

# ATTACHMENT A

to the Supplemental Testimony of SDG&E and SoCalGas (February 2017)

SDG&E Gas Capacity Planning and Demand Forecast  
Semi-Annual Report - October 2016



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October 31, 2016

PUG 100  
I.00-11-002

Mr. Edward Randolph  
Director – Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue, 4-A  
San Francisco, CA 94102

Re: Gas Capacity Planning and Demand Forecast Semi-Annual Report

Dear Mr. Randolph,

Pursuant to California Public Utilities Commission Decision 02-11-073 in the Gas Transmission OII (I.00-11-002), SDG&E hereby submits the attached semi-annual report on its gas system capacity planning and demand forecasts.

If you have any questions, please contact Joff Morales at (858) 650-4098.

Sincerely,

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Joff Morales  
Regulatory Affairs

Enclosures

cc: Greg Reisinger, Energy Division  
Franz Cheng, Energy Division  
Belinda Gatti, Energy Division

SAN DIEGO GAS & ELECTRIC COMPANY  
GAS CAPACITY PLANNING AND DEMAND FORECAST  
SEMI-ANNUAL REPORT

Pursuant to Ordering Paragraph 9 of California Public Utilities Commission (CPUC or Commission) Decision No. (D.) 02-11-073<sup>1</sup> (issued November 21, 2002 in I.00-11-002), San Diego Gas & Electric Company (SDG&E) hereby submits its semi-annual report on its gas system capacity planning and demand forecasts.

This report addresses the adequacy of the SDG&E gas transmission system to meet the forecast of incremental gas demand, and whether that growth in gas demand would indicate the need for SDG&E to add incremental gas transmission capacity, within the confines of the process adopted by the Commission in D.02-11-073

## I. EXECUTIVE SUMMARY

SDG&E system capacity continues to meet the 1-in-35 year peak day and 1-in-10 year cold day design condition forecasts for core and noncore customers, respectively, 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 noncore service as necessary to maintain core service obligations.

## II. CURRENT SDG&E SYSTEM CAPACITY

Given the current physical location of customers on the San Diego system, and as a result of the Commission Order on August 18, 2016 to reduce the Maximum Allowable Operating Pressure (MAOP) of SDG&E Transmission Line 1600 to 512 psig, SDG&E has the capacity to serve 595 million cubic feet per day (MMcfd) of customer demand in the winter operating season and 560 MMcfd of customer demand in the summer operating season. If core demand in the Rainbow Corridor continues to grow at its current pace, without system improvements or other enhancements, SDG&E system capacity may decline by the 2035/36 operating year to 580 MMcfd in the winter and 550 MMcfd in the summer.

## III. DEMAND FORECAST AND CAPACITY ASSESSMENT

In D.02-11-073, the Commission affirmed a 1-in-35 year cold day condition as the design criteria for core service, and established a new 1-in-10 year cold day design criteria for noncore firm service. These standards were reaffirmed in D.06-09-039. In D.16-07-008, “firm” and “interruptible” service designations were eliminated for noncore

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<sup>1</sup> Titled “Opinion on Adequacy of Southern California Gas Company’s and San Diego Gas and Electric Company’s Gas Transmission Systems to Serve the Present and Future Needs of Core and Noncore Gas Customers.”

service with the approval of new curtailment procedures.<sup>2</sup> Table 1 shows SDG&E's long-term demand forecast for the 1-in-35 year and 1-in-10 year cold day demand conditions.

Table 1  
SDG&E Long-Term Demand Forecast<sup>3</sup>

Operating Year <sup>a/</sup>	1-in-35 Year Cold Day Demand (MMCFD)				1-in-10 Year Cold Day Demand (MMCFD)			
	Core	Noncore C&I	EG	Total	Core	Noncore C&I	EG	Total
2016/17	387	0	0	387	366	60	152	578
2017/18	395	0	0	395	374	61	153	588
2018/19	396	0	0	396	374	61	154	589
2019/20	395	0	0	395	374	62	154	589
2020/21	396	0	0	396	374	62	154	590
2021/22	394	0	0	394	373	62	146	581
2022/23	393	0	0	393	372	62	138	572
2023/24	392	0	0	392	371	62	130	563
2024/25	392	0	0	392	370	62	123	556
2025/26	391	0	0	391	370	62	116	548
2030/31	396	0	0	396	374	62	103	539
2035/36	403	0	0	403	381	61	103	546

a/ April through December, along with the following January through March.

Assuming the Rainbow Corridor demand continues to grow at its current pace, the SDG&E winter system capacity would fall from its current level of 595 MMcfd to 580 MMcfd by the 2035/36 operating season. As shown in Table 1, this is sufficient capacity to meet the 1-in-35 year peak day design standard and the 1-in-10 year cold day design standard through the forecast period. However, as noted above and in our prior semi-annual capacity planning reports, even though SDG&E has capacity to serve forecasted core and noncore 1-in-10 year cold day demand, connected load in San Diego still far exceeds these forecast figures and the existing SDG&E system capacity (currently 1.3 billion cubic feet per day of demand under a 1-in-10 year cold day condition for the core with connected load for the noncore). This is because there is substantial level of noncore load on the SDG&E system, particularly EG load. SDG&E and SoCalGas have also experienced more sudden changes within an operating day when the gas system is called upon to replace losses from other sources of electricity, including regularly-occurring losses of renewable sources. Although such conditions are not typically considered in the development of formal demand forecasts, these conditions frequently occur on an operational basis, and are anticipated to become more common as weather conditions and the use of natural gas to support renewable

<sup>2</sup> Tariff changes approved by D.16-07-008 will be implemented on November 1, 2016 via Tier 1 SoCalGas Advice Letter 5050 and SDG&E Advice Letter 2522-G per D.16-07-008 Ordering Paragraph #2, pg. 16

<sup>3</sup> Derived from data developed for the 2016 California Gas Report.

electric generation continue to change. Accordingly, it is entirely possible that noncore demand in San Diego may exceed the system capacity on a day warmer than the 1-in-10 year cold day, and SDG&E may need to curtail noncore service as necessary to maintain core service obligations. Additionally, as SoCalGas and SDG&E continue to implement their pipeline safety programs, it may be necessary to temporarily reduce the operating pressure in our pipelines (as is the case right now with Line 1600). Furthermore, due to permitting and other construction issues necessary to repair a pipeline, the pipeline's operating pressure may be reduced for an extended period of time. While SoCalGas and SDG&E will continue our practice of minimizing any resulting impact to our customers, it may be necessary to curtail some noncore customers in order to maintain system integrity.

#### IV. POTENTIAL CAPACITY IMPROVEMENTS

In D.11-06-017, SoCalGas and SDG&E were ordered to pressure test or replace those pipelines that lack sufficient documentation of pressure testing to meet the safety requirements set forth in the Decision. In compliance with that order, on September 30, 2015, SDG&E and SoCalGas filed A.15-09-013 for a Certificate of Public Convenience and Necessity to construct a pipeline (the "Pipeline Safety & Reliability Project") to replace Line 1600. SDG&E and SoCalGas subsequently served prepared direct testimony for A.15-09-013 on March 21, 2016. The Pipeline Safety & Reliability Project is needed to meet the following objectives: (1) enable compliance with the Commission-approved Pipeline Safety Enhancement Plan (PSEP) by replacing Line 1600 with a new gas transmission pipeline as soon as is practicable; (2) simultaneously improve the reliability and resiliency of the gas system by replacing Line 1600 with a 36-inch-diameter gas transmission pipeline so that core and noncore customers will continue to receive gas service in San Diego in the event of a planned or unplanned service reduction or outage of the existing 30-inch-diameter Line 3010 or the Moreno Compressor Station; and (3) simultaneously increase the transmission capacity of the gas system in San Diego County by approximately 200 MMcfd as a result of the PSEP replacement line being 36 inches in diameter so that SDG&E and SoCalGas can reliably manage the fluctuating peak demand of core and noncore customers. 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 and customer service at risk.

Additionally, as described in A.15-06-020, SDG&E and SoCalGas may propose capacity improvements should curtailment in an area become a frequent occurrence. SDG&E and SoCalGas have not made any determination on what level of curtailment frequency would trigger such a proposal, and will look towards the impacted customers to help define that frequency and support any proposed improvements before the Commission.