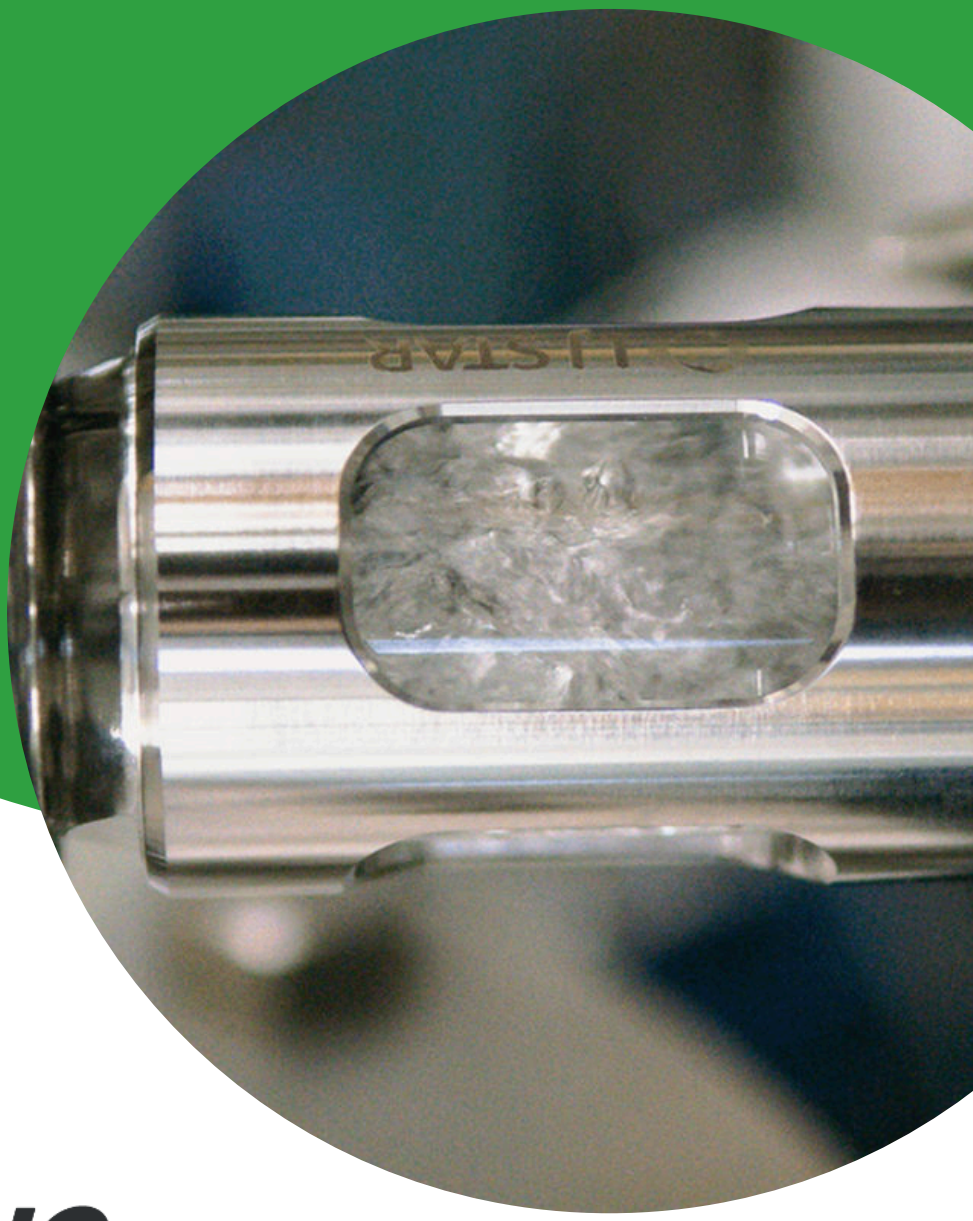
Electric Hydrogen Sustainability Report 2024

May 2025



ELECTRIC HYDROGEN

TABLE OF CONTENTS

MESSAGE FROM OUR CEO

Welcome to our second corporate sustainability report. Our 2023 report was focused on the building of our company's infrastructure, and we began utilizing that infrastructure in 2024 to scale and validate our technology. In the first half of 2024, we officially opened our advanced electrolyzer gigafactory in Devens, Massachusetts and began stack testing at our 10MW plant in San Jose, California. By the end of 2024, we manufactured and tested multi-MW electrolyzer stacks at those same facilities.

In 2024, we also began evaluating the environmental impacts of our advanced PEM electrolyzer plants, which indicate a two-fold reduction in embodied carbon compared to reference PEM plants, and the potential for another two-fold improvement as we continue to scale our high-volume manufacturing. Considering product circularity, we found that about half or more of these impacts can be mitigated with recycling.

Overall, 2024 was a challenging year for the hydrogen industry, as growth expectations met with market realities, but it also saw the emergence of hydrogen applications such as sustainable aviation fuel (e-SAF). With respect to these challenges and opportunities, our objectives remain as important as ever - to deliver fully integrated HYPRPlants to produce cost-competitive electrolytic hydrogen at industrial scale.

We hope you enjoy learning about Electric Hydrogen's sustainability practices.

"I think our biggest role, and our greatest leverage of influence is by showing and saying what we think is really possible."

Raffi Garabedian
Chief Executive Officer

2024 HIGHLIGHTS

Scaling and validating our technology

Safety

0.83 Total Recordable Injury Rate (per 200,000 hours)

Emissions

2-4x lower embodied carbon than conventional PEM, and energy payback time of 3 months or less

Gigafactory

Commissioning and production of multi-MW stacks

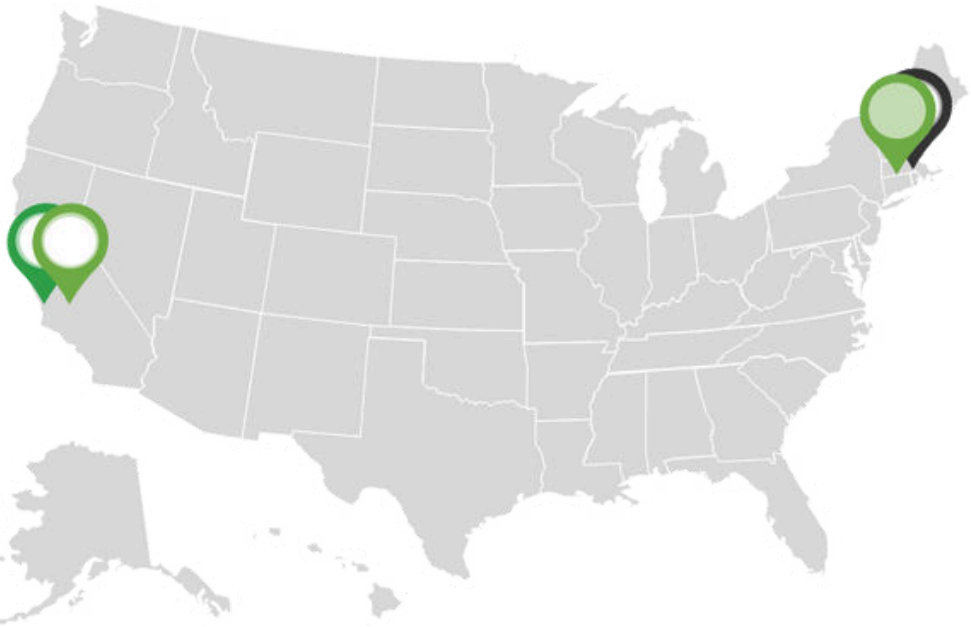
Pioneer Plant

Testing and validation of multi-MW stacks

Making molecules to decarbonize our world

ABOUT ELECTRIC HYDROGEN

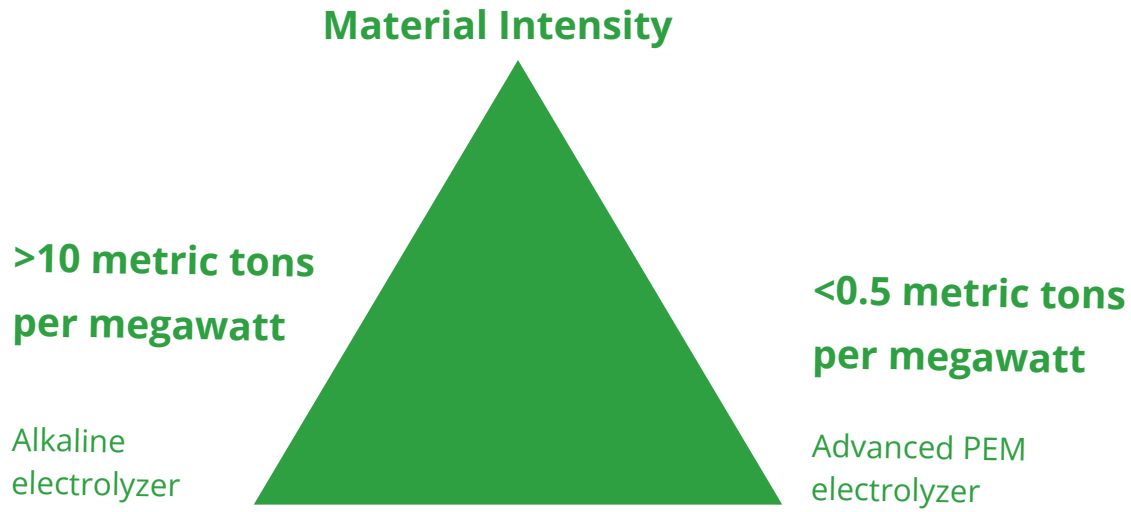
Electric Hydrogen manufactures, installs, and commissions the world's most powerful electrolyzers to supply critical industries with the lowest cost clean hydrogen. The company's fully integrated 100MW Plant includes all system components required to turn water and electricity into clean hydrogen, including power conversion, gas processing, water treatment and thermal management. Electric Hydrogen's advanced proton exchange membrane (PEM) technology helps customers reach their climate objectives by making clean hydrogen an economic inevitability. Electric Hydrogen was founded in 2020 and has a team of over 300 employees with operations in California and Massachusetts. Electric Hydrogen is backed by over $600M in capital from financial and strategic investors, including Breakthrough Energy Ventures, Temasek, Oman Investment Authority, Amazon, BP, Fortescue, Microsoft, Mitsubishi Heavy Industries, Rio Tinto and United Airlines.



Electric Hydrogen is located on both coasts of the United States with its R&D Facility in Natick, Massachusetts, its manufacturing facility in Devens, Massachusetts, and an operating plant in San Jose, California and San Carlos, California. Our Massachusetts Gigafactory will be one of the largest PEM electrolyzer factories in the world when it fully ramps to its 1.2 GW/yr capacity.

RESOURCE EFFICIENT MANUFACTURING

Electric Hydrogen was founded with a mission to supply clean hydrogen technology to hard-to-abate critical industries such as ammonia, steel, and chemicals, by redesigning water electrolysis plants from the ground up. Our 100MW Plant transforms project economics through its innovative advancements in powerful PEM technology and fully integrated plant-as-a-product approach, enabling lower total project costs than the competition. The plant-as-a-product saves costs across material use, plant footprint and installation labor. Coupled with our proprietary electrolyzer technology advancements, which enable the production of multiple times more hydrogen from the same sized stack, these allow for deployment at an industry defining scale to critical industries. Along with circularity, these commercial offerings support a comprehensive sustainability strategy of maximizing resource efficiency in electrolyzer manufacturing, transportation, and installation. Improved materials utilization enables eco-efficiency by reducing environmental impact while improving cost performance.



Resource efficiency enables lower cost electrolysis through more efficient use of materials

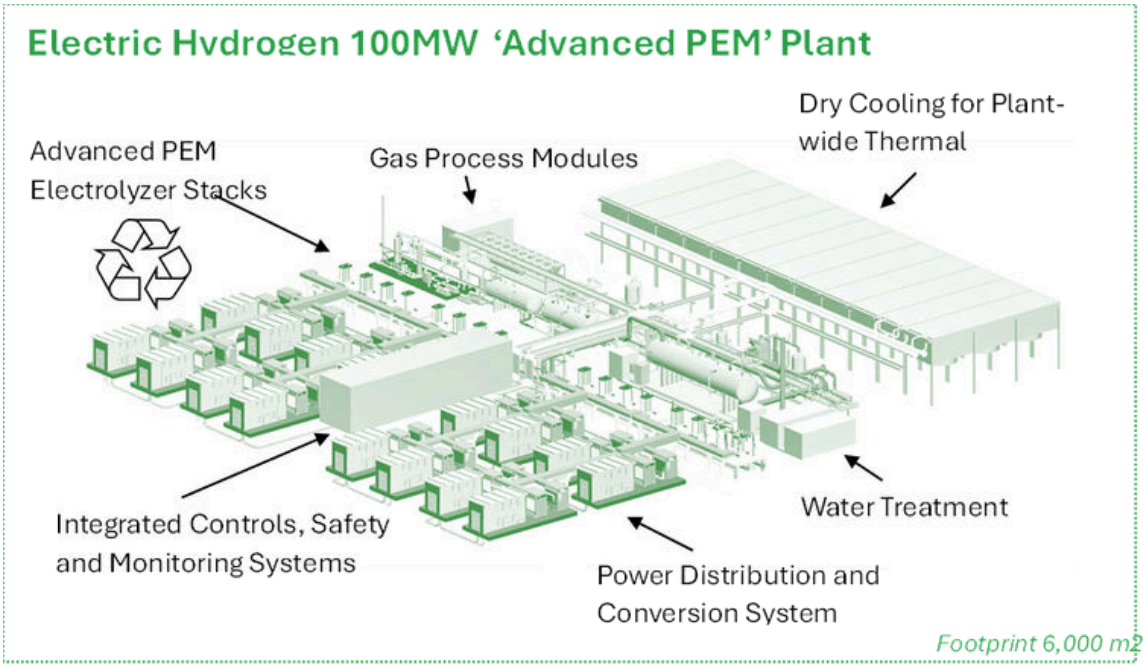
ENVIRONMENTAL BENEFITS OF CLEAN HYDROGEN

Clean hydrogen can play a significant role in abating greenhouse gas (GHG) emissions, our generation's greatest challenge. Hard-to-abate sectors including refining, ammonia production, methanol production, and steel manufacturing cannot be fully mitigated by electrification alone.

These sectors consume about 95 million tons of hydrogen per year [CATF]. Most of this hydrogen is produced from fossil fuels with average emissions of 12 to 13 tons of CO2 - equivalent per ton of hydrogen produced in 2021 [IEA Hydrogen Definitions]. Affordable clean hydrogen at industrial scale is the primary solution for these emissions sources, providing the opportunity to eliminate approximately one billion tons of annual CO2 emissions. At Electric Hydrogen, we are targeting heavy industry to drive giga-scale decarbonization.

Current hydrogen consumption by hard-to-abate industry
Reference: Clean Air Task Force: Hydrogen for Decarbonization: A Realistic Assessment

CIRCULAR BUSINESS MODELS



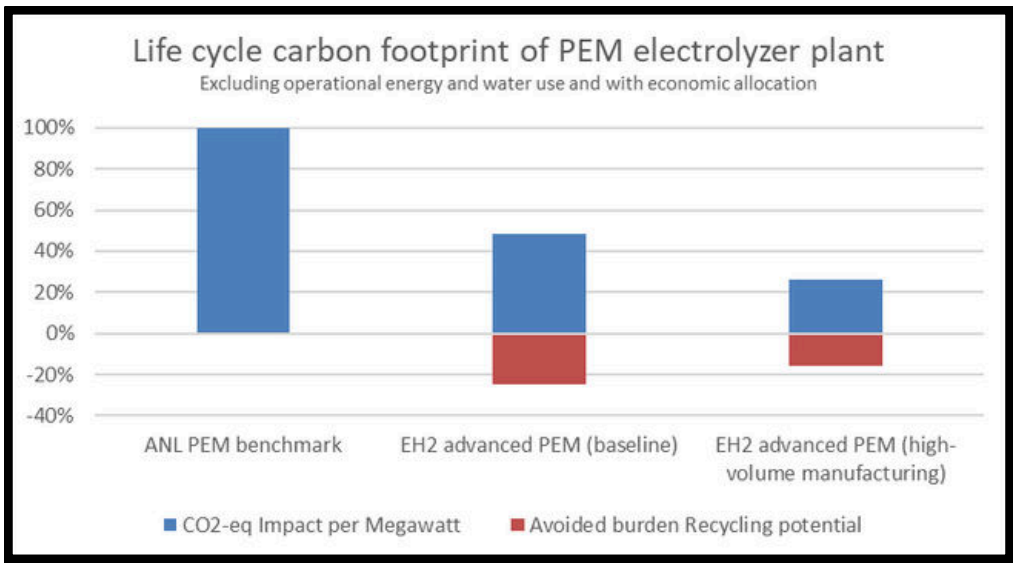
Electric Hydrogen's fully integrated 100 MW plant includes all system components required to turn water and electricity into clean hydrogen, including power conversion, gas processing, water treatment and thermal management. At the heart of the system is the electrolyzer stack, where electric current is passed through an electrolyte to produce hydrogen.

We are developing a stack recovery program to enable circularity by ensuring efficient recovery of valuable metals and minimizing waste entering landfills. Our stacks are designed for rapid-line assembly and disassembly using the same tools and processes. Our plants can be easily decommissioned at end-of-life due to their modular design, and a trailer truck or freight train can transport the disassembled components for recycling or refurbishment. We strategically designed this process to minimize cost and emissions associated with decommissioning.

Stacks contain high-value materials such as metal alloys, membranes, and catalysts which can be separated and recovered. We are working to develop recycling processes that recover these materials and allow reuse of off-specification components and spent stacks in the manufacturing processes.

ENVIRONMENTAL SUSTAINABILITY

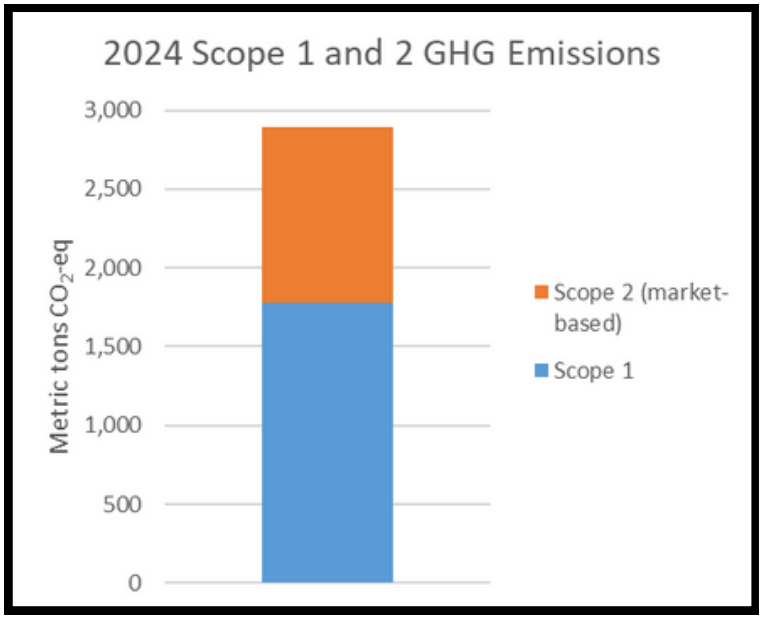
In 2024, we began assessing the environmental impacts of our products on a life cycle basis. Cradle-to-grave life cycle assessment of our advanced PEM electrolyzer plant indicates an approximate two-fold reduction in carbon footprint compared to a reference PEM plant evaluated by Argonne National Laboratory (ANL). When powered with renewable electricity with 50% capacity factor and used to displace conventional hydrogen production with steam methane reforming (SMR), our advanced PEM electrolyzer plant has an energy payback time (EPBT) of about 3 months or less. EPBT is the time it takes for the plant to deliver more energy than was required to produce the plant. For both carbon footprint and EPBT, we expect a further two-fold improvement as we move to high-volume manufacturing. About half of the carbon footprint can be mitigated by end-of-life recycling of metals in the stack and balance of plant.



In addition to producing low carbon products, Electric Hydrogen is committed to low impact operations. We utilize renewable electricity tariffs at our R&D facilities in Natick, MA, San Carlos, CA, and San Jose, CA. We tracked energy, greenhouse gas emissions, water, waste and in 2024. These metrics will be most useful for continuous improvement when they are normalized by unit of production. In future years, when Electric Hydrogen begins product delivery to customers, the environmental metrics will be normalized by megawatts (MW) of production, allowing for a baseline to be established and targets to be set.

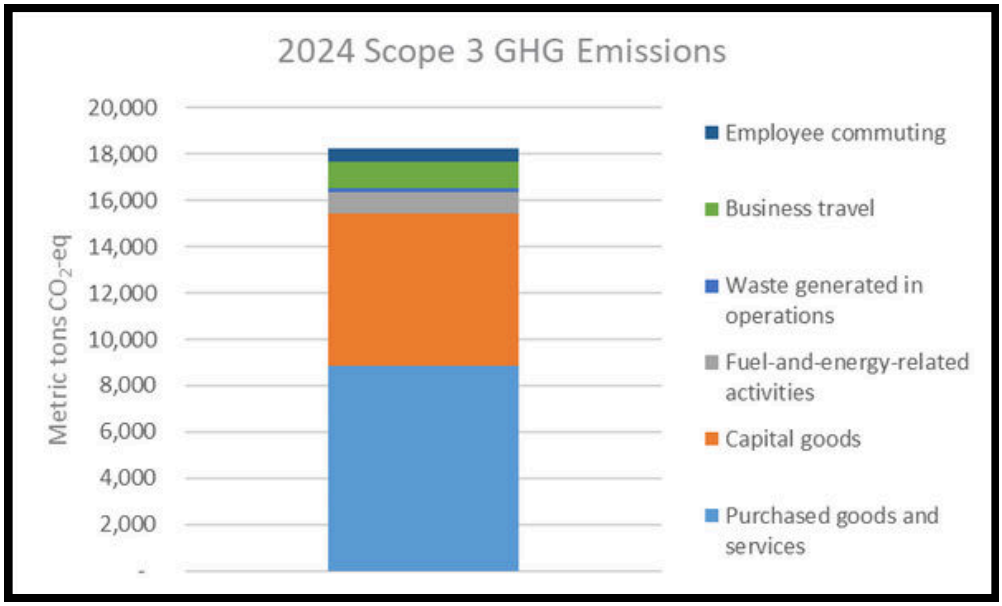
GREENHOUSE GAS EMISSIONS, ENERGY, WATER AND WASTE

The chart below shows direct (Scope 1) and indirect (Scope 2) emissions of all facilities within Electric Hydrogen's operational control boundary. In 2024, Electric Hydrogen's Scope 1 and 2 GHG emissions were 2,892 metric tons CO2-eq, mostly related to Scope 1 stationary combustion from diesel generators for protoplant testing in California and Scope 2 purchased electricity in our Massachusetts Gigafactory. Scope 2 emissions in our other facilities are largely mitigated by renewable electricity tariffs available through our electric utilities.



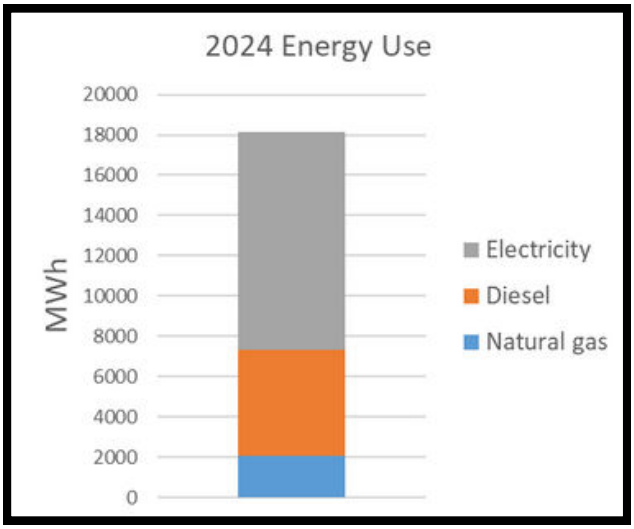
The second chart below shows indirect (Scope 3) emissions from Electric Hydrogen's supply chain of 18,223 metric tons CO2-eq. Scope 3 emissions are largely from Category 1 (purchased goods and services; 49%), due mainly to metal components in the bill of materials for electrolyzer systems. In addition, Category 2 (capital goods) accounts for 36% of Scope 3 emissions due to the ramping of Electric Hydrogen's testing and manufacturing facilities and associated equipment.

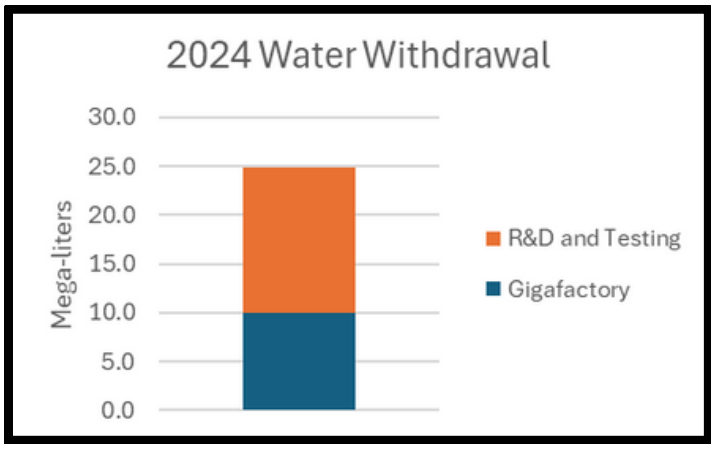
Smaller GHG emissions related to landfilled waste, business air travel, and employee commuting account for the remaining 9% of Scope 3 emissions in 2024. Our resource-efficient design strategy also lowers Scope 3 supply chain emissions associated with raw material sourcing and transportation.



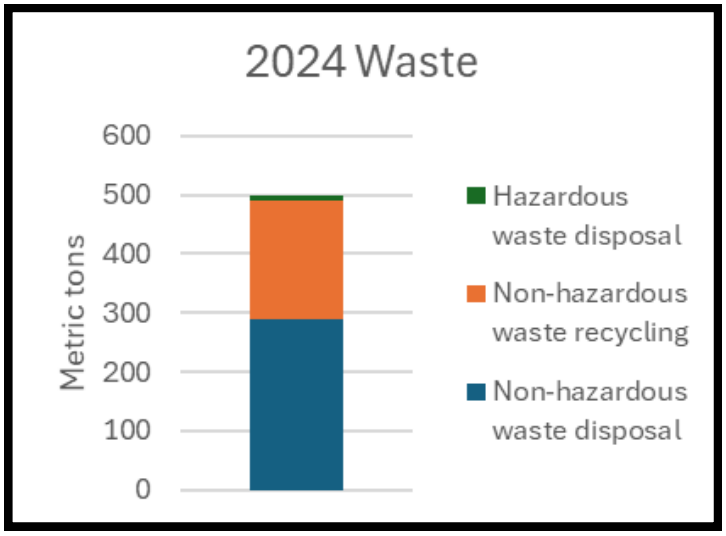
Electric Hydrogen's 2024 energy usage consisted primarily of manufacturing and R&D electricity usage, diesel generator usage for stack testing, and natural gas for heating. At the end of 2024, Electric Hydrogen's 1 MW protoplant test facility in San Carlos, CA was relocated to our larger test facility in San Jose, CA, which eliminates the need for diesel generator usage.

Electric Hydrogen's 2024 water withdrawal was mainly for R&D and testing, though the proportion of water usage at the Gigafactory is expected to increase in future years as the factory ramps to full capacity. In addition to withdrawal, water is the feedstock for water electrolysis and is consumed at a stoichiometric rate of 9 L per kilogram of H2 produced during electrolyzer testing. Due to recirculated water systems, water usage is otherwise minimized. Aside from electrolytic consumption, another main use is in water purification prior to electrolysis. Reverse osmosis/deionized water (RODI) systems produce wastewater during the water purification process, and periodically require make-up water. The RODI systems in electrolyzer testing are a main source of wastewater, along with industrial discharge of spent passivation water in manufacturing.

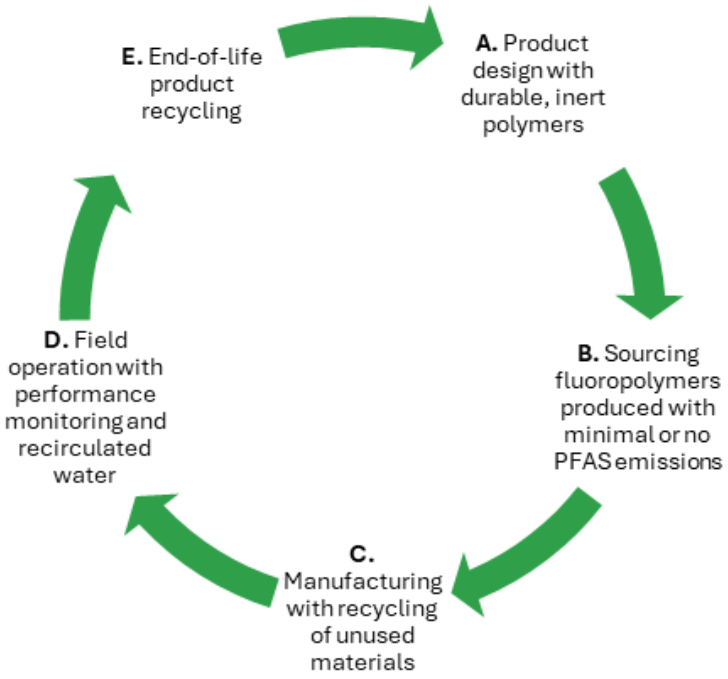




The graph below shows Electric Hydrogen's absolute waste produced in metric tons with breakdown by type. Waste consists primarily of municipal solid waste, with approximately 40% diverted to recycling. Electric Hydrogen is committed to waste diversion in manufacturing as part of continuous improvement initiatives under its planned ISO 14001 certification for its Devens, MA Gigafactory.



MANAGEMENT OF SUBSTANCES



Electric Hydrogen takes a life cycle approach for managing fluoropolymer materials in electrolysis. We follow best practices across the product life cycle, including partnering with fluoropolymer producers on fluorosurfactant emissions control and replacement; recycling unused catalyst and fluoropolymer materials in manufacturing; using recirculated water systems with performance monitoring during electrolyzer operation; and ensuring takeback and recycling of end-of-life electrolyzer stacks.

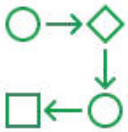
From a risk-management perspective, fluoropolymers are non-toxic and non-biovailable and therefore present low hazard, and their use in electrolyzers as durable, non-consumer products, presents low exposure potential. Along with low risk, because electrolysis is an essential decarbonization tool and there are no durable alternatives to fluoropolymer materials, there is evidence for excluding or exempting fluoropolymers in electrolyzers from PFAS regulation. For example, the State of Maine's PFAS legislation (LD 1537) exempts non-consumer electronics from product restrictions, the State of New Mexico's PFAS legislation (HB 212) excludes fluoropolymers from scope, PFAS risk management under the Canadian Environmental Protection Act excludes fluoropolymers from scope, and the European Chemical Agency is considering alternative restriction options for electrolyzers.

ENVIRONMENTAL CERTIFICATION

We are working on certifying our Devens, MA Gigafactory to ISO 14001 for environmental management. As part of the certification process, Electric Hydrogen is committed to continuous improvement with the following environmental objectives:

Continual education to prevent environmental pollution, preserve natural resources and improve the EMS.

Exploration of new materials, methods with smaller environmental footprints and improvement of hazardous waste management.



Following environmental procedures to decrease environmental pollution and prevent degradation and damage to the environment.

Activities arising from the organization are in the spirit of environmental improvement

We have a goal to minimize our waste generation profile. All our sites currently maintain very small quantity waste generations status, as defined by U.S. EPA. We have initiated a waste diversion initiative to demonstrate continuous improvement under the ISO 14001 framework, where material flows are tracked through our pilot stack production line. By quantifying inputs, outputs, and waste streams by production tool, we will be able to identify opportunities for waste minimization and reclaim raw materials for for reuse. As our product matures and new materials are considered for use, end-of-life reclamation and reuse are key to our environmental performance.

SUPPLY CHAIN MANAGEMENT

The key inputs for manufacturing our electrolyzer stacks are electric power, high-purity water, metal alloys, catalysts, and membranes. Through relationships with key suppliers, we ensure access to critical inputs for production. We also continue to prioritize domestic suppliers of raw materials and components of our electrolyzer stack production.

The electrolyzer systems produced by Electric Hydrogen will build resilience of domestic supply chains by providing scalable and flexible access to hydrogen as a commodity and facilitate progress towards a net-zero economy. Today, only 1% of the 10 million metric tons (MMT) of annual hydrogen production in the United States is produced by electrolysis. The U.S. National Clean Hydrogen Strategy and Roadmap suggests the volume of clean hydrogen needed will increase to annual amounts of 10 MMT by 2030, 20 MMT by 2040, and 50 MMT by 2050. This would contribute 100,000 new U.S. jobs by 2030.

The market is reacting by increasing the availability of components, including some developed specifically for hydrogen applications. The most accessible and inexpensive electrolyzers available are alkaline systems, originating in China. Our advanced PEM electrolyzers stacks are produced in the United States and offer a competitive advantage in cost, power, and efficiency. We are committed to continued development of the domestic supply chain and knowledge base that will contribute to the competitiveness of domestic electrolyzers.

Several aspects of the technology are well-suited for U.S. manufacturing. Our high-value components and power density ensure a competitive advantage to manufacturing in the United States. The unique intermittent stack operation in our PEM electrolyzer is key to increasing the U.S. market share as it accommodates variable electrical input, which the alkaline electrolyzer does not.

In addition to domestic sourcing and competitiveness, Electric Hydrogen is committed to responsible sourcing with respect to labor, environment, safety, and ethical standards, as described in our Supplier Code of Conduct. Electric Hydrogen's supplier agreements require compliance with applicable laws and regulations, and all new suppliers undergo screening against U.S. and international restricted party lists and indices.

SOCIAL RESPONSIBILITY

Electric Hydrogen is a company of mission-driven thinkers working together at the forefront of the energy transition. Our values reflect a commitment to results, collaboration, and innovation. The company encourages flexibility and teamwork in order to cultivate a collaborative and healthy work environment that, together, can push the boundaries of our industry.

Our Values

01. Get It Done

Results matter and we empower teammates to take personal ownership of impact

02. Be Bold, Be Open

Speak your truth unapologetically, welcome challenge with an open mind and listen actively

03. Stronger Together

We are for each other, embrace uniqueness and never lose alone

WORKING AT ELECTRIC HYDROGEN

01. Our People Strategy

Electric Hydrogen's people strategy focuses on building a workplace that is balanced and inviting to passionate do-ers looking for a place to make their mark by solving climate change.

02. Respect and Safety in the Workplace

The company is committed to providing a workplace that is free of harassment and discrimination and does not tolerate workplace harassment or discrimination. Additionally, the company has an Open Door Policy where open, honest communications are the expectations, not the exception. We want all employees to feel comfortable in approaching their supervisor or People Team in instances where they believe violations of policies or standards have occurred.

03. Communication and Teamwork

We believe that open communication is essential to a successful workplace. Each month, the executive team, including the CEO, CTO, CFO, and CPO, lead a company-wide meeting where they update the entire company on business progress, challenges, and goals. This meeting gives employees the opportunity to ask questions and address concerns, as well as ensure their focus is aligned with the company's.

04. Onboarding and Continuous Support

Developing an innovative technology in an emerging industry involves a steep learning curve for new employees, and also presents an opportunity for upskilling and training. New employees participate in an onboarding curriculum which consists of modules on our company, mission and values, internal systems, engineering, safety, communication styles and career management. In addition they receive support from their manager regarding team protocols, communication, goals etc. In lieu of a formal annual performance review process, we encourage and provide the tools that support ongoing, regular feedback conversations between employees and their supervisors.

05. Workforce Composition

As of December 31, 2024, we had approximately 343 full-time equivalent employees, an increase of 49 or approximately 17% from the previous year. Approximately 35% of our associates work in our Gigafactory in Devens, MA, and the remainder of our associates are in research and development, sales and marketing, and administrative positions in other locations.

EQUAL OPPORTUNITY

We are proud to be an equal opportunity employer. We want to cultivate a community that provides unique perspectives to difficult problems and attracts future talent. To that end, we are committed to making career opportunities accessible to everyone.

Each year, we conduct pay analysis for people performing similar work and at the same level with similar experience, at each geographic location.

Our hiring practices are designed to ensure that all candidates have an equal opportunity to contribute to our mission. Different perspectives are not only welcomed but are essential to our success in developing innovative technology for a sustainable future.

We continuously learn about the market, our business, our talent's needs, and how best to achieve our People goals in thoughtful and data-driven ways.

Employee resource groups

We have established employee resource groups (ERGs) at Electric Hydrogen. ERGs are sponsored by executive team members and support the recruitment and professional development of our employees.

01. Women's ERG

Women@EH2's mission is to connect, develop, and support members to reach their potential at Electric Hydrogen and to empower women in our industry.

Goals of the Women's ERG:

- Connection: Form a community where members feel valued, safe, and empowered.
- Development: Provide opportunities for professional development.
- Outreach: Connect with and give back to the community of girls in STEM.
- Support: Support efforts to retain and bring in more women to EH2.

02. Latin American ERG

The Latin American ERG's vision is that Latin Americans and allies can come together, regardless of their different backgrounds and nationalities, to combine their hearts and minds to raise awareness and cultural understanding, grow together as professionals, give back to our communities, and celebrate the experience.

Goals of the Latin American ERG:

- Build a supportive and uplifting environment
- Professional development
- Safe space for our community
- Community outreach
- Fun "in familia"

03. PRIDE ERG

The purpose and mission of the PRIDE ERG at Electric Hydrogen is to foster a supportive work environment that champions equality and respect for all employees. We strive to create a psychologically- and physically-safe space where LGBTQ+ individuals and allies can connect, share experiences, and promote respect and understanding across the organization.

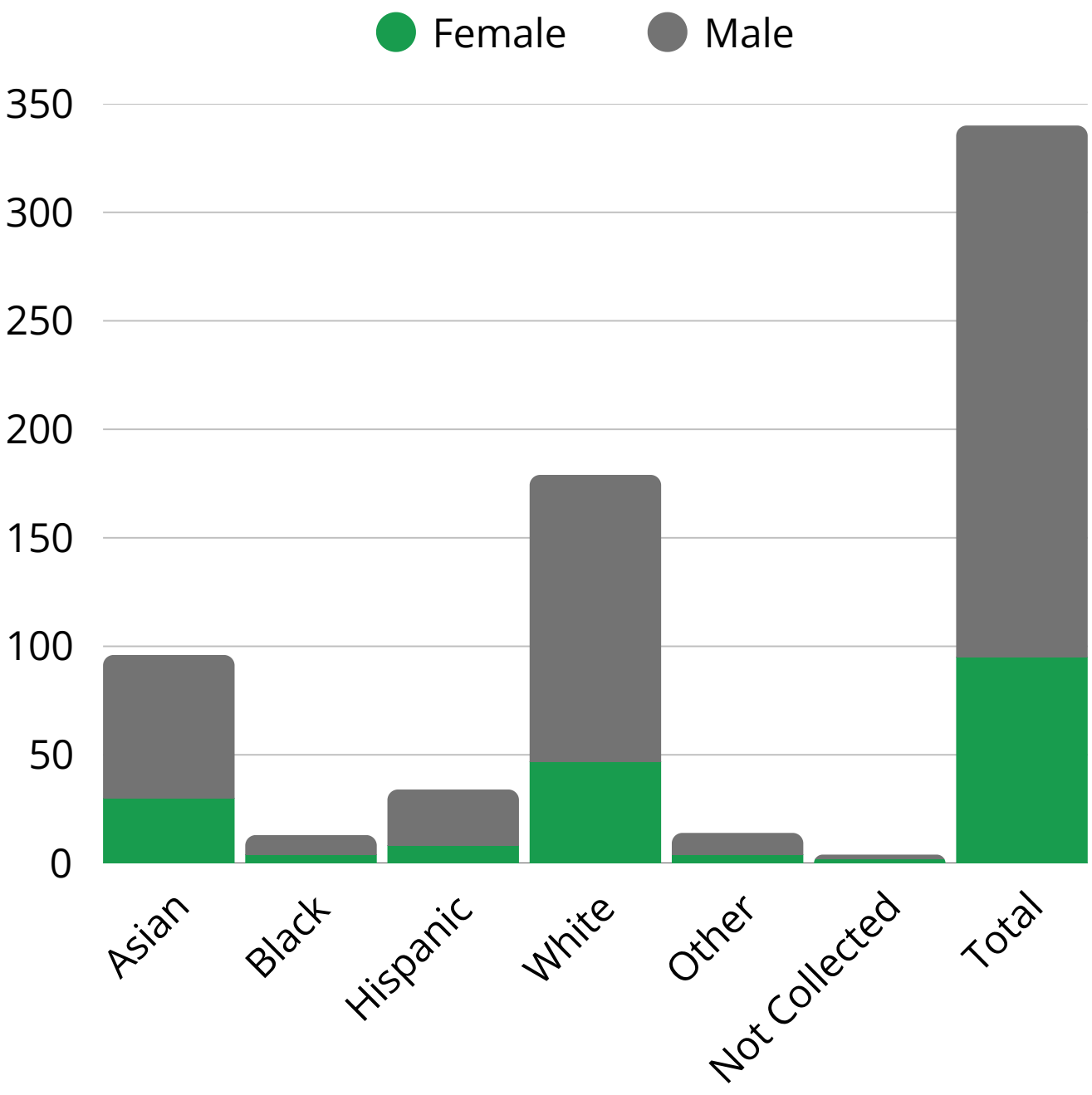
Goals of the PRIDE ERG:

- Connection
- Career development
- Outreach

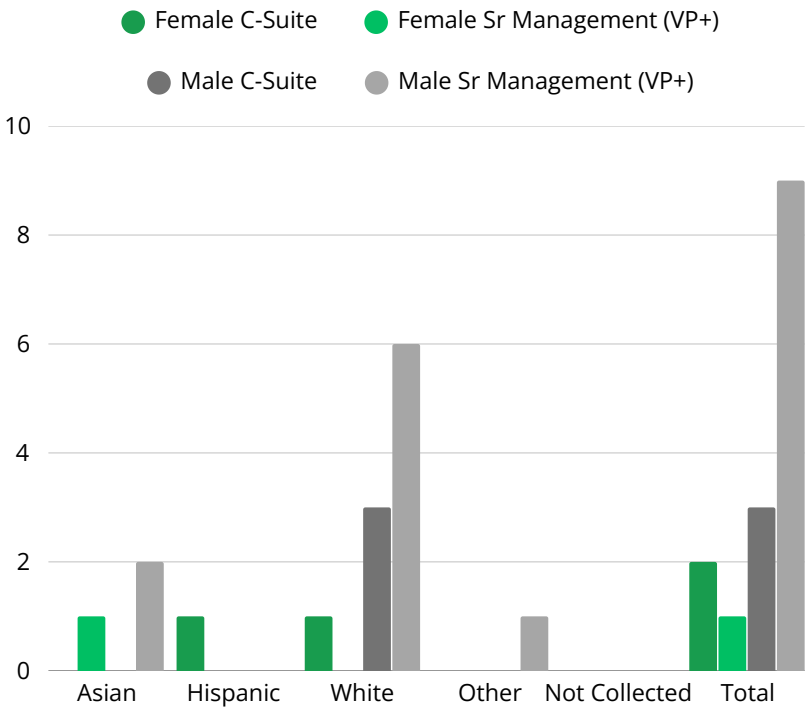
DEMOGRAPHICS

The following depict Electric Hydrogen's demographics as of December 31, 2024:

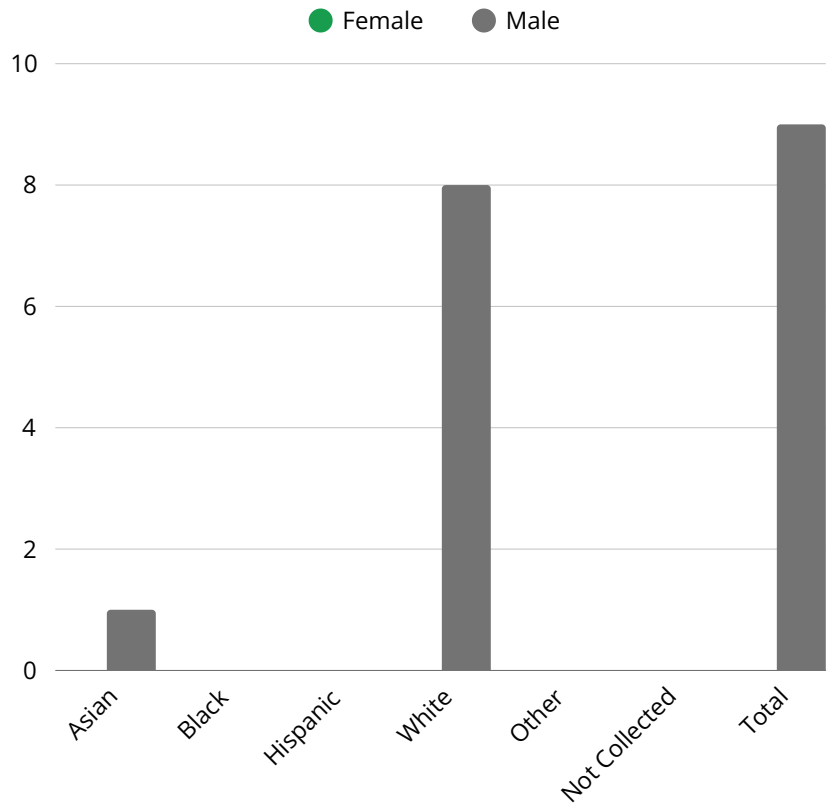
All Employees



Executives



Board of Directors



HEALTH AND SAFETY

Electric Hydrogen is a “Zero Harm” organization. Whereas part of our overall mission to create clean energy solutions we ensure that our operations and equipment cause no harm to people and the environment. We achieve this through risk assessment programs, encouraging employee participation in risk management, using control of work tools, learning, and sharing experience, and keeping our commitment to safety excellence.

Electric Hydrogen uses Safety Stratus to manage an enterprise-wide risk register of all hazards identified through HAZOP (Hazard and Operability Studies), LOPA (Layers of Protection Analysis), Risk Assessments, JSA/JHA (Job Safety/Hazard Analysis), and work observation programs which generate key review metrics to drive continual improvement. In 2024, our total recordable injury rate (TRIR per 200,000 hours) was 0.83, with 3 recordable injuries. As defined under OSHA, an injury is considered recordable if it requires medical attention beyond first aid. Electric Hydrogen’s safety data includes all of the company’s manufacturing, R&D, and testing facilities in the U.S. We had no high-consequence work-related injuries in 2024.

Electric Hydrogen employees receive an initial site safety orientation during onboarding, as well as mandatory health and safety training, and training courses specific to their job requirements. Safety metrics are reviewed company-wide on a monthly basis at all-hands meetings, and are a core metric in corporate goal-setting.

2024 Health and Safety Summary

- Documented Learning Opportunities: 576
- Hazard Recognition Ticket Submissions: 128
- Near Miss Reports: 110
- Total Incident Reports: 31
- OSHA Recordable Injuries: 3

GOVERNANCE

The success and reputation of Electric Hydrogen are built upon the principles of fair dealing and ethical conduct. We are committed to complying with applicable local, state, and federal laws and regulations, as well as to the highest standards of ethics and personal integrity.

Our Chief People Officer and Chief Legal Officer oversee our ethics and compliance programs. Electric Hydrogen has an existing mechanism for reporting any misconduct or policy violations via various channels, including our Ethics Hotline (+1-339-232-0628). Any Electric Hydrogen employee or stakeholder can report concerns to the Ethics Hotline, anonymously, confidentially, and free of retaliation.

Electric Hydrogen's Anti-Bribery and Anti-Corruption Policy requires all employees to conduct business in a fair, open, and honest manner and in full compliance with applicable anti-bribery or anti-corruption laws. These policies are part of both Electric Hydrogen's Code of Business Conduct and Electric Hydrogen's Supplier Code of Conduct. Our Chief Legal Officer oversees compliance with our anti-corruption policy.

Electric Hydrogen is committed to complying with data privacy and protection laws applicable to our business. Electric Hydrogen's Electronic Resources and Information Security Policy sets out standards for the proper use and protection of electronic resources and the information we maintain. Our Director of Information Technology oversees compliance with our data privacy and security policy.

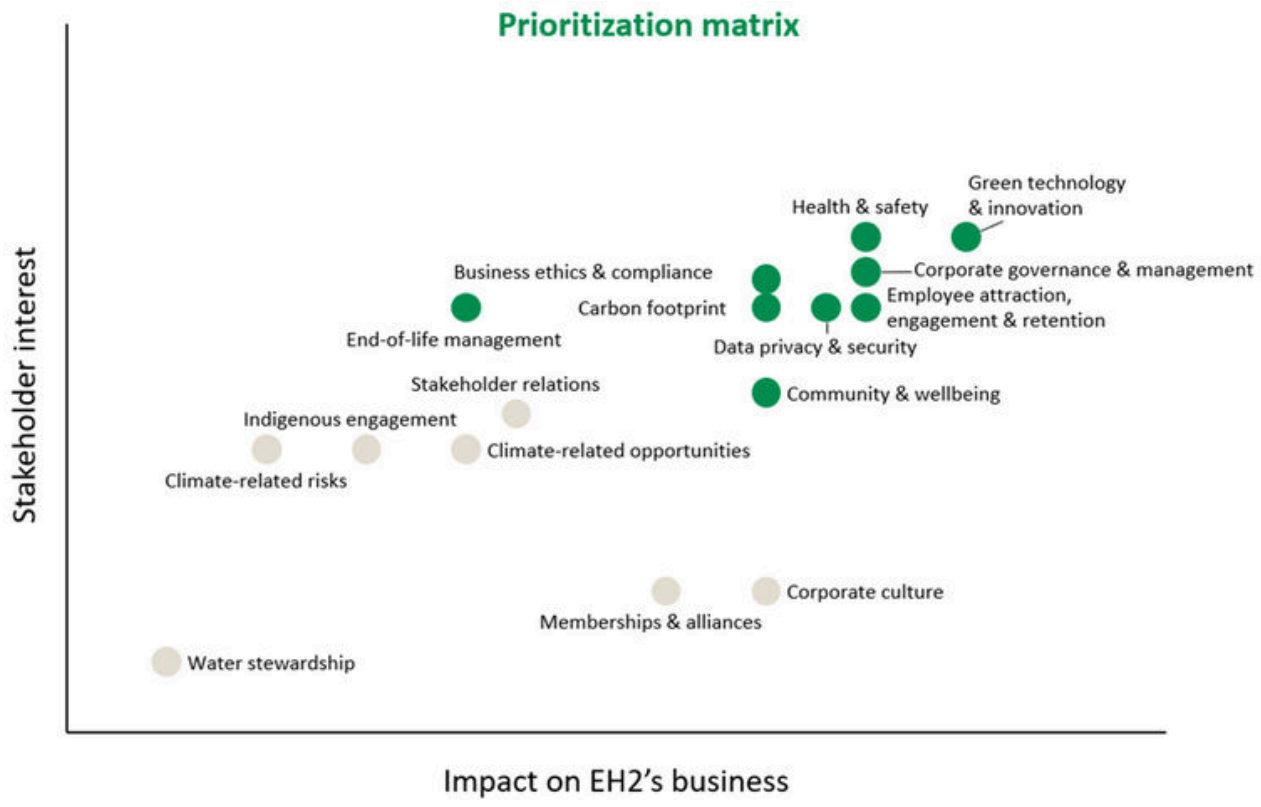
Electric Hydrogen's Code of Business Conduct demonstrates our commitment to these principles and guides the company's business conduct.

Additional Resources

- Anti-bribery and Anti-corruption policy
- Anti-money laundering policy
- Confidentiality policy
- Employee handbook
- Environmental health & safety (EHS) standards, procedures and guidelines
- Generative AI policy
- Lone worker policy
- Safe ride home program
- Security surveillance policy
- Transaction review and approval policy
- Travel and expense policy
- Workplace violence prevention plan

MATERIALITY ASSESSMENT

As part of our materiality assessment process, we shortlisted material topics for our business and sector using a prioritization matrix. The prioritization criteria were stakeholder interest and business impact.Stakeholder interest refers to topics that are of importance to key stakeholders, identified through conversations with executive leadership, employees, customers, investors, suppliers and community. These are mapped against their impact on Electric Hydrogen's business operations.The shortlisted topics are shown in green for near-term prioritization. They include environmental topics such as carbon footprint, end-of-life management, and technology and innovation, which is also central to Electric Hydrogen's mission. Social topics include health and safety, employee engagement, and community impact. Governance topics include management systems, business ethics, and data security.



KEY PERFORMANCE INDICATORS

METRIC	UNITS	2023 VALUE	2024 VALUE	GRI REFERENCE
Greenhouse gas emissions				
Scope 1 emissions	metric tons CO2-eq	369	1,779	305-1
Scope 2 emissions (market-based)	metric tons CO2-eq	220	1,113	305-2
Scope 2 emissions (location-based)	metric tons CO2-eq	691	2,425	305-2
Scope 3 emissions	metric tons CO2-eq	17,725	18,223	305.3
Purchased renewable energy certificates	megawatt hours (MWh)	1077.1	0	305.5
Purchased offsets	metric tons CO2-eq	1345	0	305-5
Air quality				
Volatile organic compounds	metric tons CO2-eq	0	0	305-7
Energy				
Diesel consumption	megawatt hours (MWh)	125	5,244	302-1
Natural gas consumption	megawatt hours (MWh)	1852	2,084	302-1
Total fuel consumption	megawatt hours (MWh)	1977	7,328	302-1
Electricity consumption	megawatt hours (MWh)	2892	10,823	302-1
Total energy consumption	megawatt hours (MWh)	4869	18,151	302-1
Water				
Total water withdrawal	megaliters	19.1	24.9	303-3
Waste				
Disposed nonhazardous waste	metric tons	258	290	306-5
Disposed hazardous waste	metric tons	4	7	306-5
Recycled nonhazardous waste	metric tons	190	201	306-4
Total waste	metric tons	452	498	306-3
Occupational health and safety				
Total recordable injury rate	Incidents per 200,000 hours	0	0.83	403-9
High-consequence work-related injuries	number	0	0	403-9
Fatalities	number	0	0	403-9
Demographics				
Male workforce	percentage	71%	72%	405-1
Female workforce	percentage	29%	27%	405-1
Male senior management	percentage	72%	74%	405-1
Female senior management	percentage	28%	26%	405-1

THANK YOU

Contact

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