

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Policies, Processes, and Rules to Ensure
Safe and Reliable Gas Systems in
California and Perform Long-Term Gas
System Planning.

Rulemaking 20-01-007
(Filed January 16, 2020)

**OPENING COMMENTS OF THE
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON
THE ASSIGNED ADMINISTRATIVE LAW JUDGE'S RULING SEEKING
COMMENTS**

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For: CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES

August 14, 2020

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The Center for Energy Efficiency and Renewable Technologies respectfully submits these Opening Comments on Assigned Administrative Law Judge's Ruling Seeking Comments, issued in this proceeding on July 31, 2020 (July 31 ALJ Ruling). These Opening Comments are timely filed and served pursuant to the Commission's Rules of Practice and Procedure and the instructions contained in the July 31 ALJ Ruling.

**I.
OVERVIEW**

The July 31 ALJ Ruling directs parties to provide responses to the questions set forth in Attachment 1 attached to the Ruling.¹ CEERT will respond to only those questions that pertain to CEERT.

**II.
CEERT RESPONSES TO QUESTIONS IN ATTACHMENT 1**

- Open to All Parties: Maurice Brubaker of Brubaker and Associates, INC., spoke on behalf of the Indicated Shippers at the workshop, and provided several suggestions during his presentation on how the CPUC could respond to a utility's sustained failure to meet minimum design standards. One suggestion is to have a one-way financial incentive, such as utility shareholders sharing in the cost of repair or a reduction in the allowed return on equity. (*Track 1A, Scoping Memo Issues 1, 1a-c, 2 and 2a*).**

¹ July 31 ALJ Ruling, at p. 1.

- a. What would constitute a “sustained” failure to meet the minimum design standard?
- b. Do parties agree that utility shareholders should share in the cost of repair if the utility does not maintain the minimum design standard? Why or why not?
- c. Do parties agree that a utility’s return on equity should be reduced if the utility does not maintain the minimum design standard? Why or why not?
- d. Are there other measures or financial incentives the CPUC should consider ensuring that utilities meet minimum design standards?

CEERT has no comment on this issue.

3. **Open to All Parties:** A common set of temperature projections needs to be established in this proceeding. Energy Division staff proposes using California’s Fourth Climate Change Assessment and the California Gas Report for such projects. (*Track 1A, Scoping Memo Issue 2b*).

- a. Do parties have any concerns with using these sources
- b. Are there any other vetted projections, including peer-reviewed studies and projections produced by state agencies, on California’s climate that should be considered?

CEERT has no comment on this issue.

5. **Open to All Parties:** Norman Pederson, who presented on behalf of the Southern California Generation Coalition, indicated that the winter peak day demand continues to exceed the summer peak day demand. Since the gas system is designed to meet the former, it will be able to continue meeting the latter without the need for a summer reliability standard. However, this assertion does not consider the differences in supply availability during the winter and summer months. For example, SoCalGas depends on its storage capacity to meet both the summer and winter peak demand. A very cold winter may result in depleted inventory levels prior to the summer season, which may present difficulties in meeting summer peak demand. In addition, a daily demand assessment does not account for steep hourly ramping needs, which may further increase reliance on storage inventory. Is a winter reliability standard sufficient to ensure that a gas system can meet summer peak demand without the need for a summer reliability standard? (*Track 1A, Scoping Memo Issue 2c*).

CEERT agrees with the Southern California Generation Coalition on the lack of need for a separate summer reliability standard. If the physical system is designed to meet a one in 35-

year winter peak that is higher than any foreseeable forecast summer peak, there should be no need to build more physical infrastructure. However, it is true that given the brittle nature of the in-state gas supply infrastructure and the policy driven goal to close Aliso Canyon, the largest and best located storage facility in Southern California, system stress can occur at any time of the year. This situation needs transparency and, potentially, swift intervention by the Commission that does not involve investing capital in increasing system capacity to meet a more stringent reliability standard when the long-term demand trend is clearly significantly negative.

We simply cannot afford a repeat of 2018 where Southern California Edison (SCE) and Southern California Generation Coalition felt the need to file an emergency petition² that significant unanticipated ratepayer costs (eventually exceeding over one billion dollars) were occurring, and it took the Commission almost six months to acknowledge the severity of the situation and almost one year to craft even a temporary fix.³

There is currently little or no independent “market monitoring” of system stress even though there are clear, publicly available stress indicators to provide visibility and data for analysis. Operational Flow Orders that mean the system is stressed and “manual” intervention by the system operator is required to keep the system in balance are already publicly available, but no formal collection of this data or forensic analysis of events to discover trends is conducted.

Basis differentials that track price differentials between CA Border and Citygate are also

² Joint Petition for Modification of Decisions 15-06-004 and 16-06-039 as Modified by D.16-12-016 of Southern California Edison Company (U338-E) and Southern California Generation Coalition submitted in A.14-06-021 (Southern California Gas Company (SoCalGas) and San Diego Gas & Electric (SDG&E) Application for Low Operational Flow Order (OFO) and Emergency Flow Order Requirements) and A.14-12-017 (Cost Allocation Proceeding Phase 1 Application of SoCalGas and SDG&E) on August 15, 2018.

³ D.19-05-030 (Decision Granting in Part and Denying in Part the Petition for Modification Filed by Southern California Edison Company and Southern California Generation Coalition of Commission Decisions (D.) 15-06-004 and 16-06-038 as Modified by D.16-12-016 Adopting in Part and Rejection in Part of the Settlement Agreement Filed by the Settling Parties) issued in A.14-06-021 and A.14-12-017 on June 5, 2019.

publicly available if one knows where to look. These basis differentials are another very relevant indicator of system stress and provide a handy, transparent tool to indicate the economic consequences of that stress before actual physical shortages occur.

CEERT believes that the Commission needs to establish a formal market monitoring system for these and any other relevant data and routinely publish these data in real time on the Commission website along with periodic formal reports on system performance and any recommended regulatory action. A “Gas Reliability” report similar in format and content to the Energy Division annual Resource Adequacy (RA) Report for the costs and trends of electric grid reliability should be published annually in the late summer/early fall.

8. Open to All Parties: Should slack capacity include storage capacity? Why or why not? (*Track 1A, Scoping Memo Issue 3*).

CEERT has no comment on this issue.

11. Open to All Parties: SoCalGas stated that their system was generally designed around core customers. However, the increased amount of intermittent generation resources in the electric portfolio has resulted in gas-fired electric generators regularly exceeding their ratable supply (on a 1/24-hour basis). Furthermore, SoCalGas indicated that gas-fired electric generator ramp downs and volatility frequently contribute to over-pressurization. Are there policy changes the CPUC should consider that would help manage the changing use of the gas infrastructure? (*Track 1B, Scoping Memo Issue 2*).

Gas has for decades been the “marginal fuel” for electric generation and thus subject to volatility of demand as electricity demand “naturally” ebbs and flows throughout the day. This volatility increased substantially twenty years ago when the California Independent System Operator was formed and the daily gas fleet electric dispatch was conducted statewide instead of by utility service territory. The real time competition between electric generators taking fuel on the PG&E system with generators taking fuel on the SoCalGas system increased demand volatility on both gas systems while overall volatility stayed relatively constant. As average gas

volumes for electric generation decreased with the increasing penetration of renewable energy, this volatility has been steadily increasing and is likely to continue to increase as the State successfully decarbonizes the electric grid.

With ample slack capacity and abundant gas storage near load centers, this volatility had been easily handled until two “events” converged to drain resiliency from the gas system – especially in Southern California. The Aliso Canyon well blowout in 2016 dramatically reduced storage capacity and generated a ground up overhaul of safety protocols for all storage facilities in the state that reduced flexibility and storage injection/withdrawal rates. Even more to the point, this catastrophic event spurred the quite understandable policy goal to permanently close the Aliso facility located in a newly urbanized area. It also begs the question of the long-term viability of other storage facilities located in urbanized areas such as Playa Del Rey and their resilience in, e.g., earthquake events. Then, beginning roughly three years ago, the reliability of the gas pipeline infrastructure in the Southern California desert clearly took a significant downward trend relative to historical planned and unplanned maintenance outages. There is little evidence that this is a one-time occurrence and we should not expect a return to historic reliability levels without a significant change in SoCalGas practices and maintenance spending.

CEERT believes that the principal tool available to the Commission to deal with this situation in addition to increased Commission oversight of SoCal Gas is instituting a robust, well-funded demand response program covering all customer classes. It is clear that the system needs more flexibility today. It is also clear that simply adding to slack capacity and/or storage volumes to increase raw flexibility to something close to effective historical levels is not an acceptable response given the long-term prospects for overall gas demand in a carbon constrained future.

Demand Response (DR) has always been the principal tool for seasonal variations in gas demand. Use of fuel oil as a winter alternative to gas for electric generation and large industrial loads such as petroleum refineries, then progressively lower sulfur content of that fuel oil until the air pollution burden simply became too great has never completely disappeared from the tool kit. However, today, this kind of planned and compensated demand response has been replaced with a haphazard, unpaid, opaque curtailment scheme to avoid the extremely severe consequence of loss of pressure in the gas distribution system. Regardless of how much regulatory oversight the Commission can muster or incremental capital expenses it can reasonably approve, curtailment will remain the tool of last resort. It is time to state that fact and design a robust, planned demand response program covering all customer classes that rewards customers for voluntarily agreeing to reduce demand during system stress periods. These programs should be both short term and long term. The short-term programs should focus on speed, flexibility and customer engagement. None of the gas utilities have demonstrated an ability to cost effectively operate such a program and probably need competition from third party providers to spur innovation.

When confronted with questions regarding California's high electricity rates, advocates, regulators, and elected representatives are always quick to point to the success of decoupling electric utility profits from sales, ratepayer funding of robust Energy Efficiency programs, and aggressive ratcheting of statewide codes and standards for appliances and building standards. Yet the same attention is rarely paid to comparable policies for gas utilities. The climate response mantra of "decarbonize electricity production and electrify everything" is common in policy circles. Press reports are ubiquitous about advances in battery technology and the newly cost effective, efficient storage of electricity, but rarely discuss the age old "technology" of thermal

energy storage in passive building design or hot or cold water or even advances in use of other storage media such as ice or molten salt. CEERT believes that this asymmetry in attention and funding has led to significantly greater potential for programmatic Energy Efficiency as a supply alternative to natural gas. This proceeding needs to quantify this potential and start the process of a robust policy response.

The long-term demand reduction programs should focus on more comprehensively reducing annual gas burn for greenhouse gas reductions and gas combustion reductions in disadvantaged communities that are targeted to reduce peak demand relative to annual average demand especially during peak ozone season in the summer and fall. Illustrative examples of this type of program might be acceleration of investments in preferred resources to supply local capacity needs on the electric grid or phasing out steam methane reforming of natural gas to produce hydrogen for oil refining and replacing it with “renewable hydrogen” from electrolysis of surplus electricity beginning on low electric demand days with high renewable curtailment but coincident high gas demand. Program cost effectiveness can be significantly improved through consideration of avoided costs in gas infrastructure and application of Low Carbon Fuel Standard program credits while also serving as market transformation for combustion of renewable hydrogen for the last mile in decarbonizing electricity production.

The Commission simply must broaden the scope of this or subsequent proceedings to explore these issues. The need is urgent.

12. **Open to All Parties: IEP, speaking on behalf of several electric generators, stated that gas-fired electric generators should not be required to hold firm interstate contracts. They also forecast that gas-fired electric generators will play a role in California through 2030 and possibly 2045. Jonathan Peress, from SoCalGas/SDG&E, spoke about the system impacts of electric generator ramp ups and downs and the projected decrease in gas-fired electric generation, but continued increase in intraday ramping volatility. To capture the value provided to the electric system by the gas system, and absent firm interstate contracts, SoCalGas/SDG&E**

suggested a new tariff to internalize the value of the gas system and the flexible capacity offered. (*Track 1B, Scoping Memo Issue 2*).

a. What are the benefits and costs of a renewable balancing tariff, as suggested by SoCalGas?

b. What should such a tariff include or exclude?

CEERT does not believe either a requirement for electric generators to hold firm interstate contracts or establishment of a “renewable balancing tariff” is supported by the record or will lead to any improvement in gas system reliability. The only result will be higher electricity costs, higher greenhouse gas (GHG) emissions, and less innovation. Presumably, the motivation is to prevent non-core costs from being borne by core customers. Under this theory, intra day balancing costs are mainly an issue for non-core loads; therefore, a requirement that the non core “hedge” these costs through contracting for capacity to the California border or a tariff be established to force the non core to appear to be “rateable” is required to solve this issue. However, these solutions ignore the source of the problem and the fact that significant variability in some portion of gas demand is essentially cost free and it is only when supply flexibility is constrained that significant system costs occur. It is also a fact that the bulk of the extra costs are already borne by non-core electric ratepayers. In fact, it could be argued that the core is being subsidized by the non core because the core’s monopoly on use of storage assets gives it market power over the non core and SoCalGas shareholders benefit from the incentive mechanism that allows the core to sell stored gas into the system shortage at inflated prices or park gas in storage at cheap prices.

The problem is not that supplies to the California border are illiquid, or that the demand for balancing services has soared due to renewable penetration, but that the supply of intra state balancing services has been severely compromised by actions of the gas utility (failure to safely

operate Aliso Canyon, failure to proactively deal with San Bruno, and failure to manage corrosion in intra state pipelines), and non-core customers have no viable mechanism to hedge their exposure caused by this lack of supply.

CEERT believes that the obvious answer is to give non-core loads access to storage at a tariffed rate that accurately recovers any sunk core costs and to stop shareholder incentives for supplying balancing services to the non-core.

13. **Open to All Parties: Should PG&E’s Operational Flow Order (OFO) penalty structure be changed so that it aligns with SoCalGas’ winter OFO penalty structure? Why or why not? (Track 1B, Scoping Memo Issue 3).**

CEERT has no comment on this issue.

14. **Open to All Parties: Should SoCalGas’ winter OFO penalty structure be adopted year-round? Are there any risks in allowing the revising OFO penalty structure (D.19-05-030) to expire in October 2021 and allowing the prior OFO penalty structure (D.15-06-004 and D.16-06-039) to continue? (Track 1B, Scoping Memo Issue 3).**

CEERT believes that the underlying system conditions that caused the “temporary” revision to SoCalGas’s OFO penalty structure in D.19-05-030 still exist, and there is grave risk in reverting back to the previous penalty OFO penalty structure that failed to mitigate the huge price spikes that occurred in 2018. While the revisions in D.19-05-030 have certainly improved the situation, CEERT notes that price spikes continue to occur as late as June/July 2020 on relatively low gas demand days. CEERT has no specific recommendation other than it is incumbent on this proceeding to investigate further modifications to Commission oversight including OFO penalty structures. As stated earlier, there are plenty of data and abundant experience from these last three years to assist in this analysis.

III. CONCLUSION

CEERT appreciates this opportunity to provide these Opening Comments. We urge the Commission to broaden the scope of this analysis to more carefully consider the long-term issue of declining gas demand due to success in achieving sound climate policy and rapid deployment of newly competitive alternative non-combustion energy resources.

Respectfully submitted,

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