

2023 IMPACT REPORT

Fueling Tomorrow: Powering Change Through Green Hydrogen

FUELING TOMORROW: POWERING CHANGE THROUGH GREEN HYDROGEN

The Green Hydrogen Coalition (GHC) focuses its education and market development initiatives on combating climate change and addressing energy injustice. The purpose of our work is clear: the tangible effects of climate change are negatively impacting our communities as well as the environment. The urgency to address this climate crisis has never been greater. Our goal is to help facilitate the development of a scaled green hydrogen ecosystem, which has the potential to drive economy-wide decarbonization. We have focused our work on creating the economies of scale and market certainty needed to turn green hydrogen's potential into a reality, including the development of cost-effective, large-scale production, safe transportation, and storage of green hydrogen in densely populated areas like ports and airports.

Throughout 2023, the GHC has diligently pursued its mission to facilitate policies and practices that promote the widespread production and utilization of green hydrogen. Our focus has centered on tackling barriers that currently prohibit the growth of a robust green hydrogen market, such as limited shared infrastructure, regulatory uncertainties, and widespread misconceptions regarding various aspects of the green hydrogen value chain. Through targeted educational initiatives, coalition-building endeavors, and market development campaigns, our core activities strive to overcome these obstacles and thereby advance green hydrogen at scale for an accelerated and equitable clean energy transition.

We extend our heartfelt appreciation for the invaluable donations that have fueled our work at the GHC. Your unwavering support has been pivotal in propelling our initiatives forward. The remarkable progress we have achieved is a testament to your belief in our vision and generous contributions.

Your past donations have played a pivotal role in advancing our shared mission, steering us toward meaningful progress. Together, we continue to chart a course toward a sustainable, equitable future.

Your ongoing support remains essential. As we near the conclusion of 2023, we invite you to consider a tax-deductible gift to the GHC by December 31, empowering us to further expedite comprehensive decarbonization. Individual donations can now be conveniently made online at gh2forclimate.org!

KEY HIGHLIGHTS OF OUR ACCOMPLISHMENTS FOR 2023

I. EDUCATION | STRENGTHEN GREEN HYDROGEN KNOWLEDGE AND CONSTRUCTIVE ALIGNMENT ON HOW TO BUILD A SCALED GREEN HYDROGEN ECONOMY

- Hosted the GHC 2023 Lobby Day in Sacramento, engaging with 16 legislators across both the California (CA) State Assembly and Senate.
 Provided informational materials to CA policymakers and stakeholders, including three one-pagers outlining the benefits of green hydrogen:
 - Green Hydrogen: A Key Resource for California's Clean Energy Transition
 - The Importance of Dedicated Green Hydrogen Pipeline Infrastructure
 - Renewable Hydrogen: The Missing Piece to Achieving 100% Clean Energy in California's Power Sector



- Conducted five trips to Sacramento in 2023 to engage with key decision-makers to discuss relevant legislation (e.g., <u>SB 663</u>, <u>AB 1550</u>).
- Led 16 public speaking engagements across the United States (U.S.) to educate policymakers, community stakeholders, and academics.

II. COALITION BUILDING | ALIGN STAKEHOLDERS AROUND LANDMARK CAPITAL AND INFRASTRUCTURE PROJECTS

- Contributed valuable input and content for <u>Catalyst H2</u>[™], a conference in Huntington Beach that hosted more than 400 participants and featured keynote speakers and presenters across a variety of sectors and regions in the green hydrogen ecosystem. Specifically, the GHC engaged with and educated decision-makers and community members. This included meeting with policymakers in Denmark and establishing connections with organizations such as California Hydrogen Coalition, California Hydrogen Business Council, Fuel Cell Partnership, Clean Air Task Force, Energy Independence Now, <u>Alliance for Renewable Clean Hydrogen Energy Systems</u> (ARCHES), Pacific Environment, Natural Resources Defense Council, and the Environmental Defense Fund.
- Engaged with the ARCHES through weekly support and working groups for ports, power, and transportation, all of which were crucial in helping CA negotiate up to \$1.2 billion of potential incentive funding through the Department of Energy's (DOE) Regional Clean Hydrogen Hubs Program (H2Hubs).
- Served on the advisory group for <u>SoCalGas' Angeles Link</u> phase 1 initiative. Angeles Link represents the nation's largest clean, renewable hydrogen energy pipeline system aimed at delivering reliable, renewable energy to the Los Angeles (LA) region, specifically targeting hard-to-decarbonize sectors.
- Strengthened relationships with state agencies, positioning the GHC as a significant advocate for hydrogen incentive development and program design. This encompassed pivotal roles, for example, in the formation of the California Energy Commission's \$100 million Clean Hydrogen Program.
- Organized an energy transition delegation composed of policymakers from CA and across the U.S. and Canada to participate in a
 week-long fact-finding trip in Denmark geared toward fostering information exchange and collaboration.

III. MARKET DEVELOPMENT | DEVELOP THE POLICIES, RULES, AND PRACTICES TO ADVANCE THE PRODUCTION AND USE OF GREEN HYDROGEN

Policy and Regulatory Intervention

- Submitted **31 formal filings** to drive the market for green hydrogen, covering topics from demand-side support mechanisms to reliability and procurement measures.
- Engaged with 18 distinct organizations across the hydrogen ecosystem through the GHC Policy Working Group on policy and regulatory issues, from the international level to the local level.
- Worked closely with the <u>DOE's Office of Clean Energy Demonstrations</u> (OCED) on H2Hubs program design and criteria for eligibility, including the carbon intensity framework for hydrogen production. Also engaged with the OCED on program design for the <u>Demand-Side Mechanism RFI</u>.

Initiatives

- HyBuild™ Los Angeles: Updated the HyBuild™ LA system plan to incorporate green ammonia as a viable shipping fuel and agricultural resource. The GHC subsequently hosted a webinar for 470 registrants on its HyBuild™ LA Phase 2 report, which unveiled expanded green hydrogen offtake and related infrastructure needs, including ocean shipping, aviation, and heavy-duty trucking. Explored potential synergies from connecting Southern and Northern CA via a green hydrogen pipeline backbone.
- HyBuild™ Contracts Workstream: Launched the HyBuild Contracts Workstream to boost the clean hydrogen market by connecting with major buyers, pinpointing procurement challenges, and addressing key risks. Led the "HyBuild North America: Contract Workstream Kickoff Webinar" drawing 220 registrants. Collaborated with Sheppard Mullin to interview potential green hydrogen buyers, delving into procurement hurdles and opportunities. The GHC anticipates releasing insights from these specialized working groups in Q1 2024.

- Western Green Hydrogen Initiative (WGHI):
 - Facilitated successful leadership transition and appointed new co-vice chairs and a chair to lead the initiative, thereby enhancing leadership and coordination among states.
 - Organized virtual regional meetings and completed a <u>convening brief on Community Benefits</u>, emphasizing strategies to integrate
 equity, justice, and community benefits into clean hydrogen programs.
 - Published a report, "Expanding Horizons: Best Practices for Modeling Long-Duration Energy Storage," presenting the findings for the role of green hydrogen as long-duration energy storage to assist with grid reliability for policymakers and grid planners amid evolving landscapes.



• Consumer Education: Developed and launched version 1.0 of our consumer and policymaker-focused green hydrogen educational website. This website provides educational content about why green hydrogen is so critical for accelerating our clean energy transition, fighting climate change, and improving air quality. Included on the home page is a GHC-produced mini-documentary about green hydrogen's progress at the Port of LA.

CONCLUSION

Your generous support of the GHC has propelled us toward meaningful change and steered us toward a decarbonized economy and sustainable infrastructure. Your ongoing commitment holds immeasurable value as we embark on these ambitious initiatives. We eagerly anticipate keeping you closely informed of our progress and are deeply enthusiastic about the significant impact we can collaboratively create in the upcoming year.

Once again, we extend our heartfelt gratitude for your steadfast belief in our mission. Your support empowers us to help shape a more sustainable future and we are honored to have you alongside us on this journey.

GREEN HYDROGEN COALITION



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The Green Hydrogen Coalition, a 501(c)(3) educational nonprofit organization, is dedicated to facilitating practices and policies to advance the production and use of green hydrogen in all sectors where it will accelerate a carbon-free energy future.

HyBuild™ North America is the GHC's platform to architect low-cost, mass-scale green hydrogen hubs throughout the continent. The first regional focus of the platform, HyBuild Los Angeles, was launched in 2020 and has identified a pathway to achieve \$2.05/kg delivered green hydrogen costs in the Los Angeles Basin to serve multi-sectoral offtakers, reduce air pollution, and create diversely skilled local jobs.

The GHC's second platform, the Western Green Hydrogen Initiative, is a public-private partnership to assist interested states and partners in advancing and accelerating deployment of green hydrogen infrastructure in the Western region for the benefit of the region's economy and environment.

For more information on the GHC, visit ghcoalition.org.

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