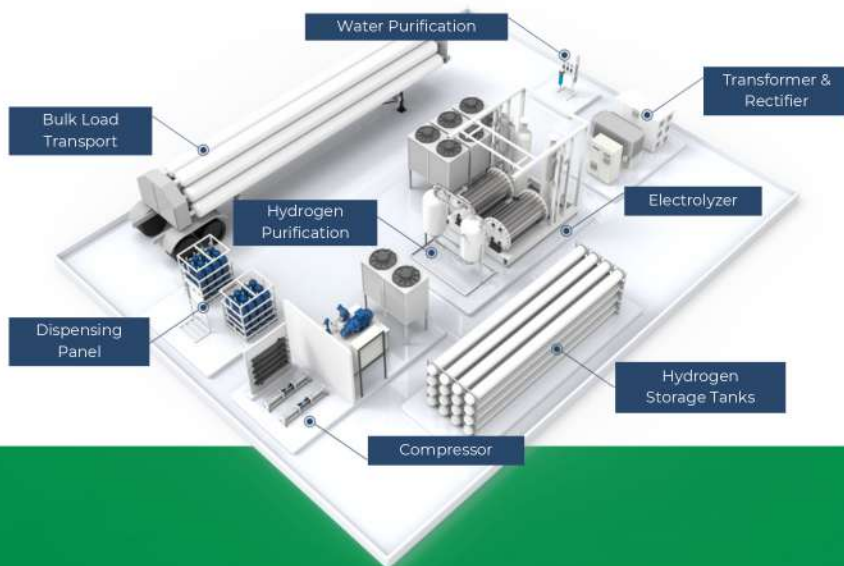


# SCALABLE HYDROGEN ENERGY PLATFORM

# SHEP™

## Scalable Hydrogen Energy Platform

SHEP is a scalable hydrogen production platform built on a 1.25MW alkaline electrolyzer that produces up to 500kg per day of compressed hydrogen from water.



## Key Features

-  Localized green/clean hydrogen production
-  Scalable and modular
-  Up to 500 kg/day per electrolyzer
-  350/700 bar compression
-  Smaller footprint
-  Green or grid power



# How It Works

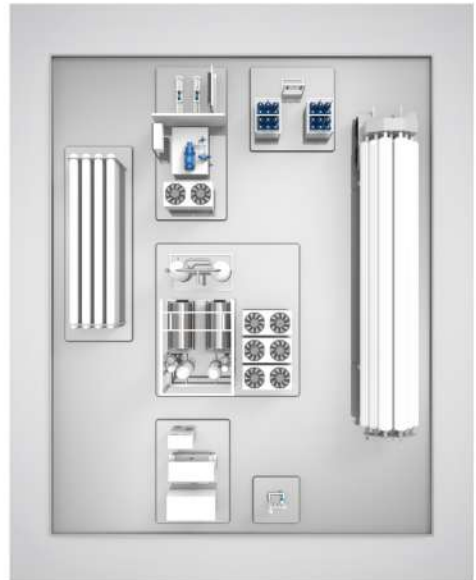
SHEP uses electricity to power an electrolyzer which produces hydrogen from water via electrolysis. The oxygen is released and the hydrogen is compressed, stored, and dispensed for offtake and refueling.



## Key Features

SHEP is a cost-effective, sustainable solution for building green and clean hydrogen infrastructure.

- 1.25MW electrolyzer
- Water purifier
- Compressor
- Storage
- Offtake dispenser
- Refueling dispenser (optional)
- Remote monitoring
- USA-based supply



*Aerial view render of SHEP's components.*

# Site Requirements

## Input

- Power: 1.6MW, full plant
- Water: 200L/hr

## Output

- Up to 500 kg/day green hydrogen (20kg per hour) per electrolyzer
- 99.999% purity (grade D)

## Space

- < 2,000 sqft

# Permitting & Construction

To ensure compliance and safety, we offer comprehensive support in the following areas:



**Planning  
Commissions**



**Zoning  
Compliance**



**Design  
Certification**

The permitting and construction process will vary by location. Let us help you navigate these crucial steps to streamline your project's development.

# Safety Adherence

Our products are engineered to comply with all major safety codes and standards, ensuring reliable and secure operation.

- American Society of Mechanical Engineers (ASME)
- EPA regulations, NEMA 250
- International Fire Code (IFC)
- International Organization for Standardization (ISO)
- National Electric code (NEC)



# Building Hydrogen Infrastructure

## Regional Production, Local Distribution

SHEP's localized, scalable design allows for incremental growth and easy integration into existing infrastructure. Strategically deployed, locally placed units can be expanded based on demand, reducing costs and financial risks, and allowing for quicker deployment in various locations.



## Timely and Cost-Effective

By developing SHEP at a fraction of the cost and timeline of our competitors, we offer more accessible solutions for communities, industries, and enterprises. This allows us to set a new industry standard for accessibility and affordability in green and clean hydrogen production and technology.

# Building Hydrogen Infrastructure

## USA-Made

HNOI partners with USA-based suppliers and manufacturers to establish a robust, domestic supply chain and foster economic growth within the USA. This not only bolsters the economy and job opportunities, but it also ensures greater reliability in lead times and sustainability in the overall industry.



## Diverse Markets

Due to SHEP's flexible design, we are able to cater to a target-rich market spanning refueling infrastructure for zero-emission:

- Heavy duty transport
- Bus and truck fleets
- Passenger vehicles
- Material handling equipment
- Data center back-up power
- And much more

# The Green Hydrogen Transition



1

## **Faster than our competitors**

Most green and clean hydrogen facilities 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

HNO International is 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.



### Jasmine Liou

Executive Vice President

Jasmine leverages decades of expertise in education, strategy, and communications to drive hydrogen innovation.



### Greg Heller

CTO

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





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