BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Application of Southern California Gas Company (U904G), San Diego Gas & Electric Company (U902), Pacific Gas and Electric Company (U39G) and Southwest Gas Corporation (U905G) to Establish Hydrogen Blending Demonstration Projects.	Application 22-09-006 (Filed September 8, 2022)

SIERRA CLUB REPLY BRIEF

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On Behalf of Sierra Club

Dated: May 26, 2026

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SUMMARY OF RECOMMENDATIONS

Sierra Club recommends that the Commission deny the Joint Amended Application in full because the Joint Applicants have failed to meet their respective burdens of proof to demonstrate:

1. That authorizing their requested revenue requirements would be prudent and would result in just and reasonable rates (Scoping Issues 1 and 3);
2. That their proposed projects are consistent with Commission and State policies regarding climate, energy affordability, and public health (Scoping Issues 1, 3, 4, and 5);
3. That their proposed projects comply with all requirements of D.22-12-057 (Scoping Issues 1, 2, 3, 4, and 5);
4. That their proposed projects are well-designed and will result in useful and additive data that would close the knowledge gaps identified in the University of California Riverside Study (Scoping Issues 1, 2, and 3);
5. That their proposed projects do not present unreasonable safety risks (Scoping Issues 1 and 4); and
6. That their proposed projects are consistent with the Environmental and Social Justice Action Plan (Scoping Issues 1 and 5).

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Pursuant to Rule 13.12 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure and the March 9, 2026 E-Mail Ruling Directives and Guidance for Final Briefing ("Scoping Memo"), Sierra Club submits this Reply Brief.

I. INTRODUCTION

The Commission is statutorily obligated to protect ratepayers from unjust and unreasonable charges and is prohibited from authorizing charges that utilities have not affirmatively proven are just and reasonable.[1] Here, Southern California Gas Company ("SoCalGas"), Pacific Gas and Electric Company ("PG&E"), Southwest Gas Corporation ("SW Gas") and San Diego Gas & Electric Company ("SDG&E") (collectively, "the Joint Applicants"), seek over $200 million from ratepayers for pilot projects that they have failed to demonstrate will provide any benefit. The Joint Applicants claim that their projects will benefit ratepayers by advancing hydrogen decarbonization strategies that can help California achieve its climate goals, but they have not built a record that

[1] Cal. Pub. Util. Code § 451; D.18-07-025 at 5.

supports that conclusion. Therefore, the Joint Applicants have failed to meet their affirmative burden of proof.

While the Joint Applicants rely on unsupported assumptions regarding the usefulness of hydrogen blending, intervenors have built a substantial record demonstrating that hydrogen blending is not consistent with just and reasonable rates or California's "broader state energy and climate goals." This evidence shows that the pilots would waste scarce ratepayer dollars on a decarbonization pathway that is neither strategic nor cost-effective.[2] Rather than confront this evidence, SoCalGas and PG&E incorrectly claim that alignment with climate and energy policies is out of scope. Thus, the Joint Applicants seek to spend hundreds of millions of ratepayer dollars investigating the technical feasibility of a strategy that is not economically viable and could not be pursued at scale due to the Commission's responsibility to direct ratepayer funds only to activities that "obtain the most benefits at the least cost."[3]

In addition to being a "bridge to nowhere," the pilots each fail to comply with requirements of D.22-12-057 and fail to demonstrate they could meaningfully advance a goal of systemwide blending. Sierra Club joins Leadership Counsel for Justice & Accountability and Orange Cove United's ("LCJA/OCU") reply brief regarding SoCalGas' Orange Cove Project and addresses the other projects below. PG&E relies on baseless claims that hydrogen blending in the gas system will save ratepayers money, and

[2] Scoping Memo at 11 ("Does each pilot project align with broader state energy and climate goals? If so, how?").
[3] D.24-01-004 at 19, 51.

ultimately fails to establish its pilot would be a prudent use of funds. SW Gas has made scant effort to justify its project, has failed to address concerns raised by intervenors and the Town of Truckee, and has not done basic due diligence to determine whether its project's data would be useful and additive to the field. SoCalGas' University of California Irvine ("UCI") Project presents unnecessary risks to a campus community, and in defending it, SoCalGas inappropriately attempts to minimize the appearance of community resistance. Finally, SDG&E fails to demonstrate benefits from its project that could justify its costs. Because the Joint Applicants have not met their burden of proof—for the prudency of spending money on hydrogen blending in general or for the appropriateness of their individual proposals—the Commission should reject the Joint Amended Application in full.

II. DISCUSSION

A. SDG&E and SoCalGas Are Wrong to Suggest There Is a State Policy Directive to Develop a Hydrogen Injection Standard (Scoping Issue 1).

With support from SoCalGas, SDG&E falsely states that "the Commission acknowledged the statutory and policy directives to develop a hydrogen injection standard" in a biomethane rulemaking.[4] The utilities misconstrue a July 5, 2018 Scoping Memo in R.13-02-008 (Biomethane Rulemaking), in which Commissioner Rechtschaffen stated his "future intention to consider issues . . . that pertain to the safe, cost-effective development of other renewable gases, such as renewable hydrogen," in "accordance with Section 399.24 and Executive Order B-48-18."[5] Neither of these authorities creates

[4] SDG&E Opening Brief at 2; SoCalGas Opening Brief at 3.
[5] SDG&E Opening Brief at 2.

a directive to approve a hydrogen blending standard. While Commissioner Rechtschaffen determined that his decision to explore hydrogen blending was in "accordance with" that statute and executive order, he did not imply the Commission has a mandate to do so.

The utilities have not identified a directive for a hydrogen blending standard. Public Utilities Code § 399.24 directs the Commission to "adopt policies and programs that promote the in-state production and distribution of biomethane," and has nothing to do with hydrogen blending.[6] Executive Order B-48-18 pertains to zero-emission vehicles and contains the following hydrogen-related directives to state entities: (1) to "work with the private sector and all appropriate levels of government to spur the construction and installation of 200 hydrogen fueling stations," and (2) to "[e]nsure electric vehicle charging and hydrogen fueling are affordable and more accessible to all drivers."[7] Neither of those goals direct the Commission to inject hydrogen into the gas system. Moreover, since 2018, it has become evident that injecting hydrogen into the gas system would not benefit hydrogen fueling stations because fuel cell vehicles require pure hydrogen fuel.[8] SDG&E and SoCalGas misleadingly imply that the Commission has already made a commitment to pursue hydrogen blending because they have failed to create a record in this proceeding to justify this misguided policy.

The Applicants cannot properly rely on the Commission's past willingness to explore hydrogen blending to suggest that the Commission will uncritically devote more

[6] Cal. Pub. Util. Code § 399.24.
[7] E.O. B-48-18 at 1, 2 (Cal. 2018).
[8] Exh. SC-01 at 36; Exh. SC-03 at 4:21–5:16.

than $200 million to the proposed pilots. As Environmental Defense Fund ("EDF") correctly observed, D.22-12-057 "ordered the utilities to submit pilot *proposals*" but "did not commit to approving the proposed pilots" and intended, rather, "to start a conversation about whether blending hydrogen into the existing gas pipeline could have merit, taking into consideration issues including cost/benefit and safety."[9] But as Utility Consumers' Action Network ("UCAN") noted, "knowledge about green hydrogen has expanded dramatically" since then, and it is "through its current informational lens" that the Commission must evaluate the application to decide whether the pilots are prudent and aligned with state policy.[10] The Commission must evaluate these pilot proposals based on the current evidence in the record.

B. Applicants Admit that Alignment of the Pilots and State Policy Hinges on Hydrogen Blending's Usefulness for Decarbonization, When the Record Shows Hydrogen Blending Is Useless for Cost-Effective Decarbonization (Scoping Issues 1, 2, 3).

In response to Scoping Issue 1(c),[11] most of the Applicants attempt to show their pilots align with state energy and climate goals by relying on a vague promise that hydrogen blending could advance California's decarbonization goals, but these arguments are unpersuasive because they cite no record evidence and ignore intervenors' evidence to the contrary. Rather than attempt to refute intervenors' evidence that the

[9] EDF Opening Brief at 2 (emphasis in original).
[10] UCAN Opening Brief at 4.
[11] Scoping Issue 1(c) asks: "Does each pilot project align with broader state energy and climate goals? If so, how?" Scoping Memo at 11.

pilots clash with California's energy and climate goals, some Applicants incorrectly argue that these issues are outside the scope of the proceeding.

1. None of the Applicants Show Their Pilots Are Consistent with State Energy and Climate Policy.

The Commission should reject the Joint Application because none of the utilities have met their burden to show cost recovery for these pilots would align with state goals.

First, SDG&E argues that its project aligns with broader state goals because hydrogen "is particularly well-suited for hard-to-electrify sectors, including electric generation, industrial processes and transportation."[12] This statement is unsupported by citation to the record. It is also irrelevant. Even if it were true that "hydrogen" is suitable for these sectors, it would not follow that the subject of SDG&E's pilot—hydrogen blending in the gas distribution system—is a viable means of delivery to those customers. The record shows it is not.[13] SDG&E does not attempt to reconcile California's climate and affordability goals with hydrogen blending in pipes like those in its proposed pilot.

Second, SoCalGas and PG&E argue that their pilots align with state policy because the California Air and Resource Board ("CARB")'s 2022 Scoping Plan included hydrogen blending as a potential tool for reaching carbon neutrality.[14] However, inclusion in the Scoping Plan does not demonstrate that hydrogen blending is consistent with the Commission's mandate to ensure just and reasonable rates. Under its unique statutory obligations, the Commission must examine whether a utility proposal will

[12] SDG&E Opening Brief at 18.
[13] *See* Exh. SC-01 at 36:3–38:2; Exh. UCAN-01R at 24:7–32:15, 35:17–36:24.
[14] SoCalGas Opening Brief at 21; PG&E Opening Brief at 11.

"accomplish the desired result at the lowest reasonable cost."[15] The Scoping Plan makes no claim that hydrogen blending is a strategy for meeting California's climate goals at lowest reasonable cost.[16] Thus, the Commission cannot rely on the 2022 Scoping Plan to assume hydrogen blending is part of a least-cost portfolio. The utilities offer no evidence that it is.

To the extent the Scoping Plan considers the cost-effectiveness of hydrogen blending, it is at best a starting point. For instance, the Scoping Plan assumes costs for new infrastructure for hydrogen injection, but ignores the significant costs of upgrading existing infrastructure to accommodate 20% hydrogen blends.[17] The Scoping Plan acknowledges that other state agencies will need to conduct a more comprehensive evaluation of implementation policies, in which they will "learn more about technologies and their costs."[18] Since 2022, evidence has mounted that hydrogen blending is not a cost-effective decarbonization strategy.[19] Indeed, the record in this proceeding shows that electrification is an available and far more cost-effective decarbonization strategy for buildings, which is consistent with the Scoping Plan's findings that "[a]chieving carbon neutrality must include transitioning away from fossil gas in residential and commercial buildings," that such a transition "will rely primarily on advancing energy efficiency

[15] D.24-01-004 at 16 (quoting D.17-11-033 at 10).
[16] To draft the 2022 Scoping Plan, CARB only modeled four scenarios for decarbonizing every sector of the economy over different time horizons. The Scoping Plan does not state if CARB evaluated opportunities for California to meet its climate goals at lower cost by avoiding spending to implement hydrogen blending and investing in other measures instead. Exh. PG&E-005-K at 65.
[17] Exh. SC-01 at 15:7–16:2.
[18] Exh. PG&E-005-K at 98.
[19] Exh. SC-01 at 38–43.

while replacing gas appliances with non-combustion alternatives," and that "[t]his transition must include the goal of trimming back the existing gas infrastructure."[20] Given that pipeline blending appears to deliver very few emissions reductions in the 2022 Scoping Plan,[21] it would be especially improper for the Commission to presume that these emissions reductions could not be achieved more cost-effectively through other strategies.

Third, PG&E relies on a misleading description of SB 1075 to suggest that its pilot aligns with state policy.[22] PG&E states that SB 1075 requires CARB to produce a report on using hydrogen "across sectors."[23] However, SB 1075 specifically asks CARB to examine infrastructure needs for hydrogen in "difficult-to-decarbonize sectors."[24] Pipeline blending is unsuitable for that purpose.[25] PG&E has offered no evidence to the contrary.

Finally, SW Gas is unique among the Applicants for not addressing Scoping Issue 1(c). Nonetheless, SW Gas states without citation that the impetus for its pilot is the

[20] Exh. PG&E-005-K at 212.
[21] The Scoping Plan does not state how many tons of greenhouse gases are avoided through a hydrogen blending strategy. However, emissions reductions from hydrogen blending appear limited in the Scoping Plan Scenario, as almost 90% of total energy demand in buildings is electrified by 2045 and hydrogen blending only abates 7% of the emissions from the gas system. Exh. PG&E-005-K at 78, 212.
[22] PG&E Opening Brief at 11.
[23] *Id*. at 11.
[24] SB 1075 § 2 (Cal. 2022) (adding Section 38561.8(b)(2) to the Cal. Health and Safety Code).
[25] Exh. SC-01 at 36:3–18 (discussing independent analyses of economic strategies for delivering hydrogen to hard-to-decarbonize customers); *id.* at 37:17–38:2 (citing expert advice that the best strategy for rapidly enabling use of hydrogen in hard-to-decarbonize sectors is through industrial clusters instead of through blending because blending "encourages the creation of hydrogen in the wrong places, routing it to the wrong users and transporting it via the wrong infrastructure"); Exh. SC-03 at 4:8–5:16 (hydrogen blending is not a viable strategy for delivering hydrogen for use in the transportation sector because hydrogen fuel cell vehicles require high levels of hydrogen purity).

Commission "exploring hydrogen blending as a viable means of reducing greenhouse gas emissions and meeting statewide energy goals in California."[26] This pilot loses its ostensible purpose if hydrogen blending is not a viable way to meet California's energy goals, as intervenors have demonstrated.[27] Thus, like the other utilities SW Gas has not shown that its pilot aligns with broader state energy and policy goals.

The failure of the Joint Applicants to show that any of the proposed pilots align with broad California policy warrants denial of the application in full. Without showing that ratepayer spending can advance these goals, the Joint Applicants cannot meet their burden to show that their proposals are consistent with just and reasonable rates.

2. Multiple Intervenors Demonstrate that the Proposed Pilots Do Not Align with California Energy and Climate Goals.

Intervenors present uncontested evidence that the pilots do not align with state energy and climate goals. For instance, Cal Advocates explains that hydrogen blending conflicts with California policies that favor electrification and decommissioning of gas infrastructure.[28] EDF notes that the pilots aim to demonstrate a wasteful "bridge to nowhere" and California policymakers have widely accepted that the most efficient and cost-effective route to decarbonizing the gas system's residential, commercial, and institutional customers is not hydrogen blending.[29] UCAN provided further evidence of the high, unnecessary costs of hydrogen blending and warned that it is inconsistent with

[26] SW Gas Opening Brief at 2.
[27] See Section II.B.2.
[28] Cal Advocates Opening Brief at 23–26.
[29] EDF Opening Brief at 4–5.

California's efforts to minimize new investment in gas infrastructure.[30] LCJA/OCU point out the conflict between the ESJ Action Plan and Orange Cove Pilot's impacts on air quality and public health[31]—impacts that would only spread with the scaling up of hydrogen blending. Small Business Utility Advocates ("SBUA") raise concerns that "small businesses in ESJ Communities will face extreme hardship from the rate increases contemplated by this Application," contrary to the ESJ Action Plan.[32] Sierra Club showed that the pilots are an imprudent use of ratepayer funds that would be inconsistent with the Commission's duty to ensure just and reasonable rates and undermine the more cost-effective decarbonization strategies that California's Legislature and energy agencies have prioritized.[33]

3. Applicants Attempt to Narrow the Scope of the Proceeding to Avoid the Commission's Consideration of Fatal Flaws with Their Pilots.

SoCalGas and PG&E ask the Commission to narrow the scope of the proceeding and ignore the evidence that their proposals are inconsistent with California policy.[34] Their reading of the scoping memo is irreconcilable with the plain language of Scoping Issue 1(c), which poses the wide-ranging questions of whether and how each pilot aligns

[30] Exh. UCAN-01R at 16–23.
[31] LCJA/OCU Opening Brief at 49.
[32] SBUA Brief Opening Brief at 4. SBUA's Opening Brief was late-filed and is currently pending unopposed motion for late admission, per the May 13, 2026 email of SBUA to the service list.
[33] Sierra Club Opening Brief at 5–21.
[34] SoCalGas Opening Brief at 20–21 (explaining that it does not respond to "broad policy arguments" because the scope of this proceeding is to "evaluate the consistency of the proposed projects with D.22-12-057"); PG&E Opening Brief at 1–2, n. 1 (citing the Joint Motion In Limine to Exclude Evidence Regarding Hydrogen Blending As A Matter of Macro-Level Decarbonization Policy to support PG&E's position that intervenors oppose the proposals "for reasons unrelated to and outside the scope of this proceeding"). The Joint Applicants withdrew their motion in limine. Joint Status Report (Oct. 17, 2025). PG&E cannot incorporate its text by reference now to shoehorn in arguments that would exceed the page limits on briefing.

with "broader state energy and climate goals." These questions are in addition to the inquiry into whether the pilots "comply with specific requirements set forth in Public Utilities Code and D.22-12-057," which the Assigned Commissioner posed in Scoping Issue 1(a).[35] Without alignment with a broad range of state policies and planning processes that aim to identify the least-cost strategies for decarbonizing the equipment that currently relies on fossil gas,[36] the pilots cannot conform to the regulatory requirement that the Commission maintain just and reasonable rates.[37]

C. None of the Pilots Comply with Ordering Paragraphs 7(i) and 7(l) of D.22-12-057.

LCJA/OCU note areas of non-compliance in SoCalGas' Orange Cove Pilot that apply equally to all five pilots in the Joint Application. In D.22-12-057, Ordering Paragraph 7(i) requires the pilot applications to "[p]ropose a methodology for performing a Hydrogen System Impact Analysis that can ensure that any hydrogen blend will not pose a risk to the common carrier pipeline system." Ordering Paragraph 7(l) requires the applications to include "an independent research plan for assessment, measuring, monitoring, and reporting through an independent party," which must be engaged in each stage of the pilot—including its development. LCJA/OCU show that SoCalGas' Orange Cove Pilot fails to comply with either of these requirements.[38] These violations are

[35] Scoping Memo at 11.
[36] Key state policy documents related to building decarbonization include *2024 Joint Agency Staff Paper: Progress Toward a Gas Transition*, the CEC's *Final 2021 Integrated Energy Policy Report*, the CEC's *California Building Decarbonization Assessment*, the CEC's *The Challenge of Retail Gas in California's Low-Carbon Future*. Exh. SC-01 at 9–11.
[37] Cal. Pub. Util. Code § 451.
[38] LCJA/OCU Opening Brief at 30–31.

straightforward: the Commission ordered the gas utilities to include certain components in their application and SoCalGas chose instead to complete these steps after application approval.[39] The same violations are evident in the proposals for the other pilots.[40] Due to the gas utilities violating these orders, the Commission cannot assess the adequacy of the pilots' safety, reliability, and assessment plans in this proceeding.

D. PG&E Fails to Demonstrate that Its Project is Prudent or Will Deliver Its Claimed Affordability Benefits to Ratepayers.

PG&E's project fails to provide ratepayer benefits for the reasons discussed in Sierra Club's Opening Brief and Sections B and C above. In addition, the Commission should reject PG&E's argument that ratepayers will benefit from hydrogen blending allowing the company to "repurpose" or extend the useful life of gas infrastructure assets "already paid for by ratepayers."[41] This claim is both unsupported and misleading for numerous reasons. First, it relies upon the false premise that the existing gas system is "already paid for." Second, hydrogen blending would not provide an alternative to dedicated pipelines for delivering hydrogen to customers who need it. Third, PG&E has not justified its proposal for residential and small business customers to pay for its pilot.

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[39] *Id.*

[40] SoCalGas Opening Brief at 11–13 (discussing UCI pilot); SDG&E Opening Brief at 15–17; PG&E Opening Brief at 7–9; Exh. SWG-01 at 23:27–28 ("The Joint Utilities Propose developing a methodology for performing the Hydrogen Blending System Impact Analysis upon completion of the projects."); *id.* at 26:6–27:13 (describing an independent research plan in which Southwest Gas would "[e]ngage the independent third party in the early stages of project development," but without engaging the independent party to develop the application proposal).

[41] PG&E Opening Brief at 18, 20; Exh. PG&E-004 at 25 (stating that hydrogen blending "tends to support affordability by potentially using ratepayers' prior investments to meet the future needs of California to reduce emissions"); Exh. PG&E-003 at 46:20–23 ("Gas ratepayers have already invested in the multi-billion-dollar gas system that will persist and would otherwise continue to transport less clean fuel. It would be most prudent to test whether the existing infrastructure can be repurposed to transmit cleaner fuel.").

Fourth, PG&E incorrectly presumes that the alternative to hydrogen blending is perpetual reliance on the existing system. Finally, PG&E suggests that introducing hydrogen to the fuel mix would reduce stranded asset risk, when the record shows it would do the opposite. For these reasons, the Commission should reject PG&E's pilot.

California's gas system is not "already paid for" to any degree of finality. The existing gas system is in a constant state of replacement and reinvestment, costing ratepayers billions of dollars just to inspect assets and maintain safe operating conditions.[42] PG&E's refrain that the system is "already paid for" ignores the substantial ongoing ratepayer costs to keep the system operable—costs that could be avoided by pursuing decommissioning of gas infrastructure.[43] Beyond the costs of status quo gas system operation, PG&E has not attempted to rebut the evidence introduced by intervenors that hydrogen blending at scale would likely require hundreds of millions of dollars' worth of additional infrastructure investments due to hydrogen's distinct physical properties.[44] Thus, PG&E's prudency argument ignores substantial costs that a hydrogen blending strategy would impose on ratepayers.

Fundamentally, PG&E's argument that its pilot is prudent relies on mischaracterizing what its pilot will test. Despite PG&E's claims, the pilot will not

[42] *See, e.g.*, D.23-11-069 at 64 (noting PG&E requested $684.2 million over the Test Year 2023 four-year GRC period for steel gas pipeline replacements), 69 (noting PG&E requested $2.27 billion for plastic pipe replacements over the rate case period), 78 (noting PG&E requested $22.036 million for service line replacements in 2023 alone). *See also* D.24-12-074 at 129, Table 8.17 (showing SoCalGas' request in its Test Year 2024 GRC for $1.193 billion in Gas Distribution capital expenditures over the GRC period, with the Commission authorizing $932.5 million).
[43] *See* SB 1221 (Cal. 2024) (authorizing neighborhood decarbonization pilot programs that would be undertaken instead of planned gas infrastructure investments).
[44] Exh. SC-02 at 7:14–8:19; Exh. SC-01 at 15:7–16:2.

evaluate a strategy that would provide an alternative to investments in new, dedicated hydrogen infrastructure.[45] Difficult-to-electrify customers who will require pure hydrogen to decarbonize their equipment cannot feasibly rely on a pipeline blend.[46] There is no evidence in the record to the contrary. Moreover, hydrogen blending is entirely different from efforts to convert gas pipelines to deliver pure hydrogen that could conceivably meet the needs of hard-to-decarbonize customers. For instance, the Netherlands is testing whether its gas utility can sell off portions of its existing system to another entity that would develop a hydrogen pipeline system.[47] Though delays and cost overruns in this Dutch pilot raise questions about the feasibility of this strategy,[48] it illustrates what it might theoretically look like to repurpose the gas system to deliver hydrogen to hard-to-electrify customers.

PG&E's arguments about the prudency of its pilot are simply not relevant to its proposal to test pipeline blending in a system that primarily serves residential and commercial customers. For example, PG&E states that hydrogen blending would be preferable to "significant investment in new, dedicated hydrogen infrastructure."[49] New, dedicated hydrogen infrastructure is not being contemplated as part of any cost-effective decarbonization strategy for residential or commercial buildings. PG&E has proposed forcing residential and commercial customers to pay for its costly pilot, even though the Commission has acknowledged that not all ratepayers would benefit from pure hydrogen

[45] *See* PG&E Opening Brief at 18.
[46] Exh. SC-01 at 36:3–18; *id.* at 37:17–38:2; Exh. SC-03 at 4:8–5:16.
[47] Exh. SC-03 at 8:1–9.
[48] *Id.* at 7:20–8:1.
[49] PG&E Opening Brief at 18.

pipelines.[50] PG&E has failed to show any ratepayer benefits from its pilot, and this failure is particularly acute for residential and commercial customers.

The Commission should also reject PG&E's presumption that the existing gas system "will persist" and that status quo fossil gas usage is the alternative to systemwide hydrogen blending.[51] PG&E provides no evidence that it would be more prudent to pursue hydrogen blending than other strategies for reducing emissions, such as electrification. In contrast, intervenors have provided extensive evidence demonstrating electrification is significantly more cost-effective than hydrogen blending as a decarbonization pathway for buildings, which PG&E has not overcome.[52]

Finally, PG&E is wrong to claim that hydrogen blending could "extend[] and enhanc[e] the useful life of existing [gas infrastructure] assets."[53] PG&E again cites only its own conclusory testimony to support its claim.[54] In fact, independent experts have concluded that hydrogen blending will "exacerbate stranded asset risk" because it will erode gas demand by increasing the price of pipeline gas.[55] As explained by an expert cited by the California Hydrogen Business Council, blending "will almost certainly

[50] D.22-12-055 at 22.
[51] Exh. PG&E-003 at 46:20–23.
[52] *See*, *e.g.*, Exh. SC-01 at 14:4–19:15, 34:13–35:5; Exh. SC-02 at 4:16–6:11, 16:16–17:24; Exh. CADV-01 at 2-2:1–2-3:18; Exh. UCAN-01R at 5–8, 22–24, 28–30; Exh. SBUA-01 at 4:3–10; Exh. EDF-01 at 11:3–19:2.
[53] PG&E Opening Brief at 20.
[54] *Id*. (citing Exh. PG&E-003 at 36:11–16, 45:21–46:2). The testimony segments that PG&E's Brief cites contain almost identical sentences to the brief. The first testimony segment cited in the brief contains no additional citation and appears to be the opinion of the witness. The second testimony segment repeats the same claim and cites an earlier filing by the Joint Applicants, where the same claim appears without any citations or support. PG&E cannot create a convincing illusion of a preponderance of the evidence by citing its own unsupported statement in numerous different documents.
[55] Exh. SC-03 at 6–7.

increase the delivered price of energy through pipelines, because of both the higher cost of hydrogen relative to natural gas and its lower energy density."[56] Stranded asset risk for gas infrastructure is a substantial concern for the Commission, its sister agencies, and the Legislature.[57] The Commission should minimize these risks by denying the Joint Amended Application.

E. SW Gas Fails to Justify Ratepayer Funding for Its Pilot.

SW Gas' perfunctory efforts to justify its project cannot reasonably form a basis for the Commission to approve any ratepayer spending on it, let alone the substantial bill increases that SW Gas forecasts. SW Gas' application materials and testimony contain minimal information about the project, as SW Gas has yet to determine basic elements of the pilot, such as what type of businesses will be present at the test site and the gas end uses those businesses will install.[58] SW Gas' opening brief addresses neither the scoping issues raised by Commissioner Houck nor myriad issues raised by intervenors. SW Gas' cursory testimony and brief are insufficient to meet its evidentiary burden to show by a preponderance of evidence that its requests are just and reasonable.[59] Accordingly, the Commission should reject SW Gas' project.

First, SW Gas has not shown that its pilot will provide meaningful new information. It claims that its pilot "is designed to generate California-specific, real-world

[56] *Id*.
[57] Sierra Club Opening Brief at 17–18.
[58] *See* Exh. SWG-01 at 5:25–6:3 (identifying the three buildings participating in the pilot, including one that is "a forthcoming commercial development, slated for construction in 2024, consisting of up to 16 new customers,"); Exh. SWG-05 at 1 (Appendix B Response filed in August 2025 still describing the third building as "a future commercial development").
[59] *See* D.19-05-020 at 7.

operational data on hydrogen blending in a high-altitude, cold-weather environment."[60] However, SW Gas has not demonstrated a need for a "California-specific" pilot to understand hydrogen blending at high elevations or in the cold. The basic physics of how a hydrogen blend behaves in cold weather does not depend on whether it is located in California. The usefulness of California-specific research depends on whether prior cold-weather pilots involved infrastructure materials and vintages that are representative of California's gas system. SW Gas has not provided evidence that this is or is not the case, nor otherwise performed due diligence regarding hydrogen blending pilots in Canada,[61] despite being aware of projects in cold locations such as Fort Saskatchewan.[62]

While SW Gas' positions in this proceeding assume that the existing literature cannot provide relevant information, the company takes a conflicting approach to out-of-state and international hydrogen blending projects in other contexts. Here, SW Gas claims that out-of-state hydrogen blending projects "provide additional evidence, but are not conclusive for California's natural gas infrastructure."[63] This position is at odds with the Joint Utilities' Petition for Modification in R.13-02-008, which relies exclusively

[60] SW Gas Opening Brief at 5.
[61] Sierra Club Opening Brief at 37.
[62] *See* Exh. SWG-01 at 13–14; R.13-02-008, Petition for Modification of Decision 22-12-057 by Southern California Gas Company, San Diego Gas & Electric Company, and Southwest Gas Corporation at Attach. A-1 (Feb. 3, 2026) ("PFM") (citing a variety of hydrogen blending studies from around the world, including cold-weather locations). Indeed, the Joint Applicants invited ATCO staff to present at length about their Fort Saskatchewan blending project at the June 13, 2023 Stakeholder Workshop rather than inviting any other California stakeholders to present. Exh. SC-01 Attach. 31 at PDF pp. 47–60.
[63] SW Gas Opening Brief at 6.

upon out-of-state studies to support its position that blending up to 5% hydrogen would be safe in California.[64]

If SW Gas is correct that additional pilots are needed for different California climate zones, it only raises additional questions regarding the ability of these pilots to enable blending at scale. As SBUA asked, "[m]ust a separate pilot be conducted in each of the 16 climate zones?"[65] The Joint Applicants have not demonstrated why the altitude and temperature of some climate zones necessitate pilots, but the numerous other climate zones do not.

Finally, in its opening brief, SW Gas misconstrues Sierra Club's Appendix B Reply filing, implying that Sierra Club endorses SW Gas' approach to "take[] into consideration precautions for equipment."[66] Sierra Club did acknowledge that SW Gas has plans to protect ***its own*** gas-fueled generator from engine knock, which SW Gas identified as a potential malfunction of the generator that could result from hydrogen blending and that could damage the equipment.[67] However, SW has not demonstrated similar precautions for its ***customers'*** equipment.

F. SoCalGas Fails to Justify Its UCI Project.

SoCalGas has failed to meet its burden to demonstrate the UCI Project's compliance with leakage and emissions-related requirements of D.22-12-057, and has not established that the project will provide benefits to ratepayers that would justify its costs.

[64] *See* PFM at 8–10.
[65] SBUA Opening Brief at 7.
[66] SW Gas Opening Brief at 8.
[67] Exh. SC-04 at 11–12.

Further, SoCalGas' disregard for stakeholder concerns regarding the UCI Project is not compliant with D.22-12-057's stakeholder engagement requirements.

SoCalGas asserts compliance with D.22-12-057's leakage and emissions monitoring requirements by stating generally that NOx, CO_2, carbon monoxide, and oxygen "will be measured from the end-use equipment to monitor the emission performance."[68] SoCalGas does not address concerns raised by intervenors about the frequency of that monitoring (monthly) beyond explaining that its proposals "exceed federal requirements."[69] Exceeding federal requirements for methane leakage and emissions monitoring is necessary but not sufficient to demonstrate the pilot's "ability to reliably detect leakage of any hydrogen, methane, or hydrogen/methane blends," a novel set of risks that the federal requirements were not designed to address.[70] D.22-12-057 requires the utilities to identify and address "comments presented by parties in this proceeding regarding leak issues."[71] Parties have raised the need for continuous leakage and emissions monitoring throughout the proceeding due to the health and safety risks of combusting hydrogen/methane blends in an occupied building, including in cooking classes where students and staff will be directly exposed.[72] While SoCalGas added

[68] SoCalGas Opening Brief at 10.
[69] *Id*. at 35.
[70] D.22-12-057 at 70, OP #7(k).
[71] *Id.*
[72] Exh. SC-01 at 43:12–45:9, 45:18–48:7, 73:13–75:2; Exh. SC-01, Attach. 33, Sierra Club Comments on November 6, 2023 Joint Utilities Hydrogen Blending Technical Workshop, at PDF pp. 3–4 ("SoCalGas, SDG&E, and Southwest Gas should employ continuous monitoring systems for increased emissions, such as NOx emissions, resulting from combustion of the hydrogen blend. This is particularly crucial given that their projects serve buildings where people live, work, and could face prolonged exposure to indoor emissions . . . SoCalGas, SDG&E, and Southwest Gas should also employ continuous leakage monitoring systems . . ."), Exh. CADV-01 at 1-5:16–1-6:8, 1-7:1:8; Joint Motion to Dismiss at 14–15, 22 (July 15,

continuous monitoring at the blending and hydrogen storage equipment site, it has done nothing to address parties' concerns regarding end use emissions or leakage throughout the larger project.[73]

SoCalGas also fails to establish that its project is would close knowledge gaps around hydrogen blending that would allow the Commission "to move from a pilot project to full implementation."[74] In response to Scoping Issue 2(c), SoCalGas explains that it would measure success of the project by "completing the project and its final report, implementing recommended practices throughout the project lifecycle, maintaining continuous community engagement, and successfully constructing, commissioning, and operating the demonstration equipment."[75] In other words, as long as SoCalGas does the project, it will consider it a success. Notably absent from SoCalGas' measurement of success are the health and safety of Anteater Recreation Center occupants, the integrity of infrastructure and end-use equipment involved in the project, and the closure of any particular knowledge gaps identified by the UC Riverside Study.

Despite the fact that its project cannot possibly address all of the knowledge gaps identified by the UC Riverside Study—and despite the possibility that its project might generate data showing detrimental impacts from hydrogen blending that should be avoided—SoCalGas suggests that no further steps would be necessary to move from its

2024); Sierra Club Opening Brief at 44–47 (citing UC Riverside Study finding that "[l]eaks are of high importance for safety reasons" due to the "probability of ignition in the case of large gas blend leaks or gas blend accumulation in confined spaces").

[73] SoCalGas Opening Brief at 10.

[74] Scoping Memo at 11.

[75] SoCalGas Opening Brief at 24.

pilot to systemwide blending. In response to Scoping Issue 2(f), which asks what would be needed to move from a successful pilot to "full implementation," SoCalGas simply states: "If the demonstration projects are successful, the Commission would need to authorize a hydrogen injection standard for SoCalGas's distribution infrastructure."[76] SoCalGas has not built a record that could support this conclusion, given the wide range of knowledge gaps identified by the UC Riverside Study, the narrow scope of its project, and the range of potential impacts that could appear in the project's data.

Finally, SoCalGas erroneously states that "no party challenged the selection of the UCI Project site."[77] Climate Action Campaign filed a protest to the Joint Amended Application largely focused on the UCI Project that challenged the project's siting on the UCI campus. For instance, Climate Action Campaign opposed the siting at UC Irvine because it is a federally designated minority-serving institution and "locating a hydrogen/methane gas combustion project in a student serving facility on the UC Irvine Campus deepens environmental injustices experienced by students."[78] Climate Action Campaign is a party to this proceeding and clearly opposed SoCalGas' proposal to conduct the pilot on the UCI campus.

SoCalGas also attempts to minimize Sierra Club's warnings regarding stakeholder engagement at UCI by suggesting Sierra Club's citation of "a single commenter at the Commission's public participation hearing (PPH)" lacks evidentiary value.[79] This

[76] *Id*. at 26.
[77] SoCalGas Opening Brief at 43.
[78] Climate Action Campaign Protest at 6–7 (Apr. 19, 2024).
[79] SoCalGas Opening Brief at 38.

framing implies that only a single commenter at the UCI PPH opposed the project or raised concerns regarding stakeholder engagement, which is false.[80] SoCalGas' pattern of ignoring stakeholder concerns does not evince a commitment to "take into account parties' comments and further stakeholder input," as required by D.22-12-057.[81]

G. SDG&E Does Not Identify Ratepayer Benefits from Its Pilot Proposal that Could Justify Its Costs.

SDG&E fails to provide adequate responses to multiple Scoping Issue questions that probe the utility of the pilot projects.

In response to Scoping Issue 3(b), SDG&E does not identify specific, plausible benefits to gas ratepayers from its pilot. SDG&E broadly claims that its pilot "supports future standards and decarbonization strategies."[82] Its only citations for the pilot's purported benefits are to the 2022 Scoping Plan and to SDG&E's own identical statements in discovery to Cal Advocates.[83] SDG&E does not confront evidence that hydrogen blending cannot be implemented at scale without violating the Commission's duty to ensure just and reasonable rates, as it is less cost-effective and more limited than other available strategies that can completely eliminate greenhouse gas emissions. The Scoping Plan does not demonstrate that hydrogen blending is consistent with the

[80] *See generally* UC Irvine Public Participation Hearing Transcript (in which numerous UCI stakeholders oppose the project and its siting, and stakeholders note that the hearing was held in summer when many UCI stakeholders, such as students, are not present and thus not able to attend or receive notice of the PPH). *See also* Exh. SC-01 at 59:18–60:7 (noting that public comments from UCI stakeholders have expressed frustration with SoCalGas' responsiveness to community concerns and identified that UCI undergraduate and graduate student organizations both passed resolutions opposing the project).
[81] D.22-12-057 at 62, COL #13, 69, OP #7 (h).
[82] SDG&E Opening Brief at 25.
[83] *Id.* (citing the Scoping Plan and Ex. SDGE-06, Response to Question 2b).

Commission's duty to ensure just and reasonable rates, as discussed in Section II.B.1. Thus, SDG&E does not rise to the challenge of showing ratepayer benefits from piloting an unnecessarily expensive, dead-end strategy for decarbonizing the end-uses that rely on the gas distribution system that is the subject of its pilot.

SDG&E's vague claims regarding the benefits of hydrogen blending elide the fact that the purported benefits would not accrue to the vast majority of gas ratepayers who would fund its pilot, contrary to Commission policy.[84] SDG&E argues that hydrogen blending "can accelerate the market."[85] However, SDG&E fails to show its ratepayers would benefit from using hydrogen distribution blending to catalyze the hydrogen market. Hydrogen blending is a uniquely inequitable strategy for scaling the hydrogen production industry because it forces ratepayers to subsidize the build-out of hydrogen production equipment those ratepayers do not need.[86] Blending is also a poor strategy for supplying hydrogen to the hard-to-decarbonize customers who might require it.[87]

SDG&E also misleadingly suggests that its pilot would benefit ratepayers because not all end-uses can be electrified and hydrogen blending can "allow decarbonized fuels to be delivered affordably" to customers like ports. There is no evidence to support SDG&E's claim that hydrogen blending allows delivery "affordably." Moreover, SDG&E does not draw a logical connection between the needs of industrial customers

[84] Resolution G-3601 at 26, 32 (applying Pub. Util. Code § 740.1(a)'s direction that "projects should offer a reasonable probability of providing benefits to ratepayers" to deny gas RD&D funding for industrial process equipment and off-road vehicles because the proposed spending would "not provide benefits to the vast majority of RD&D ratepayers").
[85] SDG&E Opening Brief at 25.
[86] Exh. SC-01 at 36:19-37:4.
[87] Exh. SC-01 at 36:3-18; *id.* at 37:17–38:2; Exh. SC-03 at 4:8–5:16.

like ports and the gas distribution pipelines that it proposes to study. Overall, SDG&E's claimed benefits are unsupported and irrelevant to a project focused on the gas distribution system, which primarily serves residential and commercial buildings.

Similarly, SDG&E fails to demonstrate the usefulness of its project in its response to questions under Scoping Issue 2. Its response to Scoping Issue 2(a)'s question regarding what "specific knowledge gap" its pilot seeks to address, SDG&E does not identify any of the specific topics that UC Riverside Study highlighted as requiring additional research.[88] SDG&E admits that the UC Riverside Study "concluded that any statewide hydrogen injection standard must account for the most vulnerable infrastructure components, end-uses, appliances, and industrial processes," yet SDG&E would use entirely brand-new materials and end use equipment in its pilot, offering no progress toward knowledge gaps around legacy infrastructure or older end-use equipment.[89]

Moreover, in response to Scoping Issue 2(c), SDG&E claims that it "will define and measure the success of the Project by observing, analyzing, and disseminating the real-world operational data obtained from the project to inform a future statewide hydrogen injection standard."[90] This definition of success sets such a low bar that it could be met by any blending project that produces any data.

Finally, SDG&E misleadingly glosses over the reason for moving its proposed pilot off the University of California San Diego ("UCSD") campus, which raises

[88] SDG&E Opening Brief at 18–20.
[89] *Id*. at 4, 7 (identifying "new, state-of-the-art PE pipe" and "new meters" as materials for the project), 11 (identifying the sole "end-use appliance" for the project as "a new fuel cell that will be installed for this test").
[90] *Id*. at 21.

questions about the appropriateness of funding the pilot at any location. SDG&E states that it and UCSD "collaborated to finalize a site on UCSD property, but ultimately were unsuccessful in doing so."[91] The reason SDG&E and UCSD did not finalize a location on campus is that university leadership did not support the project due to "the campus faculty and academic senate's stance relating to any technology that would extend the life of the existing natural gas system."[92] While the new location may reduce the pilot's air quality and safety implications for the UCSD community, it would not be reasonable for UCSD or any of SDG&E's other customers to fund a pilot for a decarbonization strategy that extends the life of the gas system, contrary to California policy.

III. CONCLUSION

For the reasons set forth above, Sierra Club respectfully recommends that the Commission deny the Joint Amended Application in full.

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Respectfully submitted,

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[91] *Id*. at 23.
[92] Exh. SC-01 at 66:13-16.