Application No.: A.08-06-006
Exhibit No.:
Witness: Cedric L. Williams

Application of Southern California Gas Company (U 904 G) and San Diego Gas & Electric Company (U 902 G) to Expand Existing Off-System Delivery Authority.	Application 08-06-006 (Filed June 6, 2008)

PREPARED DIRECT TESTIMONY
OF CEDRIC L. WILLIAMS
ON BEHALF OF
SAN DIEGO GAS & ELECTRIC COMPANY
AND
SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

August 28, 2009

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PREPARED DIRECT TESTIMONY
OF CEDRIC L. WILLIAMS

I. QUALIFICATIONS

My name is Cedric L. Williams. I am employed by Southern California Gas Company/San Diego Gas & Electric Company (SoCalGas/SDG&E) as the Director of the Gas System Operations department. My business address is 555 West Fifth Street, Los Angeles, California, 90013-1011.

I received a Bachelor of Science degree in Industrial Engineering and an MBA with an Operations Management concentration. I have been employed by SoCalGas since 1989, and have held positions of increasing responsibility within the Field Operations, Supply Management, and Transmission departments.

I have held my current position since April, 2009. My current responsibilities include Gas Control, Gas Scheduling, and Gas System Planning for the integrated SoCalGas and SDG&E gas transmission and storage systems.

II. PURPOSE

The purpose of my testimony is to describe how SoCalGas/SDG&E will schedule the off-system services described by Mr. Schwecke while ensuring that adequate supplies will be available each day to maintain system integrity. I will also discuss the operational benefit that the off-system services will provide to on-system customers.

For purposes of this testimony, "on-system" deliveries are defined as deliveries from SoCalGas/SDG&E's gas system to end-use customers within its service territories. "Off-system" deliveries are defined as the transfer, through displacement or actual flow, of gas supplies to customers outside of SoCalGas/SDG&E service territories.

III. SOCALGAS AND SDG&E GAS TRANSMISSION SYSTEMS

SoCalGas owns and operates an integrated transmission system consisting of pipeline and storage facilities. With its network of transmission pipeline and four interconnected storage fields, SoCalGas delivers natural gas to over five million residential and business customers. A map of the SoCalGas transmission system is attached as Figure 1. The transmission system extends from the Colorado River on the eastern end of SoCalGas' 23,000 square mile service territory, to the Pacific Coast on the western end; from Tulare County in the north, to the

U.S./Mexico border in the south (excluding those parts of San Diego County which are served from transmission assets owned and maintained by SDG&E).

The SoCalGas transmission system was designed initially to receive and redeliver gas from the east, to the load centers in the Los Angeles basin, Imperial Valley, San Joaquin Valley, north coastal areas, and San Diego. As our customers sought to gain access to new supply sources in Canada and the Rockies, we modified our system to concurrently accept deliveries from the north. As a result, the system today can accept up to 3,875 million cubic feet per day (MMcf/d) of interstate and local California supplies on a firm basis. Primary supply sources are the southwestern United States, the Rocky Mountain region, Canada, and California on- and off-shore production. The interstate pipelines that supply the SoCalGas transmission system are El Paso Natural Gas Company (El Paso), TransCanada North Baja Pipeline (North Baja), Transwestern Pipeline Company (Transwestern), Kern River Gas Transmission Company (Kern River), Mojave Pipeline Company (Mojave), Questar Southern Trails Pipeline Company (Southern Trails), and TransCanada Gas Transmission Northwest via PG&E's intrastate system (PG&E/GTN). The SoCalGas transmission system interconnects with El Paso at the Colorado River near Needles and Blythe, California, with North Baja at Blythe, and with Transwestern and Southern Trails near Needles, California. SoCalGas also interconnects with the common Kern/Mojave pipeline at Wheeler Ridge in the San Joaquin Valley and at Kramer Junction in the high desert. At Kern River Station in the San Joaquin Valley, SoCalGas maintains a major interconnect with the PG&E intrastate pipeline system, and receives PG&E/GTN deliveries at that location.

SoCalGas operates four storage fields that interconnect with its transmission system. These storage fields – Aliso Canyon, Honor Rancho, La Goleta, and Playa del Rey – are located near the primary load centers of the SoCalGas system. Together they have a combined inventory capacity of 131 billion cubic feet (Bcf), a combined firm injection capacity of 850 MMcf/d, and a combined firm withdrawal capacity of 3,195 MMcf/d.

The SDG&E gas transmission system consists primarily of a high-pressure 30-inch diameter pipeline and a high-pressure 16-inch diameter pipeline that extend south from Riverside County. Two compressor stations (Moreno compressor station and Rainbow compressor station) also support the SDG&E transmission system. A schematic of the SDG&E gas transmission system is shown in Figure 2. Both pipelines terminate at the SDG&E citygate regulator stations

in San Diego. The pipelines are interconnected approximately at their midpoint and again near their southern terminus. The northern cross-tie runs between Carlsbad and Escondido, while the southern cross-tie runs through Miramar. A 20-inch diameter pipeline extends from the cross tie at Miramar to Santee, where it connects to a 36-inch diameter pipeline extending to Otay Mesa and the U.S./Mexico border, where the SDG&E transmission system interconnects with the Transportadora de Gas Natural pipeline (TGN). Additional supply comes from a SoCalGas-owned 12-inch diameter pipeline that extends south along the coast from the San Onofre metering station in Orange County to La Jolla.

IV. SCHEDULING & CONFIRMING OF OFF-SYSTEM SERVICES

SoCalGas/SDG&E conform to North American Energy Standards Board (NAESB) standards for scheduling gas supplies to their system. Customers and shippers are afforded four scheduling cycles to transport gas supply to meet their needs. The Timely and Evening cycles occur at 9:30 am and 4:00 pm, respectively, on the day prior to the day of flow. Two more cycles, Intraday 1 and Intraday 2, occur at 8:00 am and 3:00 pm, respectively, on the day of flow, and allow customers and shippers to adjust their gas supplies to more accurately fit their needs. Per SoCalGas Rule No. 30, customers and shippers are expected to keep their gas supply and demand in balance. To this end, SoCalGas/SDG&E offer a fifth cycle Intraday 3 after Intraday2 to aid customers in meeting this balancing requirement. During this Intraday 3 cycle, customers may move any imbalances that occurred that day into or out of their storage accounts, to reduce or avoid imbalance penalties that may otherwise be incurred.

For each scheduling cycle, customers and shippers nominate the gas volumes that they would like to deliver to each of the SoCalGas/SDG&E receipt points. SoCalGas/SDG&E's Gas Scheduling Department aggregates these nominations for each receipt point, reduces the nominated volumes according to scheduling priorities to the capacity of the receipt point or transmission zone if necessary, and confirms back to the interconnecting pipelines the volume that SoCalGas/SDG&E can receive at each receipt point for each customer or shipper. Each interconnecting pipeline then schedules that confirmed volume (or less) to the respective receipt point.[1]

[1] Pipelines may schedule less than the confirmed volume due to capacity or supply issues they may have on their own system.

There will be no change to this procedure with the implementation of off-system services. Currently, SoCalGas receives nominations for on system receipts from PG&E and off-system deliveries to PG&E at Kern River Station for each scheduling cycle. The Gas Scheduling Department then performs a series of checks for these nominations; contractual rights, scheduling priorities, storage account balance and whether on-system nominated volumes exceed off-system nominated volumes. After these checks are completed, the Gas Scheduling Department makes the appropriate reductions and sends the confirmations to PG&E. Similar to the way that nominations are processed for off system to PG&E, the Gas Scheduling department will also aggregate the off-system volumes at other receipt points. The SoCalGas/SDG&E Gas Control department will then determine whether this level of off-system services can be provided and still maintain system integrity (i.e., maintain system pressures between minimum and maximum allowable limits at all times, operate transmission and storage facilities within their rated capacities, maintain and recover system linepack). If system integrity cannot be maintained with the nominated level of off-system services, the Gas Control department will curtail these services either wholly or in part. In such an event, the Gas Control department will be the sole authority on the extent and location for any curtailment of off-system services, just as they are today for the curtailment of any on-system services. If the nominations exceed the capacity allowed by Gas Control for off-system, Gas Scheduling will reduce those nominations according to scheduling priorities.

V. OPERATIONAL IMPACT OF OFF-SYSTEM SERVICES

Simply put, there will be no new operational impact from providing the off-system services sought in this application. As described more fully by Mr. Schwecke, all off-system services, whether designated as "firm" or "interruptible"[2], will be secondary in priority to all on-system demand and services, including on-system interruptible services. As described above, off-system services will be offered each day only to the extent that system integrity and service to on-system customers are not jeopardized. Any off-system service requested beyond this level will be curtailed by the SoCalGas/SDG&E Gas Control department.

[2] "Firm" off-system service consists of the physical redelivery of gas supply from the SoCalGas/SDG&E gas transmission system to the off-system delivery point under all but the most extreme supply/demand conditions, and likely includes facility improvement on the SoCalGas/SDG&E gas transmission system, the receiving pipeline, or both. "Interruptible" off-system service is accomplished by displacement of supply normally received at the off-system delivery point, or from another receipt point or storage on the SoCalGas/SDG&E gas transmission system.

In this manner, SoCalGas/SDG&E will ensure that off-system services do not impact the availability of supply necessary to meet its daily needs for on-system customers and services. This does not mean that SoCalGas/SDG&E can ensure that it will always have adequate supply to meet its needs simply by curtailing all off-system services, only that off-system services will have no impact on that ability. SoCalGas/SDG&E will continue to rely upon other Commission-approved means to maintain system integrity and service to its customers, including the provisions specified in SoCalGas Rule No. 23 and SDG&E Gas Rule No. 14, as well as the purchase of gas supply by the System Operator.[3]

VI. OPERATIONAL BENEFIT OF OFF-SYSTEM SERVICES

In addition to the economic benefits described by Mr. Schwecke, off-system services also provide an operational benefit to on-system customers. SoCalGas/SDG&E declare Operational Flow Orders (OFOs) when the level of scheduled supply exceeds the forecasted system capacity. The forecasted system capacity is calculated using the following formula:

Forecasted system capacity = forecasted demand
+ physical storage injection capacity
+ off-system nominations

As shown by the formula, the forecasted system capacity increases on a 1:1 basis with any increase in off-system nominations. As the forecasted system capacity increases, the likelihood of an OFO condition decreases. Empirically and intuitively it is clear that providing off-system service has the potential to reduce the number of OFOs since it has the effect of increasing system capacity.

For example, consider an OFO condition with a forecasted system capacity of 4500 MMcf/d and scheduled supplies of 4700 MMcf/d. If SoCalGas/SDG&E were to receive 300 MMcf/d in off-system nominations, the forecasted system capacity would increase to 4800 MMcf/d, and the OFO condition would be avoided. Physically, this occurs because 300 MMcf/d that had been scheduled for delivery to the SoCalGas/SDG&E system is instead

[3] As explained by Mr. Schwecke, the System Operator will not purchase supplies to enable off-system services.

kept by the upstream pipeline for the off-system markets, freeing capacity on the SoCalGas/SDG&E system for on-system customers and shippers.[4]

There may be an additional operational benefit to on-system customers from providing off-system services since any supplies displaced for delivery to the SoCalGas/SDG&E system reduce the need for compression to move the supplies on-system, and lower transmission fuel rates benefit ratepayers. However, a loss of supply at one location may require an increase in the operation of transmission compression or storage at another location on the system. For example, a loss of supply on the Southern System (Blythe and Otay Mesa) may require an incremental increase in the operation of compressors on the North Desert system (North Needles, Topock, and Kramer Junction) in order for Gas Control to re-route supplies delivered on the North Desert system to the Southern System. Whether off-system services result in a net cost or savings as it relates to transmission fuel and operating costs will vary day to day, and will be dependent on the level and location of supply and demand on the SoCalGas/SDG&E system.

This concludes my testimony.

[4] In the event of "wheeling", in which supplies are brought in to the SoCalGas/SDG&E system at one location and delivered off-system at another, there would be no impact to the determination of an OFO event since the net impact of wheeling is zero (supplies in equal supplies out). There is, however, still a benefit to on-system customers from wheeling since utilization of the utility pipeline network is increased.

Figure 1

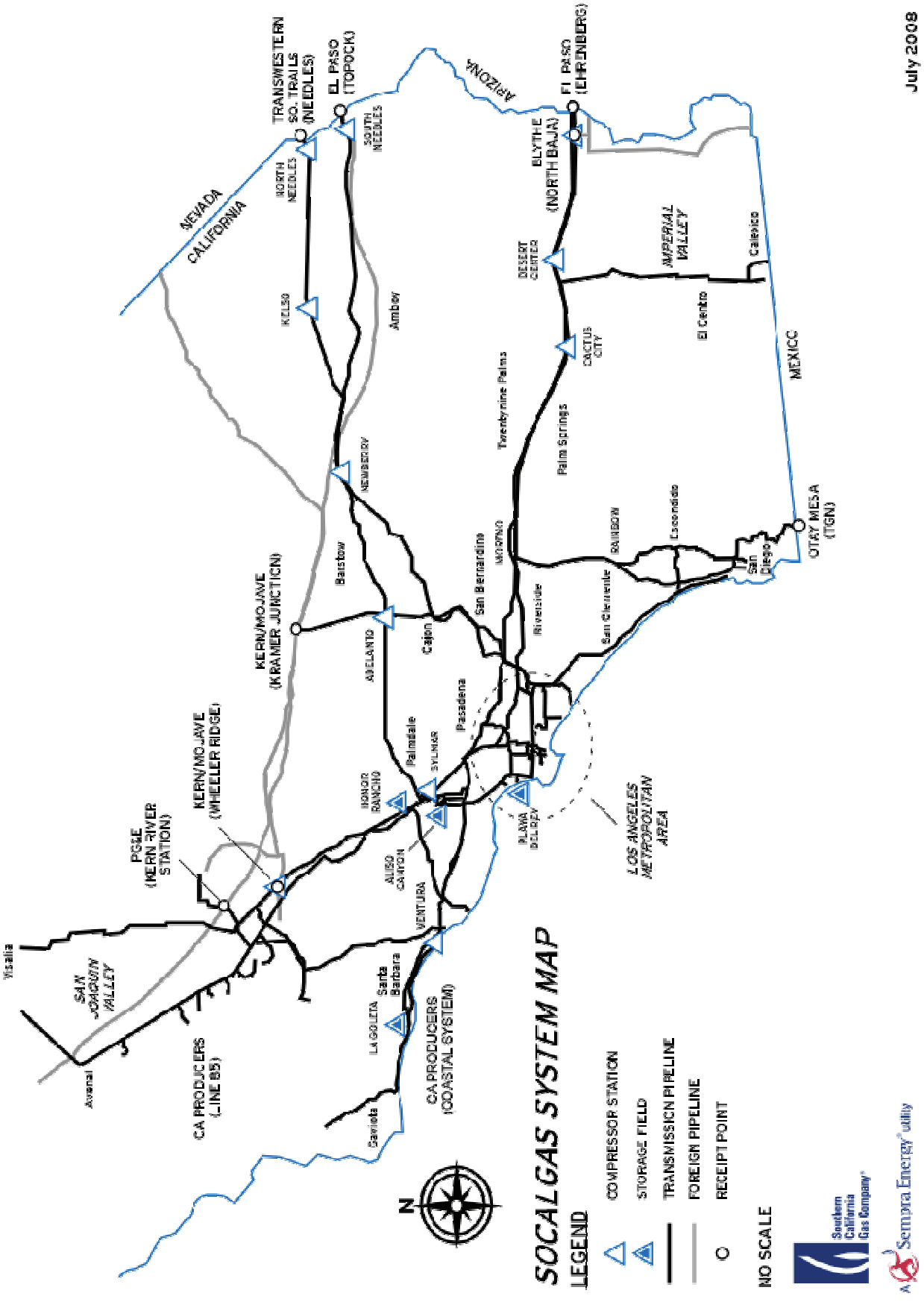
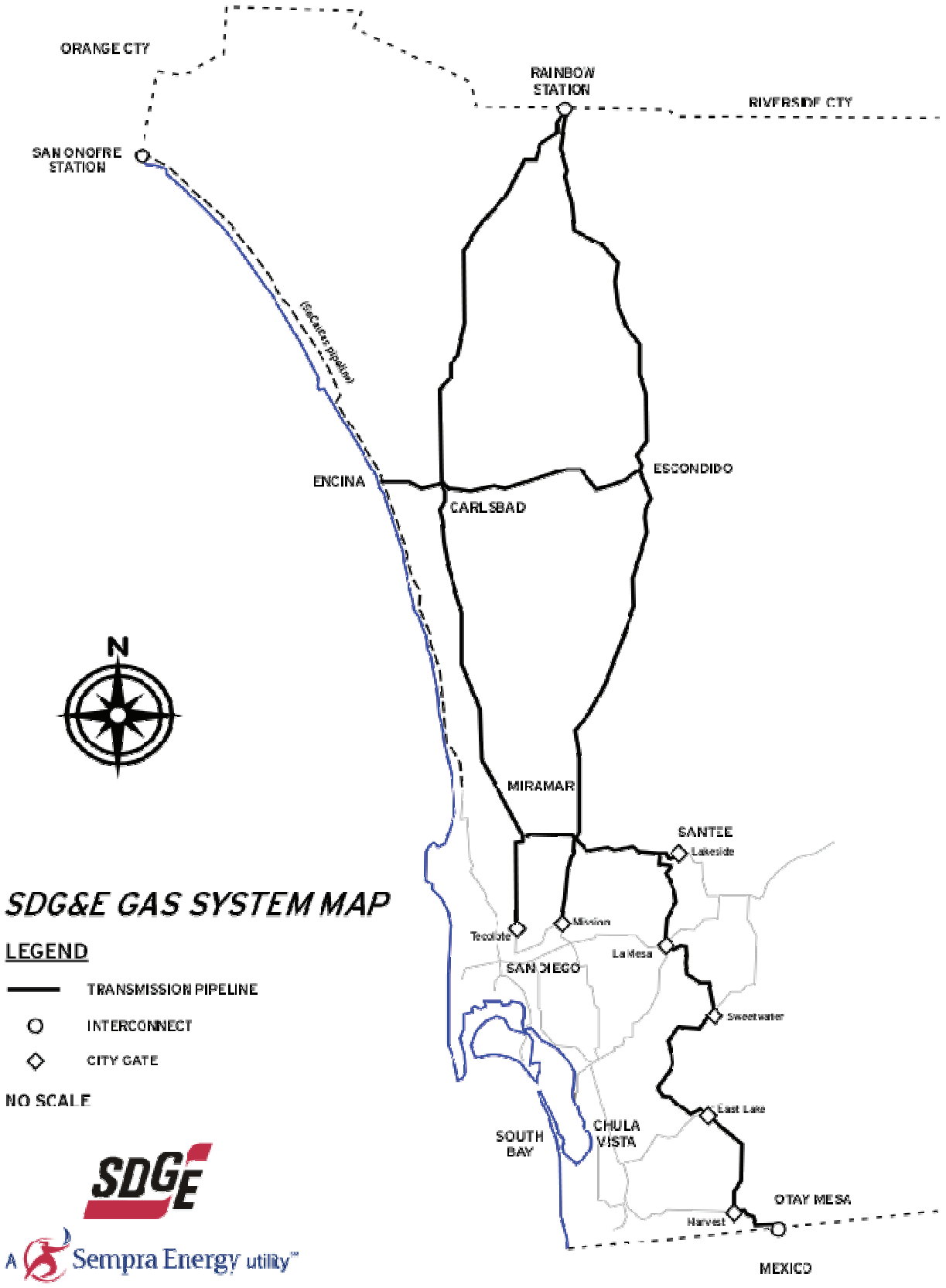

SOCALGAS SYSTEM MAP
LEGEND
COMPRESSOR STATION
STORAGE FIELD
TRANSMISSION PIPELINE
FOREIGN PIPELINE
RECEIPT POINT
NO SCALE
July 2008
NEVADA
CALIFORNIA
ARIZONA
MEXICO
TRANSWESTERN SO. TRAILS (NEEDLES)
EL PASO (TOPOCK)
EL PASO (EHRENBERG)
NORTH NEEDLES
SOUTH NEEDLES
KELSO
Amboy
ELYTHE (NORTH BAJA)
DESERT CENTER
IMPERIAL VALLEY
Calexico
El Centro
CACTUS CITY
Palm Springs
Twenty-nine Palms
KERN/MOJAVE (KRAMER JUNCTION)
Barstow
NEWBERRY
ADELANTO
Cajon
San Bernardino
MORONGO
Riverside
San Clemente
RAINBOW
Escondido
San Diego
OTAY MESA (TGN)
PG&E (KERN RIVER STATION)
KERN/MOJAVE (WHEELER RIDGE)
HONOR RANCHO
Palmdale
SYLMAR
Pasadena
ALISO CANYON
VENTURA
PLAYA DEL REY
LOS ANGELES METROPOLITAN AREA
Visalia
SAN JOAQUIN VALLEY
Avenal
CA PRODUCERS (LINE 85)
Gaviota
LA GOLETA
Santa Barbara
CA PRODUCERS (COASTAL SYSTEM)
N
Southern California Gas Company
Sempra Energy utility

Figure 2



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