555 W. Fifth Street Los Angeles, CA 90013-1011





October 16, 2008

Laura Manz Vice President – Market & Infrastructure Development California ISO 151 Blue Ravine Road Folsom, Ca. 95630

Dear Laura Manz:

It is the understanding of San Diego Gas & Electric Company ("SDG&E") and Southern California Gas Company ("SoCalGas") that on October 28-29, 2008, the California ISO ("CAISO") Board of Governors will consider whether to eliminate the dual fuel requirement for the Cabrillo 1 and South Bay power plants located in SDG&E's service territory. SDG&E and SoCalGas applaud the CAISO for considering a step that could save our customers from between \$5 million to \$6 million per year for the residual fuel and fuel-related expenses incurred to make the fuel usable (not accounting for related O&M expense). These expenses are likely to increase after 2009 if this requirement is left in place due to the need for capital improvements. Moreover, if the long-standing dual fuel requirement could be eliminated, the land at the power plants currently used for residual oil storage might potentially be made available for redevelopment or power plant replacement purposes. Before the California ISO Board of Governors takes this irrevocable step, however, SDG&E and SoCalGas want to be sure that the CAISO has all the relevant information at its disposal regarding our electric transmission system, natural gas transmission systems, and related planning assumptions.

### BACKGROUND

Cabrillo 1 and South Bay are old and inefficient natural gas-fired power plants that have the ability to switch to residual fuel oil in the event of an emergency. Residual fuel oil is maintained at both locations in large above ground storage tanks. Since the CAISO began operations in 1998, it has required both Cabrillo 1 and South Bay to maintain fuel-switching capability, and compensated plant owners for the additional costs associated with maintaining South Bay will be shut down after its RMR contract expires, which is contemplated when the Sunrise Powerlink is placed in service by 2011 or 2012 and that three of the five Cabrillo 1 units will be shut down when the Carlsbad Energy Center is placed into service, currently contemplated to be during 2012. As a result, the current dual fuel capability within SDG&E's system is temporary and is contemplated to be eliminated in the future once these events occur.

In 1999, the CAISO conducted a dual fuel study for San Diego, and determined that the dual fuel requirement should be maintained for both Cabrillo 1 and South Bay. It is our understanding that recent upgrades to both the natural gas and electric transmissions systems, and the addition of new efficient combine cycle plants serving San Diego have prompted the CAISO to reassess whether the dual fuel requirement can be lifted for both plants. It is also our understanding that, as a result of this reassessment, CAISO staff is recommending elimination of the dual fuel requirement for both Cabrillo 1 and South Bay.

## SDG&E ELECTRIC TRANSMISSION SYSTEM

SDG&E's electric transmission system is designed to meet the reliability standards established by the CAISO and the California Public Utilities Commission ("CPUC"). SDG&E's electric transmission system is reliable within these established design parameters, and provides sufficient flexibility to balance in-basin generation with imports to meet foreseeable system demands.

In some instances, however, in-basin electric generators may operate for reasons other than just local reliability. For example, there have been instances on non-peak winter days that the electric generators have operated for economic reasons beyond levels required to maintain local area reliability or operated at higher levels due to generation or transmission interruptions or outages on the statewide electric system. These circumstances have driven electric generation gas demands in SDG&E's service territory to levels higher than forecasted. With such events it is important that the electric and natural gas transmission systems operate in a coordinated manner to ensure that reliability needs are met. This has been the case in the past and certainly will need to be the situation in the future to ensure reliable electric service.

# SOCALGAS AND SDG&E NATURAL GAS TRANSMISSION SYSTEMS

Cabrillo 1 and South Bay receive natural gas transmission service from both SDG&E and SoCalGas. For planning and operational purposes, these systems are integrated and operated by SoCalGas. SDG&E receives natural gas through two primary transmission routes: (1) two high-pressure transmission pipelines that run from SoCalGas service territory in Southern Riverside County<sup>1</sup>, and (2) a smaller diameter pipeline that runs from Orange County to Carlsbad along Interstate 5. This smaller diameter pipeline, sometimes referred to as the "Coastline," serves some of the demand of the Cabrillo 1 power plant. The capacity of the SDG&E gas transmission system is 620 million cubic feet per day ("MMcfd") in summer and 630 MMcfd in winter.

<sup>&</sup>lt;sup>1</sup>This area of the southern Riverside County is often referred to as the "Rainbow Corridor".

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SDG&E also has 400 MMcfd of additional receipt capacity at the US/Mexico border at Otay Mesa. This receipt point can potentially be served either by: (1) natural gas from the western United States that enters the SDG&E system through Otay Mesa rather than the Rainbow Corridor; or (2) LNG supplies delivered at the Energia Costa Azul LNG regasification plant ("ECA") located in Baja California, Mexico. Worldwide LNG prices are currently much higher than prices for domestic natural gas supplies, and it appears that as a result no LNG supplies are currently being delivered from ECA on a regular basis. Future LNG prices are difficult to predict. However, given the large existing disparity between LNG prices and domestic natural gas supplies, SDG&E and SoCalGas caution the California ISO against assuming that LNG supplies will be available to serve Cabrillo 1 or South Bay, at least in the near term.

In the absence of LNG deliveries, any natural gas delivered at Otay Mesa will be gas that would have otherwise been delivered at SoCalGas' Blythe receipt point. On a limited basis, SoCalGas may be able to re-route supplies from the Blythe receipt point to the Otay Mesa receipt point. However, this rerouting capability is dependent on the operations of the El Paso, North Baja, Baja Norte, and TGN Pipelines.

In short, until there is a regular supply of natural gas flowing into the SDG&E system through Otay Mesa, the CAISO should probably consider Otay Mesa more as an emergency source of deliveries during a Force Majeure event that limits or shuts down deliveries to San Diego through the Rainbow Corridor.

# PLANNING ASSUMPTIONS AND FIRM SERVICE ELECTIONS

As explained in SDG&E's April 30, 2008 Gas Capacity Planning and Demand Forecast Semi-Annual Report ("April 2008 Report") to the CPUC (attached for ease of reference), SDG&E uses forecasted 1-in-10 year cold day demand to plan for the firm service needs of its noncore customers, including electric generators ("EGs"). SoCalGas and SDG&E want to make sure that the CAISO Board of Governors understands both the limitations and ramifications of this CPUC-approved planning assumption.

First, this planning scenario does not assume that SoCalGas and SDG&E will never curtail firm service to their electric generation customers in San Diego. Rather, we assume that firm service will only be provided up to and including a 1-in-10 year cold day event. Firm service to noncore customers on even colder days may be curtailed in whole or in part. Please keep in mind that a 1-in-10 year cold day condition is simply a statistical recurrence, based on historical temperature data, which may actually occur more or less frequently than once in every ten-year period. In other words, southern California may not experience a 1-in-10 year cold day condition for 50 years in a row. Then again, it might be possible for such cold temperatures to occur three consecutive years in a row. Such is the nature of probabilities. Please also note that this standard is substantially less robust than the 1-in-35 year peak day standard we use to plan for the needs of our core customers.

In addition, even though the 1-in-10 cold day demand of SDG&E's firm noncore customers is not forecasted to exceed available system capacity until the 2020/2021 operating season, connected load in San Diego far exceeds both our forecasts and the SDG&E system capacity.<sup>2</sup> Put another way, if all connected load in San Diego wanted natural gas at the same time, SoCalGas and SDG&E could not serve the demand. Moreover, the addition of any new natural gas-fired power plants in either Southern Riverside County or San Diego County could increase the demand for natural gas above the levels in SDG&E's April 2008 Report.

The ISO should also be aware that the forecasted level of total EG demand and the level of firm service bid by EG customers in San Diego during our most recent open seasons for firm service are not equivalent. Specifically, SDG&E has forecasted 1-in-10 year cold day EG demand of 190 and 147 MMcf/d for the 2010/2011 and 2011/2012 operating seasons, and EG requests for firm service in the 2007 open season were only 61 MMcf/d for these same time periods.<sup>3</sup>

We believe this situation may have implications that are nonetheless unlikely to occur (but not impossible) for the CAISO as it considers elimination of dual fuel capability at Cabrillo 1 and South Bay. The firm service elections of EGs in SDG&E's service territory were based upon probable scenarios that took into account the age and efficiency of these particular generating units, the operations of SDG&E's new and highly efficient Palomar Energy Center serving to displace the dispatch of Cabrillo 1 and South Bay, new transmission facilities into San Diego, etc. But the firm service elections that resulted from such scenarios do not allow Cabrillo 1 and South Bay to receive firm service for their full demand under all potential circumstances. Under situations involving dispatch for reasons required to maintain local area reliability, this will not be a problem. Under situations involving dispatch for economic reasons or to accommodate generation or transmission interruptions or outages on the statewide electric system and low probability events, such as supply curtailments or Force Majeure events described below, the emergency dispatch choices of the CAISO may, however, potentially be limited. We do not envision that the CAISO would or should dispatch these plants under the dual fuel provisions for economic reasons alone.

### POTENTIAL SUPPLY LIMITATIONS

The CAISO staff recommendation for Cabrillo 1 and South Bay appears to consider at least some of the system planning assumptions noted above. Staff's recommendation should take into account the risk of market-based supply deficiencies that might threaten service to generation units located in SDG&E's service territory. The SoCalGas transmission system must receive a certain level of gas supplies delivered into its Southern system<sup>4</sup> in order to meet end-

<sup>&</sup>lt;sup>2</sup> April 2008 Report at 1.

<sup>&</sup>lt;sup>3</sup> April 2008 Report at 3.

<sup>&</sup>lt;sup>4</sup> Currently, SoCalGas' core customers are required to deliver supplies through Blythe in order to meet system reliability needs, even when it is not economic to do so, at the request of SoCalGas' Gas Control Group. On April 1, 2009, pursuant to CPUC decision No. 07-12-019, this responsibility is taken over by another department within SoCalGas.

use demand in the San Diego and Riverside Counties. There are times when deliveries on the Southern portion of SoCalGas' system are much lower than the end-use demand needs caused at least in part, because it makes economic sense for certain customers to sell into a high-priced markets east of California.

SoCalGas and the CPUC have established operational procedures to make up for lack of deliveries into SoCalGas' Southern system. SoCalGas has needed to implement the procedures described above on several occasions (18 times during January of 2008 alone). These procedures do not, however, eliminate the risk of supplies being unavailable for delivery into the Southern system. To date we have been able to acquire the needed supplies for delivery into the Southern system and service to end-use customers has not been curtailed to deal with supply shortfalls. It is not outside the realm of possibility to envision a scenario in which a supply shortfall combined with some other factor, such as very high core demand in San Diego, could lead to the need to curtail load on the SDG&E system. Please also note that the possibility of these supply shortfalls has not been factored into the 1-in-10 planning scenario being relied upon by CAISO staff.

### FORCE MAJEURE EVENTS

The 1-in-10 planning scenario used by SoCalGas and SDG&E does <u>not</u> take into account Force Majeure events – earthquakes, fires, upstream supply disruptions caused by interstate pipeline failures, etc. Such events are rare, and thankfully the SoCalGas and SDG&E systems have not been curtailed by such events to any significant degree within recent memory. However, the devastating fires that took place in San Diego County during 2007 are a stark reminder that Force Majeure events are not impossible.

Dual fuel capability may provide its greatest benefit during a Force Majeure event such as an earthquake or fire that damages electric transmission lines and makes San Diego a virtual "island" responsible for providing its own electric generation. During such an unlikely but not impossible event, the benefits accruing to our customers could be substantial.<sup>5</sup>

### **CONCLUSION**

SDG&E and SoCalGas appreciate having this opportunity to present information that may be helpful to the CAISO Board of Directors as it considers whether to eliminate the long-standing ISO dual fuel requirement for Cabrillo 1 and South Bay. The CAISO staff recommendation to eliminate this requirement appears to be based on careful analysis and reasonable assumptions regarding likely planning scenarios. SDG&E and SoCalGas, however, have submitted these comments to assure that the CAISO carefully considers the various issues that could impact the CAISO's decision concerning the continued dual fuel capability for these two generating units.

<sup>&</sup>lt;sup>5</sup> Of course, residual fuel inventories at Encina and South Bay are not large enough to allow full-on generation from all plant units for more than a few days. But emergency generating capability for even a few days (or longer if the units are used more sparingly) could still potentially be very beneficial in the event of an earthquake or other emergency that limits the ability of SoCalGas and SDG&E to deliver natural gas to Encina and South Bay.

Should you have any questions regarding any of the above, or wish to receive any additional information on this topic from either SDG&E or SoCalGas, please contact Steve Rahon at 858-654-1773 at your earliest convenience.

Sincerely,

James P. Avery

Senior Vice President – Electric

Lee M. Stewart

Senior Vice President – Gas Operations

Cc: Kirk Bracht, CPUC

Sidney Davies, CAISO Gary DeShazo, CAISO Colette Kersten, CPUC Dave Timson, CAISO



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April 30, 2008

PUG 100 I.00-11-002

Mr. Sean Gallagher
Director – Energy Division
California Public Utilities Commission
505 Van Ness Avenue, Room 2237
San Francisco, CA 94102

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

Dear Mr. Gallagher,

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 Todd Cahill at (858) 654-1745.

Sincerely,

Ken Deremer

Director — Tariffs & Regulatory Accounts

**Enclosures** 

cc: Joyce Alfton, 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.) 02-11-073¹ (issued November 21, 2002 in I.00-11-002), San Diego Gas and 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 cause SDG&E the need to add incremental gas transmission capacity. This report does not address the need for transmission and distribution facilities in the normal course of business to address safety, reliability or operational flexibility that may be the subject of other proceedings.

#### I. EXECUTIVE SUMMARY

SDG&E system capacity continues to meet the 1-in-35 year cold day design condition forecasts for core customers through the 2023/24 operating season. 1-in-10 year cold day demand is not forecasted to exceed the available system capacity until the 2020/21 operating season. However, connected load in San Diego still far exceeds both these forecast figures and the SDG&E system capacity, and SDG&E shall continue to curtail interruptible service as necessary to maintain firm service obligations.

## II. CURRENT SDG&E SYSTEM CAPACITY

Given the current geographic location of customers, SDG&E has the capacity to serve 630 MMcfd of customer demand in the winter operating season and 620 MMcfd of customer demand in the summer operating season<sup>2</sup>. 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 2020/21 operating year to 600 MMcfd in the winter and 590 MMcfd in the summer.<sup>3</sup>

# III. CAPACITY OPEN SEASONS

In D.02-11-073, the Commission ordered SDG&E to conduct an open season for the allocation of firm transportation capacity on its gas transmission system. In D.06-09-039, the Commission authorized SDG&E and SoCalGas to conduct capacity open seasons in any areas of their local transmission systems that are constrained or are expected to be constrained. Pursuant to this order, in May 2007 SDG&E completed its capacity open season for a term of June 1, 2007, through May 31, 2009. SoCalGas concurrently held a capacity open season for firm service for customers served from its Rainbow Corridor pipelines, for the same term as the SDG&E capacity open season.

1

April 30, 2008

<sup>&</sup>lt;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".

<sup>&</sup>lt;sup>2</sup> Excludes 45 MMcfd of capacity reserved for an operating margin.

<sup>&</sup>lt;sup>3</sup> A large noncore customer in the Rainbow Corridor is expected to be online by the 2009/10 operating season, and will have the opportunity to obtain firm capacity in the next open season. Should that happen, firm demand may exceed system capacity beginning in the 2009/10 operating season.

D.06-09-039 further authorized SDG&E and SoCalGas to require longer term commitments in the open seasons for large customers. Pursuant to this authorization, SDG&E and SoCalGas defined their open season terms for large customers as the earlier of (1) two years from the date that any associated facilities necessary for capacity improvements are placed into service; or (2) five years from the customer's sign-up date. The open seasons also provided that if the results do not require pro-rationing of capacity and the Commission agrees that no facilities are needed, large noncore customer commitments will have a term of two years. No pro-rationing of capacity was required for either 2007 open season, and in August 2007 the Commission agreed that no facility improvements were needed and reduced the term to two years for large noncore customers.

# IV. 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. Table 1 indicates 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

		-						
Operating Year <sup>b/</sup>	1-in-35 Year Cold Day Demand (MMCFD)				1-in-10 Year Cold Day Demand <sup>a/</sup> (MMCFD)			
	Core	Noncore C&I	EG	Total	Core	Noncore C&I	EG total/firm	Total/Firm
2009/10	390	0	0	390	365	64	203	632
2010/11	391	0	0	391	366	64	190	620
2011/12	392	0	0	392	367	64	147	578
2012/13	386	0	0	386	361	64	159	584
2015/16	387	0	0	387	362	65	153	580
2020/21	394	0	0	394	369	68	186	623
2023/24	402	Ö	0	402	376	70	199	645

a/ The gas demand forecasts for noncore commercial & industrial (C&I) and electric generation (EG) customer classes do not distinguish between firm and interruptible noncore service. Thus, for the purposes of this assessment, SDG&E assumed that all future peak C&I and EG loads elected firm noncore service.

The SDG&E system has sufficient capacity to meet the 1-in-35 year cold day demand condition through the 2023/24 operating season. However, forecasted demand in San Diego under the 1-in-10 year cold day design condition exceeds the system capacity beginning in the 2020/21 operating season.

# V. STATUS OF REQUESTS FOR FIRM SERVICE

SDG&E was able to satisfy all firm service requests during its last open season. SDG&E did not receive any requests for firm noncore service since the last open season.

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

### VI. POTENTIAL CAPACITY IMPROVEMENTS

SDG&E believes that it has sufficient capacity to meet its 1-in-10 year cold day design condition for firm noncore service for a number of years. However, there is a disconnect between the forecasted level of EG demand and the level of firm service bid by EG customers in San Diego. Specifically, SDG&E has forecasted 1-in-10 year cold day EG demand of 190 and 147 MMcfd for the 2010/11 and 2011/12 operating seasons, respectively. However, EG requests for firm service in the 2007 open season were only 61 MMcfd for this same time period.

In A.06-10-034, SDG&E and SoCalGas identified a cost-effective means of increasing the capacity of the SDG&E and Rainbow Corridor Systems by receiving a modest level of reliable supply delivered at Otay Mesa. In D.07-05-022, the Commission approved this approach to increasing the capacity of the two systems.

By receiving 50 MMcfd of reliable supply at Otay Mesa, the capacity of the SDG&E system is increased to 650 MMcfd. This level of capacity is forecast to be sufficient through the 2023/24 operating season, and would immediately improve the capacity of the SDG&E system.

Alternatively, approximately 25 miles of new 36-inch diameter pipeline can be installed between SDG&E's Rainbow Station and Escondido. SDG&E estimates the cost of this project to be \$147 million, with a construction time of 24-30 months including all permits. Obviously, this improvement would not be available to meet total EG winter demand requirements until the 2010/11 operating season at the earliest.

At this time, SDG&E has no plans to immediately pursue either the Rainbow-to-Escondido pipeline project or reliable deliveries at Otay Mesa given that existing capacity currently appears to be sufficient to meet firm service obligations.

As always, SDG&E will continue to reassess its system capacity against any updated customer demand forecast combined with customer requests for firm service, and will consider additional expansion projects if future forecasts and/or customer commitments indicate a need for such expansions.