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Aliso Canyon Summer 2018 Risk Assessment Comment Letter

Additional submitted attachment is included below.

Written Comments for the Aliso Canyon Risk Assessment Technical Report Summer 2018 submitted by Food & Water Watch

I. Comments on the Joint Agency Workshop May 8, 2018

After attending the Joint Agency Workshop on May 8, 2018, it is clear there is very little effort at the California Public Utilities Commission to deal with the most pressing energy reliability threat this summer: pipeline outages.

It was repeatedly said that if all conditions remained the same as last summer, we would be in excellent shape and not need Aliso Canyon for energy reliability. Unfortunately, conditions are not the same. Despite lower demand, we are still facing several system constraints via pipeline outages. Based on comments by presenters at the workshop including Edward Randolph with CPUC and Catherine Elder with Aspen Environmental Group, it's possible that there will be more pipeline outages this year and leading into winter.

The State agencies appeared to surrender to the whims of SoCalGas and the Company's prescribed timelines on pipeline repairs and maintenance. The CPUC, CEC and Aspen Environmental Institute confirmed they have no knowledge on when the pipelines that are offline will come back online. It is extremely troubling to witness our regulators' hands-off approach to pipeline maintenance especially since it puts SoCalGas' core and noncore customers at risk of higher gas rates and it threatens energy reliability. SoCalGas is clearly in the driver's seat and are benefiting by slow pipeline repairs because it could mean further use of Aliso Canyon. Aliso Canyon still threatens public health and safety for the northern San Fernando Valley.

Southern California Gas Company owns and operates 101,000 miles of pipelines in their system. Currently, several outages within the Southern California territory of this extensive pipeline network are making regulators nervous about energy reliability this summer. Outages on lines 235-2, 3000, 4000 and 5000 within California have reduced SoCalGas import capacity by 255 – 860 MMcfd versus last summer. Line 235-2 is a critical line that will be offline indefinitely – no one knows the return date, including SoCalGas. Rodger Schwecke with SoCalGas admitted during the Workshop that remediation on L235-2 hasn't started because the Company is still waiting for the completion of a Root Cause Analysis (RCA). This is both shocking and ironic because SoCalGas with the blessing of CPUC and DOGGR have pushed to bring Aliso Canyon back into operation without a RCA.

What's the most troubling about this situation is that CPUC seems to have no clear grasp on what is required to improve system reliability and bring pipelines back online. At each point in the Workshop, CPUC referenced SoCalGas' noticing system, ENVOY, as the main reporting system to verify SoCalGas' maintenance schedule. CPUC staff confessed to taking no other regulatory actions aside from checking a website.

The CPUC has the authority to regulate gas rates and services including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing. Yet CPUC is entirely depending on SoCalGas to set the timeline and urgency for repairing pipelines despite the fact that it is the CPUC's responsibility to make sure repairs and maintenance are happening in a timely and affordable way. This situation also points to a much bigger problem that SoCalGas is not accountable to resolving to several serious pipeline outages in California that represent a small fraction of SoCalGas' network of 101,000 miles of pipelines.

CPUC needs to address how it will better regulate pipeline outages as they occur. SoCalGas' transportation system is getting old. L2350-2 is dated back to 1960 and L3000 is dated to 1950. CPUC needs to figure out how much longer ratepayers will be billed for pipelines that are no longer used and useful.

Right now before the CPUC is the SoCalGas 2019 General Rate Case. According to SoCalGas, if approved in its entirety, the critical investments proposed in this rate request would increase residential customer bills by about \$5.00 to \$7.50, on average, per month starting in 2019. Approximately 60 percent of the additional costs proposed by the rates will go to support modernization and upgrading of critical infrastructure, like pipelines, to enhance the reliability and safety of gas service.

CPUC needs to take control of this situation and regulate our way to a faster timetable for repairs, or else we face a worse fate in winter regarding energy reliability.

II. Inadequacy of SoCalGas Mitigation Measures Intended to Avoid Use of Aliso Canyon

SoCalGas has a strong financial interest in withdrawing gas from Aliso Canyon. Under the CPUC's "used and useful" criterion, if the facility is not used for a period of 9 months or more the utility cannot bill ratepayers for the operation of the facility.¹ SoCalGas has two major projects being paid for by ratepayers at the facility, the \$200 million compressor upgrade project and the Storage Integrity Management Program (SIMP). SoCalGas also uses Aliso Canyon to store and withdraw natural gas for unbundled customers, for example power plant

¹ CPUC, I.17-03-002, *Order Instituting Investigation on the Commission's Own Motion to Determine Whether the Aliso Canyon Natural Gas Storage Facility Has Remained Out of Service for Nine or More Consecutive Months Pursuant to Public Utilities Code Section 455.5(a) and Whether any Expenses Associated with the Out of Service Plant Should be Disallowed from Southern California Gas Company's Rates*, March 2, 2017 "This Order Instituting Investigation (OII) is opened on the Commission's own motion pursuant to California Public Utilities (Pub. Util.) Code § 455.5(c) and Rule 5.1 of the Commission's Rules of Practice and Procedure. The purpose of this OII is to determine whether the Aliso Canyon Natural Gas Storage Facility (Aliso Canyon) has remained out of service for nine consecutive months pursuant to Pub. Util. Code § 455.5(a); and if found to be out of service, whether the Commission should disallow all costs related to Aliso Canyon from the rates of Southern California Gas Company (SoCalGas)."

operators and refiners, and would lose transaction fees from this business activity if Aliso Canyon is mothballed or permanently closed.

The conditions that led to SoCalGas withdrawing from Aliso Canyon in early March 2018 were almost a carbon copy of the questionable conditions under which SoCalGas withdrew from Aliso Canyon in late January 2017, as reported by the LA Times on January 24, 2017: <http://www.latimes.com/business/la-fi-southern-california-gas-20170124-story.html>.

In its April 3, 2018 monthly report covering the period February 19 – March 18, 2018, SoCalGas states it withdrew natural gas from Aliso Canyon between February 19 – March 4, 2018. SoCalGas did not petition the CPUC for permission to make emergency withdrawals from Aliso Canyon until March 2nd. At that time, the 10-day public weather forecast for the Southern California region was a warming trend with no cold spells on the horizon. The CPUC granted emergency approval to SoCalGas to inject gas at Aliso Canyon on March 3, 2018. SoCalGas apparently initiated the withdrawals without CPUC permission and at its own risk but got approval to re-fill Aliso Canyon, bringing us closer to a business as usual usage of the storage field.

SoCalGas emphasizes that Southern California was experiencing a cool spell in the later part of February 2018 as the underlying reason that it withdrew gas from Aliso Canyon, implying a cool spell in Southern California in winter – by itself – is justification for withdrawals from Aliso Canyon. The fact that the later part of February 2018 was cool is uncontested. However, Southern California has periodic cool spells every winter.

The maximum SoCalGas demand during the cool period was 3,745 mmcf/d on February 20, 2018. However, the Joint Agencies had identified in late November 2017 that SoCalGas could meet a post-January 1, 2018 demand of 4,117 mmcf/d without withdrawing from Aliso Canyon.² SoCalGas did not come within 360 mmcf/d of the 4,117 mmcf/d demand ceiling without Aliso withdrawals during the cool spell, and would not have come within 500 mmcf/d of the demand ceiling if SoCalGas had been bringing 200 mmcf/d through Otay Mesa on the highest demand days (February 19, February 20, February 23, and February 27).

SoCalGas made no provisions for the cool weather that was forecast to arrive on February 19th after a period of warm weather. The Commission, in October 2017, authorized SoCalGas to bring in up to ~200 mmcf/d (210 MMBtu/day) through Otay Mesa receipt point (Mexican border with San Diego) as a mitigation measure in the winter of 2017-2018.³ On February 19, 2018, the first day of the cool spell, SoCalGas imported 0 mmcf/d through Otay Mesa and withdrew 1,064

² Joint Agencies, Aliso Canyon Update Winter 2017-18 – Summary (PowerPoint), November 28, 2017, p. 5. See: http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-11/TN221862_20171128T103410_Aliso_Canyon_Update_Winter_201718.pdf.

³ T. Sullivan – CPUC, *Subject: Affiliate Transactions to Support Gas Flows to Otay Mesa*, October 30, 2017, p. 2. “I grant authority to (SoCalGas) Gas Acquisition to acquire up to 210,000 MMBtu/d of pipeline capacity for each of the months of December 2017, January 2018, and February 2018, to meet the needs of SoCalGas’ core customers during those months.”

mmcf from storage.⁴ On February 20, 2018, the second day of the cool spell, SoCalGas imported 19 mmcf through Otay Mesa and withdrew 1,087 mmcf from storage.⁵ The failure to bring in 200 mmcf through the Otay Mesa receipt point at a time of high demand artificially created pressure on storage withdrawals.

CPUC Director of Energy, Edward Randolph, claimed that it was not SoCalGas' responsibility to use the Otay Mesa at full capacity, but blamed noncore customers for not ordering gas supply through that point. This is letting SoCalGas off the hook for prudent management of their system and utilizing every receipt point for full capacity to meet the majority of demand – the core customers. Using Otay Mesa at full capacity has been offered as a mitigation measure moving forward and it must be adopted.

Up to eighty (80) percent of winter peak day demand is bundled SoCalGas customer demand.⁶ During the February 19 – March 1 cool spell much electric generation that would otherwise have occurred in the LA Basin was shifted outside of the Basin as noted on p. 1 of the April 3, 2018 SoCalGas monthly report. There is limited benefit to ordering non-bundled customers to strictly balance their natural gas supply and demand, as SoCalGas did during the cool period,⁷ when these unbundled customers are responsible for 20 percent or less of the demand. The dominant component of demand during the cool spell was SoCalGas bundled customer demand (residential and commercial customers).

SoCalGas is fully capable of real-time balancing of supply to bundled customer demand, as smart natural gas meters had been retrofit onto all SoCalGas customer meters by mid-2017. Yet SoCalGas apparently does not utilize this capability for supply/demand balancing and has not been ordered to utilize it as a supply/demand balancing mitigation measure by the Commission. As a result, pipeline flows substantially lagged behind demand, and SoCalGas was 25 to 30 percent out-of-balance during four different days during the cool spell. These days are February 19, February 20, February 25, and February 27. This is shown in Table 1 below:

⁴ SoCalGas Envoy webpage, Operations – Daily Operations, February 19 and 20, 2018 (actual): <https://scgenvoy.sempra.com/index.html#nav=/Public/ViewExternalDailyOperations.getDailyOperation%3Frnd%3D376>.

⁵ Ibid.

⁶

Aliso Canyon Gas and Electric Reliability Winter Action Plan, Prepared by the Staff of the California Public Utilities Commission, California Energy Commission, the California Independent System Operator and the Los Angeles Department of Water and Power, August 22, 2016, Table 1, p. 11. Peak winter day demand split: Bundled customers, 60% (3,050 mmcf), electric generation 20% (1,031 mmcf), and other non-core 20% (996 mmcf). SoCalGas indicates that electric generation consumption was reduced to minimal levels during the late February/early March cool spell. Peak demand was 3,774 mmcf on February 19, 2018. Assuming the bundled customer peak demand of 3,050 mmcf was accurate for February 19, 2018, that there was no electric generation natural gas demand on the portion of the SoCalGas system potentially supplied by Aliso Canyon, and 724 mmcf of other non-core demand (for a total of 3,774 mmcf), the bundled customer percentage of demand would be: $100 \times (3,050 \text{ mmcf} \div 3,774 \text{ mmcf}) = 80.8\%$.

⁷ SoCalGas Monthly Report, *30-Day Aliso Canyon Withdrawal Report*, April 3, 2018, pp. 3-4.

Table 1. SoCalGas ENVOY Supply, Demand, and Storage Withdrawal Data, Feb. 18 – March 7, 2018

Date	Demand, mmcf	Flow thru Otay Mesa, mmcf	Withdrawal from storage, mmcf	Total gas in storage, mmcf (includes Aliso)	Total gas in storage, mmcf (w/o Aliso)
February 18	2,555	0	(149)	57,361	33,620
February 19	3,774	0	1,064		
February 20	3,745	19	1,087		
February 21	3,570	200	678		
February 22	3,413	171	597		
February 23	3,692	142	934		
February 24	3,208	107	354		
February 25	2,950	101	134		
February 26	3,153	104	260		
February 27	3,728	104	947		
February 28	3,463	117	822		
March 1	3,162	81	532		
March 2	3,135	86	431		
March 3	3,073	56	463		
March 4	3,126	124	352		
March 5	2,992	115	141		
March 6	2,858	123	259		
March 7	3,069	188	304	48,446	24,705

Note: SoCalGas was injecting into storage on February 18, 2018.

There was much more gas in storage at the end of the cool spell on March 7, 2018, 48,446 mmcf, then there was a year earlier on the March 7, 2017 with 39,108 mmcf in storage. SoCalGas notes it started the cool spell with 33,620 mmcf of available storage without Aliso. As shown in Table 1, SoCalGas finished the cool spell (and beyond, through March 7th) with 24,705 mmcf of natural gas in storage without Aliso. The total withdrawal during the cool spell was 8,915 mmcf. SoCalGas ended the cool spell at about 73 percent of available storage without Aliso. SoCalGas was nowhere near a point, in terms of available storage capacity, where it would need to withdraw from Aliso due to a lack of storage capacity in its other three storage fields.

As shown in Table 1, over the 17-day period from February 19 – March 7, 2018, SoCalGas brought in 1,838 mmcf through the Otay Mesa receipt point, an average of 108 mmcf. Had SoCalGas fully utilized its authority to bring in 200 mmcf through Otay Mesa during each day of the cool spell, it would have reduced withdrawals by ~1,564 mmcf. This commonsense action would have left SoCalGas' natural gas in storage at 78 percent of available storage capacity without Aliso.

The failure of SoCalGas to rapidly repair a transmission pipeline rupture that occurred on October 1, 2017 to Line 235 (near Barstow) reduced available SoCalGas pipeline flows by 530

mmcf/d over the winter of 2017-2018.⁸ Major pipeline ruptures are typically repaired in one to two weeks. The rupture at a site just off of I-40. No explanation has been provided by SoCalGas or the Commission as to what caused this rupture just prior to the critical winter demand season or why months have passed with no repair. Had this 530 mmcf/d of additional pipeline supply been available during the winter of 2017-2018, it would have been extremely difficult for SoCalGas to create conditions that could plausibly have led to withdrawals from Aliso Canyon. In addressing the Line 235-2 rupture repair schedule, the Commission appears more an observer than a regulator, stating “*CPUC Energy Division Staff inform me that according to SoCalGas’ online bulletin board, ENVOY, . . . there is no estimate for when Line 235-2 will return to service.*”⁹ The Commission should have ordered SoCalGas to fast-track the repair of Line 235-2 in the face of the approaching winter peak demand season and did nothing. SoCalGas has yet to estimate when Line 235-2 will return to service.¹⁰

III. Scope of Hydraulic Modeling and Review by Los Alamos National Laboratory

The *Independent Evaluator Report* prepared for the Joint Agencies to independently assess the adequacy of mitigation measures for the winter of 2016-2017 makes two sound observations in the recommendations section of the report:¹¹

- Tightening balancing rules to more closely align with standards for interstate pipelines that do not rely on storage facilities, and which are subject to daily balancing requirements, would be an effective mitigation measure.
- Deferring maintenance so that planned pipeline and storage outages do not occur simultaneously, especially during times of peak winter demand, if possible, would also be an effective mitigation measure.

Tight balancing of SoCalGas bundled customer demand must occur during winter peak demand periods. SoCalGas allowed its system to get nearly 30 percent out of balance on the first two days of the cool spell, February 19th and February 20th. That out-of-balance condition is almost entirely attributable to SoCalGas bundled customer load. This is unacceptable. The cool spell was forecast and expected in advance. California’s neighbors Arizona and Nevada are heavily reliant on natural gas supplies and achieve reliable supply, even during hot and cold spells, without storage by maintaining a continuous tight balance between natural gas pipeline supply and demand. As the independent evaluator pointed-out in August 2016, SoCalGas needs to

⁸ Joint Agencies, Aliso Canyon Update Winter 2017-18 – Summary (PowerPoint), November 28, 2017, pp. 2-3.

⁹ T. Sullivan – CPUC, *Subject: Affiliate Transactions to Support Gas Flows to Otay Mesa*, October 30, 2017, p. 1.

¹⁰ SoCalGas Envoy webpage, visited April 14, 2018, states “End Date – TBD”:

<https://scgenvoy.sempra.com/index.html#nav=/Public/ViewExternalSystemMaintenance.getMaintenanceLedger%3Frand%3D282>.

¹¹ Walker & Associates, *Independent Review Of Hydraulic Modeling For Aliso Canyon Risk Assessment*, report prepared for the California Energy Commission (CEC), California Public Utilities Commission (CPUC), California Independent System Operator (CAISO), and the Los Angeles Department of Water and Power (LADWP), August 19, 2016, p. 18.

incorporate the lessons learned on real-time balancing of pipeline supply by states without storage and apply those lessons to the operation of the SoCalGas system.

SoCalGas, overseen by Los Alamos National Laboratory, must at a minimum model the following scenarios for the hydraulic modeling exercise to be credible:

1. SoCalGas bundled load and non-core customers are subject to +/-5% balancing during each forecast cold spell and heat wave, initiating +/-5% balancing 48 hours before heat/cold begins and continuing for 48 hours after heat/cold ends. All SoCalGas meters were converted to smart meters as of mid-2017. SoCalGas real-time balancing of bundled customer load by aggregating smart gas meter data on near-continuous basis during hot/cold spells and adjusting pipeline flows in real-time.
2. SoCalGas' three operational storage fields, excluding Aliso Canyon, provide 1,490 mmcf of withdrawal capacity during winter peak and summer peak seasons, per Joint Parties Winter 2016-2017 Action Plan, p. 30:¹²

Table B-2: Gas Balance Maximum Storage Withdrawal Assumptions for Winter Peak Day			
Storage Field	Gas Balance	Maximum	SoCalGas Winter Hydraulic Model
		(mmcf)	
Honor Rancho	1000	1000	850
Playa Del Ray	300	400	300
La Goleta	340	440	340
Total (without Aliso Canyon)	1,640	1,840	1,490

3. Assume no pipeline integrity upgrade projects on SoCalGas backbone transmission system are scheduled during December 1 – February 28 winter heating season.
4. Assume all backbone transmission pipelines are in service during December 1 – February 28 winter heating season [SoCalGas must repair ruptures, if any occur, in two weeks or less or be subject to enforcement action].
5. Otay Mesa receipt point provides 200 mmcf every day during the December 1 – February 28 winter heating season.

Conclusion

SoCalGas has withdrawn natural gas from Aliso Canyon for two straight winters, during a late cool spell in each case (and possibly in each case the last of the winter season), with poorly substantiated justifications under supply/demand conditions that did not reach the trigger

¹² *Aliso Canyon Gas and Electric Reliability Winter Action Plan*, prepared by the Staff of the California Public Utilities Commission, California Energy Commission, the California Independent System Operator and the Los Angeles Department of Water and Power, August 22, 2016, p. 30.

levels for withdrawals to occur as described in the relevant Aliso Canyon Winter Action Plans. It is the responsibility of the CPUC to assure that SoCalGas does not continue to inadequately prepare for periods of hot and cool weather and artificially create out-of-balance supply/demand conditions that can be used to claim withdrawals from Aliso Canyon are necessary to assure natural gas supply reliability in the LA Basin.