

**THE FUTURE OF GREEN HYDROGEN
IS THE FUTURE OF GREEN ENERGY**

ABOUT US

At GenHydro™ we are all about innovation in the hydrogen industry. Our focus is utilizing a reaction-based method for hydrogen production, with the goal of high yield at a groundbreaking low cost. We firmly believe that hydrogen is going to be part of the global solution for clean renewable energy, with our reactor systems paving the way for multiple industries to lower their emissions at a low cost.

MISSION

Our mission is to produce low-cost emissions-free hydrogen, enabling a multiple industry transition to clean energy and production.

VISION

To create a world with clean and universally accessible energy.

VALUES

TRANSITION. NOT A TAKEOVER.

At GenHydro™ our goal is to be a part of the global transition to emissions-free energy. What this means for us is using our technology to provide a means for existing industries to keep doing what they do best, while also moving towards emissions-free production.

PARTNERSHIP

In line with our commitment to being part of the global transition, we believe that the key for the future is going to be creating cross-industry partnerships. Our strategy for growth is much less about competition than it is about mutually beneficial relationships.

COMMUNITY

We realize that hundreds of thousands of people work in the energy and fuel production industry. Our goal is not to be a disruptor to these workers and their communities, but to be a partner in helping their communities flourish, and ensuring that as the world transitions to clean energy, lives and livelihoods remain uninterrupted.

THE TEAM



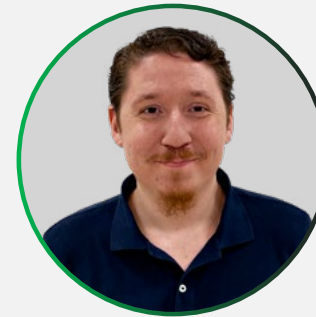
ERIC SCHRAUD
CEO & PRESIDENT

Eric has a background in business strategy and information technology, with specializations in Strategic Thinking and Management for Competitive Advantage and Business and Financial Modeling. Eric worked on hydrogen technology development with a focus on reactant based methods for over a decade before founding GenHydro.



DONG NGUYEN
LEAD CHEMICAL ENGINEER

Dong Nguyen has a masters degree in Chemical Engineering with a specialization in chemical kinetic, catalyst and combustion modeling for applications in hydrocarbons. He also has a Ph.D in Chemical Process Engineering with a specialization in thermodynamic modeling of polar containing systems and/or asymmetric systems of the oil and gas industry.



MATTHEW SCHRAUD
CHIEF MARKETING OFFICER

Matthew has worked in visual branding, brand strategy, market research and product development since 2011. Matthew's current role is focused on understanding the target markets for GenHydro™ and mapping the GenHydro™ go-to-market strategy.



CHRIS KAGER
VP OF STRATEGY

Chris currently holds a position as the Chief of Neurosurgery at Lancaster General Hospital. Chris is also on the board of a venture capital group, and has extensive experience in fundraising and strategy for technology startups.



BILL MONACCI
DIR. CLIENT RELATIONS

Bill served as a neurosurgeon in the US Army at Walter Reed Army Medical Center for over 18 years before continuing his practice in Lancaster, PA. As the director of client relations Bill is focused on engaging lawmakers regarding renewable hydrogen policy, and developing key relationships for supply chain and by-product sales.

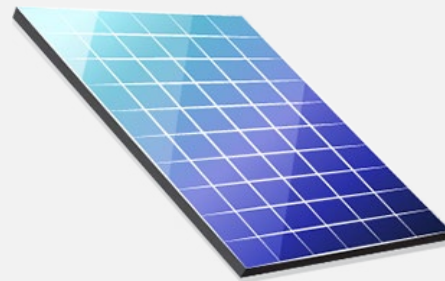
THE PROBLEM FOR HYDROGEN PRODUCTION

Current methods for hydrogen production are either unsustainable or difficult and expensive to scale



SMR

Steam methane reforming (SMR) uses methane (CH_4) for the production of hydrogen gas. This method releases a lot of carbon in the process, and while carbon capture technology can help, it isn't 100%, meaning some carbon will always be emitted.



ELECTROLYSIS

Electrolysis is a method that uses electrical inputs to separate hydrogen from H_2O . While this method is the current favorite for growing green hydrogen production, it is going to require up to 30 terawatts of wind and solar capacity in order to realize a true hydrogen economy.



COST

Green hydrogen is currently priced significantly higher than hydrogen produced from fossil fuels. This is mostly owing to the fact that renewable energy is still costly, and electrolyzer manufacturing is still very expensive.



ONE PRODUCT

The predominant methods for hydrogen production do just that — produce hydrogen. For green hydrogen, this is expected to see dramatic decreases over the next 10 years, which means that green hydrogen plant revenue is already projected to go down.

THE SOLUTION

The GENHYDRO™ REACTOR SYSTEM



A REACTANT BASED APPROACH

The GenHydro™ reactor system utilizes a reactant-based approach for separating hydrogen from water. We make use of the stored energy in highly reactive and abundant pure elements to rapidly produce large amounts of hydrogen, with zero emissions and a non-toxic byproduct.



COGENERATES ELECTRICITY

The Next Gen reactor system not only produces hydrogen but also produces enough heat and pressure to operate a steam-powered turbine for the cogeneration of electricity alongside hydrogen.



COST-EFFECTIVE NOW

The Gen 1 and Next Gen reactors are both capable of producing hydrogen at a low cost, hitting 2030 targets for hydrogen production way ahead of schedule. The GenHydro™ system makes hydrogen economical now!

THE MULTI-PRODUCT APPROACH

OUR STRATEGY FOR COMPETITIVE PRICING



H2

The GenHydro™ Multi-Product Approach means that our process not only produces hydrogen, but also produces a high-value advanced ceramic material, and can also capture produced heat for cogeneration of electrical power. This means that fluctuations in pricing for one product don't need to have a major impact on overall plant profitability. This also means that we can be competitive, as a diverse product mix can provide greater pricing flexibility.

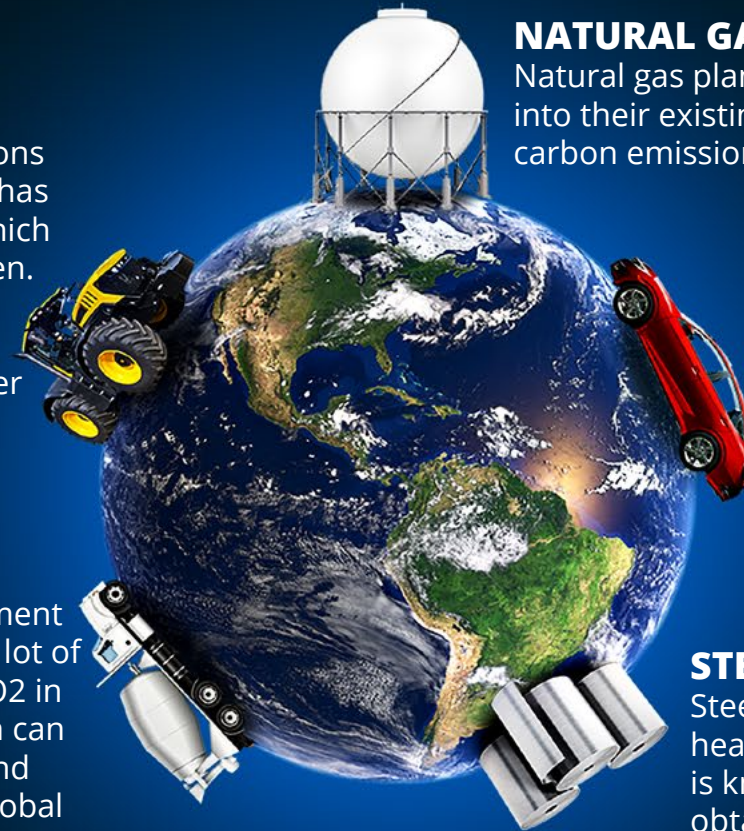
HOW GREEN HYDROGEN CAN CHANGE GLOBAL INDUSTRIES

AGRICULTURE

The agriculture industry uses millions of tons of fertilizer, most of which has ammonia as a major ingredient which requires large amounts of hydrogen. If green hydrogen were used for fertilizer production, global CO2 emissions could be reduced by over 400 million tons a year.

CONCRETE AND CEMENT

Much like steel manufacturing, cement and concrete manufacturing use a lot of heat and emit large amounts of CO2 in the process. Using green hydrogen can reduce emissions from concrete and cement manufacturing, bringing global emissions down by more than 8%.



NATURAL GAS

Natural gas plants can blend hydrogen into their existing pipelines to lower carbon emissions.

MOBILITY MARKETS

Green Hydrogen can be used to power hydrogen fuel cell vehicles that can easily fill up on hydrogen at fueling stations just like gas powered vehicles.

STEEL MANUFACTURING

Steel manufacturing requires a lot of heat, and the most common fuel source is known as "coke" - a high carbon fuel obtained from coal. Green hydrogen can be used instead, dramatically decreasing emissions from steel manufacturing.

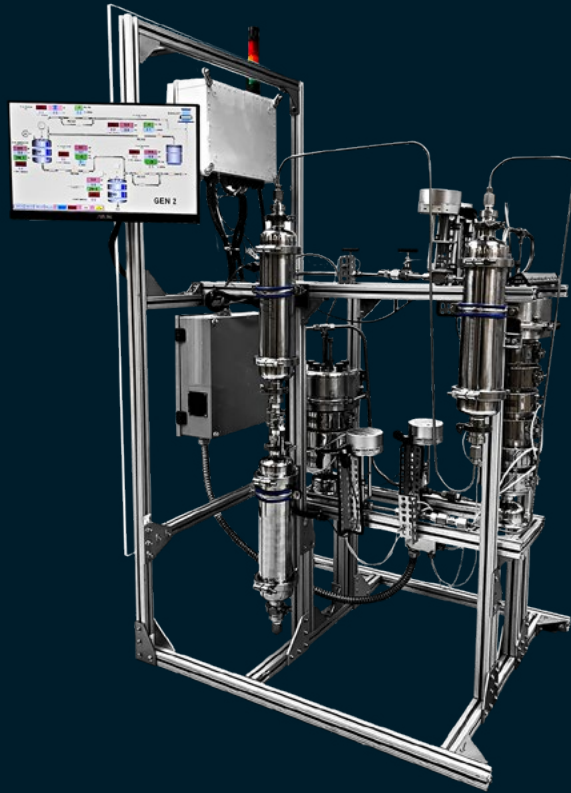
GEN 1 REACTOR SYSTEM



The GEN 1 reactor system is capable of scaled hydrogen production at low temperature and pressure. This system utilizes our primary reactant along with a reaction promoter, enabling hydrogen production in the presence of water at ambient conditions.

The GEN 1 system is close to commercialization with expected deployments in fueling stations and other applications served best by on-site and on-demand hydrogen production.

NEXT GEN REACTOR SYSTEM



The NEXT GEN reactor system operates at high temperature and pressure, with high hydrogen output capabilities. The industrial scale of this system will also produce enough heat and pressure to cogenerate utility scale electrical power when the output of successive reactor systems is fed into a steam turbine.

The industrial scale of this system will be optimal for plant scale hydrogen production, functioning as both a centralized hydrogen production plant, in addition to having utility scale power generation capabilities when the output of successive reactor systems is fed into a steam turbine.

BYPRODUCT OR PRODUCT?

ADVANCED CERAMIC POWDERS

Both GenHydro™ reactor systems result in a powder form byproduct. Not only is this byproduct non-threatening to the environment and perfectly safe to handle with minor safety precautions, but it also has a high value in multiple markets.

The byproduct of the GenHydro™ reactors is considered an advanced ceramic material. This powder material has uses in everything from electronics, aerospace, as well as defense and construction materials. Advanced ceramic powders are considered a rapidly growing market, with ongoing R&D exploring new applications, as well as continued growth for existing applications.



WHAT'S NEXT?

COMMERCIALIZATION

The GenHydro™ GEN 1 and NEXT GEN reactor systems are well on their way to commercialization. With ongoing testing of each system, as well scaling and automation of reactor processes, we expect to have commercially available reactors very soon.

DEPLOYMENT

While we are working on commercialization we are simultaneously working with partners for pilot deployments at industrial scale. As soon as our reactors are out of R&D there will be ready and waiting users eager to deploy GenHydro™ tech for their hydrogen production needs.

PLANT CONSTRUCTION

The goal of our pilot deployments will be to demonstrate the feasibility of GenHydro™ technology in real world applications, with a view towards a larger plant construction having green hydrogen production capabilities at a scale not yet seen for any green hydrogen production technology. We believe that this is the best way forward for offering large-scale access to emissions free hydrogen to the industries that need it.



GenHydro.us
1064 New Holland Avenue
Lancaster, PA 17601