HNO
INTERNATIONAL

HyGrid™ – Microgrid

Anywhere & Everywhere Power™

The Smarter, Stronger
Alternative to Traditional Solar

Visit Our Website
www.hnointl.com

The Problem with Traditional Solar

Consumes excessive land area

Utility-scale solar farms demand acres of open space, raising concerns about efficiency and smarter land use.

Fragile panels – easily damaged by storms/hail

Solar panels are vulnerable to hail, heavy winds, and debris, often requiring costly replacements and insurance claims after severe weather events.

Intermittent – no night power without batteries

Solar PV only produces electricity when the sun shines, forcing reliance on expensive storage or backup generators at night and during cloudy days.

Expensive lithium battery storage

To provide 24/7 power, large lithium battery banks are required, which are costly, have limited lifespans, and pose environmental and fire risks.

High Installation & Maintenance Complexity

Solar farms require large-scale wiring, panel cleaning, and inverter replacements, driving up long-term maintenance costs and downtime.

HyGrid™ Microgrid

Compact, Resilient, and Continuous

Runs 24/7, Even for Weeks (Without Sun)

Stores heat for continuous operation, ensuring steady electricity supply day and night without costly battery reliance and even if no sun for weeks.

Generates Electricity from Stored Heat

Harnesses concentrated thermal energy instead of fragile PV panels, enabling efficient and reliable power generation.

Smaller Land Footprint

HyGrid™ requires 98% less land than traditional solar PV systems for the same power output, making it ideal where space is limited.

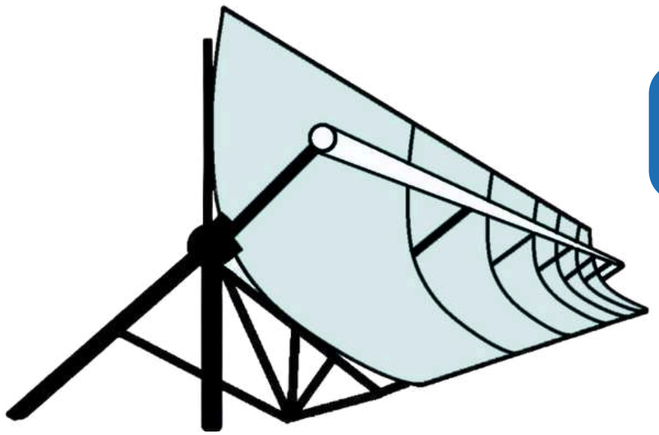
Optional Hydrogen Fuel Cell Backup

Allows integration of hydrogen storage and fuel cells to provide extended backup power for critical operations.

Rugged, Durable, Weather-Resistant

Engineered to withstand storms, debris, and harsh climates, ensuring long-term durability with minimal maintenance.

HNOI HyGrid™ Microgrid
How it Works



HyGrid Microgrid System
Anywhere & Everywhere Power™

24/7 Power - AC/DC From Solar Heat

Transformer
Distributes Generated Electricity

Applications
Typical Power Applications

Fuel Cell
Converts Hydrogen Into Electricity

Optional

Electrolyzer
Converts Water Into Hydrogen

H_2 O_2

Optional

Hydrogen Stored
Future Energy on Dmand

H_2

Optional

Hydrogen Applications
(Optional)
Use to fuel Hydrogen Application

Optional

Traditional Solar		HyGrid™ Microgrid
Only with costly batteries	24/7 Power	Continuous via Stored Heat
Consumes excessive open space	Land Requirement	98% smaller space requirement
Fragile panels, storm damage	Weather Resistance	Rugged concentrator, resilient
Large, complex, time-intensive	Installation	Compact, modular, scalable
Frequent, labor-intensive	Maintenance	Minimal, low-cost upkeep
Expensive Lithium batteries	Backup Need	Optional Hydrogen Fuel Cell

Global Applications of HNOI HyGrid™ Microgrid

01 Off-Grid & Remote Communities

Power villages, islands, and regions with 24/7 off-grid energy.

02 Industrial & Manufacturing Facilities

Lower emissions and operating costs with clean on-site power.

03 Tribal Business Enterprises

Reliable, sustainable energy for casinos, hotels, and resorts.

04 Data Centers & Edge Infrastructure

Uninterrupted, scalable clean backup for ESG goals.

05 Military & Emergency Operations

Deploy mobile, resilient energy for conflict zones or disasters.

06 Hospitals & Critical Infrastructure

Reliable, life-saving backup power for critical needs during grid outages.

07 Smart Cities & Commercial Buildings

Support net-zero goals and modernization with intelligent microgrids.

08 Energy-Intensive Agriculture & Greenhouses

Self-reliant, sustainable farming powered by reliable off-grid energy.

About
HNO International, Inc

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.

15+ years in hydrogen R&D exp.

19 US Patents

Strong partnerships in industry

Donald Owens
Chairman/President/CEO

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

Jasmine Lious
Executive Vice President

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

Greg Heller
Chief Technology Officer

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

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Thank You

For Your Attention

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