**APPLICATION OF SOUTHERN CALIFORNIA GAS COMPANY &
SAN DIEGO GAS & ELECTRIC COMPANY FOR AUTHORITY TO REVISE THEIR
NATURAL GAS RATES AND IMPLEMENT STORAGE PROPOSALS EFFECTIVE
JANUARY 1, 2020 IN THE TRIENNIAL COST ALLOCATION PROCEEDING**

(A.18-07-024)

(4th DATA REQUEST FROM THE INDICATED SHIPPERS)

DATA RECEIVED: 12-17-18

DATE RESPONDED: 01-04-19

QUESTION 4-1:

As a follow-up to the response to IS Data Request 3-1, please provide a narrative explanation and a worksheet in native format with all formulas intact supporting the allocation of the Reliability function cost of $8.3 million between Core Inventory and Load Balancing Inventory.

RESPONSE 4-1

The 21 Bcf of storage inventory allocated to the reliability function provides a withdrawal capacity of 1,240 MMcfd on a year-round basis. This is split in the 151 days of winter by 840 MMcfd for Core Reliability and 400 MMcfd for Balancing, and the 214 days of summer by 400 MMcfd for Core Reliability and 840 MMcfd for Balancing. Please refer to the attached spreadsheet, which shows the seasonally-weighted average results in 47% for the Core and 53% for Balancing.

File separately attached.

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QUESTION 4-2:

IS Data Request 3-3 requesting the analytical basis relied upon for allocating the storage revenue requirement to classes in the cost and rate model on the basis of Average Year Throughput. The response references “cost causality” and “maintain consistency with the existing practices whenever possible.” No analytics were provided in responding to this question. Does SoCalGas have any analysis of actual or estimated hourly or daily core and noncore: (1) usage, (2) scheduled deliveries and (3) actual deliveries of gas to SoCalGas that supports an allocation on the basis of Average Year Throughput? If so, please provide all such supporting information that demonstrates that this allocation is based on “cost causality.”

RESPONSE 4-2:

SoCalGas did not perform any analysis with regard to allocating the storage balancing revenue requirement to customer classes in the cost allocation and rate design models on the basis of Average Year Throughput. Allocation using Average Year Throughput is currently being used in the cost allocation and rate design models for load balancing function and was approved in the most current TCAP Decision, D.16-10-004.

QUESTION 4-3:

Appendix G to Chapter 8 discusses the allocation of storage costs by function. On page G-3, the following explanation is provided for FERC Account 352-Wells:

> "FERC Account 352 – Wells: This account includes the cost of wells used for withdrawal, injection, and observation into the storage field which correlates with inventory in the storage fields. A 2:1 allocation was approximated for the use of wells for withdrawal/injection as typically a higher ratio of wells is required to meet withdrawal rate demands for the gas system in contrast to the number of wells required to meet rates for injection. A remaining quarter of this account allocation is designated to the inventory function."

With regard to the above, please:

a. Explain the basis for the 2:1 allocation between withdrawal and injection functions and provide the analytical support for the decision to use this ratio.

b. Provide the specific basis for implementing the 2:1 allocation as 25% to injection and 50% to withdrawal, leaving only 25% for inventory.

c. Explain why a 25%/50% injection/withdrawal ratio is more appropriate than some other relationship, such as 20%/40%, 15%/30%, or some other specific values?

d. Provide a narrative explanation and the analytical support for allocating only 25% to inventory.

RESPONSE 4-3:

a. The FERC Account 352 - Wells 2:1 allocation percentage between withdrawal and injection is consistent with the currently authorized allocation. SoCalGas intends to continue operating its wells consistent with current practice. While no detailed operational analysis was performed, the 2:1 allocation does consider well configuration and storage operations. Withdrawal rates need to be high in order to meet demand when supply is low and may need to occur over a short period. This requires additional wells to accommodate. In comparison, injection typically occurs when gas demand is low, to prepare inventory for the upcoming withdrawal season, and can occur over a longer period of time, and therefore does not require such high flow rates. Subsequently, this

requires approximately half as many wells to meet operational needs compared to withdrawal.

b. See response 4-3, a and 4-3, d.

c. See response 4-3, a.

d. While no detailed analysis was performed, approximately ¼ of SoCalGas' active wells serve non-withdrawal, non-injection functions such as: storage observation, liquid removal, migration gas return, monitoring, and water flood/water injection. SoCalGas considers these functions as supportive of inventory activity. Accordingly, SoCalGas allocated 25% to the inventory function.

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QUESTION 4-4:

In the 2008 study (see attachment to IS Question 2-3), the allocations between injection, withdrawal and inventory for Accounts 353, 355, 817, 820, 832, 833, and 835 were not the same as the allocation for Account 352 (Wells). Please explain the basis for the apportionment to injection, withdrawal and inventory for the above-referenced accounts in 2008.

RESPONSE 4-4:

The 2008 cost causation study was prepared many years ago, such that Applicants cannot provide additional insights into its preparation other than what has already been provided (e.g., variance analysis between the 2008 study allocation factors and the 2020 proposed allocation factors as provided in response to DR Set #2, Question 2-3).

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QUESTION 4-5:

Appendix G to Chapter 8 in the current filing changes the allocation of Accounts 353, 817, 832, and 833 to be the same as the allocation of Account 352 (Wells) given the fact that the allocations within these accounts in the 2008 case were not the same as the allocation of Account 352, please explain in detail what changes have occurred in system operations that justify making these allocations the same as for Account 352.

RESPONSE 4-5:

Please refer to response to Question 4-4.

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QUESTION 4-6:

Please state the dollar amount of revenue SoCalGas received from the sale of unbundled storage for each of the years 2014, 2015, 2016, 2017, 2018 year-to-date and 2018 forecasted.

RESPONSE 4-6:

Year	Recorded Revenue Unbundled Storage and **HUB
2014	$25,961,936
2015	$26,557,297
2016	$16,578,222
2017	$4,069,890
2018*	$6,001,298

*Year to date November 2018

**California Energy HUB

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QUESTION 4-7:

Please update the 2020 LRMC study to incorporate the current income tax provisions and provide an executable version in native format with all formulas intact.

RESPONSE 4-7:

Applicants object to this request on the basis that it is unduly burdensome, as this would essentially require Applicants to perform the entire study again. Subject to and without waiving this objection, Applicants respond as follows. The 2020 LRMC study is based on 2016 recorded data due to the fact that 2016 data was the most recent data available when the study was prepared. The 2016 Real Economic Carrying Cost (RECC) factors, which incorporate the 2016 income tax provisions, were used to be consistent with the 2016 recorded data. The implementation of the Tax Cuts and Job Act of 2017 became effective on January 1, 2018. In the next TCAP proceeding (2023 TCAP), Applicants will likely use 2019 recorded data which will incorporate the impacts of income tax provision current in 2019.

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QUESTION 4-8:

The response to IS Data Request 3-9, part b., refers to Hourly Operational data for Net Hourly Injection and Withdrawal reads published in PDF format on October 30, 2018 by SoCalGas via ENVOY. Please provide the hourly operational data in Excel format.

RESPONSE 4-8:

See attached file.

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QUESTION 4-9:

For SoCalGas combined storage assets, please provide the following information:

a. Storage capacity currently used for meeting peak day demands.

b. Storage capacity currently used for load balancing on a daily basis.

c. Storage capacity currently used for load balancing on an hourly basis.

d. Storage capacity currently used to manage price risk.

RESPONSE 4-9:

SoCalGas objects to this question as vague and ambiguous with regards to the term "storage capacity." Subject to and without waiving this objection, SoCalGas responds as follows:

Current storage allocations were established in D.16-06-039.

a. Customers can manage their storage rights to meet peak day demands, as well as use SoCalGas's balancing service. Withdrawal rights in the winter are 2,225 MMcfd for the core, 425 MMcfd for the unbundled program, and 525 MMcfd for balancing. Withdrawal rights in the summer are 1,081 MMcfd for the core, 206 MMcfd for the unbundled program, and 525 MMcfd for balancing. As of March 2, 2016, SoCalGas suspended Unbundled storage sales until further notice.
b. The load balancing function is allocated 525 MMcfd of withdrawal capacity and 345 MMcfd of injection capacity.
c. As stated in response to Question 3-17 of DR-03, SoCalGas has not allocated storage assets to intra-day balancing.
d. SoCalGas does not allocate storage assets specifically for managing price risk. Storage customers can manage their rights to manage price risk, as well as use SoCalGas's balancing service.

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QUESTION 4-10:

Please identify all usage characteristics that SoCalGas believes influence the amount of gas storage required to serve customers.

RESPONSE 4-10:

SoCalGas objects to this question as overly broad, vague, and ambiguous. Subject to and without waiving this objection, SoCalGas responds as follows:

The SoCalGas system is designed to use both interstate receipt capacity and storage to meet customer demand throughout the year. In general, customer demand is higher in the winter than the summer. During the shoulder and summer months when demand is lower, surplus gas supplies are injected into storage for meeting demand throughout the winter. Additionally, storage injection and withdrawal are used to meet daily and hourly differences in supply and demand throughout the year.

Applicants' storage allocation proposal is designed to provide Core Reliability service throughout the year and provide daily flexibility to all customers with increased Balancing service. Please refer to Chapter 1 for descriptions how the Applicants' proposal provides Core reliability on pages 7-10 and customer flexibility on pages 10-14.

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QUESTION 4-11:

For each characteristic identified in response to IS 4-10, please state whether SoCalGas contends that its proposed allocations of storage accurately account for the differences between core and noncore customer usage patterns and among classes of customer within the core and noncore groups. For any affirmative response, please explain in detail how it does.

RESPONSE 4-11:

Please refer to Response 4-10.

QUESTION 4-12:

Please provide the following information:

a. Identify what entity within SoCalGas decides to utilize storage for load balancing.

b. Please provide a narrative describing how the entity identified in part a. above decides when to utilize storage for load balancing. Please include copies of any SoCalGas criteria used by the entity when deciding that storage should be utilized for load balancing.

RESPONSE 4-12:

a. Load Balancing refers to the service provided by the Applicants' System Operator to accommodate imbalances between a customer's actual usage and the gas it schedules for delivery to the system. The Load Balancing service is a year-round service available to all customers on the system. The SoCalGas System Operator operates storage as required to maintain the system between minimum and maximum operating pressures, independently of nominations.

b. See response to subpart a.