BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Southern California Gas Company (U 904 G), San Diego Gas & Electric Company (U 902 G), Pacific Gas and Electric Company (U 39 G), and Southwest Gas Corporation (U 905 G) regarding Hydrogen-Related Additions or Revisions to the Standard Renewable Gas Interconnection Tariff.

Application No. 20-11-004
(Filed November 20, 2020)

COMMENTS OF THE GREEN HYDROGEN COALITION ON PROPOSED DECISION DISMISSING APPLICATION

Janice Lin, President
Zach Woogen, Policy Specialist

GREEN HYDROGEN COALITION
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: regulatory@ghcoalition.org

Dated: June 24, 2021
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DISMISSING APPLICATION

In accordance with the Rules of Practice and Procedure of the California Public Utilities
Commission (“Commission”), the Green Hydrogen Coalition (‘‘GHC’’)
\(^1\) hereby responds to the

I. INTRODUCTION.

GHC is a California educational non-profit organization. GHC was formed in 2019 in
recognition of the game-changing potential of “green hydrogen” to accelerate multi-sector
decarbonization and combat climate change. GHC’s mission is to facilitate policies and practices
that advance green hydrogen production and use in all sectors of the economy where it will
accelerate a carbon-free energy future. Our sponsors include renewable energy users and
developers, utilities, and other supporters of a reliable, affordable green hydrogen fueled economy
for all.

\(^1\) https://www.ghcoalition.org/
GHC appreciates the Commissions thoughtful consideration of Application 20-11-004 (“Application”) and understands its determination to dismiss the Application on the grounds that it is premature and inefficient. Furthermore, GHC commends the Commission for providing detailed guidance on how the utilities can cure these deficiencies in any future Application regarding hydrogen-related additions or revisions to the standard renewable gas interconnection tariff.

II. THE COMMISSION SHOULD TAKE ACTIONS TO ADVANCE GREEN HYDROGEN BLENDING, INCLUDING CONSIDERATION OF A BLENDING TARGET.

GHC believes one of the most important set of near-term actions that California can take to advance green hydrogen, which by necessity will become a key part of California’s long-term energy planning and decarbonization toolkit, is to promote the blending of green hydrogen into existing natural gas infrastructure. Decarbonizing California’s natural gas infrastructure and repurposing it to transport zero-carbon alternative fuels is essential to combating climate change. Even a modest 5% by volume blend of green hydrogen would offset 1.77 MMT of carbon per year, equivalent to permanently removing more than 350,000 cars from California’s roads.\(^2\) A modest target of 5% by volume by 2025 would result in a significant scale-up of green hydrogen production, supply infrastructure, and storage that could critically reduce the delivered cost of green hydrogen and, ultimately, support California’s climate and clean energy goals as envisioned by SB 100 (De Leon, 2018), SB 350 (De Leon, 2015), and AB 32 (Nunez, 2006). Advancing green hydrogen blending demonstration projects is a critical next step for utilities to gain familiarity and

\(^2\) Assuming roughly 2 billion MMBTU/year natural gas used in California, 106,000,000 MT CO\(_2\) per year at 0.053 kg/MMBTU of natural gas combusted, and a modest 5\% by volume blending target results in 1.77 MMT CO\(_2\) savings per year in California. Note there is a roughly 3:1 volumetric energy density ratio for natural gas compared to green hydrogen. 1.77 MMT CO\(_2\) is roughly equivalent to a 0.4\% reduction in California’s total annual CO\(_2\) emissions.
trust with the green hydrogen and its interactions with its infrastructure and customers. However, California risks failing to provide leadership in this important area, as other countries and states have taken great strides to implement hydrogen blending. This has been highlighted in the Joint Utilities’ Prepared Direct Testimony.³

Notably, Portugal has established a 10-15% blending target.⁴ In the United Kingdom, multiple regions are piloting a 20% hydrogen blend,⁵ meanwhile Avacon in Germany is also piloting a 20% hydrogen blend.⁶ In France, Engie is demonstrating a 6% hydrogen blend,⁷ and ATCO in Alberta, Canada is piloting a 5% blend.⁸ In Ontario, Canada, Enbridge Gas is piloting a 2% blend.⁹ Here in the U.S., Hawaii Gas already operates its grid with a 12% blend.¹⁰ This is not a pilot or demonstration but rather a commercial, full-scale operation. Dominion has announced plans for a 5% blending demonstration in Utah with publicly stated plans to achieve that goal system-wide,¹¹ while Northwest Natural in Oregon has also announced a 5% blending demonstration.¹² In Minnesota, CenterPoint Energy is piloting a maximum 5% blend.¹³ New Jersey

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³ See Joint Utilities’ Prepared Direct Testimony, Chapter 1 (Policy) at 15.
⁵ https://hydeploy.co.uk/winlaton/; https://hydeploy.co.uk/hydrogen/
and Texas have also announced plans for blending a demonstration and pilot, respectively, although it is unclear at this time what % blend will be pursued for these projects.\textsuperscript{14}

Simply put, California needs to accelerate progress toward blending green hydrogen into existing gas infrastructure as it is the critical gateway to lower cost green hydrogen that can achieve multi-sectoral decarbonization. Scaling demand for green hydrogen, for example via a modest 5% by 2025 blending target, will enable the state to leverage its abundant renewable energy resources more productively. California curtailed 1,587,497 MWh of curtailed zero carbon wind and solar electricity in 2020 and hit an all time record for monthly curtailment in March 2021, with almost 350,000 MWh curtailed.\textsuperscript{15} Even more curtailments are expected in the future – this abundant resource can and should be utilized to produce green hydrogen for injection into the gas pipeline … a large existing and valuable bulk renewable energy storage facility.

GHCG recommends the Commission take additional steps advance the green hydrogen production, use, and blending into existing natural gas infrastructure. Specifically, the Commission should explore establishing a target, even a voluntary target, to facilitate closer coordination across each of the Joint Utilities as well as the ecosystem at large. Introducing green hydrogen into the natural gas pipeline is a complex undertaking and requires the concerted efforts of not only the Joint Utilities to study real world applications, but also the coordinated efforts of many essential value chain stakeholders including OEMs, integrators, developers, safety/monitoring equipment


\textsuperscript{15} California Independent System Operator “Managing oversupply: Wind and solar curtailment totals by month” http://www.caiso.com/informed/Pages/ManagingOversupply.aspx#dailyCurtailment
suppliers and investors to realize this vision at scale. The likelihood of success and efficient journey to get there will require leadership and a common goal.

As we are all aware, the effects of climate change are no longer theoretical; and urgent action is needed now. GHC respectfully urges the Commission to take bold and swift steps to advance green hydrogen in all applications where its production and use will support deep decarbonization.

III. CONCLUSION.

GHC appreciates the opportunity to submit these comments on the Proposed Decision. We look forward to further collaboration with the Commission and stakeholders on this initiative.

Respectfully submitted,

/s/ Janice Lin
Janice Lin
Founder and President
GREEN HYDROGEN COALITION

Date: June 24, 2021