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SoCalGas Comments on the CEC Long-Term Gas Research Strategy Recommendations

Additional submitted attachment is included below.

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December 19, 2022

Vice Chair Siva Gunda
California Energy Commission
Docket Unit, MS-4
Docket No. 19-ERDD-01
715 P Street
Sacramento, CA 95814-5512

Subject: Comments on the Long-Term Gas Research Strategy Recommendations

Dear Vice Chair Gunda:

Southern California Gas Company (SoCalGas) appreciates the opportunity to provide comments on the California Energy Commission (CEC) webinar for Long-Term Gas Research Strategy Recommendations held on December 12, 2022. The research recommendations highlighted by Guidehouse touch on many essential aspects of a comprehensive strategy that is needed to meet California's goal of achieving a net-zero carbon gas system by 2045. SoCalGas is actively analyzing strategies which align with Guidehouse's research initiatives: transparent and informed framework for gas system decommissioning opportunities; impacts of hydrogen blending and pure hydrogen transportation on safety outcomes and on pipeline infrastructure's materials and components; and assessing the potential of storing hydrogen in suitable geologic formations. We offer the following suggestion in the hopes of advancing the foundational development of gas research strategies to support the energy system transition.

SoCalGas recommends research efforts that "Promote and value resiliency and reliability of the energy system provided by gas powered generation"

As demonstrated during the September 2022 heatwave, and other recent weather events, extreme heat and drought continue to place stress on California's energy system and risk power outages. The impacts of climate change are expected to only increase the regularity and severity of such weather events. Thermal power plants, and eventually power plants run using net-zero fuels and carbon-neutral end uses (e.g., hydrogen, biogas, and traditional natural gas with emissions that can

be offset by carbon capture utilization and storage) will play an important role in promoting resiliency and reliability of the overall integrated electric and gas energy system.

In addition, gas-fired once-through-cooling (OTC) plants in California currently operate as emergency capacity during peak electric load times such as heatwaves to provide resiliency[1, 2] and reliability for the electric grid.[3] Four OTC facilities, Alamitos, Huntington Beach, Ormond, and Redondo Beach, were initially set to retire in 2020 and have instead extended their operations by up to three years. The California Public Utilities Commission (CPUC) recommended these OTC plants remain in service beyond their scheduled retirement dates in order to "serve as a bridge to allow new clean resources to come online" [4] because there are currently no clean alternative resources able to replace the OTC plants in terms of providing just-in-time electric generation when and where system conditions require. Extending the use of these aging facilities to bolster electric grid resiliency can be problematic as the ability for these facilities to function when needed is contingent on undertaking significant required operating and maintenance activities. This dynamic exemplifies where there may be gaps in the resiliency of California's electric grid necessitating informed and comprehensive planning to understand where gas system assets can be retained and deployed to complement electric system needs.

Resiliency and reliability provided by the gas system were touched on briefly in the Guidehouse recommendations presented during the workshop.[5] SoCalGas suggests placing a stronger emphasis on this aspect of the energy system by adding a twelfth recommendation: "Promote and value resiliency and reliability of the energy system provided by gas powered generation." More research is needed to understand what this energy future will look like and the specific role gas powered generation can play in supporting the integration of clean fuels (such as clean hydrogen) and other clean technologies (such as long duration energy storage, battery storage, and distributed energy resources). In addition, we suggest performance metrics to measure the value of resiliency be developed. The CEC's emphasis on understanding pressing issues arising from electric grid resiliency and reliability, and the role of the gas system in meeting the State's needs, will be crucial.

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[1] Resiliency is defined as the ability of a system to avoid or bounce back quickly and minimize the impact of system outages including unforeseen events (such as extended periods of extreme weather), as well as helping improve public safety by enhancing local generation. Reliability is defined as the ability to avoid outages.

[2] *See* "SoCalGas Clean Fuels," SoCalGas, last modified November 9, 2021, p. 34, available at: https://www.socalgas.com/sustainability/clean-fuels.

[3] *See* "Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling," State Water Resources Control Board California Environmental Protection Agency, May 10, 2010, p.38-39, available at: https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/otc_policy_2020/otc2020.pdf.

[4] *See* "Resolution E-5097," CPUC, August 28, 2020, p.4, available at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M343/K777/343777154.PDF.

[5] *See* "Webinar on Long-Term Gas Research Strategy Recommendations," December 12, 2022, CEC, available at: https://www.energy.ca.gov/event/webinar/2022-12/webinar-long-term-gas-research-strategy-recommendations.

Conclusion

SoCalGas welcomes the opportunity to continue collaborating with the CEC in reaching California's goal of achieving a net-zero carbon gas system by 2045. We hope our comments contribute to a detailed consideration of California's energy future that can focus on safety, reliability, resiliency, and affordability. Thank you for your consideration of our comments.

Respectfully,

/s/ Kevin Barker

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