

UCAN DATA REQUEST
UCAN-SDG&E-DR-01
PIPELINE SAFETY & RELIABILITY PROCEEDING – A.15-09-013
SDG&E RESPONSE
DATE RECEIVED: DECEMBER 11, 2015
DATE RESPONDED: JANUARY 29, 2016

PRELIMINARY STATEMENT

1. These responses and objections are made without prejudice to, and are not a waiver of, SDG&E's and SoCalGas' right to rely on other facts or documents in these proceedings.
2. By making the accompanying responses and objections to these requests for data, SDG&E and SoCalGas do not waive, and hereby expressly reserves, its right to assert any and all objections as to the admissibility of such responses into evidence in this action, or in any other proceedings, on any and all grounds including, but not limited to, competency, relevancy, materiality, and privilege. Further, SDG&E and SoCalGas makes the responses and objections herein without in any way implying that it considers the requests, and responses to the requests, to be relevant or material to the subject matter of this action.
3. SDG&E and SoCalGas will produce responses only to the extent that such response is based upon personal knowledge or documents in the possession, custody, or control of SDG&E and SoCalGas, as set forth in the California Public Utilities Commission ("Commission or CPUC") Rules of Practice and Procedure. SDG&E and SoCalGas possession, custody, or control does not include any constructive possession that may be conferred by SDG&E's and SoCalGas' right or power to compel the production of documents or information from third parties or to request their production from other divisions of the Commission.
4. A response stating an objection shall not be deemed or construed that there are, in fact, responsive information or documents which may be applicable to the data request, or that SDG&E and SoCalGas acquiesces in the characterization of the premise, conduct or activities contained in the data request, or definitions and/or instructions applicable to the data request.
5. SDG&E and SoCalGas expressly reserves the right to supplement, clarify, revise, or correct any or all of the responses and objections herein, and to assert additional objections or privileges, in one or more subsequent supplemental response(s).
6. SDG&E and SoCalGas will make available for inspection at their offices any responsive documents. Alternatively, SDG&E and SoCalGas will produce copies of the documents.
7. Publicly available information and documents including, but not limited to, documents that are part of the proceeding record, newspaper clippings, court papers, and materials available on the Internet, will not be produced.

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GENERAL OBJECTIONS

1. SDG&E and SoCalGas object to each instruction, definition, and request to the extent that it purports to impose any requirement or discovery obligation greater than or different from those under the CPUC Rules of Practice and Procedure, Statutes, and the applicable Orders of the Commission.
2. SDG&E and SoCalGas object to each request that is overly broad, unduly burdensome, or not reasonably calculated to lead to the discovery of admissible evidence.
3. SDG&E and SoCalGas object to each instruction, definition and data request to the extent that it seeks information protected from disclosure by the attorney-client privilege, deliberative process privilege, attorney work product doctrine, or any other applicable privilege. Should any such disclosure by SDG&E and SoCalGas occur, it is inadvertent and shall not constitute a waiver of any privilege.
4. SDG&E and SoCalGas object to each instruction, definition and data request as overbroad and unduly burdensome to the extent it seeks documents or information that are readily or more accessible to UCAN from UCAN's own files, from documents or information in UCAN's possession, or from documents or information that SDG&E and SoCalGas previously released to the public or produced to UCAN. Responding to such requests would be oppressive, unduly burdensome, and unnecessarily expensive, and the burden of responding to such requests is substantially the same or less for UCAN as for SDG&E and SoCalGas.
5. SDG&E and SoCalGas object to each instruction, definition and data request to the extent that it seeks the production of documents and information that were produced to SDG&E and SoCalGas by other entities and that may contain confidential, proprietary, or trade secret information.
6. To the extent any of UCAN's data requests seek documents or answers that include expert material, including but not limited to analysis or survey materials, SDG&E and SoCalGas object to any such requests as premature and expressly reserves the right to supplement, clarify, revise, or correct any or all responses to such requests, and to assert additional objections or privileges, in one or more subsequent supplemental response(s) in accordance with the time period for exchanging expert reports set by the Commission.
7. SDG&E and SoCalGas incorporate by reference every general objection set forth above into each specific response set forth below. A specific response may repeat a general objection for emphasis or some other reason. The failure to include any general objection in any specific response does not waive any general objection to that request. Moreover, SDG&E and SoCalGas do not waive their right to amend any responses.

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SPECIFIC OBJECTIONS AND RESPONSES

In the Commission’s Decision 11-06-017, June 9, 2011, the CPUC ordered, “all natural gas transmission operators to develop and file for Commission consideration A Natural Gas Transmission Pipeline Comprehensive Pressure Testing Implementation Plan (Implementation Plans) to achieve the goal of orderly and cost effectively replacing or testing all natural gas transmission pipeline that have not been pressure tested. The Implementation Plans may include alternatives that demonstrably achieve the same standard of safety but must include a prioritized schedule based on risk assessment and maintaining service reliability as well as cost estimates with proposed ratemaking.” (p.1)

Additionally, this Decision states, “accurate pipeline records are critical to establish a valid Maximum Allowable Operating Pressure (MAOP) up to which the pipeline can normally be safely operated.” (p. 2)

1. Has SDG&E developed a Natural Gas Transmission Pipeline Comprehensive Pressure Testing Implementation Plan?
 - a. If so, please provide the plan

SDG&E Response:

Yes, as directed in D.11-06-017, SoCalGas and SDG&E developed the Pipeline Safety Enhancement Plan to test or replace all transmission pipelines without sufficient record of a pressure test. Please refer to the following link for additional information:

<https://www.socalgas.com/regulatory/R11-02-019.shtml>

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2. Has SDG&E established a MAOP for Transmission Lines 1600 and 3010?
 - a. If so, please provide any testing records, and any reports or analysis documenting this.

SDG&E Response:

Yes, the MAOPs were validated. Please refer to the attached Pipeline and Hazardous Materials Safety Administration (PHMSA) F 7100.2-1 2014 form.



(PHMSA)_EOY_2014_
SDGE_Transmission_F

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In Commission decision D. 11-06-017, June 9, 2011, a letter from the National Transportation Safety Board to PG&E with recommendations is quoted. One of the recommendations is “to determine the valid maximum allowable operating pressure, based on the weakest section of the pipeline or component to ensure safe operation...” (p. 3)

3. If SDG&E has determined MAOP, has SDG&E determined MAOP based on the weakest sections of the pipeline?
 - a. If so, please provide any testing records, and any reports or analysis documenting this.

SDG&E Response:

Yes, the weakest section was confirmed. Please refer to the attached PHMSA F 7100.2-1 2014 form in response to Question 2.

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4. If the MAOP was established, what type of testing was done?
 - a. Please provide any testing records, and any reports or analysis documenting this.

SDG&E Response:

The MAOP was established per 49 CFR 192.619. Please refer to the attached PHMSA F 7100.2-1 2014 form in response to Question 2.

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5. If MAOP was determined, was there a prioritization schedule based on certain types of welds to determine MAOP or was there any other criteria used?
 - a. If so, please provide that schedule or other criteria.

 - b. If a prioritization schedule was established, has SDG&E ever deviated from that schedule? If so, please explain.

SDG&E Response:

A prioritization schedule was not established.

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6. Has SDG&E ever used any other methods to validate pipeline integrity for Lines 1600 and 3010 (inline inspection, ultrasonic testing, radiographic inspection) after the Commission's Order in D.11-06-017 issued June 16, 2011?
 - a. If so, please explain and provide those records, and any analysis and documents as well.

SDG&E Response:

The assessment methods used to validate the integrity of lines 1600 and 3010 are:

Line 1600

- In-line inspection
- External Corrosion Direct Assessment
- Fatigue analysis

Line 3010.

- In-line inspection - axial magnetic flux leakage.

These methods listed above commonly include the use of supporting inspections (such as radiography and ultrasonic testing), however, these supporting inspections are not considered a stand-alone validation of pipeline integrity.

Assessment method records, and the Line 1600 fatigue analysis contain confidential information and will be provided when a Nondisclosure and Protection Agreement (NDA) between UCAN and SoCalGas/SDG&E is executed.

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In Chapter 2 of the Proponent’s Environmental Assessment, Project Purpose and Need/Project Objectives, section 2.1.3, Safety, Proposed Project Objectives, the Applicant states, “*the new line would provide incremental pipeline capacity that would give flexibility to operate the SDG&E system by expanding the options available to handle stress conditions on a daily and hourly basis that put system integrity at risk.*” (p. 2-5)

7. What are documented “stress conditions”?
 - a. Please provide any testing records, and any reports or analysis documenting this.

SDG&E Response:

“Stress conditions” in this context refers to times when system demand is taxing system capacity, and not to any material stresses that may be placed on its pipelines. There are no testing records, reports, or analysis documenting these conditions.

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8. Please provide data on current daily and hourly stress conditions.

SDG&E Response:

Daily and hourly demand data for SDG&E in 2015, and the daily system capacity, are provided in the attached spreadsheet. Historical hourly data for SDG&E system capacity is unavailable.



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9. Has SDG&E determined if system integrity and/or customer service may be at risk during any of the stress condition times?
 - a. If so, please explain.
 - b. What factors did SDG&E use to determine when system integrity and/or customer service may be put at risk during stress condition times?

SDG&E Response:

Both system integrity and continuous customer service are at risk when system demand exceeds the capacity to serve. The Utilities' Gas Control department continuously monitors SDG&E system pressures throughout the day to insure system integrity, and is prepared to issue a curtailment order when necessary.

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In Chapter 2 of the Proponent’s Environmental Assessment, Project Purpose and Need/Project Objectives, section 2.2.2, Operational Flexibility and Capacity, the Applicant states: “*Despite predicted declines in natural gas demand on an annual basis, the Applicants are experiencing higher demand on an hourly or daily basis.*” (p. 2-7)

10. Please explain and prepare a chart using both volumetric and percentage terms comparing the previous 5 years for which data is available the amount of annual declines in natural gas demand that SDG&E is experiencing.

SDG&E Response:

SDG&E objects to this data request insofar as it calls for the production of documents which are publicly available or otherwise equally available and/or uniquely available or equally available from third parties and equally accessible to UCAN. Annual historical usage data for SDG&E is available to UCAN in the California Gas Report available at:
<http://www.sdge.com/documents/2014-california-gas-report>

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11. Please explain and prepare a chart using both volumetric and percentage terms comparing the previous 5 years for which data is available the daily and hourly increase in gas demand that SDG&E is experiencing.

SDG&E Response:

The two charts attached below illustrate the percent change in average daily and peak hourly demand for SDG&E. The change in demand was determined by comparing results from the previous year for the past 5 years.



SDG&E AVG daily
demand.pdf



SDG&E Peak Hourly
demand.pdf

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12. Please provide a list of Peak Demand times for natural gas service experienced by calendar month, day and hour, for the past five years in the service area supplied by Line 1600 and 3010.

SDG&E Response:

February 9, 2011 at 8:00 AM
February 27, 2012 at 7:00 PM
January 15, 2013 at 7:00 AM
February 6, 2014 at 7:00 AM
December 16, 2015 at 8:00 AM

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SDG&E has described the objectives of the Proposed Project as follows:

1. Implement Pipeline Safety Requirements for Existing Line 1600 and Modernize the System with State-of-the-Art Materials: Enable the Applicants to comply with the CPUC-approved Pipeline Safety Enhancement Plan (PSEP) by replacing Line 1600 with a new gas transmission pipeline as soon as is practicable. Construction of the new line will enable the use of Line 1600 for distribution while operating at a lower pressure. This replacement will not only comply with the PSEP, but it will also add a greater margin of safety by replacing Line 1600's transmission function with a new pipeline by using modern, state-of-the-art materials. In addition, replacement would avoid any potential customer impacts associated with pressure testing Line 1600.

(See Proponent's Environmental Assessment (PEA) - Volume II; Chapter 2 – Project Purpose and Need/Project Objectives; Page 2-2)

13. Have the natural gas transmission lines operated by the applicant been tested and evaluated in compliance with all government laws and regulations as well as industry standard practices?
- a. If so, provide the reports and any records documenting this work.

SDG&E Response:

SDG&E objects to this question on the bases that the term “all government laws and regulations as well as industry standard practices” is vague, and ambiguous and subject to speculation in interpretation. Further, depending upon one's interpretation of the term, the investigation required by the question is overly burdensome, overly broad and unnecessarily time-consuming, and not reasonably calculated to lead to the discovery of relevant evidence. SDG&E also objects to the extent that this request calls for the production of documents subject to the attorney-client privilege or the attorney work-product doctrine. SDG&E further objects to this request to the extent that it calls for the production of documents within the control of third parties, including independent officers of the State of California or federal government, whose documents are not within SDG&E's possession, custody, or control. A comprehensive set of reports and records documenting compliance over the operating history of the pipeline is not readily available and would require SDG&E to search through voluminous records. Subject to and without waiving these objections, SDG&E responds as follows:

SDG&E maintains the pipeline system in compliance with all applicable federal and state regulations, and is subject to the oversight of the California Public Utilities Commission's Safety and Enforcement Division. The MAOP was evaluated and established per 192.619, miles of transmission pipelines that have been tested are included in 192.619(a)(2) and 192.619(a)(3). Please refer to the attached PHMSA F 7100.2-1 2014 form in response to Question 2.

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14. What natural gas transmission lines are available to serve the SDG&E service territory?
- a. Please provide a gas transmission line map showing all high pressure gas pipelines in SDG&E's service territory as well as any in Mexico known to SDG&E for which SDG&E may have access to.

SDG&E Response:

The requested map contains confidential information and will be provided when an NDA between UCAN and SoCalGas/SDG&E is executed.

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15. SDG&E's application and filings do not address the impact of California's current drought on the proposed project. Is SDG&E aware of any possible drought related impacts that may impact SDG&E's proposed project including the need for water during construction, or the possibility of land subsidence that may result in breaks and fissures to SDG&E's gas pipeline infrastructure?
- A. Has SDG&E researched drought impacts prior to filing this application?
- i. If so, please provide the articles, periodicals, industry data or other research SDG&E reviewed.
- ii. What conclusions, if any, has SDG&E drawn regarding whether the drought will have an impact on its proposal?

SDG&E Response:

SDG&E acknowledged the existing drought conditions in Chapter 4, Utilities and Service Systems of the Proponents Environmental Assessment (PEA) including pages 4.17-13 and 4.17-14. In addition the Applicants propose APM-PUS-01, in which the Applicants state that they will evaluate the use of recycled water on the project and use recycled water where feasible.

Conservation Mandates

SDG&E is aware that if the drought were to extend unabated through 2018 (the anticipated construction start date for the PSRP) or beyond, that more stringent water conservation tier requirements may be in place for the San Diego County Water Authority (SDCWA) member agencies that are most likely to supply construction water for the project (e.g., Fallbrook, Rainbow, Valley Center, Rincon Del Diablo, City of Escondido, and/or City of San Diego MWDs).

SDG&E is not aware of any portions of the proposed PSRP alignment where land subsidence would have the possibility of occurring as a result of extended drought conditions.

- A. Yes, SDG&E has conducted research specifically related to construction water supply and alternative water sources. Prior to the PSRP filing, Governor Brown issued Executive Order B-29-15 containing Emergency Regulations to achieve 25 percent conservation of potable water statewide (compared to 2013 baseline usage). This order, effective on June 1, 2015 did not require any specific drought response measures to be undertaken by commercial, industrial and institutional (CI&I) customers of SDCWA member agencies, including SDG&E. However, between April 2014 and June 2015 the company completed a full-scale review of all potential water sources throughout the service territory (e.g., potable, recycled, desalinated, surface and groundwater) to determine what alternative construction water

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sources would be available for utility projects planned to begin construction prior to 2020 (*SDG&E Construction Water Sourcing Investigation*, ICF July 2015).

In addition, between June and December 2015, SDG&E and SoCalGas (collectively Sempra Energy Utilities, or SEu) worked with the State Water Resources Control Board staff (SWRCB) to modify the existing Recycled Water Use General Order (WQ-2014-0090-DWQ) so that SEu could obtain effective coverage for linear projects under the permit (e.g., gas pipelines and electric transmission and distribution lines) and utilize recycled water for their construction. The approved uses of Title 22 tertiary-treated recycled water are expected to include hydrostatic testing of gas pipelines in the new permit, which is anticipated to be issued by SWRCB in the first quarter of 2016. Under the new Water Recycling Requirements (WRR) General Order, SEu will be administrators of their own recycled water use programs and expect to increase the use of recycled water (when and where available) for all approved construction uses.

- i. SDG&E reviewed many sources of information to support the completion of the *SDG&E Construction Water Sourcing Investigation* (ICF 2015), and these are listed in Section 5 of the plan which is available for review. In addition, SDG&E staff and consultants personally communicated with staff and management at every SDCWA member agency, member agencies under the Metropolitan Water District of Orange County (MWDOC) within the SDG&E service territory, and the Imperial Irrigation District (IID). These phone calls, e-mails and meetings were utilized to develop a broader understanding of each agencies treatment and distribution facilities, cost structures under drought conditions, and availability of recycled water and supporting facilities for distribution (e.g., filling stations, secure hydrants, purple pipe, etc.).

In addition, in support of drought research for the PSRP (and other projects) SDG&E reviewed the following:

Commercial, Industrial, and Institutional Task Force Water Use Best Management Practices. Report to the Legislature. Volumes 1 and 2. California Department of Water Resources. October 21, 2013. Available at: <http://www.water.ca.gov/legislation/docs/CII%20Executive%20Summary%20july%202014.pdf>

Safeguarding California: Reducing Climate Risk. An Update to the 2009 California Climate Adaptation Strategy. California Natural Resources Agency. July 2014. Available at: http://resources.ca.gov/docs/climate/Final_Safeguarding_CA_Plan_July_31_2014.pdf

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North San Diego Water Reuse Coalition (NSDWRC) Regional Recycled
Water Project. Available at: <http://nsdwrc.org/>

ii. After completion of the *SDG&E Construction Water Sourcing Investigation* in July 2015, information gathering with water purveyors within the SDG&E service territory, meetings with the SWRCB and review of the additional materials listed above SDG&E does not anticipate impacts to the PSRP project construction from a prolonged drought. To the extent that similar or more stringent conservation tier requirements are in effect for the identified SDCWA member agencies that could supply the project with potable water for construction during the anticipated construction timeframe, SDG&E anticipates being able to supplant much of the potable water with recycled water, thus reducing potable water demand of the project.

In the event that the drought extends through 2018 and beyond, implementation of APM-PUS-01 and the anticipated 2016 WRR from the SWRCB would facilitate SDG&E's use of Title 22 compliant tertiary-treated recycled water for many approved construction uses on the PSRP project including dust suppression, soil compaction, concrete mixing and hydrostatic testing of gas pipeline.

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In Chapter 2 of the Proponent's Environmental Assessment, Project Purpose and Need/Project Objectives, section 2.2.0, Pipeline Safety, the Applicant States, *"The PSEP program requires that Line 1600 must be pressure tested or replaced. Commissioning of the new replacement pipeline will enable the conversion of Line 1600 to distribution service by lowering the maximum operating pressure of the pipeline, thereby satisfying the PSEP requirements and providing greater margin of safety compared to pressure testing the pipeline and continuing to operate the 1949 vintage pipeline at higher pressures. This pressure reduction will eliminate the need to pressure test Line 1600, while complying with all safety requirements of the PSEP. The new pipeline will be pressure tested prior to being placed into service, and thus, will be compliant with Section 958 of the California Public Utilities Code and CPUC pipeline safety requirements.*

16. Has SDG&E determined any difficulties in pressure testing line 1600? If so, please explain.

SDG&E Response:

The difficulties of pressure testing line 1600 is the impact of removing the line as a source of supply not only to the customers along the pipeline route but also other areas of San Diego County and the numerous taps that are associated with the line requiring either compressed natural gas or by-passes to keep core customers in service. Another complication is the possibility of leaks, which will require the pipeline to remain out of service until the leak can be located and repaired.

Line 1600 provides approximately 10% of the capacity for the San Diego system and this capacity to San Diego would not be available for the duration of the hydrotesting of line 1600 which could take from 24-36 months. During this time, loss of capacity could lead to curtailments if supplies are not available at Otay Mesa.

Several large noncore customers and single-sourced distribution systems are directly served by Line 1600. During hydrostatic testing service would need to be maintained to customers, and this would prove challenging due to the lack of redundant pipelines in the vicinity of the affected customers. In general, there are no other transmission lines near Line 1600 to continue service to the area. There are 58 significant connections that currently provide service to customers via regulator stations. In order to continue to provide natural gas service to these connections, compressed natural gas and/or by-passes would be required in order to keep the Distribution customers in service.

The narrow easements and adjacent development will make pressure testing the pipeline quite difficult. Ninety percent of the current easements for Line 1600 are twenty feet in width, with some locations narrowing to ten feet in width. The existing easements allow for buildings to be sited as close as fifteen feet from the pipeline. The area surrounding the current pipeline route and existing easement has been heavily developed and urbanized since the original installation of

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the pipeline. In many areas, homes, apartment buildings, and businesses lie immediately adjacent to this existing pipeline.

Standard pipeline construction equipment, spoil (dirt and trench materials) management and installation practices cannot be employed in these narrow easements, complicating the siting of test breaks and making any test failures and repairs quite disruptive to the community. Additionally, hydrotesting line 1600 could result in leaks that may require taking the line out of service for long period of time in order to make the repair. Leaks resulting in sudden pressure loss are relatively easy to find. Once found, the repair can be made and the test repeated. This may add a few days to 2 weeks to the test depending on where the release occurred and whether other leaks were found. A more difficult scenario occurs if the pipe were to have a very small leak that would result in a loss of a few psi per hour. There are several techniques to locate a small leak in underground pipelines. One way is to empty the water out of the line, segment it, and test each half to: a) get a good test on at least half of the segment, and, b) reduce the length of the segment that contains the leak. This process is repeated on the “bad” half until the location of the leak becomes evident and can then be found via excavation and repaired. This method is often tedious and time consuming since each cut and re-test can take two to three long workdays each. Cumulative delays can amount to weeks if not months of work.

Normal pipe installation equipment and practices would need to be significantly modified for working in such narrow easements. Managing spoils would, at a minimum, require extensive trucking efforts and local traffic impacts to haul the trench spoil to a temporary storage location. Because there is no room in the existing easements for spoils to be placed alongside the open trench while a damaged pipe segment is being replaced, trench backfill materials from the excavation would need to be trucked back again to these narrow easements to fill and compact the material back into the trench once the new pipe is installed. The compaction equipment may also cause significant vibration, disruption, and impact to the physical structures that are located in close proximity to the trench location directly adjacent to the pipeline route.

Finally, there are pipeline locations where a leak would not be easily located and repaired and would require relocation of the pipeline. These locations include pipeline segments under Interstate 15, Lake Hodges, and other areas where limited work space would allow for locating and repairing the pipeline.

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17. Has SDG&E estimated a cost to pressure testing line 1600? If so, please explain.

SDG&E Response:

Description	Total (\$ MM)
Materials	\$ 3.1
Construction	\$ 61.8
Engineering & Design	\$ 4.8
Environmental	\$ 0.7
Company Labor	\$ 3.0
Major Bypasses	\$ 11.3
Other Project Execution Activities	\$ 6.9
TOTAL	\$ 91.6

The direct cost estimate to hydrostatic test Line 1600 is based on completing the work by beginning at one end of the pipeline and testing contiguous segments from start to finish.

Executing the hydrostatic testing in a non-contiguous manner due to operational/seasonal/permitting constraints would require shifting hydro-test breaks from one location to another, resulting in lost efficiency and higher costs for mobilization and de-mobilization.

The cost estimate does not include allowance for locating leaks and making repairs that can range from \$300,000 for simple repairs to \$18 million for pipeline relocations.

Additionally, depending on the hydro-testing process and progress, natural gas may need to be supplied to the system via the Otay Mesa receipt point. This will add costs to the hydro-testing, which have not been determined. Such costs are dependent on the duration of the needed supplies, volume of needed supplies, and the ability to purchase capacity on the upstream pipelines.

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18. Has SDG&E determined any safety concerns in pressure testing line 1600? If so, please explain.

SDG&E Response:

Safety concerns are paramount for all hydrotesting of pipeline and the narrow easements and adjacent development along Line 1600 heighten the concerns. The detailed risk assessment would be completed prior to hydrotesting pipeline segments. The assessment may vary depending on the location of the pipeline, but in general, includes evaluating nearby residences and businesses; major public facilities, including hospitals and schools; and the impact to local streets, railroads, and other infrastructure. A Hydro-Test Failure Mitigation Plan would be created and implemented as part of the hydro test plan to minimize the risks to the public and property in the event of a rupture.

Potential impacts the community may experience include construction equipment on the streets, temporary parking reductions, possible street lane reductions and/or road closures, work-related noise, and natural gas odors. In some instances, there may be gas service interruptions.

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19. Please produce records that show Line 1600 continues to be operated at higher pressures.

SDG&E Response:

Line 1600 operates within its established MAOP of 640 psig. Please see attached Meter & Regulator inspection record for the gate station which feeds Line 1600.



1600_MandR_Inspecti
on_Record_(Q19).pdf

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20. Has SDG&E determined that line 1600 being operated at present pressure is in any way unsafe? If so, please explain

SDG&E Response:

No.

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21. Please provide all records submitted to the CPUC of any pressure tests at the time of installation for L3010 and L1600?

SDG&E Response:

To the best of our knowledge, submission of pressure test to the CPUC was not required at the time of installation.

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22. Please produce records that show the amount of planned pressure reduction in line 1600 if the new replacement pipeline is commissioned.

SDG&E Response:

Pressure reduction records do not exist since the pressure reduction has not been implemented and the Application did not provide that level of detail; however, the intended service pressure would be 320 psig.

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23. Has SDG&E estimated if line 1600 operates at reduced pressure that its service life will be extended? If so, please explain

SDG&E Response:

SDG&E intends to convert existing Line 1600 to distribution service at a pressure of 320 psig. Operation at a lower pressure will reduce the stress level in the pipeline, and in lower the overall risk associated with the pipeline's operation. Formal estimates of the benefit to service life resulting from operation at a distribution stress level have not been conducted. However, it is reasonable to infer that the risk reduction will have a positive impact on the longevity of the asset.

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24. Does SDG&E expect increased demand for natural gas in its service territory such that system capacity needs to be expanded? If so, please explain and provide any documentation reviewed by SDG&E to form this conclusion.

SDG&E Response:

The long-term demand forecast for the SDG&E service territory shows that SDG&E can meet its Commission-mandated design standards for core and noncore service without improvement through the 2035/36 operating season, assuming all transmission assets are in service. However, connected load in San Diego still far exceeds both these forecast figures and existing SDG&E system capacity, and SDG&E may need to curtail interruptible service as necessary to maintain firm service obligations.

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25. For Line 1600, please provide any data on any leaks detected, the number of leaks detected, the maintenance required, corrosion detection, and all operations and maintenance costs since Line 1600 was installed and began operating. Include the gas control center records and all other records related to operating and maintaining Line 1600.

(UCAN does not intend question 25 to be unduly burdensome to respond to. If SDG&E will have difficulty responding to this question or if it is considered a burdensome request please contact UCAN to explain any difficulty so that a potential accommodation may be considered.)

SDG&E Response:

SDG&E objects to this data request insofar as it is over-broad, vague, compound, and burdensome. It seeks an expansive amount of information, most of which would not be relevant and, additionally, would be impossible to compile. SDG&E further objects to this request, whether broadly or more narrowly construed, to the extent it calls for production of any privilege internal documents of Applicant. A request for such records is unreasonable and unduly burdensome in light of the work product doctrine and other privileges protecting such internal documents from discovery. Without waiving these objections, SDG&E will make a diligent search for all responsive documents which identify or address specifically leaks for line 1600 and were created during a 10 year time period. Without waiving these objections, SDG&E responds that in the last 10 years one leak has been reported on Line 1600 due to a leaking tap valve. Additionally, the attached repair listing provides a description of the repair and repair date for work conducted on Line 1600.

SDG&E does not separate operations and maintenance costs by line. The total unadjusted recorded O&M costs for the SDG&E transmission system are:

Year	O&M Costs (\$MM)
2010	\$1.140
2011	\$1.146
2012	\$1.135
2013	\$1.204
2014	\$1.346
2015	\$1.357



Line 1600 Repair
Listing.xlsx

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PRELIMINARY STATEMENT

1. These responses and objections are made without prejudice to, and are not a waiver of, SDG&E's and SoCalGas' right to rely on other facts or documents in these proceedings.
2. By making the accompanying responses and objections to these requests for data, SDG&E and SoCalGas do not waive, and hereby expressly reserves, its right to assert any and all objections as to the admissibility of such responses into evidence in this action, or in any other proceedings, on any and all grounds including, but not limited to, competency, relevancy, materiality, and privilege. Further, SDG&E and SoCalGas makes the responses and objections herein without in any way implying that it considers the requests, and responses to the requests, to be relevant or material to the subject matter of this action.
3. SDG&E and SoCalGas will produce responses only to the extent that such response is based upon personal knowledge or documents in the possession, custody, or control of SDG&E and SoCalGas, as set forth in the California Public Utilities Commission ("Commission or CPUC") Rules of Practice and Procedure. SDG&E and SoCalGas possession, custody, or control does not include any constructive possession that may be conferred by SDG&E's and SoCalGas' right or power to compel the production of documents or information from third parties or to request their production from other divisions of the Commission.
4. A response stating an objection shall not be deemed or construed that there are, in fact, responsive information or documents which may be applicable to the data request, or that SDG&E and SoCalGas acquiesces in the characterization of the premise, conduct or activities contained in the data request, or definitions and/or instructions applicable to the data request.
5. SDG&E and SoCalGas expressly reserves the right to supplement, clarify, revise, or correct any or all of the responses and objections herein, and to assert additional objections or privileges, in one or more subsequent supplemental response(s).
6. SDG&E and SoCalGas will make available for inspection at their offices any responsive documents. Alternatively, SDG&E and SoCalGas will produce copies of the documents.
7. Publicly available information and documents including, but not limited to, documents that are part of the proceeding record, newspaper clippings, court papers, and materials available on the Internet, will not be produced.

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GENERAL OBJECTIONS

1. SDG&E and SoCalGas object to each instruction, definition, and request to the extent that it purports to impose any requirement or discovery obligation greater than or different from those under the CPUC Rules of Practice and Procedure, Statutes, and the applicable Orders of the Commission.
2. SDG&E and SoCalGas object to each request that is overly broad, unduly burdensome, or not reasonably calculated to lead to the discovery of admissible evidence.
3. SDG&E and SoCalGas object to each instruction, definition and data request to the extent that it seeks information protected from disclosure by the attorney-client privilege, deliberative process privilege, attorney work product doctrine, or any other applicable privilege. Should any such disclosure by SDG&E and SoCalGas occur, it is inadvertent and shall not constitute a waiver of any privilege.
4. SDG&E and SoCalGas object to each instruction, definition and data request as overbroad and unduly burdensome to the extent it seeks documents or information that are readily or more accessible to UCAN from UCAN's own files, from documents or information in UCAN's possession, or from documents or information that SDG&E and SoCalGas previously released to the public or produced to UCAN. Responding to such requests would be oppressive, unduly burdensome, and unnecessarily expensive, and the burden of responding to such requests is substantially the same or less for UCAN as for SDG&E and SoCalGas.
5. SDG&E and SoCalGas object to each instruction, definition and data request to the extent that it seeks the production of documents and information that were produced to SDG&E and SoCalGas by other entities and that may contain confidential, proprietary, or trade secret information.
6. To the extent any of UCAN's data requests seek documents or answers that include expert material, including but not limited to analysis or survey materials, SDG&E and SoCalGas object to any such requests as premature and expressly reserves the right to supplement, clarify, revise, or correct any or all responses to such requests, and to assert additional objections or privileges, in one or more subsequent supplemental response(s) in accordance with the time period for exchanging expert reports set by the Commission.
7. SDG&E and SoCalGas incorporate by reference every general objection set forth above into each specific response set forth below. A specific response may repeat a general

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objection for emphasis or some other reason. The failure to include any general objection in any specific response does not waive any general objection to that request. Moreover, SDG&E and SoCalGas do not waive their right to amend any responses.

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Question 6:

Has SDG&E ever used any other methods to validate pipeline integrity for Lines 1600 and 3010 (inline inspection, ultrasonic testing, radiographic inspection) after the Commission's Order in D.11-06-017 issued June 16, 2011?

- a. If so, please explain and provide those records, and any analysis and documents as well.

SDG&E Response:

The assessment methods used to validate the integrity of lines 1600 and 3010 are:

Line 1600

- In-line inspection
- External Corrosion Direct Assessment (ECDA)
- Fatigue analysis

Line 3010.

- In-line inspection - axial magnetic flux leakage.

These methods listed above commonly include the use of supporting inspections (such as radiography and ultrasonic testing), however, these supporting inspections are not considered a stand-alone validation of pipeline integrity. Assessment method records, and the Line 1600 fatigue analysis performed after June 16, 2011 are listed below.

The following attachments contain confidential information that is submitted pursuant to the Nondisclosure and Protection Agreement between UCAN and SoCalGas/SDG&E.

In-Line Inspection Reports:

- *Confidential 16in L1600 P1_Axial_Rainbow St to Lake Hodges_Final Report_Redacted.pdf*
- *Confidential SoCal_Phase 1_CMFL_Rainbow Station to Lake Hodges_Final Report_Redacted.pdf*
- *Confidential 16inL1600 P2 Lake Hodges to Mission Gate_Combined MFL TFI_Redacted.pdf*
- *Confidential Final Report - NPS30 Line3010_P1_Rainbow-Carlsbad.pdf*
- *Confidential 30 inch Line 3010S Phase 2 Carlsbad to Tecolote_Final Report_Redacted.pdf*

Fatigue Analysis Report:

- *Confidential 0153-1302 Final Analysis of the Effect of Pressure Cycles on Pipeline 1600.pdf*

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Question 14:

What natural gas transmission lines are available to serve the SDG&E service territory?

- a. Please provide a gas transmission line map showing all high pressure gas pipelines in SDG&E's service territory as well as any in Mexico known to SDG&E for which SDG&E may have access to.

SDG&E Response:

Please refer to the attached map. **The attachment contains confidential information that is submitted pursuant to the Nondisclosure and Protection Agreement between UCAN and SoCalGas/SDG&E.**