



# COMPACT HYDROGEN REFUELING SYSTEM

# CHRS™

## Compact Hydrogen Refueling System



CHRS is a compact hydrogen refueling system designed to produce, store, and deliver high-quality, fuel cell-grade hydrogen from water using electrolyzers.



## Key Features

CHRS is an affordable, sustainable solution for hydrogen refueling that features:

- Scalable and modular
- Water electrolysis
- 350 or 700 bar compression
- Hydrogen storage
- Smart dispensing
- Certified components
- Ideal for fuel cell electric vehicles (FCEVs) and other hydrogen-powered applications



*CHRS refueling a FCEV*



*CHRS 1.0 refueling a fuel cell EV*

## How It Works

CHRS operates by utilizing 220-240v power to run electrolyzer stacks, facilitating the separation of hydrogen from water. The hydrogen is subsequently compressed and stored in dedicated tanks. Users can then access the hydrogen fuel through a refueling nozzle for dispensing.



*CHRS 2.0 features a refueling nozzle, hydrogen tanks, and a digital HMI*

# Our Demonstration

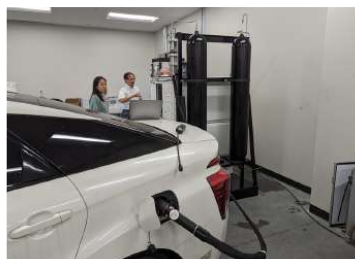
In November 2023, we completed the first iteration of CHRS. This milestone played a crucial role in shaping our technological development in dispensing.



CHRS 2.0



CHRS 1.0 and Chair, Don Owens



Refueling a FCEV



CHRS digital HMI

# Fuel of the Future

## Flexible, Local Production

CHRS offers a host of benefits with its scalable, flexible, and locally produced green hydrogen. Its scalability allows for tailored deployment, meeting varying demand levels and adapting to different infrastructural needs. It's compact design ensures it can fit almost anywhere.



## Endless Applications

Green hydrogen refueling emerges as a pivotal solution for directly powering fuel cell electric vehicles (FCEVs) and hydrogen internal combustion engine vehicles (HICEVs). This technology facilitates efficient refueling of FCEVs, ensuring longer driving ranges and faster refueling times compared to traditional electric vehicles. Furthermore, it extends its applications to HICEVs, showcasing the versatility of hydrogen in transforming both passenger and commercial vehicle fleets.



# The Green Hydrogen Transition



**1 Faster than our competitors**  
Most green hydrogen projects take billions in financing and years to complete. HNOI builds at a rapid and cost-effective pace compared to our competitors, offering a timely, accessible solution for communities, industries, and enterprises.



**2 Made in the USA**  
With HNOI, you are choosing to support domestic suppliers and laborers, build a resilient supply chain, and promote internal economic growth. This enhances the economy and guarantees reliability and sustainability within the emerging industry.



**3 Better for the environment**  
Choosing green hydrogen reduces emissions, fostering a healthier environment, combating climate change, and aligning with sustainability goals. It meets the increasing demand for environmentally conscious energy solutions and encourages innovation.

# Our Company

## Who We Are

We are a green hydrogen product development company. Our mission is to provide cost-effective, modular, scalable systems that produce, store, and dispense green hydrogen on a regional, local scale.

## Highlights:

- 15+ years in hydrogen R&D exp.
- 19 US patents
- Strong partnerships in industry



### Donald Owens

Founder and Chairman

Don, our visionary and leader for 15+ years, combines engineering, patent law, and entrepreneurship, driving our hydrogen technology success.



### Paul Mueller

President and CEO

Paul leverages 30+ years in Aviation, Aerospace, and Defense. P&L leader since 2007, he transforms our green hydrogen business with strategic organization.



### Greg Heller

CTO

Greg brings strategic insight to our business development, collaborating with engineers to innovate and optimize our hydrogen systems.

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