median income, with California Housing and Community Development Department calculation adjustments.[10]

4. *Census Tract Data for Cross-Referencing*

Provide, as attributes of the 2020 census tracts, the same data that was provided at the tract level in each gas utility's "Gas System Census Tract Data" file in response to the November 22, 2024, ruling. Unlike other data, the content of this data need not be further standardized across the gas utilities. Instead, the data should match previously provided data unless any corrections are needed. Formatting should still be standardized across the gas utilities.

5. *Electricity Layers (TBD)*

[9] Ibid.

[10] Low-income tracts are identified at California Air Resources Board, *California Climate Investments Priority Populations Mapping Tool 4.0*, https://gis.carb.arb.ca.gov/portal/apps/experiencebuilder/experience/?id=5dc1218631fa46bc8d340b8e82548a6a&page=Priority-Populations-4_0.

Provide layer(s) [to be specified after party comments] copied from the investor-owned electric utilities' public maps as provided by Southern California Edison, PG&E, and SDG&E per Commission direction in Rulemaking (R.) 21-06-017.[11]

(END APPENDIX B)

[11] These maps are currently linked from https://webtraining.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/distribution-planning.