UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation	**)** **)**	**Docket No. ER20-273-000**

ANSWER OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION TO COMMENTS

The California Independent System Operator Corporation (CAISO)[1] submits this answer to the comments filed in the above-captioned proceeding[2] in response to the CAISO's October 31, 2019 tariff amendment (Maximum Gas Constraint Tariff Amendment). The purpose of the Maximum Gas Constraint Tariff amendment is to extend beyond December 31, 2019, current authority the Commission has previously granted the CAISO on a temporary basis to enforce a constraint in the CAISO energy markets to manage generator constraints imposed by limitations on the gas system in the Southern part of the CAISO balancing authority area. Given the continued restrictions and limitations on the Southern California gas system, caused particularly by the limited use of the Aliso Canyon gas storage facility, the CAISO anticipates the need to utilize the maximum gas constraint as a tool to manage its balancing authority area reliably into the upcoming years.

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[1] Capitalized terms not otherwise defined herein have the meanings set forth in appendix A to the CAISO tariff.

[2] The following entities filed motions to intervene in the proceeding: Calpine Corporation; City of Santa Clara, California; Department of Market Monitoring of the CAISO (DMM); Modesto Irrigation District; Pacific Gas and Electric Company (PG&E); and Southern California Edison Company. In addition, the DMM and PG&E filed comments.

Contrary to PG&E's claims that the fate of Aliso Canyon is still unknown, not only does Aliso Canyon continue to operate at approximately 40 percent of its capacity, it is unlikely it will become fully operational in the upcoming years, and is at risk of shutting down entirely.[3] The CAISO has already addressed many of the comments submitted by PG&E and DMM. For the reasons set forth below, the Commission should accept the Maximum Gas Constraint Tariff Amendment as filed so that it does not leave the CAISO market without an important tool to manage gas system limitations effectively.

I. Answer

A. PG&E provides no Basis for Rejecting the Maximum Gas Constraint Tariff Amendment or for only accepting the changes temporarily.

PG&E requests that the Commission not approve the tariff amendment on a permanent basis and instead accept the proposed changes on a temporary basis until a "full stakeholder process has been completed." Although PG&E is not satisfied with the CAISO's stakeholder process conducted, the CAISO did conduct numerous stakeholder processes to discuss the impact of the constraint and its intent to proceed with requesting permanent use of the constraint in the

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[3] *See* Letter from Gavin Newsom, Governor of California, to Marybel Batjer, President of the California Public Utility Commission (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. Governor Newsom requests that the CPUC "immediately engage an independent third-party expert to identify viable alternatives to the facility and scenarios that can inform a shorter path to closure" of the Aliso Canyon storage facility. The CPUC opened a proceeding on February 9, 2017, "to determine the feasibility of minimizing or eliminating the use of Southern California Gas Company's Aliso Canyon Natural Gas Storage Facility while still maintaining energy and electric reliability for the Los Angeles region." *See* https://www.cpuc.ca.gov/AlisoOII/.

south.[4] The CAISO has continuously responded to questions about the impact of the constraint in its many Market Performance and Planning Forum (MPPF) meetings and the CAISO and DMM have published their respective analysis of the use of the constraint.[5] PG&E continues to ask questions regarding the use of the constraint – but they are questions that have either been answered or are not relevant to whether the constraint should be permanent or temporary.

PG&E asks two questions related to when the constraint was used: "What was the communication between Southern California Gas Company ("SoCalGas") and the CAISO that triggered the need for the constraint?" and "Was there an OFO called in concert with the gas constraint?" The CAISO has not hesitated to answer such questions if asked during the MPPF meetings, where the CAISO shares its analysis of the impact of enforcing the constraint and will continue to do so when it presents or discusses the use of the constraint in the future. In any case, the CAISO notes that under the CAISO's current temporary authority, although the CAISO coordinates with the gas company, the CAISO need not wait for an instruction from the gas company to enforce the constraint. Rather it is within the CAISO's discretion, as it should be, to determine whether it is necessary to enforce the constraint in order to maintain its system reliably. In addition to the open discussions the CAISO holds during

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4 *See* Transmittal Letter for the Maximum Gas Constraint Tariff Amendment at pp. 12-14.

5 *See, e.g.*, CAISO Presentation for Market Performance and Planning Forum – October 23, 2019 available at: http://www.caiso.com/Documents/Presentation-MarketPerformance-PlanningForum-Oct23-2019.pdf; and CAISO Department of Market Monitoring, 2019 First Quarter Report on Market Issues and Performance, available at: http://www.caiso.com/Documents/2019FirstQuarterReportOnMarketIssuesAndPerformance.pdf.

the MPPF meetings, the CAISO communicates to market participants through Market Notifications (Via MNS and ADS) prior to enforcing the constraint, to the extent feasible, and provides details regarding its enforcement of the constraint, including if there are any relevant communications from the gas company.[6] The CAISO has included samples of these communications in its Operating Procedures.[7]

PG&E asks "Did the price of gas reflect this gas scarcity in that area and did generators have proper incentives to purchase gas?" The CAISO does not use the maximum gas constraint to deal with gas market dysfunctions. Rather, the CAISO uses the maximum gas constraint to deal with known limitations that if further aggravated can cause reliability issues in the CAISO balancing authority area. The gas constraint allows the CAISO to manage gas limitations through its market clearing process as opposed to through exceptional dispatch, which is the only other way the CAISO could manage gas constraints in its reliable operations of the CAISO balancing authority area. As described in its Operating Procedure, the system operators determine whether they must employ the gas constraint based on information they observed of actual gas curtailments or curtailment watches and other indications that the gas system may be significantly constrained.[8] The CAISO does not wait to evaluate whether or not the gas market was functioning as expected because at the time they are making the

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6 *See* Operating Procedure 4120C at p. 4 available at: http://www.caiso.com/Documents/4120C.pdf.

7 *Id.* at 9.

8 *Id*. at 4-6.

evaluation, the only criteria is ensuring the CAISO can manage the gas constraints in a manner that maintains electric system reliability.

PG&E asks "How did the nomogram change the dispatch in that area?" The CAISO has explained that when the constraint is binding it will have the effect of limiting the dispatch of the affected generators, which is the intent of the using the constraint.[9] The market software will optimize the system, as it always does through a least cost security constrained economic dispatch to meet demand. The gas constraint does not dictate which resources get dispatched. That is determined though the market clearing process. The CAISO, however, reports on whether or not the constraint was binding when enforced, which provides the information needed to determine whether constraint had any impact on the market solution.

PG&E asks "How would the CAISO, SoCalGas and generators solve this reliability concern but for the Maximum Gas Burn Constraint?" The CAISO cannot speak for generators or the gas company. However, the CAISO has explained that constraints on the gas system exist whether or not the CAISO employs the maximum gas constraint.[10] The CAISO coordinates closely with gas companies to respond to physical constraints on the gas system to ensure the CAISO can continue to manage the system reliably. The maximum gas constraint has enabled the CAISO to manage known gas limitations through its market clearing process to produce a feasible and economic least cost solution

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9 Transmittal Letter at pp. 26-32.

10 *Id.*, at pp. 22-24.

taking into consideration those constraints. Lacking the tool would increase the likelihood that the gas company would curtail specific generators and the CAISO would have to manage the resulting outages to continue to manage the electric system reliably. The CAISO could, and would use exceptional dispatch to redispatch other resources to ensure it can meet load reliably. This is necessary to ensure the CAISO can serve its load reliably and not aggravate the gas limitations further. However, the lack of the tool results in more course adjustments that may or may not produce the most efficient solution and creates coordination challenges for system operators that can be avoided by using the market clearing process.

PG&E asks several questions related to the costs of using the constraint: "What were the costs incurred from the change in dispatch?"; "How exactly were the costs of the binding nomogram spread to customers and in what buckets?"; "How would the costs of this counterfactual solution have been distributed among customers?"; and "CAISO should provide a substantive discussion on the reliability benefits of the Maximum Gas Burn Constraint over and above the counterfactual solutions." The CAISO has explained that it is not possible to isolate specifically what the costs are and what drives the higher cost of energy when the gas system is constrained, regardless of whether the constraint is used.[11] The CAISO has explained the "costs" of using the constraint are not readily identifiable because it is a constraint on generation resources that the market clearing process considers. The counterfactual case that PG&E asks for

[11] Transmittal Letter at pp. 32-38.

is impossible to reproduce because the CAISO cannot determine what exactly what generators the gas company would have curtailed absent the constraint and what the CAISO system operators would have had to have done to respond to those actions. Although the CAISO knows the resources it would have to dispatch down, it would be impossible for the CAISO to reproduce exactly what resource would have otherwise been dispatched. Moreover, as the CAISO has explained, because the CAISO has to manage the gas constraint whilst meeting its load reliably, there would inevitably be the need to conduct significant exceptional dispatches to manage the gas limitations. These do not come without cost and also impose costs on the system that get spread to load serving entities. PG&E's concerns seem to be rooted in the fact that PG&E load may pay for dealing with gas constraints in the Southern part of the CAISO system even though the constraints are on gas systems that are not serving generators in the PG&E service area. PG&E focuses on the use of the constraint as the source of this cost. But PG&E fails to recognize that the whole system will incur higher costs when the Southern gas system is constrained, regardless of whether the CAISO uses the constraint or exceptional dispatches to manage the gas limitations.

Nevertheless, as the CAISO indicated in its transmittal letter, PG&E should raise its concerns in an upcoming initiative in which the CAISO will consider cost allocation alternatives.[12] PG&E's cost allocation preferences are not a reason to continue to require the CAISO to come back to the Commission

[12] Transmittal Letter at pp. 37-38.

to request authority to use the constraint in Southern California, when it is clear that the gas system in the south will continue to be constrained for the foreseeable future. There is no basis to believe that Aliso Canyon will go back to being fully operational or anywhere near its capability. SoCalGas has indicated how sensitive the Southern gas system is to the existence of the Aliso Canyon facility.[13] Even if the CPUC expands the withdrawal protocol, the maximum allowable inventory of Aliso Canyon remains at 34 billion cubic feet (Bcf). This means that even if SoCalGas is able to withdraw more from Aliso Canyon, it remains at only approximately 40 percent of its capacity. Consequently, if a significant gas line is outaged, as Lines 235-2 and Line 4000 were until recently, the system becomes significantly constrained. As indicated in the CPUC's winter assessment, the reduced capacity at the storage facilities will contribute to the possible curtailment of non-core even with lines in operation and will also affect core gas customers when major lines are on outage.[14] There is no question that the reliability of the gas system in Southern California is dependent on storage capacity. Granting the CAISO temporary authority to use the constraint merely means the CAISO will be back to request this same authority before the end of next year.

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[13] SoGalGas Report at pp. 1-2, https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/SOCALGAS%20WINTER%202019-20%20TECHNICAL%20ASSESSMENT.pdf

[14] *See* Winter Assessment at pp. 6-7, https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/Winter2019-20ReliabilityAssessment_Final.pdf

B. The CAISO will refine the Use of the Max Gas Constraint and will consider DMM's and all other Stakeholders recommendations.

The CAISO appreciates DMM's insights on the performance of the constraint and will be working with the DMM to consider the appropriate enhancements. In addition, the CAISO will vet the proposed enhancements with all stakeholders through the BPM change management process because the changes would require changes to the description of the constraint in the BPMs.

However, the CAISO disagrees with PG&E that these changes need to happen before the Commission grants the CAISO permanent authority to employ the maximum gas constraint in Southern California. That would imply that if the CAISO temporary authority, the CAISO need not make the changes for another year and just request temporary authority next year. The CAISO is considering the enhancements regardless of whether the authority is temporary or permanent because the CAISO does not expect the gas limitations in Southern California to disappear. The Commission should grant the CAISO the ability to utilize the constraint in Southern California permanently and allow the CAISO, DMM and all stakeholders to focus on whatever refinements are necessary in how the limits are created.

III. Conclusion

For the foregoing reasons, the Commission should accept the tariff revisions contained in the Maximum Gas Constraint Tariff Amendment as filed.

Respectfully submitted,

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Dated: December 6, 2019

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the above-referenced proceeding, pursuant to the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 6th day of December, 2019.

Martha Sedgley
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