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Comments on the 2025 IEPR Draft Scope by the Green Hydrogen Coalition

Additional submitted attachment is included below.

February 11, 2025
Email to: docket@energy.ca.gov
Docket Number: 25-IEPR-01
Subject: GHC's Comments on 2025 IEPR Draft Scoping Order

Re: Comments of the Green Hydrogen Coalition Regarding Draft Scoping Order for the 2025 Integrated Energy Policy Report

I. INTRODUCTION & SUMMARY

The Green Hydrogen Coalition ("GHC") appreciates the opportunity to comment on the 2025 IEPR Draft Scoping Order issued on January 28, 2025. The Green Hydrogen Coalition thanks the California Energy Commission (CEC) for releasing the Scoping Order for the 2025 Integrated Energy Policy Report (IEPR) and respectfully submits the following comments for the proceeding.

The GHC is an educational 501(c)(3) non-profit organization.[1] GHC was formed in 2019 to recognize the game-changing potential of clean renewable hydrogen to accelerate multi-sector decarbonization and combat climate change. GHC's mission is to facilitate policies and practices that advance clean renewable hydrogen production and use in all sectors of the economy to accelerate a carbon-free energy future. Our sponsors include foundations, clean renewable energy users and developers, utilities, and other supporters of a reliable, affordable clean renewable hydrogen fuel economy for all. The GHC's approach is focused on scaling clean renewable hydrogen as a viable and cost-competitive alternative to fossil fuels.

For California to meet the goals of SB 100 an aggressive and urgent approach to scaling renewable energy is necessary and the promotion of clean hydrogen should be thoughtfully incorporated into the 2025 IEPR. With climate change leading to more frequent and intense wildfires and extreme heat, the CEC should be focused on moving towards a renewable energy grid as soon as possible. While this will not solve climate change, an aggressive approach can mitigate the severity of its impacts in the long-term. As the draft scoping order correctly notes, deploying clean energy resources will require addressing "supply chain disruptions, permitting

[1] https://www.ghcoalition.org/

delays, and interconnection delays."[2] These issues, and many more, frustrate the efforts to develop a clean and renewable hydrogen economy in California. GHC is pleased to see the CEC focusing on these issues and including assessments on how clean hydrogen can help the state address some of the issues outlined in the Joint Agency Reliability Planning Assessment.[3] Using the 2025 IEPR to focus on opportunities to deploy clean energy technologies while also focusing on identifying the barriers to deploying these resources is the exact type of approach needed.

GHC would recommend the electricity and natural gas forecasts include a section focused on clean, renewable, and natural or geologic hydrogen (hereafter all forms of decarbonized hydrogen are referred to as 'clean hydrogen' except as otherwise specified) and how it can be incorporated into the larger forecasting needs for both sectors. Clean hydrogen can get the state to 100% clean energy, as envisioned by SB 100, by being one of the only renewable resources that can provide clean firm dispatchable power. Where other renewable resources are intermittent and rely on conditions beyond the control of regulators, clean hydrogen can be dispatched and combusted through hydrogen gas turbines when needed, helping to ensure system inertia.[4]

The main issue hindering the deployment of clean hydrogen is the current cost to produce and use. Cost can be addressed through efforts to help it reach economies of scale. To reach that inflection point requires the CEC, CPUC, and CARB to closely coordinate and prioritize the market development of renewable hydrogen through deliberate measures that reduce the overall burden on ratepayers. SoCalGas's efforts to develop a common carrier hydrogen pipeline to reduce the need for vehicle transportation is one example of how the state can promote clean hydrogen, as pipelines are the lowest cost way of transporting massive quantities of energy today.

The IEPR should look to other countries for examples on how to produce hydrogen at low cost. The German government recently announced its intention to implement a national dedicated

[2] 2025 IEPR Draft Scoping Order at 3.
[3] Id.
[4] For purposes of this response, please note "geologic hydrogen" means hydrogen extracted from rocks and underground reservoirs globally. "Clean hydrogen" refers to hydrogen not produced from fossil fuel feedstocks and having a CI score consistent with the federal GREET model and IRA requirements of 4kg CO2 per Kg H2. "Renewable hydrogen" is defined as hydrogen produced from renewable feedstocks per PUC code 399.12; though GHC would recommend it be defined as derived from a non-fossil-based fuel or feedstock through a process powered using an eligible renewable energy resource. Such feedstocks can include solar, wind, geothermal, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology.

hydrogen pipeline transport system. Germany will eventually have over 9,000 kilometers of dedicated gaseous hydrogen pipeline connecting all German states. Notably, Germany's first ~500km of dedicated hydrogen pipeline segment will go into operation later this year (2025). GHC recommends closer collaboration with Germany to learn from their experience planning, developing and installing this needed national infrastructure to achieve their climate and energy security goals.[5]

The 2025 IEPR should consider ways to promote the use of clean hydrogen and opportunities to lower the costs for early adopters. The GHC appreciates that the CEC has dedicated an entire section of the IEPR to hydrogen and hopes that clean hydrogen is discussed in the other aspects of the IEPR proceeding as well.[6] Using the hydrogen section of the proceeding and others to focus on reducing the costs for production will best prepare the state for the challenges of the next decade and beyond.

California is blessed with abundant renewable feedstocks, including the possibility of naturally occurring hydrogen in its geology. These abundant resources set up California well to not only produce clean and renewable hydrogen to displace current fossil fuel use, but also potentially set up California as a major international exporter of clean hydrogen and its derivative fuels internationally, to energy deficient locations such as Japan, Singapore and South Korea. The 2025 IEPR is an excellent opportunity to revisit the role of clean hydrogen in California's clean energy transition, affordability, wildfire mitigation and economic development goals.

II. AS PART OF ITS PLANNED IMPLEMENTATION OF SB 1075, THE CEC SHOULD EXPLORE THE COST EFFECTIVENESS OF UTILIZING HYDROGEN IN THE POWER SECTOR TO ACHIEVE CALIFORNIA'S RPS AND SB 100 GOALS

The 2025 IEPR should explore cost effective ways to utilize hydrogen when implementing the requirements of SB 1075. As Senate Bill 1075 (2021-2022) notes, "(The CEC), as part of the

[5] *Hydrogen Infrastructure in Germany,* Webinar, German Federal Ministry for Economic Affairs and Climate Action and the US Department of Energy, January 29, 2025.
[6] 2025 IEPR at 6.

2023 and 2025 editions of the integrated energy policy report, [is required] to study and model potential growth for hydrogen and its role in decarbonizing, as defined, the electrical and transportation sectors of the economy, and helping to achieve specified goals.[7] The 2025 IEPR can complete this requirement by considering how clean hydrogen can be used for grid reliability, how the state can repurpose existing gas infrastructure for hydrogen, and how it can be applied to all facilities using fossil fuels.

A. CALIFORNIA'S ELECTRIC SECTOR REQUIRES CLEAN, FIRM, DISPATCHABLE RENEWABLE POWER TO MAINTAIN GRID RELIABILITY AND RESILIENCY, ESPECIALLY IN RESPONSE TO CLIMATE CHANGE-DRIVEN CHALLENGES.

With the energy transition retiring dispatchable fossil resources and shifting the electric grid to increasing dependence on weather-dependent variable renewables, there is an increasing need for clean firm dispatchable resources to ensure electric system reliability and resiliency. The need for resources to maintain electric reliability is clear. The impacts of climate change have resulted in an increased frequency of PSPS events and increased temperatures that place additional stress onto the grid. These environmental stresses are also occurring during a time of unprecedented electric load growth from transportation and building electrification, including new electric vehicle charging demand, new data center demand, and other new industrial loads. Several factors are limiting the flexibility of grid system operators to respond, such as the Northwest being less available for importing due to their climate related challenges, water availability patterns for hydroelectric resources shifting, and the replacement of dispatchable fossil resources with solar and wind. Hydrogen can provide clean dispatchable power that would address the intermittent issues common with some renewable forms of power while mitigating the need for importing energy from out of state.

Climate change is also increasing other risks to society and the grid, leading to the potential for multi-day grid contingency events. This includes increased wildfire risk from electric

[7] Senate Bill 1075 (2021-2022)

grid infrastructure that necessitates responses such as multi-day Public Safety Power Shutoffs (PSPS events). During these PSPS events, the grid needs resources to maintain frequency and provide back-up power to critical loads. Today, backstop for multi day contingency events is provided by dispatching fossil fueled generation. Renewable hydrogen, by displacing fossil fuels, can play an important role in ensuring renewable grid resiliency.

In a contingency event where centralized generation or transmission capacity is unavailable, for example, due to wildfires, renewable hydrogen can fuel dispatchable RPS-eligible facilities to meet load and maintain grid frequency, keeping the grid operational. In a very unlikely situation where the grid is severely strained to the point of calling an EEA3, a renewable hydrogen powered resource can serve as a resource to mitigate its effects on residents and potentially prevent the need for any forced outages.[8] In the California Independent System Operator's (CAISO) annual Summer Loads and Resources Assessment for 2022, it found that the implementation of their contingency measures avoided the need for forced outages. However, given increasing demand and potential climate related risks, CAISO found that the grid continued to have a high degree of vulnerability during summer months. CAISO cited that new resources are moving in the right direction, but the grid continues to fall short of meeting its reliability risk target for 2022.[9] This has changed somewhat in 2024, given more moderate temperatures and increased hydro availability, but CAISO still identifies potential extreme and emergency events as posing critical grid risk.[10]

In addition to being a resiliency resource for the grid, because it can be locally stored, renewable hydrogen can also serve as a resiliency resource for critical loads, providing *renewable* multi-day back up generation using RPS-eligible facilities such as gas turbines, linear generators and fuel cells to maintain electricity supply to critical loads. For example, the Calistoga Resiliency Center will leverage clean hydrogen and energy storage to enable a cost-effective clean microgrid that can provide 8.5 MW of power over 48 hours to the local community during Public Safety

[8] EEA3 stands for Energy Emergency Alert 3 and is defined by the CAISO as preparing to implement outages. See https://www.caiso.com/documents/emergency-notifications-fact-sheet.pdf

[9] California ISO. "2022 Summer Loads and Resources Assessment." May 18, 2022. https://www.caiso.com/documents/2022-summer-loads-and-resources-assessment.pdf

[10] California ISO. "2024 Summer Loads and Resources Assessment." May 8, 2024. https://www.caiso.com/documents/2024-summer-loads-and-resources-assessment.pdf

Power Shutoff events.[11] The Calistoga microgrid will also power downtown Calistoga and nearby areas, keeping critical facilities such as fire stations and police stations operational during PSPS events.[12] Furthermore, the inclusion of onsite hydrogen storage assets, in the event of an outage that exceeds 48 hours, allows the microgrid to have additional hydrogen fuel delivered to extend its duration. The Calistoga Resiliency Center demonstrates how California can move away from our dependency on gas and diesel for emergency backup generation.

Another element for the 2025 IEPR to consider is how a multiday outage might impact energy affordability for Californians. Without abundant, clean dispatchable fuel, ratepayers and consumers will continue to rely on fossil fuel resources to provide back-up power to critical loads[13] or risk the system's reliability and resiliency.[14] Increasing volatility in fossil fuel prices leads to price shock which in turn places a greater burden on ratepayers to ensure their lights stay on. For example, in August of 2020, elevated temperatures led to unprecedent system load demand across the West. Coupled with lower-than-expected solar output and limited energy imports, California grid system operators were forced to issue rolling outages. This impacted real-time and day-ahead market prices as typically uneconomic generation resources that run on fossil fuels were required. In this situation, the prevailing price of the fossil fuel used to operate these resources set the market clearing price and the cost to use these expensive resources and the resulting higher cost of maintaining supply was ultimately born by ratepayers, in addition to increased emissions. A renewable fuel alternative like renewable hydrogen would mitigate the impact of these fossil fuel price shocks, not only for natural gas, but also for other liquid fossil fuels as it can directly displace gasoline and diesel in other sectors.

Scalable renewable fuels like renewable hydrogen can leverage California's abundant renewable resources. Electrolytically produced renewable hydrogen from wind and solar provides a useful source of new consumption (electricity demand) for storing intermittent renewables and

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[11] Energy Vault. "Project – Calistoga Resiliency Center." Accessed October 3, 2024. https://www.energyvault.com/projects/calistoga.

[12] Balaraman, Kavya. "Energy Vault Starts Building Green Hydrogen Storage Project." PV Magazine International, February 28, 2024. https://www.pv-magazine.com/2024/02/28/energy-vault-starts-building-green-hydrogen-storage-project/.

[13] For outage durations beyond the reach of commercial battery systems.

[14] For large scale spinning reserve and contingency reserve needs that cannot yet costeffectively be fulfilled by battery systems.

will reduce the need to curtail (or waste) renewable power when renewable production exceeds demand. The ability to match intermittent renewable generation with new electric demand from electrolysis production will also minimize the overbuilding of renewable infrastructure, allowing for a more balanced, efficient and affordable grid. It should also be noted that electrolysis equipment can also be flexibly operated, and if grid connected, can thus provide valuable ancillary services to the grid.

The ability to leverage California's vast and diverse renewable resources to produce renewable fuels for our power sector collectively supports a more resilient, sustainable energy future for California. Renewable hydrogen enables California to store our vast renewable energy resources for later deployment and conversion back to renewable electricity via fuel cells, linear generators and gas turbines. Not only will this help us achieve our RPS and SB 100 goals, but it will also help to accelerate deep decarbonization of other sectors and reduce California's reliance on fossil fuels.

B. LINEAR GENERATORS AND GAS TURBINES POWERED BY RENEWABLE HYDROGEN AND OTHER RENEWABLE FUELS CAN HELP ENSURE AFFORDABILITY BY REPURPOSING EXISTING INFRASTRUCTURE.

California's electric sector faces challenges in maintaining affordability while embracing innovative technologies. Integrating new advancements, like linear generators, and adapting and repurposing existing gas turbines to utilize renewable hydrogen is a strategic approach to enhance innovation, cost-effectiveness, and grid reliability. Gas turbines represent a cost-effective mechanism to achieve large-scale green firm power, by cost-effectively repurposing existing infrastructure and limiting the immediate need for significant new firm generation capacity. Gas turbines operating on renewable hydrogen also represent an important source of green grid-scale inertia, a grid service that is increasingly needed with the retirement of spinning generation and increased deployment of inverter-based renewable resources. Indeed, the loss of system inertia has long been identified as a critical challenge in maintaining grid reliability in a clean energy future.

Renewable hydrogen, used in repowered thermal electric generators, fuel cells and linear generators can deliver clean, firm, dispatchable power to support the grid and supplement wind

and solar resources, limiting the need for significant renewable over-build. One of the benefits of renewable hydrogen being used as firm dispatchable capacity is that it can work in concert with other forms of energy storage resources to ensure reliable operations across timescales. The LA100 study by the National Renewable Energy Laboratory conducted rigorous scenario modeling analysis to evaluate a pathway to 100% renewable electricity for Los Angeles. NREL found that meeting this target is achievable, and wind and solar resources, supported by battery storage, can serve most of the energy need for producing clean hydrogen. Absent a clean and firm dispatchable form of capacity, such as renewable hydrogen, Los Angeles will require a significant overbuild of renewable generation, and even then, would likely not be able to meet energy reliability needs due to its constrained transmission and distribution system.[15] Using the 2025 IEPR to assess ways that hydrogen can be implemented would greatly serve the state.

C. GHC RECOMMENDS INCLUSION OF RENEWABLE HYDROGEN FOR USE IN ALL RPS ELIGIBLE FACILITIES

Most thermal power plants can already operate on up to a 30% blend of natural gas and renewable hydrogen and many can be fully converted to 100% hydrogen fuel. Load serving entities' ability to plan for and procure renewable clean firm dispatchable power from these facilities will be an important additional resource for achieving RPS and SB 100 goals. Merchant owned and operated powerplants utilizing renewable hydrogen will also create an important additional demand driver for scaling renewable hydrogen production, driving down cost and enabling faster conversion from fossil fuels to renewable hydrogen economywide. The ability to procure renewable firm dispatchable power will also be an important tool in our long-term integrated resources planning toolkit. As scaled production continues, renewable hydrogen costs will decrease, enabling its faster adoption and use across various sectors, such as transportation and industrial operations, as a renewable alternative to fossil fuel use. In this regard, the use of renewable hydrogen in RPS eligible facilities including gas turbines is an important catalyst and

[15] "Powering California's Future with Clean, Affordable and Reliable Energy," California Municipal Utilities Association, 2022 (p. 16)

urgently needed market signal for economywide energy transition.

III. The 2025 IEPR SHOULD COORDINATE AND COLLABORATE WITH ARCHES HYDROGEN HUB, INCLUDING CONSIDERATION OF CLEAN HYDROGEN FOR PRODUCTION AND MULTISECTORORAL USE OF CLEAN AMMONIA.

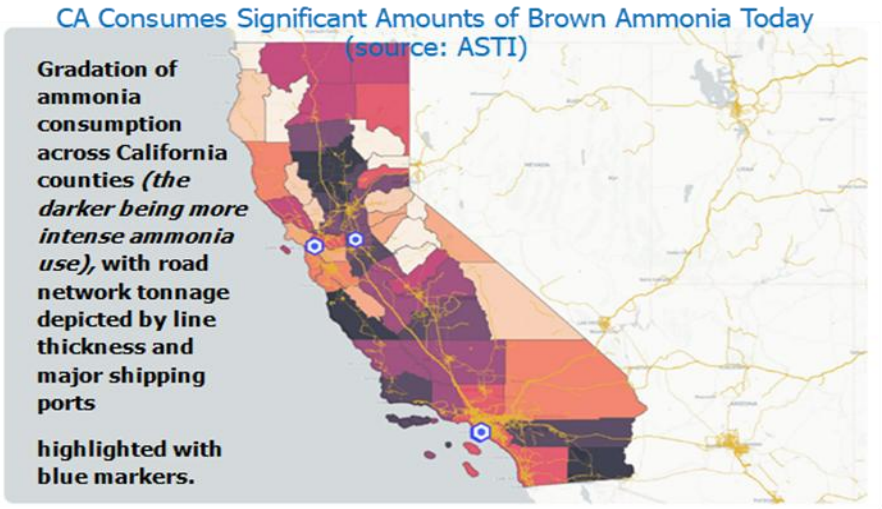
The state was recently notified that it eligible to receive $1.2 billion in funding from the U.S. Department of Energy to accelerate the ARCHES (Alliance for Renewable Clean Hydrogen Energy Systems) hydrogen hub. Using renewable hydrogen in gas turbines is an important end use in the ARCHES portfolio of projects and offers a substantial opportunity for large-scale off-take, capitalizing on California's abundant but often curtailed renewable hydrogen resources.

Organizations like ARCHES and local authorities are demonstrating hydrogen can be implemented and integrated into the energy sector now. Over the past several years, ARCHES has successfully developed a foundational renewable hydrogen hub for California, leveraging abundant feedstocks targeting multiple near-term end uses for the scaled use of renewable hydrogen in lieu of fossil fuels. More recently, the Cities of Lancaster and the City of Industry have formed First Public Hydrogen Authority, the nation's first public hydrogen utility that is 100% committed facilitating aggregation of supply and demand to achieve a scaled renewable hydrogen economy for California.[16]

The 2025 IEPR, when considering potential scaled end uses of clean hydrogen, should investigate the production of clean ammonia. Ammonia, or NH3, can be produced anywhere where there is an abundance of hydrogen, as the remaining part of the molecule, nitrogen, can be sourced from air. It is an ideal fuel because it contains no carbon. Current technological innovations in gas turbines, fuel cells and linear generators have led to the ability to utilize clean ammonia as a fuel for electricity production. This is a potential gamechanger, as fossil-derived ammonia is already imported and used throughout CA state for industrial refrigeration and fertilizer applications. That existing infrastructure can be utilized to transform existing fossil-

[16] For more information, see https://www.firstpublich2.com/

based ammonia into locally clean ammonia and to begin exploring clean ammonia's uses in other sectors such as for ultra long duration energy storage and conversion back to electricity in gas turbines, linear generators and fuel cells.



As evidenced by the graph above, there is a large market in California that would benefit from clean ammonia. Furthermore, ammonia production can also help to scale ARCHES by accelerating the use of clean hydrogen in California's hardest to abate sectors, such as the ~1.2 million tons of fossil-derived brown ammonia that California imports every year primarily for fertilizer/agriculture and industrial refrigeration and as a maritime shipping fuel. In March of 2024, the American Bureau of Shipping, CALAMCO and Sumitomo announced an MOU to study the feasibility of clean ammonia ship to ship bunkering in Stockton. With its many ports and existing ammonia infrastructure, California is an ideal location and source of clean ammonia ship refueling/bunkering. Commercial fleets of dual fuel ammonia powered ships are scheduled to be operational by 2026.

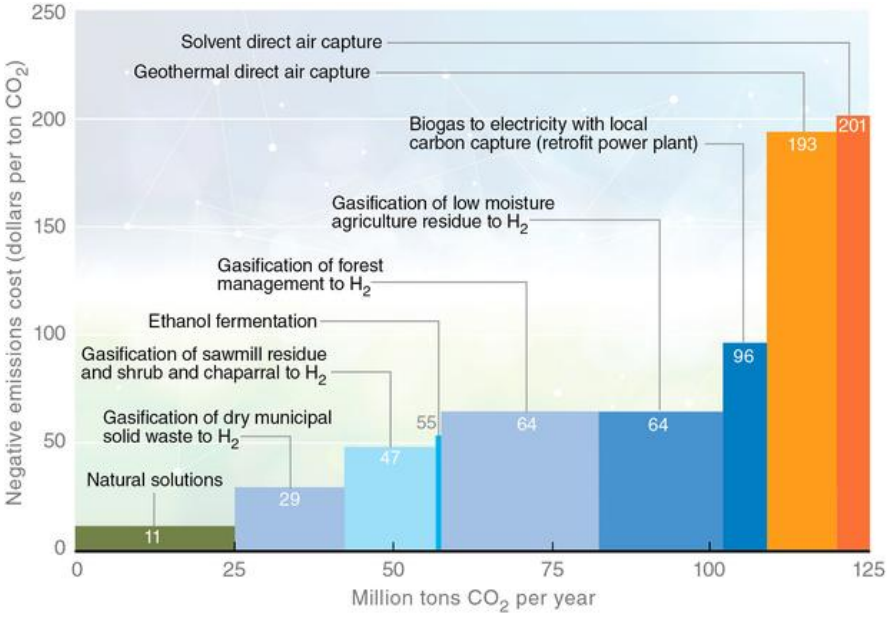
Through the scaling of renewable hydrogen production, California has an opportunity to produce the ammonia it currently uses from abundant local renewable resources mitigating effects of fossil fuel price shocks, especially to our agricultural sector. Creating this local ammonia production capability will not only drive near term economic development and family sustaining job growth, but it will setup California well for potential future export of renewable ammonia to other energy-resource-poor countries such as Singapore, Japan, and South Korea. International

trade of clean and renewable ammonia is already underway today: eastern Canada and the Gulf Coast are actively developing projects to produce renewable ammonia at scale for export between Germany/Europe. In this way, IEPR can help position the state to ultimately become an international exporter of clean and renewable hydrogen/ammonia to East Asia.

IV. THE 2025 IEPR SHOULD EXPLICITLY QUANTIFY AND EXPLORE THE OPPORTUNITY AND POTENTIAL TO REDUCE WILDFIRE RISK, PFAS POLLUTION AND LANDFILL WASTE VIA THE CONVERSION OF BIOMASS TO HYDROGEN AND ITS DERIVATIVE FUELS

The 2025 IEPR should consider multiple scenarios for producing renewable hydrogen, such as biomass. Renewable hydrogen produced from organic waste pathways leverage California's abundant biomass feedstocks that cannot be composted, recycled or repurposed. Today, these biomass resources are either trucked to a landfill or burned in open air, at tremendous cost to communities and the environment. Converting these resources to renewable hydrogen not only displaces fossil fuel end use but also helps cities all over the state better manage their waste disposal costs.

The use of biomass to hydrogen technology should be studied and considered in the 2025 IEPR because of the unique benefits it provides in reducing emissions, landfills and PFAS forever chemicals. In January 2022, Lawrence Livermore National Laboratories published a groundbreaking report titled "the Path to a Carbon Neutral California". In this report, LLNL identified the production of H2 from numerous biomass resources (dry municipal solid waste, sawmill residue and shrub and chaparral, forest biomass management, and low moisture agricultural residue) to be a cost-effective negative emission pathway to achieve carbon neutrality in California. The graphic below from *The Path to Carbon Neutral California* shows the cost of negative emissions.



Based on LLNL's encouraging findings, the GHC subsequently commissioned Corporate Value Associates, a European strategy consulting firm that specializes in hydrogen production and its derivative fuels worldwide, to conduct a deep dive case study on the opportunity to convert dry municipal solid waste to H2 in LA county and extrapolate the potential statewide. This study is now complete, and the findings were very encouraging. The GHC is in the process of documenting this work and anticipates publishing its findings by Q2 2025.[17]

Below are a few takeaways from the biomass-to-hydrogen case study that are relevant to inform and help encourage the IEPR to focus on this valuable and abundant feedstock and production pathway for producing environmentally responsible renewable hydrogen in California:

- There are many Non-Combustion Thermal Conversion Technologies (NCTC) that are commercially ready (TRL 7-9) and able to convert this waste biomass into hydrogen today at commercial scale and meet all California state air quality emissions standards.
- LA County can divert ~32% of its wood, paper and municipal biosolid waste that today is sent to landfills (~1.125 million tons per year, representing approximately 32% of the wood, paper

[17] Chen, Allan. *The Path to Carbon Neutral California*, Published February 2022.

and biosolid waste that is currently sent to landfills) by cost effectively and responsibly converting this biomass to hydrogen.

- Upstream benefits of this approach include:
    - ~520,000 tons/year of landfill gas CO2e emissions avoided
    - 62,000 tons/year of trucking CO2e emissions avoided (assumes the H2 production would occur at sorting facilities, eliminating trucking routes from the sorting facility to the landfills)
    - ~$150 million/year of landfill disposal costs saved
- Downstream benefits include
    - 90,000 tons/year of high purity H2 produced in LA county, close to multi sectoral off takers
    - Ability to avoid ~790,000 tons/year of CO2e emissions avoided by utilizing the resulting hydrogen to displace diesel combustion
    - Ability to produce ~560,000 tons per year of biogenic CO2 that can be utilized to produce sustainable liquid fuels such as methanol for use in maritime shipping and sustainable aviation fuel for use in aviation.
- Electricity costs are a big driver in the final levelized cost of hydrogen for NCTC technologies. Resulting LCOH can be as low as $2.3/kg (key assumptions include: carbon capture and sequestration, federal tax credits applied based on resulting carbon intensity, $85/MWh electricity cost assumption, and $28/ton landfill diversion saving) Multiple scenarios were evaluated and results will be included in the GHC's final report, including varying the tipping fee saved from landfill diversion.
- NCTC conversion of municipal biosolids is a great way to destroy Per-and Polyfluoroalkyl Substances 'PFAS' or 'forever chemicals' given the high temperature of the gasification process (>600 degrees C). Given recent national concerns and EPA guidance/actions to limit their proliferation, destruction of PFAS is a great benefit of the NCTC production pathway.[18]

Extrapolating findings for LA county to municipal biomass conversion statewide, the GHCs study

[18] See https://www.epa.gov/pfas/key-epa-actions-address-pfas

conservatively estimated that 44% of the 39.9 million tons of waste that California sends to landfills every year is suitable for NCTC to hydrogen, representing annual potential feedstock of biomass and paper waste of approximately 17.6 million tons per year.[19] This volume of municipal biomass could produce 1,400,000 tons of high purity H2 per year, saving 17.6 million tons of waste from landfills. This opportunity would be much larger if forest biomass was also included as a potential feedstock. CVA hypothesized that the levelized cost of hydrogen could be further reduced by scaling the NCTC facility much bigger than the 125,000 tons of waste processed per year that was assumed in the case study; a reasonable case for our forested regions of the state that are currently facing extreme wildfire mitigation costs and risks.

V. CONCLUSION

GHC appreciates the opportunity to provide these comments in support of the 2025 IEPR. We look forward to collaborating with the CEC and other stakeholders in this docket.

Respectfully submitted,

x Janice Lin
Executive Director
GREEN HYDROGEN COALITION

[19] See 2021 Calrecycle Disposal Facility-based Characterization of Solid Waste, https://www2.calrecycle.ca.gov/Publications/Details/1738