



Green Hydrogen at Work

# ESG Report 2021





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## Forward-Looking Statements

All financial numbers in this report are based on U.S. Generally Accepted Accounting Principles. This report contains forward-looking statements within the meaning of the United States federal securities laws. These forward-looking statements do not constitute guarantees of future performance. These forward-looking statements are based on current information and expectations, are subject to uncertainties and changes in circumstances, and involve a number of factors that could cause actual results to differ materially from those anticipated by these forward-looking statements. For a further description of the risks and uncertainties that

could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of PLUG in general, see PLUG's public filings with the U.S. Securities and Exchange Commission (the "SEC"), including the "Risk Factors" section of PLUG's Annual Report on Form 10-K for the year ended December 31, 2021 and any subsequent filings with the SEC. The forward-looking statements are made as of the date hereof, and PLUG undertakes no obligation to update such statements as a result of new information. All financial numbers in this report are based on U.S. Generally Accepted Accounting Principles.



# Letter from the Chief Executive Officer

Plug's mission is to bring advantages of the total green hydrogen ecosystem value chain to customers and people everywhere. We are here to guide the world to a more sustainable future with accessible, dependable, and cost-effective green hydrogen energy. While there are many solutions to help our world reach its net-zero emission goals, we believe green hydrogen is the future to safely powering at least 20% of the planet. 2021 was a year marked by growth, increased innovation, and focused execution of Plug's purpose, which is to reimagine the energy ecosystem and promote the green hydrogen economy. We continue to deliver on our purpose to build the clean hydrogen economy through solutions that lower carbon footprints, increase productivity, and lower operating costs. We are enabling the paradigm shift to an electrified world by innovating clean, cutting-edge hydrogen fuel cell solutions across a broad spectrum of transportation, aerial, and stationary applications.

While we are driven by our ability to provide the world with a way to operate more sustainability, consistently, and efficiently, we believe that we must deliver on our own strategy to do the same. Plug was the first energy company to believe in the hydrogen revolution. The

idea came from our customers, who reached out and asked for a new energy source. We went all in to make commercial hydrogen a reality and built an ecosystem with our customers and environment in mind.

It worked. Today, global clients are reaping tremendous economic and environmental benefits. And we are bringing the advantages of the total, end-to-end Green Hydrogen solutions to customers everywhere, around the world.

Since we released our 2020 report, we have made incredible strides to positively lessen our environmental footprint, support the well-being of our people, and support the communities where we live and operate. We remain committed to upholding our high ethical standards for business practices and to our people-first approach.





In 2021, we focused on executing four strategic initiatives:

- Maintaining our strong revenue growth
- Expanding our green hydrogen business
- Successfully launching several joint ventures, which expanded our global presence and offerings
- Continuing to expand our existing joint ventures, partnerships, and acquisitions in the hydrogen ecosystem

Our newly formed joint venture with Renault, Hyvia, is building multiple hydrogen fuel cell-powered light and medium duty commercial vehicles, which will begin deployment for test pilot programs in Europe during 2022. During our 2021 Plug Symposium, we announced major breakthroughs in our development of creating a zero-emission hydrogen fuel cell vehicle. The zero-emission Renault Master Van equipped with 30kW fuel cell solution based on our Plug ProGen platform can be refueled in minutes and will boast a range of more than three hundred miles, making it an ideal vehicle for light and medium duty commercial vehicles to transport goods.

To achieve our goals, we expanded domestically and are beginning to tap into international markets. In 2021, we announced four (4) new hydrogen plants for New York, Georgia, Texas, and California. Plug subsequently broke ground on the plants in New York and Georgia, which we expect will begin producing green hydrogen in 2022. We also announced the location of our European service and logistics center in Duisburg, Germany and the Plug Innovation Center in Rochester, NY, which will provide about 375 new jobs in the region. With this expansion and our strong customer relationships, our company achieved revenue of \$502 million in 2021, that represents 49% growth in gross revenue compared to 2020. For additional information, please see our current form 10-K which is available on the Investor Relations section of our website: [Click here for the Plug 2021 10-K](#)

To keep pace with our rapid growth, we also increased our workforce by approximately 1,226 employees, that equates to roughly a 96% increase year over year. Our people are the foundation of everything we do and maintaining a safe workplace is a top priority at Plug. With that commitment to our people as a guiding principle, we added the role of a COVID Concierge to offer employees information about vaccinations, schedule vaccine appointments, and arrange rides to and from appointments. The COVID Concierge is also responsible for tracking and tracing potential exposures and illnesses to help combat the virus and minimize the impact to our people, communities, and business.

I am extremely proud that we have achieved an exemplary workforce health and safety record, provided our employees with more than 19,500 hours of training,

and enhanced our focus on increasing the racial, ethnic, and gender makeup of our workforce. Plug takes considerable pride in being an Equal Opportunity/Affirmative Action Employer and an employer of choice for veterans. In recognition of the importance of giving back to our communities, we enlarged our internal community relations team and exceeded our goal of facilitating more than \$50,000 in direct employee contributions to United Way.

Throughout this tremendous growth, we seek opportunities to collaborate with other like-minded stakeholders to reduce our impact on the planet and provide low-carbon solutions. In November 2021, I represented Plug at the United Nations Climate Change Conference (COP26) in Glasgow, Scotland where I had the opportunity to discuss the future of sustainability innovation and policy with leaders from across the globe. I had the privilege of speaking with Secretary John Kerry, Special Presidential Envoy for Climate, among others to discuss pressing issues in the climate space including how companies like Plug can invest in developing nations to increase their use of clean energy. Plug will continue to play an important role as an international thought leader on policies to promote the production and use of green hydrogen to decarbonize the world economy and meet key climate goals.

Plug was also admitted into the Responsible Minerals Initiative (RMI), an organization where more than four hundred companies work together to support responsible mineral producing and sourcing around the world. With the support of RMI, Plug will further its goal of creating energy responsibly, including in high-risk areas.

Plug will continue to play a key role as an international thought leader on policies to promote the production and use of green hydrogen to decarbonize the world economy and meet key climate goals.

We could not be more excited about Plug's opportunities to create an inspiring vision for the future of our employees, customers, investors, and communities. We are still early in our own sustainability journey and there is certainly more work to do, however, I hope this report helps you understand how Plug contributes to the future of the clean hydrogen economy, and to building a sustainable future for our planet.



Andrew Marsh,  
President and CEO

## About Us

Plug is a leading provider of end-to-end green hydrogen solutions that enable the decarbonization of the planet. Plug offers green hydrogen solutions for a variety of markets and applications with an ecosystem of vertically integrated products that make, transport, store, and compress, dispense and use hydrogen.

Additionally, as one of the largest users of liquid hydrogen and with more hydrogen refueling stations than any competitor, we have positioned ourselves as a leader to build and commercialize the emerging green hydrogen economy. As the first to create a commercially viable market for hydrogen fuel cells (HFC), which power electric motors with zero emissions, we have deployed more than 52,000 fuel cell units and have almost 25 years of innovation in fuel cells.

We are a people-first company, building for the future on the brilliance, dedication, and determination of our employees. Our innovative products are developed and supported by our global footprint and workforce.

Plug is headquartered in Latham, NY with research laboratories, service and training centers, manufacturing facilities, and liquid hydrogen plants across North America and Europe. In 2021, Plug grew tremendously. On Nov. 12, 2021, we held a grand opening of the Plug Innovation Center, our green hydrogen and PEM fuel

cell Gigafactory in Rochester, NY. This is New York's first and largest fuel cell and electrolyzer manufacturing Gigafactory and is expected to create almost 375 new jobs in Monroe County.

We expanded our green hydrogen generation footprint to include locations in Camden County, GA, Fresno County, CA, and the New York Science, Technology and Advanced Manufacturing Park (STAMP), in Monroe County, NY, having broken ground on the plants in Georgia and New York in 2021. As of the first quarter of 2022, Plug employs 1,683 people, 829 of which were hired within the reporting period. The map below depicts our current locations and planned future locations:

We are innovating at a rapid pace through in-house development, acquisitions, and joint partnerships. Our company's capacity to produce green hydrogen is on pace to expand to 500 TPD of production in North America by 2025 and 1,000 TPD on a global basis by 2028. Our future projects will decrease the cost of green hydrogen significantly.

Through the development of these breakthrough technologies, we maintain a large portfolio of intellectual property with 102 live and 7 pending patents in the United States (as of April 21, 2022).



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## About This Report

Plug views ESG as the universe of topics we use to evaluate our relationship with society and the environment. These topics assess impacts and dependencies of our business on society and the environment and connect them to areas of performance management.

Several reporting frameworks and standards have been developed with the purpose of enhancing transparency and consistency and communicating sustainability as it relates to these non-financial disclosures. We recognize that the market is moving toward a more standardized reporting process and that our stakeholders seek improved comparability and consistency in reporting across countries and industries. In a rapidly evolving ESG landscape, we are dedicated towards establishing a systematic and integrated approach to address risks, drive value, and build organizational resilience.

This report covers Plug's ESG-related efforts for the 2021 calendar year. We report in alignment with the Sustainability Accounting Standards Board (SASB) standards for the Fuel Cells and Industrial Batteries industry.



# Our Approach

Our commitment to sustainability is deeply rooted in our products, mission, core values, and people. We are focused on continuing to lead energy transformation with our hydrogen solutions. At Plug, we recognize that we need to utilize our Earth's natural resources efficiently to minimize the impact of climate change across the globe. Our end-to-end hydrogen solutions enable a clean economy and maximize value for our customers. We believe our approach will help the economy transition from one that is fossil fuel-driven to one that is better for a livable planet. We know this will only be possible by continuing to prioritize our people and their desire to help fulfill this mission. We hire the most ambitious minds to innovate products and make them more accessible to businesses of all sizes around the globe.

We are determined to displace diesel and other fossil fuels with green hydrogen, which we will generate globally, to enable the transition to a low-carbon economy. This transition is taking shape through sustainable solutions and decarbonization of industries such as transportation (aviation and logistics), energy, power, industrial processes, material handling, and data centers.

Our ESG efforts at Plug are led by our Director of Investor Relations with the support of teams across the company who contribute the necessary information for this report. Our board's Corporate Governance and Nominating committee provides oversight for the company's ESG program. Our goal for 2022 is to continue to develop our ESG governance structure to enhance transparency, consistency, and standardization across the business.

In 2020, we conducted a material assessment with the assistance of a third-party to gain an understanding of which ESG topics were "material" or most relevant for us. To gather this data, we engaged priority stakeholder groups to gain an understanding of the topics that are of greatest importance for Plug.

This materiality assessment uncovered the following topics for focus:

Managing our environmental impacts:

- Energy management
- Development of low/no carbon solutions
- Product end of life management
- Product efficiency

Social:

- Employee health and safety
- Diversity & inclusion
- Community investment

Governance:

- Supply chain management
- Board and executive compensation management

In our first ESG report, we focused on reporting data consistent with our highest priority topics. This year, we are expanding our reporting to include additional topics, such as employee turnover, employee training, and global supply chain monitoring, among others.

We continue to mature our data collection and reporting processes and we are learning throughout our journey. As our second year of ESG reporting concludes, we endeavor to continuously improve to meet and exceed the expectations of our stakeholders for transparent disclosure. Over the course of the next year, we expect to implement additional technology solutions and expand internal programs and resources that will advance our ESG efforts. We look forward to providing an update on those efforts in our next report.



## Our Commitments

We understand that our employees, customers, community partners, suppliers, business partners, and investors care about their carbon footprint and its impact on the environment, driving a shift toward electrification and clean energy sources. Our mission is to build the clean hydrogen economy – green hydrogen sustainability solutions that lower carbon footprints, increase productivity, and lower operating costs. Our commitment to the environment is reflected not only through the impacts of our products in operation but also through the impacts of our manufacturing processes and our products' end-to-end life cycle. We are committed to resource efficiency, responsible design, materials management, and recycling.



# Product Innovation

## Value Proposition

“The promise of green hydrogen is here today – driven by Plug’s innovation and the vision of our customers.” – Andy Marsh, CEO

At Plug, we are enabling the transition to a green hydrogen economy and aim to displace the use of diesel and other fossil fuels in power, mobility, and industrials.

## Green Hydrogen

Over the past year, our green hydrogen generation targets and projected capacity have significantly increased with the announcement of new developments and product innovation such as our electrolyzers. Our capacity to produce hydrogen is on pace to reach our targets of 500 TPD by 2025 in North America and 1,000 TPD globally by 2028. We also aspire to make green hydrogen more affordable. While hydrogen currently costs around \$3 to \$6 per kilogram, we project that due to the advancements of our electrolyzer technology and build out of our hydrogen network across North America, that cost could be significantly reduced. Our cost reduction road map for green hydrogen generation will not only allow the world to significantly reduce its carbon footprint by replacing fossil fuels, but it will allow for energy independence from countries who are dependent on natural gas from hostile governments. Plug is working very closely with our partners globally to accelerate our efforts in this energy transition in the face of the tragic events we have seen unfold in Ukraine.

We continue to be a leader in sustainable innovation. New initiatives will keep us on pace to generate much of our hydrogen from renewable sources. We recently announced initiatives for our planned California and Texas hydrogen facilities, in partnership with the local towns, to build tertiary water treatment plants to produce recycled water at the existing wastewater treatment plant. Plug will also look to use high efficiency reverse-osmosis systems that can concentrate impurities in water which should result in much lower volumes of reject water (5% vs 25% of incoming volume). In these ways, Plug will ensure that the water requirements for our green hydrogen network does not compete with existing water users, especially agriculture.

The production of hydrogen is made possible due to the electrolyzer, which uses electricity to split water into hydrogen and oxygen. This is just one way in which

We are committed to building out a “first of a kind” green hydrogen generation network targeting 500 tons per day (TPD) of green hydrogen production in North America by 2025, and 1,000 TPD globally by 2028. This is important to our company and customers, and we are working together to each become sustainable and reduce carbon emissions.

we are innovating our operations and reimagining the supply chain to limit emissions. Although hydrogen is a low carbon energy source, we recognize that the transportation of hydrogen through use of conventional internal combustion engine trucks contributes to our greenhouse gas emissions and we are taking steps to reduce and, eventually, eliminate these sources of emissions. This initiative is an important step forward in making our value chain cleaner by addressing the transportation of hydrogen tanks from suppliers to our facilities.

Through our suite of hydrogen generation, transportation and fuel cell power for a growing number of applications, we provide a comprehensive end-to-end green hydrogen energy solution. Our vertical integration strategy positions Plug as the global leader in generation, liquefaction, distribution and dispensing of hydrogen. Joint ventures and acquisitions have shaped our vertical integration strategy by enabling us to offer end to end hydrogen solutions.

Our company’s vertically integrated business model enables us to develop new use cases and applications for hydrogen while focusing on our core product of hydrogen production and fuel cell technology. Hyvia, our joint venture with Renault, is making tremendous strides in the development of hydrogen fuel cell passenger vans and commercial vehicles. We are building large vans and minibuses equipped with 30kW fuel cell engines with ranges of 250km and 300km respectively.

Throughout recent years, acquisitions have enabled us to grow from a fuel cell company to a green hydrogen provider that addresses the progression of operations. In 2020, we acquired United Hydrogen, one of the largest privately held producers of hydrogen at the time, and Giner ELX, a global electrolyzer developer with more than four decades of experience. These acquisitions are leading contributors to our increased

capacity projections and will enable us to significantly scale up our production of green hydrogen. In 2021, we acquired Frames Group, which adds engineering, process, and systems integration expertise to Plug.

Finally, our recent acquisitions of Applied Cryo Technologies in 2021 and Joule Processing in 2022 adds significant capabilities, expertise, and technologies, including efficient liquefaction, liquid hydrogen delivery network and fleet, liquid hydrogen storage, and hydrogen mobility fueling, which will enable the company to expand its green hydrogen ecosystem and lower the cost of hydrogen infrastructure and logistics networks. The full integration of Applied Cryo Technologies' and Joule processing's leading cryogenic equipment design and manufacturing capabilities with Plug's green hydrogen production and distribution capabilities will help us move closer to achieving our ambitious goal of producing more than 1,000 TPD of green hydrogen globally by 2028.

Additionally, in 2021, we broke ground on three new plants, two of which are targeted to produce up to 15 TPD and the third targeting production of 45 TPD of green hydrogen. Our green hydrogen production is projected to scale to 200 TPD of capacity across North America by the end of 2023. By 2024, we are targeting to have approximately four times the number of green hydrogen plants in our network that we plan to have in

production by year end 2022. The acquisition of Giner ELX and investment in electrolyzer manufacturing capacity positions us to transition from low-carbon to zero-carbon hydrogen solutions.

Plug's clean energy products deliver a significant value proposition to our customers and the environment, including zero-emission power, robust reliability, improved efficiency, scalability, and lower operational costs. The only byproducts of hydrogen fuel cells are heat and water. They do not produce harmful emissions, which eliminates the costs associated with handling strong toxic materials like battery acid or diesel fuel. Our technology has proven it can withstand tough conditions including freezing temperatures as low as -40 degrees Celsius, and extreme weather conditions such as hurricanes, deserts, and winter storms. HFCs are also 40-60% energy efficient, according to the U.S. Department of Energy<sup>1</sup>, compared to 20% in a typical internal combustion engine car. Our modular products allow for greater reliability and easier serviceability which enables them to operate at scale. Fuel cells save money compared to batteries and internal combustion generators. Reduced downtime due to faster fueling and fewer maintenance and site visits can result in 84% lower operational costs compared to combustion generators for stationary power. This provides a critical benefit of fuel cell longevity, which is especially beneficial for industries such as trucking.



# Product and Turnkey Solutions - Market and Applications

We offer an array of green hydrogen solutions that address every step of operations, including:

## **Green hydrogen production through electrolysis:**

Plug electrolyzers use technology called proton exchange membrane (PEM) water electrolysis that can be paired with renewable and intermittent sources of energy such as solar, wind, and hydro-electric power to produce green hydrogen at a low cost to customers. Large markets for green hydrogen include companies producing steel, fertilizer, oil and gas, and chemicals like ammonia and methanol, fuel for fuel cell vehicles like buses and long-haul trucks, and power generation.

## **Hydrogen liquefaction:**

Plug liquifies hydrogen for transportation at atmospheric pressure and temperatures below -400OF resulting in extremely high efficiency.

## **Hydrogen transportation:**

Plug designs and manufactures cryogenic trailers and mobile storage equipment for hydrogen and other markets. This enables efficient long-distance transportation of liquid and gaseous hydrogen to meet customer needs.

## **Hydrogen compression and storage:**

Plug's hydrogen compression and storage system comprises of a bulk liquid storage that can hold between 15,000 to 18,000 gallons of liquid hydrogen at -423°F, compressors and liquid pumps to compress to 7,000 psi and gaseous storage tubes that can hold up to 120 kg of gaseous hydrogen — enabling on site storage at customer locations for a variety of fuel cell applications.

## **Hydrogen refueling stations for dispensing:**

Plug's hydrogen dispenser systems are available at 350 bar and 700 bar for mobility and material handling applications. The dispenser systems display a user interface system and state-of-the art safety systems. Plug has more than 165 hydrogen refueling stations at sites across the U.S. addressing a variety of material handling and mobility requirements.

## **Hydrogen fuel cells:**

Plug develops and manufactures PEM-based fuel cells that power forklifts, fork-trucks, Class 6 through Class 8 trucks, and serve as backup or primary generators at distribution and data centers. Fuel cells are also being used now at charging stations for electric vehicles (EVs). We provide green hydrogen solutions to replace batteries in electric material handling vehicles and industrial trucks for some of the world's largest distribution and manufacturing businesses such as Amazon, Walmart, Home Depot and Lowe's to name a few. We are focusing our efforts on industrial mobility applications, including electric forklifts and electric industrial vehicles, at multi shift high-volume manufacturing and high-throughput distribution sites where we believe our products and services provide a unique combination of productivity, flexibility, and environmental benefits. Additionally, we manufacture and sell fuel cell products to replace diesel generators in stationary backup power applications for data centers, telecommunications, transportation, and utility customers.



Other Plug services include our ongoing Internet of Things-based maintenance and on-site service program for material handling fuel cells, mobility and stationary fuels cells, hydrogen compression, storage, and dispensing systems.

Aside from these products and services, there are immense opportunities for others to capitalize on the green hydrogen momentum. New market applications such as green hydrogen commercial fleet vehicles, stationary power, aerospace, and more are emerging to disrupt diesel and fossil fuel run industries. For example, Class 3 to Class 8 commercial fleet vehicles

for last, middle mile, and long-haul journeys are being built for zero emissions hydrogen use cases. Along with transportation applications, we are developing UAVs and drones through our acquisition of EnergyOr. This technology is addressing the long flight time gap in UAVs today. We are excited about what the future holds for our innovation here at Plug and will continue to hire the best talent to develop these sustainable solutions!

<sup>1</sup> US Department of Energy, "Fuel Cells Fact Sheet", [https://www.energy.gov/sites/prod/files/2015/11/f27/fcto\\_fuel\\_cells\\_fact\\_sheet.pdf](https://www.energy.gov/sites/prod/files/2015/11/f27/fcto_fuel_cells_fact_sheet.pdf)

## Our PEM Technology

Our hydrogen fuel cell and hydrogen electrolyzers utilize transformative proton exchange membrane (PEM) technology to displace internal combustion engines and generate hydrogen. Our hydrogen fuel cell is a clean energy power generator that combines hydrogen and oxygen to produce electricity, with water and heat as by-products. Simply put, HFC's can be used to power anything from commercial vehicles to drones and data centers by substituting a conventional engine with our fuel cell, like how an electric vehicle replaces an internal combustion engine with a battery. Hydrogen fuel cell technology offers the advantages of a clean and reliable alternative energy source to customers in three markets with large scale opportunities: power, product, and mobility.

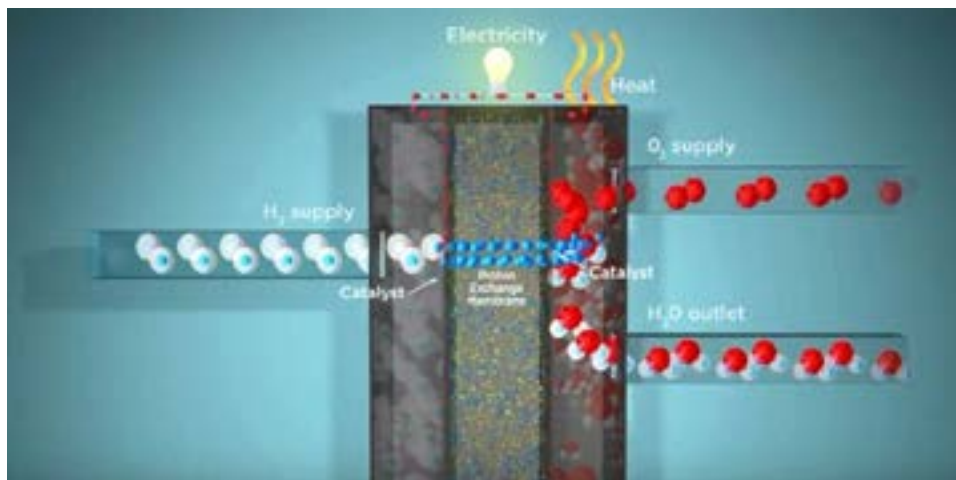


Figure \_ presents how a PEM fuel cell generates electricity with zero greenhouse gas emissions. Hydrogen passes through the PEM to generate energy with water and oxygen as the by-product. [harmonize fuel cell and elx schematics]

Developed by one of the most experienced teams in the world in PEM electrolysis, Plug's electrolyzers generate clean hydrogen with zero CO<sub>2</sub> emissions by splitting water into hydrogen and oxygen, a process called water electrolysis. Electrolysis is the exact opposite of the fuel cell process with water and electricity as inputs and hydrogen and oxygen as the outputs.

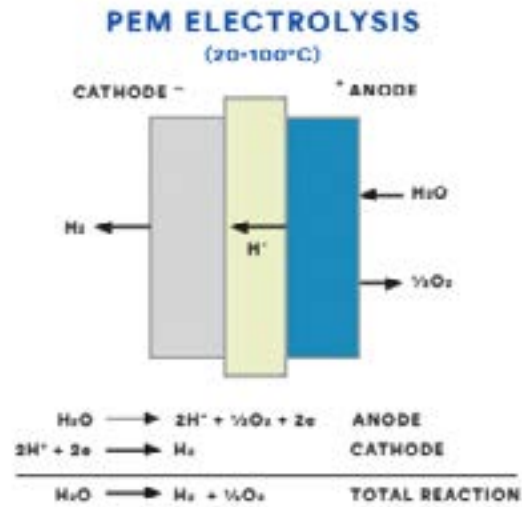


Figure \_ shows a diagram of how electrolyzers produce hydrogen.

# Environment

Businesses, investors, governments and individuals care about their carbon footprint and its impact on the environment, driving a shift toward electrification and clean energy sources. Our commitment to the environment is reflected not only through the impacts of our products in operation but also through the impacts of our manufacturing processes and our product's end-to-end life cycle. We are committed to resource efficiency, responsible design, materials management, and recycling. Our mission is to consistently increase our supply chain responsibility and manage our products at the end of their lifecycles so that we can operate in ways that create long-term environmental value.

## Product Stewardship and Circularity

We are proud of our efforts to be good environmental stewards with respect to our products. Our products are 100% recyclable and/or reusable. Still, we know there is always room for improvement, particularly when it comes to protecting the world we live in.

We are currently working to better understand the environmental impacts of our products' manufacturing processes and life cycles. As part of this initiative, we began a project to quantify our carbon footprint for each of our products. We successfully completed quantifying

We also monitor products reaching the end of their life cycle. When they can no longer be used for their intended purpose, we employ four end-of-life treatment options:

- Rental program: During high-demand times, we will rent products from vendors when their life cycle ends and we will return them to the vendor.
- Component reclamation: We reclaim used fuel cell components.
- Internal use: Once a product has been used, we will deconstruct it and reuse any pieces we can leverage in our day-to-day operations.
- Refurbish and recycle: We recycle or resell the products once deconstructed.

Since October 2020, we have worked with Elemet, a company that resells recycled and reused materials to

These materials are sold as scrap once the components have been converted into a clean scrap material following the Institute of Scrap Recycling Industries (ISRI) guidelines after manual deconstruction, mechanical size reduction such as shredding, milling, granulation, and commodity segregation or accumulation through magnetic, air, vibratory, screening, or manual separation.

Plug also works with several partners such as Glines & Rhodes and MetalX to able to recycle and reclaim the precious metals that are in our fuel cell and electrolyzer stacks once their life cycle in the field is complete.

the Carbon Intensity Life cycle Assessment for our material handling fuel cells, and established a critical baseline that allows us to improve our future products. Assessing carbon intensity of our products across the life cycle is a critical part of our product development to track improvements and measure against our baseline. We plan to continue this important work in 2022 by quantifying the carbon footprint of additional products.

continue to be used in the economy. After conducting a successful pilot program in 2020, Plug has contracted with Elemet and intends to increase the scale of the recycling partnership, the scope of which includes the primary components of GenDrive fuel cell energy devices, including:

- Steel ballast, frame, and housing
- Empty high-pressure hydrogen vessel/tank free of hydrogen and nitrogen
- Battery pack
- Fuel cell assembly
- Pumps, filters, hoses, secondary liquid vessels, and fueling fittings
- Logic and control assemblies
- Cooling system
- Wiring, sensors, capacitors, relays, and fuses



## **Minimizing Our Environmental Impacts**

As well as providing zero-emission fuel cells to our customers, Plug also utilizes these same fuel cells in our own facilities, where applicable. Our forklifts and pallet jacks are powered by Plug fuel cells and use Plug hydrogen dispensing technology, cutting down on energy use and emissions and enhancing the effectiveness of the equipment.

## **Hazardous Waste Management**

The only hazardous waste we produce are lithium ion and coolant. Lithium ion is sold to a third-party vendor. Because of the hazardous nature of these materials, we utilize responsible vendors who transport this waste safely to ensure nothing is damaged and there are no injuries. Hydrogen is the output product of electrolyzers, and it will typically be used to power hydrogen fuel cells. Excess hydrogen is vented into the atmosphere after being mixed with nitrogen and neutralized, so it is not flammable nor explosive.





## **Renewable Energy Use**

In 2021, Plug made tremendous strides in adopting renewable energy use in our operations. As a result of three power purchase agreements (PPA), we will be well positioned to utilize renewable energy at three of our hydrogen production sites as soon as 2022:

### **345 MW wind PPA with Apex Clean Energy in Texas**

The power purchased through the PPA with Apex will directly supply a new hydrogen production plant with 100% renewable power. The hydrogen plant, which is being co-developed by Apex and Plug, will be the first and largest wind-supplied hydrogen project in the United States and the largest onshore wind-powered project across the globe. Once operational, the plant is anticipated to produce over 30 metric tons per day of clean liquid hydrogen, enough to fuel the equivalent of over 2,000 light commercial vehicles or over 1,000 heavy duty class 8 trucks. The partnership, which follows the September 2020 announcement of our collaboration agreement with Apex will help realize the potential of green hydrogen in North America to advance the decarbonization of the transportation and industrial sectors.

### **Niagara Power Authority that will harness hydro power from Niagara Falls**

The \$290 million electricity substation and state-of-the-art green hydrogen fuel production facility at the Western New York Science, Technology and Advanced Manufacturing Park located in the Town of Alabama, Genesee County will produce 45 metric tons of green liquid hydrogen daily servicing the Northeast region. When completed, the facility will offer our transportation fuel customers pricing competitive to diesel, leading the way to decarbonizing freight-transportation and logistics supporting New York's path to achieving carbon-neutrality by 2050.

### **120 MW zero-carbon solar power PPA in Fresno County with Candela**

Using a new 300 megawatt zero-carbon solar farm in Fresno County, we will power our PEM electrolyzers to produce 30 metric tons of liquid green hydrogen per day purchased through the 120 MW PPA. This project also includes the construction of a new tertiary wastewater treatment plant in the Mendota, CA to provide recycled water in the city and fully supply the water needs of our electrolyzer plant at capacity. This project aims to support the state of California's 2045 carbon neutrality target and their transition away from petroleum-based industries.

### **Renewable electricity with Okefenokee Rural Electric Membership Corporation**

The plant is already producing gaseous green hydrogen for customers. When fully operational, the plant will produce 15 tons per day of liquid green hydrogen, produced using 100% renewable energy and intended to fuel transportation applications, including material handling and fuel cell electric vehicle fleets. Plug is investing \$84 million in the facility, which is expected to create at least 24 jobs in the local community starting in 2022.

In addition, our first seven electrolyzer stacks were sent to Germany for use in our Duisburg facility, where they will displace diesel power. This operation produces 500 kg of hydrogen per 1 MW per day which can displace an estimated 1,000 gallons of diesel per day. The electrolyzer stack displaces an estimated 16,000 tons of CO2 emissions per year by generating clean hydrogen using energy from wind turbines. Building on this momentum in our electrolyzer development, we are projecting to produce 100 MW of electrolyzer stacks in Concord, MA and 800 MW in Rochester, NY in 2022.

### **Use of Green Building Technology**

As we continue to expand, maintaining biodiversity and employing green building technologies in new facilities and plants is a top priority. Plug places importance on selecting new facility locations that minimize our footprint and allow our employees to appreciate our natural surroundings. Areas of focus for our new spaces include using regenerative load banks which help eliminate coolant loops and reduce energy use. We are also focused on minimizing the disturbance of wetlands, and the addition of recreational areas such as mountain bike trails to optimize the outdoor space. Plug is also exploring opportunities to obtain LEED Operations and

### **Cybersecurity**

We are focused on managing cybersecurity risks as our business continues to grow. This requires constant monitoring and protection from potential cyber threats. Our cyber security strategy includes preventative measures, proactive monitoring, and alerting; employee education; and business continuity planning.

The Director of IT is responsible for leading the company's cyber security program and Plug's Board of Directors is updated at least twice annually on the company's cybersecurity efforts. We have established our cybersecurity program in alignment with the National Institute of Standards and Technology (NIST) Cybersecurity Framework.

We utilize tools and technologies such as virtual private networks (VPN), multi-factor authentication (MFA), and complex passwords and further subscribe to the principle of least privilege in support of our Identity and

As we continue to develop and expand the electrolyzer stacks both here in the US and on an international stage, we seek to minimize our global environmental footprint. We believe these technologies will propel the green hydrogen economy, minimizing the need to use diesel and emit fewer CO2 emissions into the air.

Maintenance (O+M) Certifications for existing buildings as well as opportunities to obtain LEED certifications for new buildings in the future.

Plug is committed to a sustainable energy supply and recognize the role we must play in advancing toward a clean energy future. We will continue to develop our products and processes to minimize both our own and our customer's environmental impact to progress toward the green hydrogen economy we envision around the world.

Access Management strategy. Additionally, we monitor our IT environment through our Network Operations Center, conduct purposeful network health and instance verification tests (IVT), administer a strict and continuous patching regimen, and leverage best-in-class tools to prevent and/or detect potential vulnerabilities. Further, to ensure we are proactively addressing emerging risks, we contract a leading third-party cybersecurity firm to periodically assess our IT environment and cybersecurity posture.

Plug's exempt and nonexempt employees are required to perform annual security awareness training which covers topics such as access management, phishing and other areas that affect day-to-day security. New employees also receive training to educate them on their role in protecting Plug's systems and data. Business continuity and disaster recovery plans have been developed and are tested on a routine basis.

# People

As a people-first company, Plug was honored to have been named one of the “Best Places to Work” by the Albany Business Review for the seventh time in 2021. From continually striving to enhance the diversity of our workforce to our dedication to maintaining a safe and healthy workplace, we aspire to be an employer of choice in all markets where we have a presence.

Over the past few months, the Human Resources team has collaborated with employees to gather feedback

## **Diversity, Equity, and Inclusion (DEI)**

Plug is here to change the world, and it’s our people that drive change to make the world a better place. We are powered by the collective differences of our employees, customers, and stakeholders, and we value different perspectives to solve complex problems and bring innovative solutions.

At Plug, our people come first. We promise to listen and hear inspiration from around the globe, championing inclusivity, respecting each other, and celebrating our differences as we build an environment in which we are all proud to be a part.

We are committed to the principles of affirmative action and equal employment opportunity (EEO) for all. We seek to maintain a healthy, safe, and productive workplace free from discrimination or harassment. Plug’s employment practices go beyond just compliance. We will not discriminate in employment practices due to an applicant’s race, color, creed, religion, sex, sexual orientation, gender identity or expression, transgender status, age, national origin, disability status, criminal record, or veteran status. Our CEO, Andy Marsh, together with the leadership team, drive these efforts, which are embedded in our culture and policies.

- Diversity: We embrace the unique characteristics and social identities of our employees. Collectively,

regarding our company’s new Diversity, Equity, and Inclusion statement. Thank you for lending your time and voice. We will continue to drive change, embrace our unique differences and build our culture. We are better together, one Plug team. The following is our new Diversity, Equity & Inclusion statement.

these individual differences enhance our culture and company achievements. At Plug, we’re humble but gutsy – we are listeners and learners whose strength comes from our intellectual and social diversity. That diversity powers innovation and inspires our team.

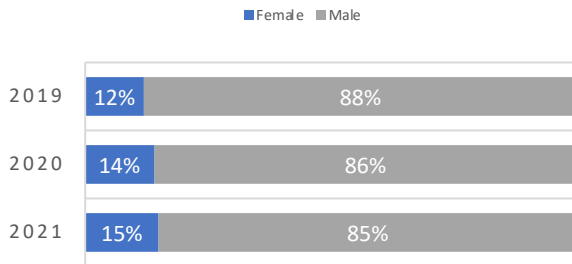
- Equity: All employees have equal opportunity to advance. People are the power of Plug, and we are committed to the investment in our employees. We pledge to provide everyone at Plug with equal opportunity to grow and develop, leveraging the unique skills and differences of their individual background, characteristics, and aspirations.
- Inclusion: We are on a journey to cultivate inclusivity as an organization. At Plug, we are transparent and collaborative, welcoming ideas, thoughts, and questions from everyone. We respect different strengths and viewpoints, understanding that we are stronger together. Perspectives from the collective whole make us better, as we know that we are all part of something bigger than ourselves.

Together, we will change the world for the good of the planet and future generations.

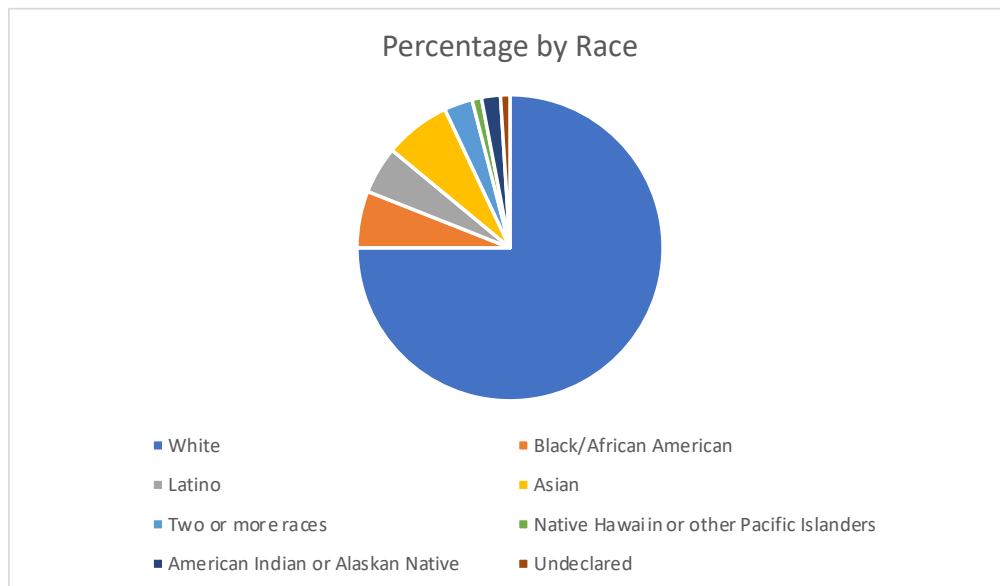
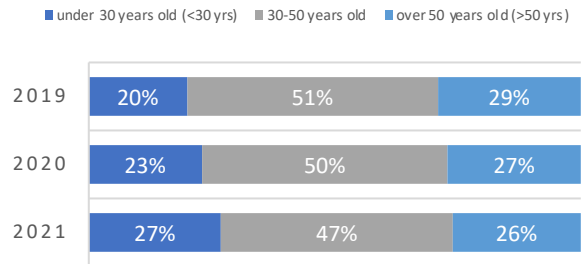
To support and shape our DEI strategy, we track diversity categories within a dashboard in our human capital software. We currently track and report on race, age group, and gender of our governance bodies and employees. We believe that our DEI strategy, like any other, should be rooted in data and analytics to measure progress and foster accountability. In the first six months of 2021, we added a DEI awareness training

to the learning plan for our leadership team and plan to distribute this training to all employees in early 2022. We currently (as of March 31, 2022) have approximately 2,250 permanent employees and roughly 450 temporary workers (17% of total workers). Our employee turnover rate in 2021 for permanent employees was 16.36%. A considerable number of temporary workers is required in manufacturing as we navigate our rapid growth, but the goal is for them to transition to permanent employees.

### WORKFORCE BY GENDER



### WORKFORCE BY AGE





Human Resources (HR) prepares the upcoming year's Affirmative Action Plan and corresponding goals, which are presented to Plug's leadership. This process includes collecting updated data and any required EEO and Veterans' Employment and Training Service (VETS) reporting, compiling the annual data for compliance reporting, refreshing plan data and goals as needed, and finally reviewing and sharing this annually with the executive leadership team.

To progress further on our DEI initiatives such as recruitment, talent development, and equitable compensation packages, we have established the following policies:

- Equal Employment Opportunity and Affirmative Action policies
- Disability Policy
- Veteran Policy
- Pay Transparency
- Individuals with Disabilities and Pregnancy-Related Conditions
- Prohibition of Discrimination, Sexual and Other Workplace Harassment, and Retaliation Policy and Reporting Procedure

These policies are incorporated in the Employee Handbook. Plug employees are provided with a copy of the handbook and are required to review it and confirm their compliance on an annual basis. We also follow the Fair Treatment Policy for our employees and business

partners. For more details on this and our human rights commitments, see the Governance section of this report..

To measure utilization and ensure EEO, we regularly analyze incumbency versus availability data. When the percentage of individuals with disabilities and/or minority status in one or more job groups is less than the utilization goal, we take steps to determine whether and where impediments to EEO exist. Our partnership with Circa, formerly known as LocalJobNetwork, supplements these insights. Circa provides Office of Federal Contract Compliance Programs (OFCCP) compliance management and recruiting technology solutions to deliver a level, equitable playing field for qualified candidates and to meet our goal of building high-performing, diverse teams. Circa has access to a vast network of 15,000 diverse community partners that can support our inclusive culture and trust-building including with veterans, LGBTQ members, individuals with disabilities, minority groups, women, college students, and skilled trade associations. Partnerships with universities and assistance from diverse employees also shape our recruiting efforts. We continue to work with veteran recruitment firms like Orion and are proud to have 137 veterans of the U.S. Armed Services working for Plug, representing an increase of 54% from 2020. Additionally, after collecting insights and input from our employees, we will be looking to establish a Women's Affinity group this year to bring together and empower women in the workplace.

## Competitive Benefits

As part of our commitment to our people, Plug offers employees competitive benefits, including health, vision, and dental plans, flexible spending accounts, comprehensive life insurance (including company provided life insurance), and disability coverage. Additionally, employees are offered a vacation and holiday package, a wellness program to promote active and healthy lifestyles, an employee referral program, educational assistance, and volunteer time.

91.5% of our employees participate in our comprehensive 401(k) package that includes a 401(k)-retirement savings plan, which offers up to a 5% match in Plug stock. To encourage savings, we auto-enroll all employees in the plan after 60 days of employment. Our portfolio reflects our values with increased priority given to socially responsible investing—the plan’s diversified investment options include two socially responsible funds.

At Plug, we believe employee well-being is crucial to success — when employees feel their best, they perform their best. We are pleased to offer a comprehensive wellness program that is designed to promote long-

term healthy, active lifestyles. Employees enrolled in our medical insurance plan can earn a gift card up to \$500 by completing qualifying wellness activities. These activities span fitness challenges and preventative care measures with incentives along the way. Additionally, our Fitness Reimbursement Program provides up to \$100 per month to accommodate employees’ wellness activities.

Even further, Plug management continues to maintain regular and meaningful full-company communication through all-employee meetings, where CEO Andy Marsh, and his extended team, address relevant safety and business topics. This began as a response to COVID-19 remote-working mandates and continues to allow our global employees the opportunity to better understand organizational successes, growth, and change. There is always a Q&A at the end of every meeting where employees are encouraged to ask questions regarding any topic. This meeting is a notable example of our culture given the transparency and open communication.

## Employee Engagement

We believe that transparency plays a key role in engaging and energizing our workforce. Our CEO conducts weekly town hall meetings with our employees to share updates on the company’s initiatives and answer any questions. Additionally, our employees meet with their leaders at least quarterly to discuss their job performance and contribution to strategic business objectives, as well as their professional development goals.

Where possible, we have adopted remote and hybrid work arrangements which offers many benefits for our employees and company, including cost savings and flexibility.

We conduct semi-annual employee engagement surveys to measure progress and satisfaction with a range of initiatives. This was the first year that we incorporated DEI-specific questions in the survey, establishing a baseline for measuring our inclusive culture. This survey yielded a 61% participation rate and 73% overall favorability rate, helping us to better understand experiences across all demographic groups.

The top three areas given favorable ratings were overall engagement, contributions, and pride, meaning that most participants understand Plug’s business objectives and employee expectations, how their work contributes to our collective success, and are proud to work for us. In response to the survey results, we are improving tools and resources for constructive feedback, clarity around goal development, opportunities to voice opinions, and visibility into career opportunities within our organization.

## Employee Health and Safety (EHS)

The health and safety of our workforce is paramount and has been our top priority throughout the ongoing COVID-19 pandemic. Plug's COVID-19 Concierge rolled out an initiative in spring of 2021 to assist Plug employees with obtaining vaccine information and assisted employees in booking and traveling to vaccine appointments. Plug reports all cases at an enterprise level and tracks potential contact to aid in reducing the spread of the virus. Center for Disease Control (CDC) guidelines and related information have been published to our website to provide easy access to information for our employees, customers, suppliers, and communities.

Our safety rules ensure that our employees remain safe and injury-free while at work. Our full-time EHS Manager is a Certified Safety Professional who works closely with the HR and Facilities teams to provide a safe workplace for all employees. Our Q-EHS Manual outlines health and safety procedures and details on how these are embedded in Plug's operations. In 2021, Plug's Total Recordable Incident Rate (TRIR) for work-related injuries or illnesses was 1.3 and the fatality rate was zero.

We require employees to report any safety events, whether there is an actual injury or a near-miss, to their supervisor and respective EHS representative within 24 hours of the event. We analyze each event to identify a cause and take necessary corrective measures so that we may learn from the incident and prevent similar occurrences in the future. Our employee developed Awardco Recognition System rewards employees for reporting and containing safety hazards before they produce an injury or a near miss. This system allows managers to gain visibility into safety hazards and recognize employees for outstanding safety habits with monetary awards that are broadcast to everyone at Plug. All managers are expected to regularly engage with their employees on proper work practices, self-inspections, monthly safety trainings, and investigation of safety events.

We established EHS training that is both general and tailored to each employee category, distributed through Workday Learning. Workday Learning is a centralized system that hosts virtual learning programs and allows Plug HR and employees to view completed and outstanding requirements. Training programs include but are not limited to personal protective equipment (PPE), safety reviews, awareness and anticipation, hazard communication per Occupational Safety and Health Administration (OSHA) requirements, and chemical and electrical safety. Our EHS Steering Committee, comprised primarily of managers and VPs, oversees this program at a high-level and meets monthly while site-specific safety committees, comprised of employees from a mix

of employee categories and business divisions, ensure requirements are met at each of our fixed locations.

Our field service employees have a dedicated Training and Safety Manager and a Program Director for Services who manage field service training through the Latitude Learning platform. After their first week, field service employees attend our PowerHub learning center for hands-on experience in a controlled environment. The training delivery methodology consists of live courses led by a professional facilitator, web-based courses with smartphone and tablet compatibility for on-the-go learning, and on-the-job training. The curriculum follows a level structure, meaning it is divided into skill levels, allowing a technician to make a logical progression through the training. Similarly, our project managers and superintendents undergo complex training and receive hands-on experience at a physical site within their first 90 days.

In 2021, Plug pursued a variety of localized projects to enhance EHS in alignment with increasing regulatory expectations for additional safety measures throughout the power industry. These have been met with success and we intend to expand them at an enterprise-wide level in 2022. High voltage work is high risk, and our engineers are designing increasingly larger systems, so we are improving electrical safety training accordingly. In 2021, we brought an electrical training contractor into our Latham headquarters to handle these systems with higher voltage. There is now an electrical safety training with four modules, bringing the total trained in high voltage at Latham to about 50 employees.

We also worked with a local health and training sustainability consultant to ensure we understand and have proper coverage of New York state regulations at our new Gigafactory in Rochester. This undertaking involved touring the facility and increasing visibility of process safety management. Additionally, at our Albany facility, we conducted a hands-on activity to train employees of all levels on the proper usage of a fire extinguisher—a seemingly small, but valuable lesson in safety.

Finally, our EHS Manager and VP of Operations have been working with a local physical therapist to address potential ergonomic issues for our employees. We plan to implement ergonomic solutions to assist in increasing productivity and decreasing muscle fatigue and the severity of work-related musculoskeletal system diseases. Thus far, we have purchased electrical lifts with a 200-lbs capacity.

## Education and Training

Education and training are key to the skills development of our employees. We remain committed to delivering practical, accurate, and job-specific education. In January of 2021, we implemented the Workday Learning system described in the Employee Health and Safety section of this report and the training plan is nearly final. When launched, an overview video was circulated to encourage each employee to better understand and utilize the tool. It is this system that houses the EHS training among other trainings to make sure we meet both regulation and our own high standards. Going above and beyond job-specific training, we offer personal development training on a variety of topics such as sustainability, wellness, and free on-site CPR/AED certification training for employees and family members. In 2021, our employees completed 21,666 total training hours.

Plug offers an intern program, and in 2021 attracted 35 students from universities across the USA to support projects at Plug. Current internship and Co-Op programs include:

- Summer Internship Program: This is a 10-12 week intensive experience held over the summer months and is open to both undergraduate and graduate students. Students are provided an opportunity to get a 'sneak peek' at potential future Plug employment and help support the various projects, research efforts and needs of the business units.

- Co-Ops: Co-Op students are fundamentally different than an interns. While an internship is essentially a paid job that a student completes in the summer or winter break, a Co-Op is a key component of a student's educational program. These are experiences that their university deems mandatory and requires them to complete for anywhere from 4-12 months.

- Senior Student Projects: Senior Student Projects expose students to a real-world industry problem over the course of a semester or two, and the research is conducted on the College/University campus.

Plug values and encourages continued education amongst its employees. We offer a tuition reimbursement program, where employees are provided financial support to continue their education. Our internal Step Pay program provides field service technicians - currently 421 - an outlined career path of training and eight separate levels to grow their skills and compensation simultaneously. We also have a partnership with LinkedIn Learning to provide all employees with access to their library of video courses taught by industry experts in areas such as creative, software, and business to broaden employees' knowledge and skills.



## Communities

Plug recognizes the importance of supporting our local communities as we continue to grow. We encourage our employees to give back in a way that aligns with their individual values by offering recurring and new philanthropy initiatives. We are immensely proud of our significant partnership with the United Way, which aims to advance the common good in communities across the world. This partnership facilitates direct employee donations and contributes to United Way's four pillars of supporting communities:

- Ability to meet basic needs
- Education leading to a good job
- Income providing financial security
- Ability to gain and maintain health

In 2020, employees pledged \$50,000 for 2021. We are excited to report that \$53,795 was donated by Plug employees in 2021.

We are a company that values our close relationship with the local communities where we operate. A smaller scale, yet meaningful initiative, is our annual donation of turkeys for the Thanksgiving holiday. In 2021, we provided turkeys to all Latham employees, 140 turkeys to the Latham food bank, and 40 turkeys to the Rotterdam Elks' food basket distribution event. We appreciate the opportunity to come together and give back to our local community in Latham. In the coming year, we plan to evaluate our corporate giving program and assess additional ways in which Plug can invest in our communities.

Plug is engaged with the Albany CEG and Career Jam (Small Business Solutions Center) on a project to work with a handful of regional manufacturers. The intent of the program is to help promote careers in STEM and Manufacturing to Middle and High School students in an effort to highlight and build on the pipeline for careers in manufacturing, science, technology, engineering and math.



# Governance

## Board of Directors

Plug's business is conducted under the oversight of our Board of Directors (the "Board of Directors" or "Board"). The primary responsibility of the Board is to oversee and review senior management's business and operations performance. The number of directors of the Company is currently fixed at twelve (12) and the Board currently consists of twelve (12) members. The Board is divided into three (3) classes with four (4) directors in Class I, four (4) directors in Class II, and four (4) directors in Class III. Directors in Classes I, II, and III serve for three-year terms with one class of directors being elected by the Company's stockholders at each Annual Meeting of Stockholders.

In 2021, Plug added Kimberly Harriman and Kyungyeol Song, both with extensive experience in the energy sector, to the Board. In 2022, Plug added Jean A. Bua and Kavita Mahtani who bring leadership in key areas, such as M&A strategy implementation, financial planning and analysis, global financial operations, and compliance and who will join Plug's audit committee, with Ms. Bua serving as the committee chair.

Plug recognizes and values inclusive leadership. We are immensely proud that our Board of Directors is currently comprised of 34% women. Increasing the diversity of

our governing bodies, senior leadership team, and workforce is one of Plug's top priorities.

The positions of Chief Executive Officer (CEO) and Chairman of the Board (the "Chairman of the Board" or "Chairman") are currently separated, with Andrew J. Marsh serving as our CEO since 2008 and George C. McNamee serving as Chairman since 1997. Separating these positions allows our CEO to focus on the Company's day-to-day business operations, while allowing the Chairman to lead the Board in its fundamental role of providing advice to an independent oversight of management. The Board recognizes the time, effort, and energy that the CEO is required to devote to his position in the current business environment as well as the Chairman's required commitments. While our by-laws and corporate governance guidelines do not require that our CEO and Chairman position be separate, the Board believes that our current leadership structure is appropriate because it provides an effective balance between independent leadership, management oversight, and strategy development. If the position of Chairman is vacant, or if he or she is absent, the CEO will preside, when present, at meetings of stockholders and the Board until such time as the vacant position of Chairman is filled or Chairman becomes available.

## Committees of the Board of Directors

The Board has established three (3) standing committees to exercise oversight and provide guidance related to risks within the purview of each.

- The Audit Committee oversees risks related to accounting matters, financial reporting, and legal and regulatory compliance oversees the accounting and financial reporting processes and audits of the financial statements, and has responsibility for evaluation and oversight of qualifications, independence and performance of the independent auditors.
- The Compensation Committee oversees risks related to compensation matters evaluates compensation policies, plans, and programs, and has responsibility for assessment of executive officers and management team.
- The Corporate Governance and Nominating Committee oversees risks related to management and Board succession planning maintains through annual review and reassessment the Corporate Governance Guidelines, evaluates the effectiveness of the Board and its committees, and has primary oversight responsibility for our ESG program as outlined in the committee's charter.

The Board plays a central role in overseeing and evaluating risk-management procedures and protocols

## Cultural Competencies and Code of Conduct

Plug is a loyal, ethical, people-first company for employees, customers, shareholders, and the community, working together to build the clean hydrogen economy. We are committed to excellence, providing our customers with the ability to seamlessly adopt end-to-end fuel cell and hydrogen solutions to power, fuel, and provide service for their application needs, regardless of market.

The Code of Conduct is expected to be upheld by non-employee members of the Board of Directors, as well as contractors, vendors, suppliers, consultants, and other parties doing business with Plug. It is the responsibility of all members of the organization to remain familiar with the content of the Code of Conduct as may be updated from time to time and to act in a manner compliant with our policy expectations.

Plug's Code of Conduct is framed around our established cultural values: innovate, communicate, act humble but gutsy, collaborate, respect, and be true. These are intended to help lead our business to prosperity, but more importantly, to ensure pride in the means of attaining success.

whereas management is responsible for identifying and managing exposure to risk on a day-to-day basis in accordance with the Board's Delegation of Authority Policy. The Board receives periodic reports from each of the three (3) standing committees and any ad-hoc committees that may be established from time to time to address discreet matters, as well as regular reports from senior management on areas of material risk to the Company, including operational, financial, reputational, legal, regulatory, and strategic risks. The Board and all committees regularly engage with management on major risk exposures, their potential impact on the Company, and the steps we take to manage them. The Chief Financial Officer (CFO) and the General Counsel report to the Board regarding ongoing risk management activities at the quarterly Board meetings and may submit additional reports, as needed. Additionally, risk management is a standing agenda item for the quarterly Audit Committee meetings. For additional information on our Board of Directors and company governance, please refer to our 2021 Proxy Statement on the Investor Relations section of our website: [Click here for the 2021 proxy statement](#)

- Innovate – Create new ideas, approaches and technologies that change the world. Be insatiably curious, confident - learn & adapt quickly. Constantly strive to exceed expectations.
- Communicate – Listen and seek to understand. Hear inspiration and seek expertise from across the globe. Communicate openly and honestly, be transparent.
- Humble but Gutsy – Embrace new opportunities with a fearless, action-oriented perspective. Learn and iterate. Truly game-changing ideas are rarely safe.
- Collaborate – Be inclusive and involve the right people. Let go where appropriate and trust your team members to do their part.
- Respect – respect each other and individual unique experiences and expertise. Treat everyone with dignity, compassion, and professionalism.
- True – Act with integrity. Be helpful. Do the right thing.

To read the full Code of Conduct, please see the Investor Relations (Governance) section of our website.

## International Human Rights Policy

Plug recognizes the importance of human rights and our responsibility to implement and maintain sustainable business practices. Therefore, Plug's policy defines our commitment to understand, manage, and encourage responsible, honest, and ethical behavior throughout our operations. Additionally, the policy outlines our intent to embrace and comply with several recognized international human rights standards, including those outlined by the International Bill of Human Rights (including the Universal Declaration of Human Rights) and the Fundamental International Labor Organization's Declaration on Fundamental Principles and Rights at Work, among others, and defines a minimum standard across all of our operations. However, where applicable law or regulations require a higher standard or are inconsistent with this policy, the applicable law or regulations will govern. All employees and third-party business partners through whom we conduct business are required to cooperate fully, accurately, and promptly. See the Responsible Supply Chain section of this report for further details on how our International Human Rights Policy relates to our Supplier Code of Conduct. Furthermore, among other things, the policy makes it clear that:

Plug is committed to respecting the rights of children and the elimination of child labor.

Plug ensures that all employment is voluntary and will not engage in, support, or condone any form of forced, bonded, or compulsory labor.

Plug recognizes the importance of an open dialogue between leadership and employees and their representatives (including trade and labor unions and employee forums).

Plug respects the cultures, customs, values, and laws of the communities in which we operate; Plug commits to compliance with applicable law in every country and jurisdiction in which we operate. Plug considers human rights when making decisions on our locations of operations; Plug integrates human rights criteria into the screening contracts with third parties; and Plug forbids retaliation which includes any conduct, whether or not workplace or employment-related, directed at someone because they opposed a practice in violation of this policy, made or encouraged another individual to make a good faith report, or participated in an investigation of such, which might deter a reasonable individual from making or supporting a report of a violation of this policy.

## **Fair Treatment Policy**

Plug's Fair Treatment Policy reflects our company's HR and human rights commitments. The policy highlights our social responsibility expectations from business partners. Business partners include suppliers and supplier's manufacturing facilities, including all subcontracting, packaging, and distribution facilities. The Fair Treatment Policy applies to all individuals working with and/or performing services for Plug, including our employees, directors, contractors, and consultants. The policy includes a link for anonymous

reports and a hot line to report harassment violations to the appropriate supervisor, senior manager, or HR team member. Plug's Fair Treatment Policy ensures ethical behavior and respect for our stakeholders' human rights, including the prohibition of discrimination, child labor, human trafficking, and slavery practice throughout our business and supply chain partnerships. We support the Universal Declaration of Human Rights which informs our efforts.

## **Bribery and Anti-corruption**

Our policies for employees and business partners strictly prohibit all forms of bribery and corruption, whether commercial or governmental. For employees, these policies are incorporated into the Employee Handbook and each must read and reaffirm compliance with them, annually. Further, our mandated trainings include modules on vigilance with regards to eliminating bribery and corruption. Considering Plug's international

expansion, the Board has requested a more directive and formal training program which we are currently working to develop. For business partners, these policies are included below in the Responsible Supply Chain section of this report and are incorporated in our criteria used by the EcoVadis software.

## **Responsible Tax**

As Plug grows, we remain vigilant in our compliance with respect to the complex taxation rules and practices. Plug files income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. In the normal course of business, the Company is subject to examination by taxing authorities. We endeavor

to treat our taxation obligations responsibly and in a transparent manner. We utilize outside expertise for the development of our tax strategies and to assist us in remaining current on tax law and analyzing our tax risk.



## Responsible Supply Chain

We are committed to conducting business ethically and in compliance with the law. We expect our business partners, contractors, vendors, suppliers, and any entity we do business with to obey and comply with laws and regulations and any agreed upon contract. Accordingly, Plug requests our suppliers adhere to this Supplier Code of Code which provides guidance for doing business with Plug.

Our Supply Chain at Plug consists of two separate channels: the first channel is our vertical supply chain through our GenKey solutions and the second is our third-party supply chain where we deliver goods and services by outside vendors. The vertically integrated GenKey solution ties together all critical elements to power, fuel, and provide service to customers. We are now leveraging its know-how, modular product architecture and foundational customers to rapidly expand into other key markets including zero-emission-road vehicles, robotics, and data centers.

We are continuing to improve on our reporting process to help us execute on our commitments to the development of the green hydrogen economy. We are in the process of developing robust and repeatable processes to measure our progress and accurately report it. We have implemented new technologies in 2021 that will help us achieve this, if any of our suppliers are flagged for their mistreatment in one of these areas, we will work to remedy the situation so that our entire end-to-end supply chain operations are true to our commitment to build the green hydrogen economy in a responsible way.

To manage the environmental and social elements of our vendors we are now leveraging a software called EcoVadis. EcoVadis is a provider of business sustainability ratings, creating a global network of more than 75,000 rated companies. Once fully implemented in 2022 we expect that EcoVadis will enhance our visibility into the environmental and societal impacts of our vendors across critical themes: environment, labor and human rights, ethics, and sustainable procurement. EcoVadis looks within organizations to assess risks including critical materials, conflict materials, ethical business practices, and environmental impacts. Using this tool, we will create scorecards to assess and engage with our suppliers. We expect to have additional information regarding our responsible supply chain in our next reporting cycle.

We continually work to improve our operations and expect our business partners to promote ethical and law-abiding principles throughout their supply chain as outlined below.

- **Freely Chosen Employment:** Suppliers shall not use force, bonded or indentured labor. Suppliers shall not support, promote, or engage in the practice of slavery or human trafficking.
- **Child Labor and Young Workers:** Suppliers shall not illegally use child labor. The employment of workers below the age of majority as defined and where permitted by applicable local law shall only occur as per the parameters established under such applicable laws and in non-hazardous work conditions.
- **Freedom of Association:** Suppliers shall respect the rights of workers, as set forth in local laws, to associate freely, join or not join labor unions or workers' councils and to seek representation.
- **Wages, Benefits and Working Hours:** Suppliers shall pay workers according to applicable wage laws, including minimum wages, overtime hours and mandated benefits. Work hours shall be in compliance with applicable laws.
- **Anti-Corruption and Business Integrity:** All forms of corruption are prohibited. Suppliers shall not offer, pay, promise, or accept bribes or participate in other illegal inducements in business or government relationships.
- **Fair Competition:** Suppliers shall conduct their business consistent with applicable competition laws.
- **Conflicts of Interest:** Suppliers shall not engage in any activity with an employee of Plug which could create a conflict of interest.
- **Environmental Health and Safety (EHS):** Suppliers shall comply with all applicable EHS laws and regulations. All required EHS permits, licenses and registrations shall be obtained and their operations and reporting requirements restrictions followed.
- **Business Continuity:** Suppliers shall comply with all applicable laws and regulations.
- **Legal Requirements:** Suppliers shall comply with all applicable laws and regulations.
- **Commitment and Accountability:** Suppliers are encouraged fulfill the requirements described in this Supplier Code by allocating appropriate resources, including but not limited to training their employees on the expectations set forth in this Supplier Code.
- **Compliance Assessment:** Suppliers are expected to monitor compliance with this Supplier Code Plug reserves the right to assess suppliers' compliance with this Supplier Code through use of Plug personnel or third parties.

## Conclusion

2021 was a year of innovation and rapid expansion at Plug as we accelerated our leadership in the green hydrogen economy. While we believe that our innovation and our products positively contribute to the reduction of emissions and promote sustainable operations with our customers, and we are determined to reduce our own impact on our planet. As always, our commitment to operating as a responsible and ethical business guides all of our actions. As we grow, we are ever mindful that our foundation is our people and the support of the communities where we live and operate. Our goal for 2022 is to evolve our ESG programmatic

governance to keep pace with the tremendous growth our company has seen over the last year. Our desire to continuously improve, understand, and manage our ESG impacts is reflected in our implementation of new technology solutions and new roles established within the company which we expect will make our reporting process more efficient. Concluding our second ESG reporting cycle has provided us with the opportunity to assess our progress, learn from our efforts, and plan for next year. We look forward to building on our accomplishments in 2022 and beyond.

Code	Accounting Metric	Response	
<b>Energy Management</b>			
RR-FC-130a.1	(1) Total energy consumed	Data not available as of 12-17	
	(2) Percentage grid electricity	Data not available as of 12-17	
	(3) Percentage renewable	Data not available as of 12-17	
<b>Workforce Health and Safety</b>			
RR-FC-320a.1 RR-FC-320a.2	(1) Total recordable incident rate (TRIR)	2018: 2.48	
		2019: 0.76	
		2020: 1.05	
		2021: 1.3	
	(2) Fatality rate	2018: 0	
		2019: 0	
		2020: 0	
		2021: 0	
	Description of efforts to assess monitor, and reduce exposure or workforce to human health hazards		When an incident occurs, the situation is assessed by the facility manager. If needed, medical attention is addressed. The facility manager completes the Safety Even Form and sends it to the EHS manager via email. Once these steps are complete, a root cause and event analysis is performed to avoid any incidents in the future. For more information, please see People section page 18.
	<b>Product Efficiency</b>		
	RR-FC-410a.2 Missing without explanation: RR-FC0410a.1 and 3 – 5.	Average energy efficiency of fuel cells as (1) electrical efficiency	Plug considers this data to be sensitive information and therefore, has currently elected to omit the disclosure
		(2) thermal efficiency, by product application and technology type	Plug considers this data to be sensitive information and therefore, has currently elected to omit the disclosure
<b>Product end-of-life management</b>			
RR-FC-410b.1	Percentage of products sold that are recyclable or reusable	Data not available as of 12-17	
RR-FC-410b.2	Weight of end-of-life material recovered, percentage recycled	Data not available as of 12-17	
RR-FC-410b.3	Description of approach to manage use, reclamation, and disposal of hazardous materials	The only hazardous materials Plug produces are Lithium Ion and Coolant. The Lithium Ion is sold to a vendor and the Coolant XX. See Environment section page 14	

### Material Sourcing

RR-FC-440a.1	Description of the management of risks associated with the use of critical materials	Critical materials are graphite, silicon, semi-conductor chips, and resin, Plug manages the risks associated with these materials by the XX. See Governance section page 26.
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### Activity Metrics

RR-FC-000.A	Number of units sold	Data not available as of 12-17
RR-FC.000.B	Total storage capacity of batteries sold	Data not available as of 12-17
RR-FC-000.C	Total energy production capacity of fuel cells sold	Data not available as of 12-17

### Community Investment

Management defined	Community Investment	Plug employees donated \$53,795 to United Way as of November 15, 2021. For more details on our engagement with local communities, see People section page 18.
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### Information on Employees and Other Workers

GRI 401-1	Employee turnover (%)	XX
GRI 404-2	Programs for upgrading employees skills and transition assistance programs	Plug makes both in-person and virtual training available to employees. For career development, Plug follows a conversation-based approach where employees speak to management and leadership to discuss career goals and promotions. See People section page 18.
GRI 2-7	Temporary workers (%)	XX

### Diversity and Inclusion

GRI 405-1	Diversity of governance bodies and employees	See tables below
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Gender	2018	2019	2020	2021
Male	90%	88%	86%	85%
Female	10%	12%	14%	15%

Age Group	2018	2019	2020	2021
Under 30 years old (<30 years)	20%	20%	23%	27%
30-50 years old (30-50 years)	53%	51%	50%	47%
Over 50 years old (>50 years)	27%	29%	27%	26%

Other indicators of diversity where relevant (ex 1: minority groups)	2018	2019	2020	2021
White	82%	83%	78%	76%
Hispanic or Latino	6%	7%	5%	5%
Black or African American	4%	5%	6%	5%
Asian	3%	4%	6%	5%
American Indian or Alaska Native	1%	1%	1%	2%
Two or More Races	2%	1%	3%	3%
Native Hawaiian or Other Pacific Islander	2%	1%	1%	1%
Undeclared	1%	0%	0%	1%

Employee Category 1 (EC1)	Individual Contributor
Employee Category 2 (EC2)	Supervisor
Employee Category 3 (EC3)	Manager
Employee Category 4 (EC4)	Director
Employee Category 5 (EC5)	Vice President/Executive



Gender of Employees per Employee Category	2018					2019					2020					2021				
	EC1	EC2	EC3	EC4	EC5	EC1	EC2	EC3	EC4	EC5	EC1	EC2	EC3	EC4	EC5	EC1	EC2	EC3	EC4	EC5
Male	78%	3%	4%	2%	2%	77%	2%	4%	2%	3%	73%	4%	4%	3%	2%	71%	6%	4%	3%	2%
Female	9%	1%	1%	0%	0%	11%	0%	1%	0%	0%	12%	1%	1%	0%	0%	12%	1%	1%	1%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Gender of Employees per Employee Category	2018					2019					2020					2021				
	EC1	EC2	EC3	EC4	EC5	EC1	EC2	EC3	EC4	EC5	EC1	EC2	EC3	EC4	EC5	EC1	EC2	EC3	EC4	EC5
Male	78%	3%	4%	2%	2%	77%	2%	4%	2%	3%	73%	4%	4%	3%	2%	71%	6%	4%	3%	2%
Female	9%	1%	1%	0%	0%	11%	0%	1%	0%	0%	12%	1%	1%	0%	0%	12%	1%	1%	1%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Other Indicators of Diversity	2018					2019					2020					2021				
	EC 1	EC 2	EC 3	EC 4	EC 5	EC 1	EC 2	EC 3	EC 4	EC 5	EC 1	EC 2	EC 3	EC 4	EC 5	EC 1	EC 2	EC 3	EC 4	EC 5
White	70%	3%	5%	2%	2%	70%	2%	4%	2%	4%	65%	4%	5%	3%	2%	61%	6%	4%	3%	2%
Hispanic or Latino	5%	0%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%
Black or African American	4%	0%	0%	0%	0%	5%	0%	0%	0%	0%	6%	0%	0%	0%	0%	5%	0%	0%	0%	0%
Asian	2%	0%	0%	0%	0%	3%	0%	0%	0%	0%	5%	0%	0%	0%	0%	6%	0%	1%	0%	0%
American Indian or Alaska Native	1%	0%	0%	0%	0%	15%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%	0%	0%	0%
Two or More Races	2%	0%	0%	0%	0%	1%	0%	0%	0%	0%	3%	0%	0%	0%	0%	5%	0%	0%	0%	0%
Native Hawaiian or Other Pacific Islander	1%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Undeclared	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%

## About This Report

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