BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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SOUTHERN CALIFORNIA GAS COMPANY'S (U 904 G) COMMENTS TO THE PROPOSED DECISION ADOPTING 2021 PREFERRED SYSTEM PLAN

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Pursuant to Rule 14.3 of the California Public Utilities Commission's Rules of Practice and Procedure, Southern California Gas Company (SoCalGas) hereby submits its comments in response to the *Proposed Decision Adopting 2021 Preferred System Plan* issued December 22, 2021, by Administrative Law Judge (ALJ) Julie A. Fitch.

I. INTRODUCTION

The Proposed Decision (PD) proposes to adopt the definition of renewable hydrogen from Decision (D.) 21-06-005 in the Self-Generation Incentive Program (SGIP) proceeding relating to determining program eligibility of renewable hydrogen to fuel behind-the-meter electricity generation, with a modification to account for the difference between using renewable hydrogen behind the meter and in a utility scale powerplant. The proposed definition of renewable hydrogen is inconsistent with recently enacted federal legislation and would limit the ability and possibilities for renewable hydrogen to help California reach our carbon neutrality goals. Moreover, the proposed definition lacks sufficient findings to support preemptive elimination of potential resources that can support the goals of IRP including environmental emissions, and energy system reliability, sustainability, and resiliency. Accordingly, SoCalGas urges the Commission to revise the definition of renewal hydrogen to align with recent developments in federal law and state

environmental goals to prevent premature restrictions on a nascent and developing technology that is integral to decarbonization efforts.

II. DISCUSSION

A. The Proposed SGIP-Based Renewable Hydrogen Definition Does Not Align with Recently Enacted Federal Law and State Legislative Direction

Subsequent to previous opening and reply comments from parties relating to the definition of renewable hydrogen submitted on September 27, 2021, and October 11, 2021, respectively, President Biden signed the bipartisan Infrastructure Investment and Jobs Act (IIJA) into law on November 15, 2021. The IIJA lays a foundation for a national clean hydrogen strategy and roadmap including allocating $9.5 billion for clean hydrogen research, development, and demonstration programs. The IIJA's stated purpose in this regard is to accelerate research, development, demonstration, and deployment of hydrogen from clean energy sources by providing a statutory definition for the term clean hydrogen, establishing a clean hydrogen strategy and roadmap for the United States, developing a robust clean hydrogen supply chain and workforce by prioritizing clean hydrogen demonstration projects in major shale gas regions, and establishing regional clean hydrogen hubs.[1] Importantly, the IIJA codified the definition of clean hydrogen under federal law. Under the IIJA, clean hydrogen is defined as, "hydrogen produced with a carbon intensity equal to or less than 2 kilograms of carbon dioxide-equivalent produced at the site of production per kilogram of hydrogen produced."[2] This federal clean hydrogen definition broadly includes hydrogen produced from renewables, fossil fuels with carbon capture, utilization, and sequestration technologies, nuclear, and other explicitly stated eligible sources.[3]

In this context, the proposed definition in this proceeding is overly restrictive and

[1] IIJA, Section 40311(b).
[2] IIJA, Section 40315 (The Energy Policy Act of 2005, Sec. 822)
[3] *Id*.

inconsistent with the broader statutory definition for clean hydrogen established at the federal level. Because the proposed IRP definition is incongruous with the federal definition, it has the potential to misalign the state and federal approach to national clean hydrogen adoption intended by the IIJA which could send conflicting signals to the clean hydrogen market and stifle its growth in California and beyond. A more restrictive definition of clean and/or renewable hydrogen could have the effect of discouraging investment in clean hydrogen research and development, and deployment for certain types of hydrogen production that fit within the IIJA's definition, but not the SGIP definition, to the extent that IRP eligibility impacts those upstream investment decisions. It may also hamper California's ability to work toward decarbonization with neighboring states interconnected to the State's electric grid and natural gas system particularly if there were to be a patchwork of disparate renewable hydrogen definitions.

Additionally, as the Commission noted during the development of the SGIP-based renewable hydrogen definition, there is state legislative direction supporting the use of renewable hydrogen as a fuel resource including but not limited to the Commission's consideration of blending renewable hydrogen into the existing gas system in Phase 4 of the Order Instituting Rulemaking to Adopt Biomethane Standards and Requirements, Pipeline Open Access Rules, and Related Enforcement Provision, R.13-02-008. Specifically, the Assigned Commissioner's Scoping Memo and Ruling Opening Phase 4 expressly highlighted California hydrogen legislation and infrastructure development including:[4]

- SB 1505 (2006, Lowenthal) established a state goal to promote the development of hydrogen infrastructure. It requires that at least 33% of hydrogen produced for fueling stations that receive state funds is sourced from eligible renewable energy resources.
- AB 8 (2013, Perea) directed expenditure of $20 million dollars annually to develop

[4] R.13-02-008, Assigned Commissioner's Scoping Memo and Ruling Opening Phase 4, November 21, 2019 (citations omitted).

hydrogen refueling stations and support the early fuel cell electric vehicle market.9 Pursuant to AB 8, CARB and CEC publish an Annual Joint Agency Staff Report, which assesses existing and potential hydrogen networks to support the fuel cell electric vehicle market under CEC's Alternative and Renewable Fuel and Vehicle Technology Program.

- In January 2018, Governor Brown issued Executive Order B-48-18, setting a goal of 5 million zero emissions vehicles by 2030, including both fuel cell electric and battery electric vehicles. To achieve this goal, Governor Brown called for the state to construct 200 hydrogen refueling stations by 2025. The Governor's Interagency Working Group on Zero-Emission Vehicles published the 2018 ZEV Action Plan which encourages the use of hydrogen fueling station targets to organize market participants and realize tangible infrastructure growth for hydrogen.

California has thus indicated its intent to lead in the development of renewable hydrogen and hydrogen infrastructure, which compels sending accurate signals to the hydrogen market by providing an environment that is conducive for growth rather than constriction. Accordingly, SoCalGas submits that the Commission's consideration of the renewable hydrogen definition should consider and make factual findings regarding the impact that establishing a restrictive definition will have both in the context of federal and state efforts to establish clean hydrogen infrastructure and markets as well as regional energy systems alignment. SoCalGas submits that moving towards a renewable hydrogen definition that is consistent and able to harmonize federal and state law avoids the potential for factual and legal uncertainties that could otherwise arise.

B. The Proposed SGIP-Based Renewable Hydrogen Definition Lacks Factual Findings to Support Preemptively Precluding Potential IRP Resources

The proposed renewable hydrogen definition remains problematic in its origination as well as its execution because it curtails potential pathways for California to leverage hydrogen as a resource for decarbonization before these markets and supply and demand streams have had the opportunity to develop. As SoCalGas stated in its comments, the proposed renewable hydrogen definition is rooted in the context of the SGIP. The Legislative expressed intent for SGIP is that it "increase deployment of distributed generation and energy storage systems to facilitate the

integration of those resources into the electrical grid, improve efficiency and reliability of the distribution and transmission system, and reduce emissions of greenhouse gases, peak demand, and ratepayer costs."[5] Moreover, eligibility for incentives under the self-generation incentive program shall be limited to distributed energy resources that the Commission, in consultation with the State Air Resources Board, determines will achieve reductions in emissions of greenhouse gases pursuant to the California Global Warming Solutions Act of 2006.[6] SGIP is at its essence an incentive program for distributed generation based on statutory and program parameters. SGIP funds are limited and are prioritized for specific behind-the-meter technologies based on need and funding confines as the Commission has shown in recent SGIP rulings such as those relating to resiliency.

In contrast, the scope and intent of the IRP encompasses broader energy system environmental, reliability, and resiliency efforts including: meeting requisite greenhouse gas (GHG) and RPS requirements, enabling each electrical corporation to fulfill its obligation to serve customers at just and reasonable rates, minimize impacts on ratepayers' bills, ensure system and local reliability, strengthen diversity, sustainability, and resilience of transmission and distribution systems, and local communities, and minimize localized air pollutants and GHG emissions with a priority on disadvantaged communities.[7] To facilitate and support these complex goals, the Commission may authorize all source procurement for electrical corporations.[8] Juxtaposed to the more limited scope and context of SGIP, the IRP functions as an umbrella planning proceeding to consider the Commission's electric procurement policies and programs and ensure California has a safe, reliable, and cost-effective electricity supply.

[5] Pub. Util. Code section 379.6(a).
[6] Pub. Util. Code section 379.6(b)(1).
[7] Pub. Util. Code section 454.52(a)(1).
[8] Pub. Util. Code section 454.52(a)(2)(A).

The SGIP renewable hydrogen definition was also intended to be limited in its usage and should be viewed in the context of underlying program interactions including prioritizing particular technologies and finite statutory program funding. In D. 21-06-005, the Commission emphasized that the SGIP decision did not adopt a definition for green hydrogen or renewable hydrogen, but only identifies the types of hydrogen fuel that are eligible for SGIP incentives at this time noting that a "definition of renewable hydrogen for purposes of injection into utility gas distribution pipelines is under consideration in R.13-02-008."[9] Expanding a fact-specific SGIP-based definition designed and deliberated within the specific confines of an incentive program for distributed generation into an overarching proceeding such as IRP could run contrary to certain goals of the IRP. By adopting a restrictive renewable hydrogen definition, specific technologies would be preemptively excluded as potential candidate resources without having made sufficient factual findings on the ability and potential for such technologies to contribute to overall electric system and local reliability and strengthen diversity, sustainability, and resilience while also enabling decarbonization.

For instance, including renewable hydrogen produced by steam methane reformation (SMR) of biomethane would contribute to reducing California's carbon neutrality goals while leveraging the reliability and resiliency attributes of a clean gaseous fuel.[10] This comes into sharper focus as the Commission is assessing the symbiotic relationship that exists between the interrelated electric and gas grids in its Long-Term Gas Planning Order Instituting Rulemaking, R.20-01-007. The gas system provides preexisting infrastructure that supports electric system reliability and resiliency while enabling renewable integration by supplying just-in-time fuel to meet the peak needs of electric generation. The gas system is already transporting clean molecules

[9] D.21-06-005 at 40.
[10] See SoCalGas Opening Comments at pg. 6

in the form of renewable natural gas such as biomethane and there is expected to be further assessments on its potential to transport a hydrogen blend. There could thus be incremental electric system reliability and resiliency benefits from this potential resource and the Commission should consider and make findings in this regard before foreclosing on such resources that are still developing to their potential.

C. The Proposed Decision Lacks Factual Findings to Support Disparate Treatment of Hydrogen as an Energy Storage Resource

In the context of this Proposed Decision, there is a significant burden placed on electrolytic hydrogen when it acts as a long duration energy storage system. The IRP allows for energy storage systems to charge and discharge using default grid electricity, which may or may not be 100% renewable depending on location and timing of charge. Hydrogen fuel produced from grid energy and then released back to the grid in the form of electricity is a form of energy storage and should be treated as such. When hydrogen is functioning as an energy storage medium, it should be held to the same standard as all other forms of energy storage as treated by the Commission and be allowed to charge using default grid electricity. The 100% renewable energy requirement presents an undue burden that will hurt the development of the renewable hydrogen market. Imposing these inequitable requirements would similarly impact larger policy efforts such as the US Department of Energy's 2030 Earthshot objectives to lower the overall production costs for hydrogen. As discussed herein, this presents another opportunity for a Commission-adopted renewable hydrogen definition to better align state and federal hydrogen markets and infrastructure frameworks.

D. The Proposed Decision Necessitates Factual Clarification Relating to Renewable Energy Credits

The Proposed Decision imposes an additional requirement in its renewable hydrogen definition "that the generating facility would be required to provide documentation to the procuring LSE that bundled renewable energy credits were retired for the electricity used to generate the

renewable hydrogen used in the facility."[11] First, SoCalGas is not aware of a program currently that could accomplish this goal. That is, there does not appear to be a mechanism for a hydrogen producer to purchase 100% RPS eligible electricity. Second, the effect of this requirement would be an increase in costs and financial obligations imposed (i.e., the high price of retail electricity and the associated grid fees) on hydrogen producers by not allowing them the same opportunities as utilities and direct access customers to connect directly to the grid and benefit from renewable energy procurement from generator and renewable energy credits. Accordingly, the Commission should make factual findings on the implications such requirements will have on this developing market. It benefits the State and ratepayers to provide nascent technologies the opportunity to survive, thrive, and most importantly become resources that can be leveraged to achieve our shared climate change goals.

E. In the Alternative, the Commission Should Refrain from Adopting an Overly Restrictive Renewable Hydrogen Definition at this Time

SoCalGas appreciates the Commission's intent in considering a definition of renewable hydrogen because "there may be some benefit in giving developers and LSEs some certainty about what will be considered eligible if and when such resources are counted toward IRP resource requirements, particularly under a programmatic approach."[12] However, the Commission at the same time acknowledges that, "since this decision does not authorize additional eligibility for fossil-fueled resources, strictly speaking it is not necessary for us to adopt a definition of renewable hydrogen in this decision."[13] Additionally, as the Commission notes that, the "CEC is expected to address requirements for electricity generated by combustion of renewable hydrogen under the RPS program in the future, but that action has not yet occurred so the above requirement would be

[11] See Proposed Decision at pg. 167.
[12] See Proposed Decision at pgs. 166-167.
[13] See Proposed Decision at pg. 166.

in place in the meantime."[14] Given the ongoing nature of such efforts, the Commission appears aware of the potential contradictions associated with the adopting a definition of renewable hydrogen now. Thus, thorough consideration for how these contradictions may influence California's ability to develop a competitive hydrogen market should be weighed against the benefits for defining renewable hydrogen now.

In light of the establishment of a federal statutory definition for clean hydrogen coupled with the State's efforts to develop a comprehensive and permanent definition for clean or renewable hydrogen, adopting a short-term, salient definition for clean or renewable hydrogen at this time that is not aligned with these parameters has the potential to raise more uncertainty that runs counter to the Commission's intent for clarity. Thus, adopting an incongruous renewable hydrogen definition could result in unintentionally creating a precedent that may disadvantage rather than support the nascent California hydrogen market.

III. CONCLUSION

Based on the foregoing, SoCalGas respectfully requests the Commission issue a final decision consistent with the comments expressed herein.

Respectfully submitted,

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[14] See Proposed Decision at pg. 163.