

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Investigation pursuant to Senate Bill 380 to determine the feasibility of minimizing or eliminating the use of Aliso Canyon natural gas storage facility located in the County of Los Angeles while still maintaining energy and electric reliability for the region.

Investigation 17-02-002
(Filed February 9, 2017)

**THE PROTECT OUR COMMUNITIES FOUNDATION
COMMENTS ON THE NOVEMBER 17, 2020 TECHNICAL WORKSHOP #1
FOR PHASE 3 OF THE ALISO CANYON OII**

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Pursuant to the Administrative Law Judge’s Rulings dated October 21, 2020 and November 18, 2020,¹ The Protect Our Communities Foundation (PCF) provides these comments on the results and selection of scenarios presented at the Phase 3 Technical Workshop #1 (Workshop) and the items identified by FTI Consulting (FTI) and Gas Supply Consulting, Inc. (GSC) following the workshop presentation given by these firms on November 17, 2020. The fundamental presumption of the FTI/GSC exercise – that new infrastructure is necessary to facilitate the retirement of the Aliso Canyon facility – is flawed.

¹ I.17-02-002, Administrative Law Judge’s Ruling Noticing November 17, 2020 Workshop (October 21, 2020), p. 3; I.17-02-002, E-Mail Ruling Extending Deadline to Submit Informal Comments (November 18, 2020), p. 3.

The case for more infrastructure rests on the back of the unrealistic assumption that there are no gas constraints on the electric generation (EG) gas burn for a 1-in-10 winter peak day, creating a hypothetically excessive EG demand that purportedly cannot be met without withdrawals from Aliso Canyon. However, absent an analysis of the actual SoCalGas EG demand at the winter peak over the last ten years to provide some real-world support for the EG demand assumption, and without recognition that numerous mitigation measures were imposed subsequent to the 2015 Aliso Canyon well blow-out to minimize the need for Aliso Canyon, the assumptions made by FTI/GSC remain unsupported and unsubstantiated and should not form the basis for its analysis going forward.

Despite the established fact that the actual SoCalGas winter peak has not exceeded 4,100 MMcfd since the 2015 well blow-out, FTI/GSC inexplicably models a winter peak demand of ~5,000 MMcfd. This modeling exercise appears to be designed to justify two bad outcomes for SoCalGas customers and the public at large: 1) keep Aliso Canyon operational for as long as possible, and 2) spend a great deal of money on new infrastructure to enable closure of Aliso Canyon. An examination of the facts demonstrates that Aliso Canyon can be shut down immediately with no impact on reliability and a potential savings for SoCalGas customers by: 1) requiring CAISO to follow the Minimum Local Generation protocol, which was specifically developed as a winter mitigation measure in the wake of the Aliso Canyon well blowout to avoid withdrawing gas from Aliso Canyon, whenever the day-ahead demand forecast exceeds 4,000 MMcfd; and 2) requiring real-time core customer daily +/- 5 percent balancing in the winter months, similar to the daily +/- 5 percent operational flow orders (OFO) imposed on non-core customers by SoCalGas, to maximize hour-by-hour pipeline flows during winter peak demand events.

I. FTI/GSC MISINTERPRET THE SCOPING MEMO IN A MANNER INCONSISTENT WITH LEGISLATIVE DIRECTIVES, RENDERING FTI/GSC’S ANALYSIS UNREASONABLE.

The Workshop began with a representative of FTI explaining the basis for FTI’s analysis and the incorrect assumptions made by the company regarding its understanding of its assignment. FTI interprets the scoping order as asking two primary questions: (1) what are the infrastructure investments that would be required in order to retire Aliso Canyon; and (2) what are the costs and benefits of the options that are available? FTI bases its erroneous interpretation of the scoping memo on its unsubstantiated and unsupported assumptions that “the gas system and the electric system are dependent on Aliso Canyon to deliver gas to electric gas fired generators during periods of high demand,” that “we cannot sort of do without Aliso Canyon right now,” and that “if we did, we would come up with a shortfall of gas deliverability, which would translate or could translate to a shortfall of electric generation.”² Based on these false assumptions, FTI refuses to even consider closing Aliso Canyon prior to 2027.

Contrary to FTI’s assumptions, the Phase 3 Scoping Memo does not require that 2027 be considered as the earliest retirement date, but instead uses the term “planning horizon:”

The purpose of Phase 3 is to engage parties and an expert consultant in developing scenarios to examine resources and infrastructure, including renewable and low-carbon generation, energy efficiency, electric storage, demand response, and new gas transmission pipelines, that could be implemented to entirely replace the Aliso Canyon field within two different planning horizons: 2027 and 2045. The year 2027 marks 10 years following delivery of the letter from then-Energy Commission Chair Robert Weisenmiller to then-Commission President Michael Picker, requesting planning for closing the facility within 10 years. The year 2045 is aligned with the SB 100 (De Leon, 2018) policy goal for 100 percent of retail sales in California to be supplied by eligible renewables and zero-carbon resources.³

² FTI Workshop Presentation, available at <https://www.cpuc.ca.gov/AlisoOII/>.

³ I.17-02-002, Assigned Commissioner’s Phase 3 Scoping Memo and Ruling (December 20, 2019), p. 3.

FTI's refusal to consider closing the facility earlier than 2027 contradicts the climate science mandates expressly incorporated into the legislative directive which required the Commission to initiate this investigation in the first instance. Public Utilities Code section 714 required that this investigation be initiated "to determine the feasibility of minimizing or eliminating use of the Aliso Canyon natural gas storage facility located in the County of Los Angeles while still maintaining energy and electric reliability for the region," and explained that "This determination shall be consistent with the Clean Energy and Pollution Reduction Act of 2015 (Chapter 547 of the Statutes of 2015) and Executive Order B-30-2015."⁴

Executive Order B-30-15 recognized that "California has established greenhouse gas emission reduction targets to reduce greenhouse gas emissions to 1990 levels by 2020 and further to reduce such emission to 80 percent below 1990 levels by 2050," and established a "new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030...in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050."⁵

The 2020 and 2050 targets referenced in B-30-15 were established by Executive Order S-3-05. S-3-05 acknowledged California's vulnerability to the effects of climate change, was based on the climate science then available, and represented California's fair share of worldwide GHG reductions necessary to stabilize climate. As Vice President Elect Kamala Harris opined as California's then-Attorney General, the timeframe and targets established by Executive Order S-3-05 were designed to achieve climate stabilization.⁶

⁴ Pub. Util. Code, § 714.

⁵ Executive Order B-30-15.

⁶ See *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 509.

After Executive Order S-3-05, the California Legislature enacted AB 32, the *California Global Warming Solutions Act of 2006*. Consistent with S-3-05, AB 32 required the California State Air Resources Board (CARB) to determine the 1990 levels of GHG emissions and then to establish “a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020.”⁷ AB 32 also required that GHG reductions must continue after 2020, requiring that the statewide GHG emissions limit established by CARB “remain in effect unless otherwise amended or repealed,” and further that “[i]t is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020.”⁸

After Executive Order B-30-15, the California Legislature enacted SB 32.⁹ SB 32 enacted Health & Safety Code section 38566 which requires CARB to “ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.”¹⁰ SB 32 recognized that AB 32 required CARB to meet the 2020 Target, “to maintain and continue reductions thereafter,”¹¹ and further declared:

Continuing to reduce greenhouse gas emissions is critical for the protection of all areas of the state, but especially for the state’s most disadvantaged communities, as those communities are affected first, and most frequently, by adverse impacts of climate change, including increased frequency of extreme weather events such as drought, heat, and flooding. The state’s most disadvantaged communities are also disproportionately impacted by the deleterious effects of climate change on public health.¹²

⁷ Health & Saf. Code, § 38550.

⁸ Health & Saf. Code, § 38550, subs. (a), (b).

⁹ Stats. 2016, Ch. 249.

¹⁰ Health & Safety Code § 38566 (California Air Resources Board “shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030”).

¹¹ Stats. 2016, Ch. 249, § 1, subd. (b).

¹² Stats. 2016, Ch. 249, § 1, subd. (c).

On September 10, 2018, then-California Governor Brown issued Executive Order B-55-18. B-55-18 recognized that “scientists agree that worldwide carbon pollution must start trending downward by 2020, and carbon neutrality – the point at which the removal of carbon pollution from the atmosphere meets or exceeds emissions – must be achieved by midcentury.”¹³ B-55-18 established a “new statewide goal...to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter,” and explained that “This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions,” and directed CARB to “work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.”¹⁴

With climate science and B-55-18 requiring emissions reductions now and carbon neutrality “as soon as possible” statewide, the decision by FTI/GSC to consider 2027 as the earliest retirement date for Aliso Canyon fails to comply with the timelines set both by statute and by gubernatorial policy. It also ignores the urging of California Governor Gavin Newsom that the Commission find “the fastest and most workable path toward closure of the facility.”¹⁵ In short, FTI’s misinterpretation of the 2027 “planning horizon” referenced in the scoping memo as the earliest “retirement date” contradicts climate science mandates, executive orders, and legislation which all require that California achieve “carbon neutrality as soon as possible.”¹⁶

¹³ Executive Order B-55-18.

¹⁴ *Ibid.*

¹⁵ Gavin Newsom, Governor of California, to Marybel Batjer, President CPUC (November 18, 2019), available at:

https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/Nov%2018%202019%20Letter%20to%20President%20Batjer.pdf (“...I am concerned that the Commission’s current proceeding will not yield the fastest and most workable path toward closure of the facility. Further, it may be insufficient to shorten the ten-year timeline for closure outlined in 2017.”).

¹⁶ Executive Order B-55-18.

Moreover, refusing to consider prompt closure requires FTI to divorce its analysis from the very purpose of this proceeding. FTI overlooks the fact that the true costs of operating Aliso Canyon include the cost of releasing at least 109,000 metric tons of methane¹⁷ into the atmosphere and the social costs of continued use of fossil fuels.¹⁸ FTI should focus on the fact that the true cost of continuing to operate Aliso Canyon necessarily includes the true costs of the devastating climate change impacts caused by the blowout as well as the environmental and social costs of SoCalGas' continued fossil-fueled operations. The facts establish that Aliso Canyon is not necessary today¹⁹ and should not have been reopened in 2018.²⁰ Assuming – contrary to the facts – that the facility will operate for another seven years conflicts both with the premise of this proceeding and the statutory mandates to which this Commission must adhere. FTI's false assumptions also operate to the detriment of SoCalGas ratepayers and the public at large.

II. THE EXCLUSION OF UPGRADES TO SCG'S NORTHERN ZONE FROM THE BASE ASSUMPTIONS IS REASONABLE.

As discussed below, the SoCalGas backbone natural gas transmission pipeline system is fully capable of meeting winter peak demand in 2020, 2027, and 2035 without upgrades to SoCalGas's Northern Zone and without withdrawals from Aliso Canyon.²¹

¹⁷ https://ww3.arb.ca.gov/research/aliso_canyon/aliso_canyon_methane_emissions-arb_final.pdf?_ga=2.81075935.995312704.1580167445-1210752824.1579884208.

¹⁸ See e.g. Cal. Health & Saf. Code, 38506 (defining social costs as “an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year”); see also D.19-08-020, *Second Phase Decision Approving Natural Gas Leak Abatement Program Consistent with Senate Bills 1371 and 1383* (August 15, 2019), p. 13.

¹⁹ See e.g. I.17-02-002, The Protect Our Communities Foundation Reply Comments on the Proposed Decision Setting the Interim Range of Aliso Canyon Storage Capacity at Zero to 34 Billion Cubic Feet (November 10, 2020).

²⁰ <https://www.latimes.com/business/la-fi-southern-california-gas-20170124-story.html>;
<https://www.latimes.com/business/la-fi-aliso-canyon-report-20170331-story.html>;
<https://www.latimes.com/local/california/la-fi-aliso-pipelines-20171128-story.html>.

²¹ See Section IV.C.

III. THE EXCLUSION OF IMPACTS IN 2027 AND 2035 ATTRIBUTABLE TO POTENTIAL CHANGES TO RESOURCE ADEQUACY RULES IS REASONABLE.

It is reasonable to assume that there will be no increase in EG natural gas demand in the LA Basin going forward due to Resource Adequacy rules. The facts show that electricity demand during winter peak events is low relative to summer EG demand. EG demand constitutes a much smaller portion of winter peak demand than summer peak demand, when air conditioning loads are highest. The November 17, 2020 FTI/GSC PowerPoint correctly identifies that a high level of electricity imports are available in winter, 11,600 MW, to serve load in the LA Basin,²² and therefore substitute for EG in the LA Basin.

IV. SEVERAL MODELING ASSUMPTIONS ARE UNREASONABLE AND SHOULD BE MODIFIED.

A. Maximum modeled pipeline flow should be at least as high as actual maximum pipeline flow.

FTI provides insufficient support for its peak SoCalGas flowing pipeline supply assumption of 3,115 MMcfd and the facts show that such an assumption is too low. As recently as 2016, SoCalGas was asserting its firm receipt capacity is 3,875 MMcfd.²³ Actual maximum SoCalGas flowing pipeline supply in 2016 was 3,286 MMcfd on December 1, 2016. Actual maximum flowing pipeline supply in 2017 was 3,276 MMcfd on February 28, 2017.²⁴ At a minimum, the actual maximum flowing pipeline supply achieved since the October 2015 well blowout at Aliso Canyon should be the “demonstrated in practice” starting point for flowing pipeline supply that is available under peak winter day demand conditions.

²² FTI Consulting/Gas Supply Consulting, *Phase 3 Overview - Phase 3 Workshop*, PowerPoint, (November 17, 2020), p. 22 (“All lines connecting to CAISO regions are aggregated and an interface limit is imposed upon them. The import limit is 11,600 MW consistent with the Phase 2 assumptions.”).

²³ 2016 California Gas Report, p. 82.

²⁴ SoCalGas Envoy, Operations, Daily Operations, Archives:

https://scgenvoy.sempra.com/#nav=/Public/ViewExternalArchive.showArchive%3FarchiveType%3Ddaily_operations%26rand%3D314 [accessed December 4, 2020]. See **Attachment A**.

Increasing the available flowing pipeline supply assumption from 3,115 MMcfd to 3,286 MMcf will increase the overall available supply in the FTI/GSC modeling exercise from 4,444 MMcfd to 4,615 MMcfd.²⁵

B. Pipeline supply at the Otay Mesa receipt point should be additive to the historic peak pipeline flow assumed in hydraulic modeling.

There was zero flow at the Otay Mesa receipt point when SoCalGas recorded 3,286 MMcfd in flowing pipeline supply on December 1, 2016.²⁶ The hydraulic modeling conducted by Gas Supply Consulting for the pipeline supply sources in 2027 and 2035 assumes 50 MMcfd of supply at the Otay Mesa receipt point. This quantity should be added to the actual December 1, 2016 maximum flowing pipeline supply of 3,286 MMcfd, as there was no flow through Otay Mesa on that day. Adding 50 MMcfd at Otay Mesa increases the maximum flowing pipeline supply, for modeling purposes, to 3,336 MMcfd. This increases total sendout capability to 4,665 MMcfd.²⁷

The rated receipt capacity of Otay Mesa is 400 MMcfd.²⁸ Gas supply at Otay Mesa to meet a winter peak demand event would not be firm supply. However, SoCalGas has previously assured state regulators that:

Since there is a free market for gas supplies, California utilities would be able to compete for those supplies along with other states to assure that adequate supplies are available to meet California customer demand. In such a scenario gas prices would temporarily rise to dampen demand and

²⁵ *Id.* at pp. 43-44 (3,115 MMcfd (pipeline supply) + 1,329 (storage) = 4,444 MMcfd).

²⁶ SoCalGas Envoy archive, month of December 2016. See **Attachment A**.

²⁷ 3,336 MMcfd (pipeline supply) + 1,329 (storage) = 4,665 MMcfd.

²⁸ D.18-06-028, *Decision Denying San Diego Gas & Electric Company and Southern California Gas Company's Proposed Certificate of Public Convenience and Necessity for the Proposed Gas Pipeline 3602, Reclassification of Gas Pipeline 1600 from Transmission to Distribution Service, and Redefinition of the Existing CPUC Reliability Criterion* (June 21, 2018), p. 117 (Finding of Fact 21: "Applicants (SoCalGas/SDG&E) have the physical capacity to receive up to 400 MMcfd through Otay Mesa at the U.S./Mexico border, a volume sufficient to compensate for the entirety of Line 1600, which has a current throughput of approximately 65 MMcfd at a MAOP of 512 psig when operated with Line 3010 in service.").

supplies would then be allocated to the highest valued users. Additional LNG (liquefied natural gas) supplies could also be expected to become available to California (at Otay Mesa) through the Costa Azul (LNG) facility, which is not subject to east of California demand.²⁹

The maximum winter day peak demand peak in SoCalGas territory in the past ten years totaled 4,881 MMcfd in 2013.³⁰ No other SoCalGas annual winter peak in the last ten years has exceeded 4,325 MMcfd.³¹ The 2013 winter peak occurred before the October 2015 Aliso Canyon blowout and before the imposition of post-blowout mitigation measures to reduce/eliminate the justification for Aliso Canyon withdrawals. Assuming the highest actual daily post-blowout pipeline supply of 3,286 MMcfd as the pipeline supply benchmark for modeling purposes, only 266 MMcfd of supply would be required at Otay Mesa to meet a 4,881 MMcfd demand without use of Aliso Canyon.³²

The Otay Mesa receipt point, with its 400 MMcfd receipt point capacity, should be modeled as a source of supply independent from, and additive to, the Blythe Ehrenberg receipt point in the Southern Zone, just as Wheeler Ridge is modeled as a distinct source of supply from the Northern Zone. As noted in the preceding paragraph, only a relatively small amount of supply from the Costa Azul LNG storage facility, less than 300 MMcfd, would be required, assume a modeled total SoCalGas sendout capacity of 4,615 MMcfd, to meet the highest actual SoCalGas winter peak demand in the last ten years. The SoCalGas actual winter peak demand has only exceeded 4,615 MMcfd on three days in the last ten years, with all three occurrences in 2013.³³

²⁹ CEC Docket 09-IEP-1J, Southern California Gas Company/San Diego Gas & Electric Comments on CEC Draft Staff Paper; CEC-200-2009-004-SD Natural Gas Infrastructure, May 14, 2009 by W. William Wood, Jr. (June 5, 2009), p. 2.

³⁰ 2015 CGR, p. 19.

³¹ *Ibid.*; see also Figure 1 herein.

³² 3,286 MMcfd (pipeline supply) + 266 MMcfd (Otay Mesa) + 1,329 MMcfd (storage) = 4,881 MMcfd.

³³ SoCalGas Envoy, Operations, Daily Operations, Archives [accessed December 4, 2020].

Even under FTI/GSC’s flawed modeling assumptions, a small amount of firm SoCalGas supply at Costa Azul LNG would eliminate any concern about contracting for non-firm spot gas pipeline supply at Ehrenberg for delivery at the Otay Mesa receipt point to meet a 1-in-10 year peak winter day demand.

C. The Minimum Local Generation scenario should be the base case assumption for winter peak demand modeling.

The maximum EG demand under the Minimum Local Generation scenario totals 112 MMcfd, approximately one-tenth the 1,048 MMcfd assumed in the modeling being conducted by FTI.³⁴ The excessive EG 2020 winter peak demand projection of 1,048 MMcfd – the assumption used by FTI as the basis for its modeling, forms the primary driver behind the 4,987 MMcfd total 2020 winter peak forecast.³⁵ That 1,048 MMcfd figure equals approximately ten times more than the 112 MMcfd actually needed by electric generators in the LA Basin to meet grid reliability requirements while addressing customers electricity supply needs at the winter peak.³⁶ FTI’s assumed 1,048 MMcfd gas supply need also comes in higher than the 900 MMcfd amount that SoCalGas estimated as the “normal” EG gas demand on the 1-in-10 winter peak day, when no steps are taken to shift generation out of the LA Basin to reduce natural gas demand in the LA Basin.³⁷ FTI’s 1,048 MMcfd EG winter peak demand forecast at base constitutes an obsolete, business-as-usual pre-Aliso Canyon well blowout assumption that is inappropriate for 2020 hydraulic modeling.

³⁴ A.17-02-002, Assigned Commissioner and ALJ’s Ruling Adopting Scenarios Framework and Closing Phase 1 of Investigation 17-02-002 (January 4, 2019), Appendix 1, p. 33.

³⁵ K. Abdelaziz – CPUC, Hydraulic Modeling Input Data Development: Peak Day Design and Hourly Gas Demand Profiles, PowerPoint (November 13, 2019), p. 13.

³⁶ *Aliso Canyon Winter Risk Assessment Technical Report 2017-18 Supplement*, Prepared by the Staff of the California Public Utilities Commission, the California Energy Commission, the California Independent System Operator, and the Los Angeles Department of Water and Power (November 28, 2017), Table 10, p. 18.

³⁷ *Ibid.*

Several of the mitigation measures implemented after the Aliso Canyon well blow-out are directed at minimizing EG demand at the winter peak. The specific mitigation measures developed jointly by the Commission, CEC, CAISO, and LADWP to minimize EG demand at the winter peak, and therefore the need to withdraw gas from Aliso Canyon, include:

- Implement Tighter Gas Balancing Rules
- Consider ISO market changes that increase gas-electric coordination
- Increase Electric and Gas Operational Coordination
- Explore Dual Fuel Capability³⁸
- Create Advance Gas Burn Operating Ceiling for Electric Generation
- Use Electricity Generators' Generation Shift to Help Reduce Gas Demand/Preserve Inventory.³⁹

The Energy Division should assume in the hydraulic modeling that the Aliso Canyon mitigation measures are being enforced by the Commission and that EG gas demand is minimized to the grid reliability levels of 112 MMcfd, or to a demand level that does not exceed the available supply during the modeled winter peak day. Applying this one reasonable assumption to FTI's forecast would reduce the modeled winter peak forecast in 2020 from 4,987 MMcfd to 4,051 MMcfd.⁴⁰

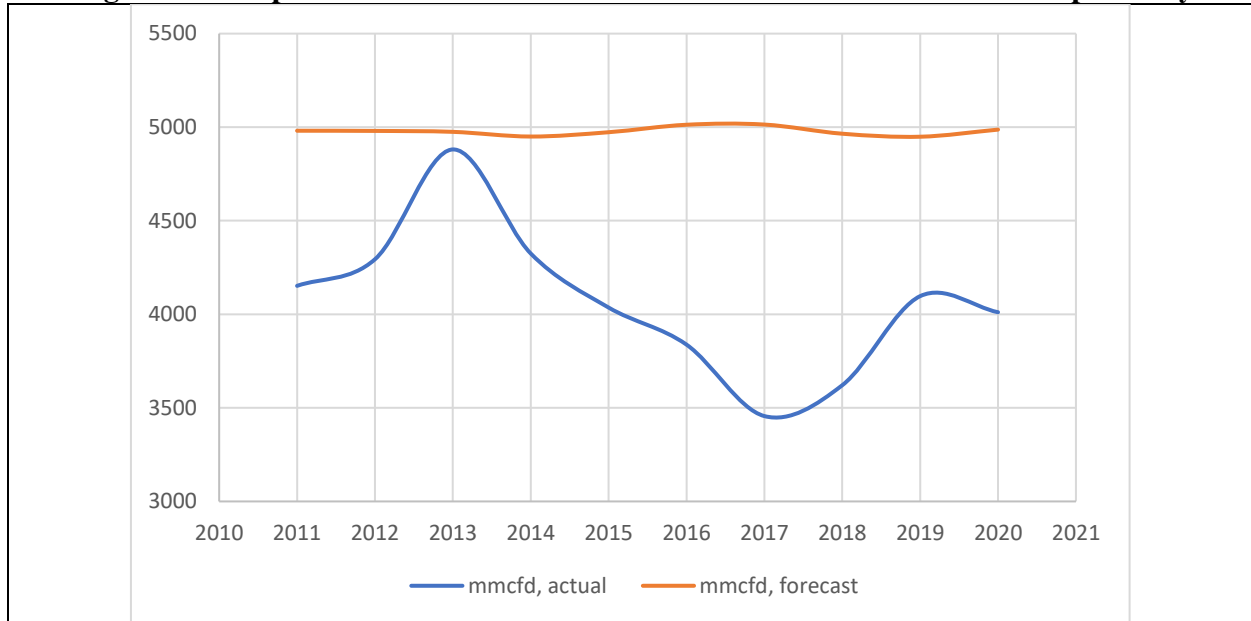
³⁸ LADWP did convert three steam boiler plants to dual fuel capability. See LADWP News, *LADWP Receives Approval from South Coast Air Quality Regulators to Run Power Plants with Diesel Fuel to Help Reduce Risk of Outages Caused by Gas Shortages from Aliso Canyon* (June 15, 2016); <https://www.ladwpnews.com/ladwp-receives-approval-from-south-coast-air-quality-regulators-to-run-power-plants-with-diesel-fuel-to-help-reduce-risk-of-outages-caused-by-gas-shortages-from-aliso-canyon/>.

³⁹ *Aliso Canyon Winter Risk Assessment Technical Report 2017-18 Supplement*, Prepared by the Staff of the California Public Utilities Commission, the California Energy Commission, the California Independent System Operator, and the Los Angeles Department of Water and Power (November 28, 2017), Appendix B: Mitigation Measures, pp. 29-30.

⁴⁰ FTI/GSC PowerPoint (November 17, 2020), p. 45 (4,987 MW – (1,048 MW – 112 MW) = 4,051 MW).

This modeling assumption aligns FTI’s modeling exercise with actual SoCalGas winter peak demand in the post October 2015 Aliso Canyon well blowout era. Figure 1 presents the California Gas Report forecast demand peaks included in the 2010, 2016, and 2018 California Gas Reports for the period 2011-2020, along with the actual winter peaks presented in the 2015 and 2019 California Gas Report Updates and Sempra Envoy database (February 6, 2019 and February 4, 2020 winter peaks) for SoCalGas. As these figures show, no actual winter peak demand has exceeded 4,100 MMcfd since the Aliso Canyon well blow-out in 2015.

Figure 1. Comparison of 2011-2020 SoCalGas forecast and actual winter peak day⁴¹



Thus, the 2020 winter peak hydraulic modeling input assumptions should be bounded by the current winter operating protocols that are derived from the post-2015 mitigation measures imposed in response to the Aliso Canyon well blowout, as PCF details above.

⁴¹ Forecast SoCalGas winter peak data is from 2010 CGR, 2016 CGR, and 2018 CGR. Actual historic SoCalGas winter peak data is from 2015 and 2019 CGR Updates, and from Sempra Envoy database (December 18, 2019 actual, February 4, 2020 actual).

V. BASELINE ASSUMPTIONS SHOULD BE CORRECTED BEFORE ASSESSING REDUCTIONS IN CARBON EMISSIONS.

Reductions in carbon emissions cannot be meaningfully valued unless and until the Commission corrects the fundamentally flawed baseline assumptions made by FTI/GSC.

VI. THE WORKSTREAM 2 ANALYSIS OF THE INVESTMENT OPTIONS SHOULD ACCOUNT FOR THE ECONOMIC BENEFITS TO SOCALGAS BUNDLED CUSTOMERS OF A PERMANENT SHUTDOWN OF ALISO CANYON.

To be comprehensive, the Workstream 2 analysis must factor in the savings to SoCalGas core customers if Aliso Canyon is permanently shut down. The economic analysis must take into consideration, as an offsetting economic benefit, up to \$70 million per year that SoCalGas bundled customers will save by the permanent closure of Aliso Canyon.⁴² FTI considers increases in the cost of natural gas that may be projected for non-core and bundled customers due to the unavailability of Aliso Canyon without acknowledging the economic benefits that will accrue by eliminating the substantial costs (well operations and maintenance, compression, etc.) associated with the continued operation of Aliso Canyon.

VII. ANOTHER WORKSHOP SHOULD BE HELD BETWEEN NO LATER THAN FEBRUARY 2021 TO EXAMINE SYSTEM BALANCING MEASURES.

The recent workshop highlights many unanswered questions and myriad problems with the modeling assumptions used by FTI. Thus, the Commission should schedule an additional workshop to address those unanswered issues and modeling problems. The purpose of the workshop could include an examination of system balancing measures that would permit reliable operation of the SoCalGas system at winter peak without Aliso Canyon and without new infrastructure.

⁴² I.17-02-002, The Protect Our Communities Foundation Reply Comments Regarding the Questions in the Assigned Commissioner's Phase 3 Scoping Memo and Ruling (February 2, 2020), **Attachment 2**: B. Powers, *Critical Review of Aliso Canyon Winter Risk Assessment and Action Plan*, p. 9.

Additional measures to support system balancing are alluded to in the FTI/GSC workshop PowerPoint but are not examined or discussed. These alternatives include more restrictive imbalance rules for core and non-core demand, gas-electric coordination (meeting EG demand primarily with imports at winter peak), and/or commercial transactions.⁴³

The impact of CAISO following the Minimum Local Generation protocol, which was specifically developed as a winter mitigation measure in the wake of the Aliso Canyon well blowout to avoid withdrawing gas from Aliso Canyon, needs to be modeled by FTI/GSC to corroborate that this one action alone would be sufficient to permanently shut down Aliso Canyon. The circumstances under which the Minimum Local Generation protocol should be imposed whenever the day-ahead demand forecast exceeds 4,000 MMcfd. SoCalGas is now fully capable of real-time core customer balancing, as all of its six million core customers now have smart gas meters.⁴⁴ Modeling the impact of requiring real-time core customer daily +/- 5 percent balancing in the winter months,⁴⁵ or above a certain forecast gas demand threshold, similar in concept to the daily +/- 5 percent operational flow orders (OFO) imposed on non-core customers by SoCalGas to maximize hour-by-hour pipeline flows during winter peak demand events,⁴⁶ should also be addressed at the proposed workshop focused on demand management practices that permit the permanent closure of Aliso Canyon.

⁴³ FTI/GSC, PowerPoint (November 17, 2020), p. 65.

⁴⁴ SoCalGas, About Advanced Meter (webpage), available at <https://www.socalgas.com/save-money-and-energy/advanced-meter/about-the-program> [accessed December 4, 2020].

⁴⁵ A.15-06-20, Response of Southern California Edison Company on Behalf of the Customer Coalition to Motion of Southern California Gas Company and San Diego Gas & Electric Company for Order Changing the Timing of the Daily Core Demand Forecast, Temporarily Continuing Certain Existing Customer Mitigation Measures (September 30, 2016), p. 3-4 (“Given that core customers represent nearly two thirds of winter gas demand, the Commission should adopt measures that require the core class to operate under balancing requirements that are similar to, if not the same as, the balancing requirements that apply to noncore customers. Circumstances warrant requiring SoCalGas/SDG&E to better balance core deliveries and core usage this winter, and the use of actual data best achieves that objective.”).

⁴⁶ SoCalGas, High/Low OFO Calculation (webpage), available at https://envoy.sempra.com/external/forms/OFO_Calculation.pdf [accessed December 4, 2020].

VIII. CONCLUSION

The analysis by FTI/GSC misinterprets the scoping memo and divorces itself from the purpose of this proceeding and the mandates of climate science and the executive orders and legislative directives requiring that Aliso Canyon be closed as soon as possible.

The FTI/GSC modeling assumption of unconstrained EG demand at the 1-in-10 year winter peak is inappropriate and drives modeled result that there is a gap between modeled pipeline and storage sendout capacity without Aliso Canyon and the demand that must be met. The EG forecast demand of 1,048 MMcfd at the 2020 winter peak is an obsolete assumption pre-dating mitigation measures put in place after the 2015 Aliso Canyon well blowout. The Commission has corroborated that the LA Basin can maintain electric grid reliability at the winter peak with 112 MMcfd of EG gas demand, by simply relying primarily on some of the 11,600 MW of electricity import capacity (into the LA Basin) available in the winter months.

The winter peak hydraulic modeling input assumptions should be bounded by the current winter operating protocols that are derived from the post-2015 mitigation measures imposed in response to the Aliso Canyon well blowout. Actual winter peak demand has not exceeded 4,100 MMcfd since 2015. 4,100 MMcf should serve as the 1-in-10 year 2020 winter peak forecast for purposes of the hydraulic modeling being conducted by the FTI/GSC. A workshop should be held no later than February 2020 to examine the various demand management tools available to reliably meet the SoCalGas 1-in-10 year winter peak demand without Aliso Canyon.

Respectfully submitted,

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