APPENDIX A

Energy Division Staff Proposal on Storage Capacity Allocation
Application No. 18-07-024

Summary

SoCalGas' and SDG&E's (the Applicants') storage allocation proposal in this proceeding conflicts with the current operational restrictions at the Aliso Canyon Natural Gas Storage Facility (Aliso). Energy Division staff (Staff) centers its allocation of storage capacity on the current maximum authorized capacity at Aliso: 34 Bcf. However, there is regulatory uncertainty regarding the amount of capacity that will be allowed at Aliso both in the short and long term. Thus, it is reasonable to conclude that Aliso's inventory capacity could range anywhere from 0 Bcf to 68.6 Bcf.[1] For these reasons, Staff proposes a mechanism whereby storage capacity can be allocated based on shifting inventory capacity at Aliso. To allocate storage costs, the Applicants used the embedded cost methodology, which applies recorded costs. Staff recommends that the functionalized storage costs allocated to inventory, injection, and withdrawal be subsequently apportioned to core, the balancing function, and the Unbundled Storage Program based on Energy Division's proposed storage capacities.

Background

The application for the Triennial Cost Allocation Proceeding (TCAP) currently in effect was filed on December 18, 2014, and Decision (D.) 16-06-039 was approved on June 23, 2016. The Aliso Canyon gas leak occurred on October 23, 2015, which was after the settlement agreement had been reached but prior to the adoption of D.16-06-039. The gas leak was permanently sealed on February 18, 2016, and the Division of Oil, Gas, and Geothermal Resources (DOGGR) established a maximum allowable Aliso inventory of 68.6 Bcf on July 19, 2017.[2] However, Section 715 of the Public Utilities Code requires the CPUC to determine "the range of working gas necessary to ensure safety and reliability for the region and just and reasonable rates in California." In its most recent determination, which was issued on July 2, 2018, the CPUC directed SoCalGas to maintain up to 34 Bcf of inventory due to "unprecedented level of outages on the

[1] On February 9, 2017, the CPUC opened an Order Instituting Investigation (I.) 17-02-002, to determine the feasibility of minimizing or eliminating Aliso usage while still maintaining energy reliability in Southern California. The results of this proceeding will determine Aliso's maximum allowable inventory in the long term. Possible outcomes range from a low of 0 Bcf in Aliso inventory to a high of 68.6 Bcf, which is the maximum safe Aliso operating capacity identified by the Division of Oil, Gas, and Geothermal Resources (DOGGR).

[2] DOGGR reduced the maximum allowable pressure in the field from 3,600 pounds per square inch (psi) to 2,926 psi. In capacity terms, this results in a decrease in the maximum allowable inventory from 86 Bcf to 68.6 Bcf. https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/ReleaseStateInspectionsConfirmSafetyofAlisoCanyon.pdf

SoCalGas system," among other reasons.[3] In addition to setting the maximum allowable Aliso inventory, the CPUC has also limited the circumstances under which SoCalGas can initiate withdrawals through the Aliso Canyon Withdrawal Protocol (Withdrawal Protocol).[4]

When the previous TCAP decision was adopted, the future of Aliso was unknown, and approved storage and balancing proposals were based on the operational status of Aliso prior to the gas leak. In the aftermath of the decision, the mismatch between what was allocated and what exists has negatively impacted both core and noncore customers. For example, the previous TCAP and subsequent advice letters dedicated 345 MMcfd of injection capacity or all available injection capacity, whichever is lesser, to the balancing function. This allocation has resulted in core customers having no firm injection capacity once Aliso is full, which negatively impacts their ability to inject gas into storage. The reductions in Aliso capacity have also led to more frequent issuance of operational flow orders (OFOs), which increase costs for both core and noncore customers. Lastly, the post-leak loss of Aliso inventory capacity led to the de facto elimination of the Unbundled Storage Program, which meant that noncore customers had no ability to purchase storage to hedge against uncertainties in the gas market.

Several temporary measures have been undertaken to address these reliability-related concerns. The Second Daily Balancing Settlement Agreement (Daily Balancing Agreement), which was adopted on December 1, 2016, proposed temporary mitigation measures to address the reliability challenges related to reduced use of Aliso.[5] The Commission issued several subsequent decisions to extend the term of the Daily Balancing Agreement since conditions at Aliso remained largely unchanged.[6] The second such decision, D.17.11-021, noted:

> We require SoCalGas and SDG&E to take steps toward achieving a long-term solution that revisits the allocation of storage inventory,

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[3] July 2, 2018, "Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability for Reliability Supplemental Report (715 Report): https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/715Report_Summer2018_Final.pdf.

[4] The current Withdrawal Protocol dated July 23, 2019 can be found here: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/UpdatedWithdrawalProtocol_2019-07-23%20-%20v2.pdf

[5] D.16-12-015, which expired March 31, 2017: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M170/K801/170801774.pdf.

[6] D.17-03-020: http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=182487273; D.17-11-021: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M200/K036/200036470.PDF; and D.18-11-009: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M200/K036/200036470.PDF.

> injection, and withdrawal capacity and storage costs agreed to in the Phase 1 Triennial Cost Allocation Proceeding (TCAP) Settlement Agreement, which we approved in D.16-06-039. These allocations were based on storage capacity prior to the Aliso leak and are no longer realistic given current storage capacity. This incongruence between the TCAP allocations and reality exacerbates the impact of the physical reductions in storage capacity on the SoCalGas system…[7]

Unfortunately, SoCalGas' and SDG&E's application in this proceeding did just the opposite by proposing storage allocation numbers based on the highest possible maximum allowable inventory at Aliso with no mechanism to adjust the allocations to match current reality. This Staff Proposal is intended to rectify that deficiency by providing a methodology that can accommodate any Aliso inventory between 0 and 68.6 Bcf.

Aliso Capacity of 34 Bcf

The currently authorized inventory capacity at Aliso is 34 Bcf. In its base case, Staff proposes allocating storage capacity based on 34 Bcf in Aliso inventory, as shown in Tables 1 and 2 below, until and unless Aliso's inventory capacity changes. In addition to Aliso's restricted inventory capacity, the Withdrawal Protocol dictates when SoCalGas can initiate withdrawals from the field. It is essential to consider the actual total withdrawal capacity for the winter and summer seasons when allocating storage amounts. Thus, staff proposes to allocate two different withdrawal figures to core customers and the balancing function to account for the impact of the Withdrawal Protocol: 1) the figures in Table 1 include Aliso's withdrawal capacity; and 2) the figures in Table 2 do not. The former will come into play if any of the four conditions in the existing Withdrawal Protocol trigger withdrawals from Aliso. In the latter case, the total withdrawal capacity would be based on the capacity of the other three gas fields: Honor Rancho, La Goleta, and Playa del Rey.

[7] D.17-11-021, p. 9.

Table 1

Aliso Inventory at 34 Bcf / Aliso Withdrawal Capacity Available	
Total Storage Inventory	84.9 Bcf
Winter Withdrawal Capacity	2,660 MMcfd[8]
Summer Withdrawal Capacity	1,390 MMcfd-2,340 MMcfd[9]
Winter Injection Capacity	500 MMcfd[10]
Summer Injection Capacity	790 MMcfd[11]
Core Inventory	76.9 Bcf
Injection (Summer)	445 MMcfd
Injection (Winter)	155 MMcfd
Withdrawal (Summer)	400 MMcfd
Withdrawal (Winter)	2,000 MMcfd
Load Balancing Inventory	8 Bcf
Injection (Summer)	345 MMcfd
Injection (Winter)	345 MMcfd
Withdrawal (Summer)	840 MMcfd
Withdrawal (Winter)	400 MMcfd
Unbundled Storage Program	-
Injection (Summer)	-
Injection (Winter)	-
Withdrawal (Summer)	-
Withdrawal (Winter)	-

As inventory in a gas storage field declines, its corresponding withdrawal capacity is also reduced. The withdrawal capacity allocation in Table 1 is based on the maximum withdrawal capacity available when storage fields are closer to full. Therefore, the withdrawal capacity allocated to core customers and the balancing function in Table 1 shall be prorated daily based on the available withdrawal capacity. Furthermore, injection capacity tends to decrease as storage fields become full. The injection capacity allocation in Table 1 is based on the maximum injection capacity available. Thus, the

[8] Derived from Table 3 of SoCalGas' Winter 2018-19 Technical Assessment: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2018/2018%2011%2002%20SoCalGas%20(R.%20Schwecke)%20letter%20to%20CEC%20enclosing%20WINTER%202018-19%20TECHNICAL%20ASSESSMENT.PDF

[9] Derived from SoCalGas' 2019 Summer Technical Assessment: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/SoCalGas%20Summer%202019%20Technical%20Assessment%20040219.pdf

[10] App.-01 at 5.

[11] App-01 at 5.

injection capacity allocated to core customers and the balancing function in Table 1 shall be prorated daily based on the available injection capacity.

Table 2

Aliso Inventory at 34 Bcf / Aliso Withdrawal Capacity Unavailable	
Total Storage Inventory	84.9 Bcf
Winter Withdrawal Capacity	1,343 MMcfd[12]
Summer Withdrawal Capacity	910 MMcfd[13]
Winter Injection Capacity	500 MMcfd[14]
Summer Injection Capacity	790 MMcfd[15]
Core Inventory	76.9 Bcf
Injection (Summer)	445 MMcfd
Injection (Winter)	155 MMcfd
Withdrawal (Summer)	400 MMcfd
Withdrawal (Winter)	1,093 MMcfd
Load Balancing Inventory	8 Bcf
Injection (Summer)	345 MMcfd
Injection (Winter)	345 MMcfd
Withdrawal (Summer)	350 MMcfd[16]
Withdrawal (Winter)	250 MMcfd[17]
Unbundled Storage Program	-
Injection (Summer)	-
Injection (Winter)	-
Withdrawal (Summer)	-
Withdrawal (Winter)	-

As inventory in a gas storage field declines, its' corresponding withdrawal capacity is also reduced. The withdrawal capacity allocation in Table 2 is based on the maximum withdrawal capacity available when the non-Aliso storage fields are closer to full. Therefore, the withdrawal capacity allocated to core customers and the balancing

[12] Derived from Table 3 of SoCalGas' Winter 2018-19 Technical Assessment
[13] Average 2018 Summer Withdrawal Capacity from SoCalGas' Envoy: https://scgenvoy.sempra.com/
[14] App-01 at 5.
[15] App-01 at 3.
[16] SCG-01 at 47.
[17] SCG-01 at 47.

function in Table 2 shall be prorated daily based on the available withdrawal capacity. Furthermore, injection capacity tends to decrease as storage fields become full. The injection capacity allocation in Table 2 is based on the maximum injection capacity available. Thus, the injection capacity allocated to core customers and the balancing function in Table 2 shall be prorated daily based on the available injection capacity.

SCGC's storage allocation proposals under a 34 Bcf Aliso scenario align with the Staff Proposal presented here.[18] SCGC used 2018 withdrawal amounts dedicated to the load balancing function from Envoy, which showed withdrawal capacity at roughly 130-250 MMcfd. This does not account for Aliso's withdrawal capacity that can be made available for balancing under the new Withdrawal Protocol. Staff agrees with SCGC's analysis under a scenario where Aliso's withdrawal capacity is unavailable.

However, in the event of a peak cold day, as demonstrated during the winter of 2018-19, Aliso's withdrawal capacity is needed to meet high customer demand and respond to steep intraday demand changes.[19] In addition, the current Withdrawal Protocol states that if SoCalGas initiates Aliso withdrawals because one of its four conditions have been met, then Aliso's inventory shall be made available for load balancing and for scheduling to customers who have storage rights.

Regarding injection capacity, SCGC determined that the maximum injection capacity on the system is 650 MMcfd. This information was derived from Resolution G-3540, which was released in 2018 and does not reflect current capacity.

Staff recommends adopting the Applicants' proposed winter and summer injection capacity for load balancing, which is conceivable under current operational capacity if Aliso's injection capacity is available.

a. Core Inventory Requirements

The Applicants' proposal to allocate 80 Bcf of storage inventory to core customers and to create a new reliability function is not supported under existing conditions. Staff recommends adopting the Applicants' winter and summer injection capacity of 155 MMcfd and 445 MMcfd, respectively, which is conceivable under current conditions, if Aliso's injection capacity is available. Without Aliso Canyon's injection capacity, it is difficult for customers to build storage inventory at the other three storage fields since

[18] SCG-01 at 47.

[19] Winter 2018-19 SoCalGas Conditions and Operations Draft Report: https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/Winter2018-19LookbackReport_PublicDraft.pdf

the remaining capacity is currently reserved for balancing. Thus, prorating the available injection capacity is necessary.

b. Wholesale Core Customers

In the last TCAP, wholesale customers were allocated a portion of storage from the Unbundled Storage Program. Since there is insufficient storage capacity to support the Unbundled Storage Program when Aliso is at 34 Bcf, wholesale customers shall be allocated a portion of all core storage assets. Southwest Gas Corporation will be allocated storage capacities (inventory, injection, and withdrawal) equal to 2% of the store capacities allocated to core customers. The City of Long Beach will be allocated storage capacities (inventory, injection, and withdrawal) equal to 1% of the storage capacities allocated to core customers.[20]

c. Balancing Function

With Aliso's capacity at 34 Bcf, Staff recommends allocating 8 Bcf of storage capacity to the balancing function, which is consistent with the allocation authorized in the previous TCAP. Furthermore, we recommend maintaining 345 MMcfd of winter and summer injection capacity dedicated to balancing, which is conceivable under current conditions, if Aliso's injection capacity is available. If Aliso's withdrawal capacity is available, then we recommend adopting the Applicants' proposal to allocate 840 MMcfd of summer withdrawal capacity and 400 MMcfd of winter withdrawal capacity to the balancing function. As noted in Michelle Dandridge's testimony, increasing the withdrawal capacity for the balancing function will help transportation customers[21] and make it less likely that a low OFO is called. However, if Aliso's withdrawal capacity is not available, then we propose adopting SCGC's recommended withdrawal amounts of 250 MMcfd and 350 MMcfd to the balancing function for the winter and summer seasons, respectively.

[20] App-01 at 6.
[21] App-01 at 11.

Aliso Capacity of 0 Bcf-33.9 Bcf

Table 3

Aliso Inventory at 0-33.9 Bcf[22]	
Total Storage Inventory	50.9-84.8 Bcf
Winter Withdrawal Capacity	1,343MMcfd-2,660 MMcfd
Summer Withdrawal Capacity	910 MMcfd-2,340 MMcfd
Winter Injection Capacity	500 MMcfd
Summer Injection Capacity	790 MMcfd
Core Inventory	42.9-76.8 Bcf
Injection (Summer)	345 MMcfd[23]
Injection (Winter)	155 MMcfd[24]
Withdrawal (Summer)	40%
Withdrawal (Winter)	80%
Load Balancing Inventory	8 Bcf
Injection (Summer)	345 MMcfd[25]
Injection (Winter)	345 MMcfd[26]
Withdrawal (Summer)	60%
Withdrawal (Winter)	20%
Unbundled Storage Program	-
Injection (Summer)	-
Injection (Winter)	-
Withdrawal (Summer)	-
Withdrawal (Winter)	-

a. Core Inventory Requirements

The current TCAP will be in effect from 2020-22. During that timeframe, the CPUC may decide that Aliso's inventory capacity should be further reduced. In such a case, it is

[22] Withdrawal capacity is allocated on a percentage basis in this scenario; therefore, this table accounts for both a scenario where Aliso's withdrawal capacity is available and a scenario where Aliso's withdrawal capacity is unavailable.
[23] Injection capacity allocated to core customers and the balancing function shall be prorated daily based on the available injection capacity.
[24] See footnote 23.
[25] See footnote 23.
[26] See footnote 23.

critical to have a mechanism by which capacity can be allocated proportionally. In this scenario, any remaining inventory capacity that is not allocated to the balancing function will be allocated to core customers. For example, if Aliso's maximum inventory capacity is set at 25 Bcf, then the total inventory capacity of the system would be 75.9 Bcf. Of that, 8 Bcf would be allocated to the balancing function, and 67.9 Bcf would be allocated to core customers.

In a scenario where Aliso's maximum inventory capacity ranges from 0 Bcf-33.9 Bcf, then 80% of the available winter withdrawal capacity will be allocated to core customers. For the summer months, 40% of withdrawal capacity will be allocated to core customers. Core customers' average summer demand is less of a strain on the SoCalGas system than that of electric generation customers. As noted in the application, core's forecasted average summer throughput for 2020-22 is approximately 30% of SoCalGas' total system demand.

If Aliso's inventory is further reduced, there will be less injection capacity on the system as compared to current conditions. In such a case, it is critical to ensure that a portion of injection capacity on the system is allocated to core customers so that they can inject gas into storage to meet winter reliability needs. In this scenario, injection capacity allocated to core customers and the balancing function shall be prorated daily based on the available injection capacity.

b. Wholesale Customers

Southwest Gas Corporation will be allocated storage capacities (inventory, injection, and withdrawal) equal to 2% of the storage capacities allocated to core customers. The City of Long Beach will be allocated storage capacities (inventory, injection, and withdrawal) equal to 1% of the storage capacities allocated to core customers.

c. Balancing Function

If Aliso's inventory capacity is reduced to 33.9 Bcf or less, then the Unbundled Storage Program will continue to be an infeasible option. Thus, an allotment of 8 Bcf to the balancing function is an essential tool to help transportation customers manage the day-to-day uncertainty related to gas demand and supply.

Twenty percent of the available winter withdrawal capacity will serve the balancing function.[27] This is consistent with how winter withdrawal capacity is generally allocated under current conditions. For the summer months, 60% of the withdrawal capacity shall

[27] SoCalGas currently allocates 20% of available withdrawal capacity to the balancing function.

be allocated to the balancing function. Since core customers' throughput during summer months is generally low compared to noncore customers' usage, the balancing function should have a higher summer allocation to provide transportation customers more flexibility in managing their deliveries to actual usage.

In this scenario, injection capacity allocated to core customers and the balancing function shall be prorated daily based on the available injection capacity.

Aliso Capacity of 34.1 Bcf-68.6 Bcf

a. Core Inventory Requirements

Under a scenario where Aliso's maximum capacity is increased above 34 Bcf, core customers would receive an incremental increase in inventory capacity until their capacity reaches 82.5 Bcf, as proposed in the application. Under the 34 Bcf Aliso scenario, core would be allocated 76.9 Bcf of storage inventory, which means they are 5.6 Bcf short of the capacity needed for core reliability. With each incremental increase, core customers shall receive an equal amount of storage inventory until their allocation reaches 82.5 Bcf. For example, if Aliso's inventory capacity is increased to 40 Bcf, then the total storage inventory capacity would be 90.9 Bcf. Under this scenario, core's allocation shall increase from 76.9 Bcf to 82.5 Bcf.

The injection capacities allocated to core customers in the application could be supported at any inventory level between total storage range of 85.9 Bcf and 119.5 Bcf. Thus, core customers would be allocated 155 MMcfd of winter injection capacity, and 445 MMcfd of summer injection capacity. If Aliso's withdrawal capacity is available, then core customers will be allocated 2,000 MMcfd of winter withdrawal capacity and 400 MMcfd of summer withdrawal capacity. However, if Aliso's withdrawal capacity is unavailable, then core customers will be allocated 1,093 MMcfd of winter withdrawal capacity and 400 MMcfd of summer withdrawal capacity.

Table 4

Aliso Capacity at 34.1 Bcf-68.6 Bcf / Aliso Withdrawal Capacity Available	
Total Storage Capacity at 85 Bcf-119.5 Bcf	
Winter Withdrawal Capacity	2,660 MMcfd+
Summer Withdrawal Capacity	2,340 MMcfd+
Winter Injection Capacity	500 MMcfd
Summer Injection Capacity	790 MMcfd
Core Inventory	77 Bcf-82.5 Bcf
Injection (Summer)	445 MMcfd
Injection (Winter)	155 MMcfd
Withdrawal (Summer)	400 MMcfd
Withdrawal (Winter)	2,000 MMcfd
Load Balancing Inventory	8 Bcf-10 Bcf
Injection (Summer)	345 MMcfd
Injection (Winter)	345 MMcfd
Withdrawal (Summer)	840 MMcfd
Withdrawal (Winter)	400 MMcfd
Unbundled Storage Program	0- 27 Bcf[28]
Injection (Summer)	Interruptible
Injection (Winter)	Interruptible
Withdrawal (Summer)	Interruptible
Withdrawal (Winter)	Interruptible

Table 5

Aliso Capacity at 34.1 Bcf - 68.6 Bcf / Aliso Withdrawal Capacity Unavailable	
Total Storage Capacity at 85 Bcf- 119.5 Bcf	
Winter Withdrawal Capacity	1,343 MMcfd
Summer Withdrawal Capacity	910 MMcfd
Winter Injection Capacity	500 MMcfd
Summer Injection Capacity	790 MMcfd
Core Inventory	77 Bcf-82.5 Bcf
Injection (Summer)	445 MMcfd
Injection (Winter)	155 MMcfd
Withdrawal (Summer)	400 MMcfd
Withdrawal (Winter)	1,093 MMcfd
Load Balancing Inventory	8 Bcf-10 Bcf
Injection (Summer)	345 MMcfd

[28] Staff recommends incrementally allocating 27 Bcf to the unbundled storage program, if the total storage inventory capacity is 92.5 Bcf or above.

Injection (Winter)	345 MMcfd
Withdrawal (Summer)	350 MMcfd
Withdrawal (Winter)	250 MMcfd
Unbundled Storage Program	0-27 Bcf[29]
Injection (Summer)	Interruptible
Injection (Winter)	Interruptible
Withdrawal (Summer)	Interruptible
Withdrawal (Winter)	Interruptible

As inventory in a gas storage field declines, its' corresponding withdrawal capacity is also reduced. The withdrawal capacity allocation in Tables 4 and 5 are based on the maximum withdrawal capacity available when storage fields are closer to full. Therefore, the withdrawal capacity allocated to core customers and the balancing function in Tables 4 and 5 shall be prorated daily based on the available withdrawal capacity. Furthermore, injection capacity tends to decrease as storage fields become full. The injection capacity allocation in Tables 4 and 5 are based on the maximum injection capacity available. Thus, the injection capacity allocated to core customers and the balancing function shall be prorated daily based on the available injection capacity.

b. Wholesale Core Customers

Southwest Gas Corporation will be allocated storage capacities (inventory, injection, and withdrawal) equal to 2% of the storage capacities allocated to core customers. The City of Long Beach will be allocated storage capacities (inventory, injection, and withdrawal) equal to 1% of the storage capacities allocated to core customers.

c. Balancing Function

Once core's allocation reaches 82.5 Bcf, any additional inventory increase will go to the balancing function until the balancing function reaches 10 Bcf. The Applicants proposed to increase the balancing function allocation from 8 Bcf to 16 Bcf. Their reason for this increase is to have 8 Bcf of storage space plus supplies to accommodate customers' under-deliveries. The applicants are asking for an additional 8 Bcf of inventory space to store excess gas resulting from positive monthly imbalances.

In their testimony, SCGC provided a comprehensive analysis on why the Applicants' reasoning was not entirely accurate. As SCGC's testimony noted, daily negative imbalances help to offset positive imbalances and vice versa. Thus, it is important to

[29] See footnote 30.

look at customers' cumulative imbalances to project the amount of inventory space needed. As depicted in Figure 2 of SCGC's testimony, daily customer imbalances varied from day to day, but the cumulative customer imbalance throughout 2018 remained strongly positive. Furthermore, Figure 3 of SCGC's testimony shows the cumulative customer imbalance over the last five years, which depicts only one instance where the positive cumulative customer imbalance was slightly above 8 Bcf.

Figure 1

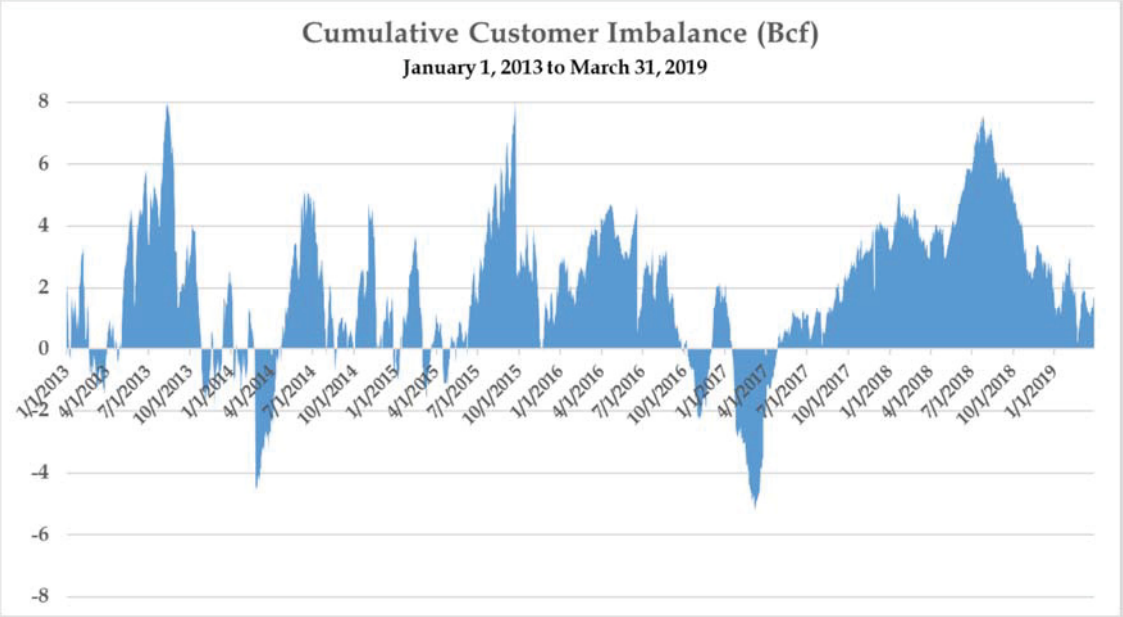

Image Source: SCGC Direct Testimony, Pg. 17

Out of an abundance of caution, SCGC recommends allotting 10 Bcf to the balancing function to ensure that positive cumulative customer imbalances do not exceed the amount allocated to the balancing function. Indicated Shippers expressed support for SCGC's recommendation.

If Aliso's withdrawal capacity is available, then the balancing function would receive an allocation of 400 MMcfd of winter withdrawal capacity and 840 MMcfd of summer withdrawal capacity. If Aliso's withdrawal capacity is not available, then the balancing function would receive 250 MMcfd of winter withdrawal capacity and 350 MMcfd of summer withdrawal capacity.

The balancing function would receive 345 MMcfd of injection capacity in both summer and winter.

d. Unbundled Storage Program

If the total storage inventory capacity is 92.5 Bcf or above, then staff recommends allocating any additional inventory capacity to the Unbundled Storage Program until the program's allocation reaches 27 Bcf of total storage capacity. This will help noncore customers have access to storage inventory during high demand periods. As SCGC noted in their testimony, the Unbundled Storage Program would not interfere with core interests because customers with unbundled storage inventory have access to interruptible withdrawal and injection capacity rights.[30] The previous TCAP allocated 47.1 Bcf of storage capacity to the Unbundled Storage Program, which noncore customers have been unable to access. As Southern California Edison noted in their testimony, eliminating the Unbundled Storage Program without an alternative mechanism to manage imbalances could harm electric end-use customers who do not have firm backbone transportation service.[31] As in the previous TCAP, SoCalGas would be financially at-risk for storage inventory allocated to the Unbundled Storage Program. Any profits from sales of unbundled storage would be subject to the sharing mechanism approved in the previous TCAP.

e. Reliability Function

The Applicants propose eliminating the Unbundled Storage Program to create a new reliability function and procure 21 Bcf of inventory as reserve. This proposal would mean that noncore customers have no firm storage capacity to manage operational imbalances, even under a scenario where Aliso's inventory capacity is set at a level that can support the program. The applicants state that well safety enhancements at all their storage fields have reduced withdrawal capability, prompting the need for higher minimum inventory levels to meet withdrawal deliverability.[32] Applicants insist that this new function would help the system meet core customers' 1-in-35 peak day demand. However, if Aliso's inventory capacity is 41 Bcf or above, a 2,000 MMcfd of withdrawal capacity reserved for core customers plus 400 MMcfd of withdrawal capacity from the balancing function could help meet core's peak day demand. This is plausible because under a 1-in-35 peak day scenario, service to noncore customers is assumed to be fully curtailed. While 21 Bcf of reserve inventory would help boost withdrawal deliverability, the inventory capacity of the Unbundled Storage Program could also boost the total withdrawal deliverability of the system.

[30] SCG-01 at 22.
[31] SCE-01 at 5.
[32] App-01 at 14.

Cycle 6

In their opening comments to this Staff Proposal, the Applicants indicated that they proposed a mitigation measure in A.17-10-002 to amend SoCalGas Rule 30 to extend Intraday Cycle 4 (also known as Cycle 6) from 9:00 p.m. on the gas day to 9:00 p.m. on the day following the gas day.[33] D.19-08-002, which directed SoCalGas' to incorporate Advanced Metering (AMI) data into its scheduling and balancing process, rejected this proposal without prejudice and indicated that imbalance trading issues were being addressed in this proceeding. The Applicants request in their opening and reply comments that this mitigation measure be adopted as part of this Staff Proposal to help customers balance to estimated actual consumption. [34] SCGC was in favor of this mitigation measure in proceeding A.17-10-002, and TURN expressed support for this mitigation measure in their reply comments to this Staff Proposal. [35] Both SCGC and TURN have requested that if Cycle 6 is extended to 9:00 p.m. on the day following the gas day, then the deadline for imbalance trading should also be extended to 9:00 p.m. on the business day following the close of Cycle 6. Indicated Shippers did not oppose the Applicants' proposal in their reply comments but indicated that if the CPUC approves this request, then it should also extend the deadline for imbalance trading.[36] Staff agrees with the parties and believes that the Cycle 6 deadline should be extended from 9:00 p.m. on the gas day to 9:00 p.m. on the day following the gas day and that the deadline for imbalance trading should also be extended to 9:00 p.m. on the business day following the close of Cycle 6.

Storage Cost Allocation

In its application, SoCalGas used the embedded cost methodology, which applies recorded costs, to allocate storage costs. According to the Applicants' prepared testimony, the total embedded storage costs for the TCAP period (2020-2022) is $161.6 million.[37] The storage costs would be distributed 29.2% to inventory, 44.6% to injection, and 26.2% to withdrawal.[38] Staff recommends that these functionalized storage costs allocated to inventory, injection, and withdrawal be subsequently apportioned to the core and load balancing storage functions based on Energy Division's proposed storage

[33] Cycle 6 is a balancing cycle and does not affect flowing supplies.
[34] Applicants' Opening Comments at 10.
[35] TURN' Reply Comments at 2.
[36] Indicated Shippers' Reply Comments at 7.
[37] App-08 at 18.
[38] Pursuant to D.16-06-039, SoCalGas performed a storage functionalized cost causation study of injection, inventory, and withdrawal functions for this TCAP.

capacities in Table 1 above or modified as necessary if Aliso's maximum allowable inventory changes.

Currently, SoCalGas' storage cost is allocated between core, load balancing, and the Unbundled Storage Program. The Applicants propose to allocate the storage costs among core, load balancing, and a new reliability function.[39] Staff recommends allocating the storage costs between core and load balancing based on the currently authorized inventory capacity, as described above. Staff also recommends that SoCalGas update its storage cost allocation (between core, load balancing, and the Unbundled Storage Program) to reflect any changes under a scenario where the total storage inventory capacity is at 92.5 Bcf or above, as shown in Tables 4 and 5.

In their opening comments, the Applicants and TURN request that the Commission provide further direction on how customer rates would change with the Staff Proposal. Staff agrees with TURN's recommendation that Applicants file a Tier 2 Advice Letter (with supporting workpapers) by the first day of the following month if the maximum allowable inventory at Aliso is modified from the current 34 Bcf.[40] SoCalGas must provide allocated costs and illustrative class-average rate changes in the Advice Letter and then include those allocated costs in rates following approval of the Advice Letter.[41] With respect to the timing and frequency of rate changes, for changes to cost allocation of less than $5 million, SoCalGas may update its transportation rates as part of its next scheduled January 1 consolidated rate change.[42] However, a cost allocation change of $5 million or more would trigger a rate change where SoCalGas is required to modify its rates mid-year as TURN suggested in its reply comments.[43]

Gas Cost Incentive Mechanism Storage Inventory Targets

Staff recommends authorizing SoCalGas to modify its storage inventory targets via a Tier 2 Advice Letter. In their opening comments, the Applicants request that, should the Staff Proposal be adopted, a decision in this proceeding should authorize SoCalGas to seek modification of its storage targets by Tier 2 Advice Letter as a compliance item.[44]

The Staff Proposal initially allocates core customers 76.9 Bcf of inventory. Of this total, approximately 2.3 Bcf will be set aside for wholesale customers, leaving 74.6 Bcf

[39] App-08 at 19.
[40] TURN's Comments at 7.
[41] Applicants Reply Comments at 7.
[42] Applicants' Reply Comments at 8.
[43] TURN Reply Comments at 2.
[44] Applicants' Comments at 18.

available for core customers, who include both bundled core customers and those served by Core Transport Agents. This is a 10 percent reduction from the 83 Bcf currently allocated to bundled core customers. Because the Staff Proposal allocates the core 74.6 Bcf, the November 1 target of 83 Bcf under SoCalGas' Gas Cost Incentive Mechanism (GCIM) Preliminary Statement cannot be achieved unless Aliso Canyon inventory is sufficiently increased.[45]

Summary of Storage Allocation Proposal

- Under all scenarios, the withdrawal capacity allocated to core customers and the balancing function shall be prorated daily based on the available withdrawal capacity. The injection capacity allocated to core customers and the balancing function shall be prorated daily based on the available injection capacity.
- If Aliso's maximum inventory capacity is 34 Bcf and total storage inventory capacity is 84.9 Bcf, then:
    - Balancing function shall receive 8 Bcf of storage inventory capacity;
    - Core customers shall receive 76.9 Bcf of storage inventory capacity;
    - If Aliso's withdrawal capacity is available, then 2,000 MMcfd of winter withdrawal capacity shall be allocated to core customers and 400 MMcfd of winter withdrawal capacity shall be allocated to the balancing function;
    - If Aliso's withdrawal capacity is available, then 400 MMcfd of summer withdrawal capacity shall be allocated to core customers and 840 MMcfd of summer withdrawal capacity shall be allocated to the balancing function;
    - If Aliso's withdrawal capacity is not available, then 1,083 MMcfd of winter withdrawal capacity shall be allocated to core customers and 250 MMcfd of winter withdrawal capacity shall be allocated to the balancing function;
    - If Aliso's withdrawal capacity is not available, then 400 MMcfd of summer withdrawal capacity shall be allocated to core customers and 350 MMcfd of summer withdrawal capacity shall be allocated to the balancing function;
    - 155 MMcfd of winter injection capacity shall be allocated to core customers and 345 MMcfd of winter injection capacity shall be allocated to the balancing function[46];

[45] Applicants' Comments at 17-18.

  - 445 MMcfd of summer injection capacity shall be allocated to core customers and 345 MMcfd of summer injection capacity shall be allocated to the balancing function.[47]
- If Aliso's maximum inventory capacity is 33.9 Bcf or less and the total storage inventory capacity is 50.9 Bcf or less, then:
  - Balancing function shall receive 8 Bcf of storage inventory capacity;
  - Core customers shall receive any remaining inventory capacity less 8 Bcf;
  - 80% of winter withdrawal capacity shall be allocated to core customers and 20% of winter withdrawal capacity shall be allocated to the balancing function;
  - 60% of summer withdrawal capacity shall be allocated to the balancing function and 40% of summer withdrawal capacity shall be allocated to core customers;
  - 345 MMcfd of injection capacity shall be allocated to the balancing function and the remainder of injection capacity shall be allocated to core customers.[48]
- If Aliso's maximum inventory capacity is 34.1 Bcf or above and the total storage inventory capacity is 85 Bcf or above, then:
  - Core customers shall receive an amount equal to the increase in storage inventory until the allocation reaches 82.5 Bcf;
  - Any additional inventory increase will go to the balancing function until the balancing function reaches an allocation of 10 Bcf;
  - If Aliso's withdrawal capacity is available, then 2,000 MMcfd of winter withdrawal capacity shall be allocated to core customers and 400 MMcfd of winter withdrawal capacity shall be allocated to the balancing function;
  - If Aliso's withdrawal capacity is available, then 400 MMcfd of summer withdrawal capacity shall be allocated to core customers and 840 MMcfd of summer withdrawal capacity shall be allocated to the balancing function;
  - If Aliso's withdrawal capacity is not available, then 1,093 MMcfd of winter withdrawal capacity shall be allocated to core customers and 250 MMcfd of winter withdrawal capacity shall be allocated to the balancing function;
  - If Aliso's withdrawal capacity is not available, then 400 MMcfd of summer withdrawal capacity shall be allocated to core customers and 350 MMcfd

of summer withdrawal capacity shall be allocated to the balancing function;

  - 155 MMcfd of winter injection capacity shall be allocated to core customers and 345 MMcfd of winter injection capacity shall be allocated to the balancing function[49];
  - 445 MMcfd of summer injection capacity shall be allocated to core customers and 345 MMcfd of summer injection capacity shall be allocated to the balancing function.[50]

- If the total storage inventory capacity is 92.5 Bcf or above, then any additional inventory capacity shall go to the Unbundled Storage Program until the program's allocation reaches 27 Bcf of total storage capacity.

(END OF APPENDIX A)