



**ZERO EMISSION
INDUSTRIES**

Covert Power Solutions for the Warfighter

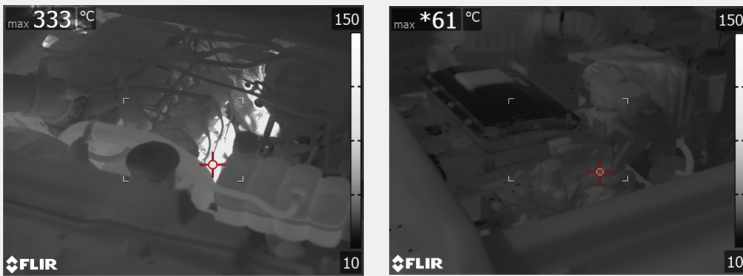
JULY 2025

SOLUTION PACKAGE

ZEI builds scalable hydrogen-electric ecosystems that replace combustion engines and generators with stealth power.

Z-CLASS **POWER SYSTEM**

- **Scalable** hydrogen-electric power, built for tactical environments
- Modular architecture **output from 16kW to 400kW**
- Signature Management for today's battlefield: **Ultra-low thermal**, acoustic, and chemical emissions
- Avoid detection in a modern theater full of sensors and autonomous systems that seek emissions.



6.7 L V8 ICE Engine - 385 HP (283 kw)

Z-class - 435 HP (320 kw)

Hydrogen Storage Systems

- **Scalable** hydrogen storage architecture meets mission demands
- High pressure gaseous hydrogen storage
- Integrated safety controls
- Communications enabled



See Integrated Power Applications on Next Page*

FTCASE **PORTABLE FUELING**

- 95-lb forward hydrogen fueling station
- rapid deployable
- SAE J2799 compliant
- Field-proven by Honda Racing at Pikes Peak



RE:FUEL **HYDROGEN PRODUCTION**

- Rapidly-deployable hydrogen fuel generation at the edge.
- Designed for any theater
- Electricity supply agnostic
- **Turn sea water into fuel**

UNDER CONSTRUCTION



ZEI can repower your existing equipment or develop new solutions for stealth operations from 16kW to 400kW (21hp to 536)

ZEI's agile team of experts will quickly turn-around system arrangements for your vehicle, vessel, or stationary application.

INTEGRATED VEHICLE PLATFORMS

Unmanned Systems: USVs, UUVs, UAVs, etc.



Vehicle Platforms: LTVs, LAVs, MRAP, etc.



Vessel Platforms: CRRCs, CCLs, HSAC-class, etc.



REMOTE POWER APPLICATIONS

Configurations for stealth powered ISR kits, overwatch nodes, FOB generators



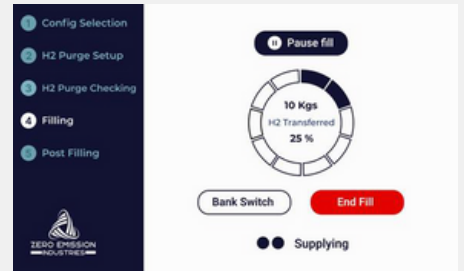
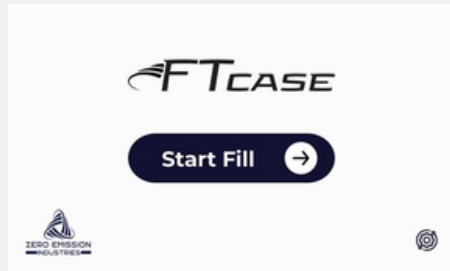
ZEI technology enables adoption of long endurance stealth power for your mission-critical needs

ZEI technology is developed on a shared controls architecture to enable simplified deployment, operation, and maintenance of new equipment

H2OS OPERATING SOFTWARE

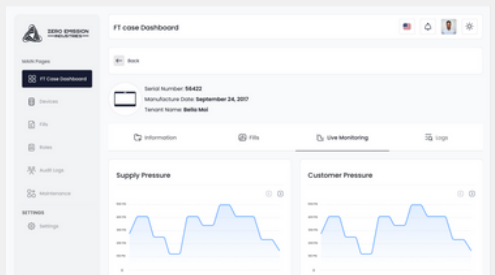
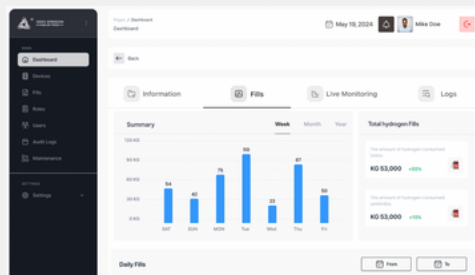
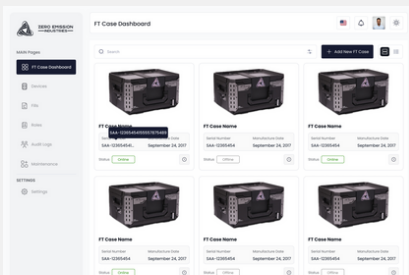
The intelligent core of hydrogen operations:

- A high-speed, full-stack software platform built from the ground up to power ZEI's advanced fuel cell systems, vehicles, and energy infrastructure.



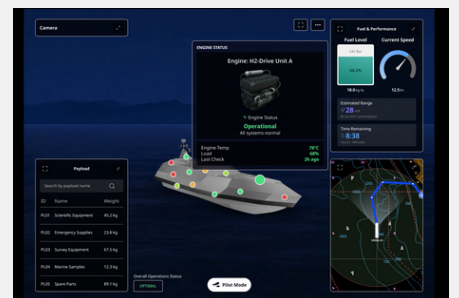
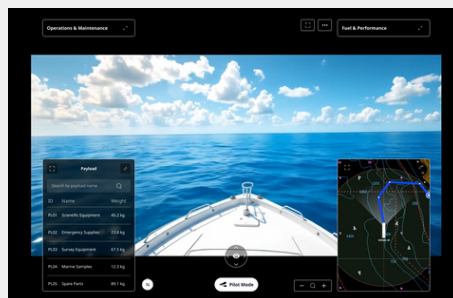
Seamless C2 and autonomy integration

- H2OS is designed for effortless interoperability with existing command and control networks, autonomy stacks, and remote operations, enabling rapid deployment in defense, maritime, and industrial environments.



Mission-critical performance, real-time hardened control:

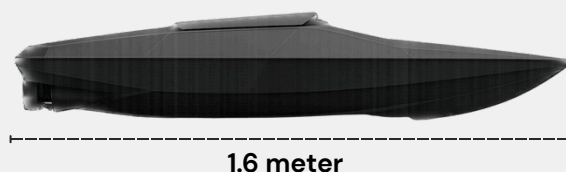
- Engineered for speed, resilience, and precision, H2OS delivers ultra-responsive system control, live diagnostics, and cyber-secure remote fleet management. Whether you're operating a single asset or coordinating an entire hydrogen-powered mission.



MIOS

Maritime Interdiction Overwatch System

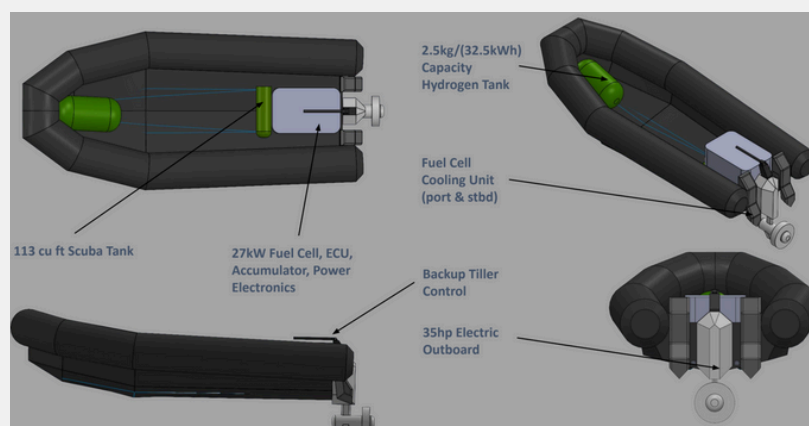
- Modular, **Rapid Deployable**, hydrogen powered Micro-USV.
- OTH targeting and interdiction operations
- Combining stealth capabilities with advanced ISR functionality in a compact, deployable platform
- Maintains minimal signatures across all detection spectrums



S-CRRC

Stealth Combat Rubber Raiding Craft

- Hydrogen-powered Combat Rubber Raiding Craft.
- Developed to replace outdated 2-stroke outboards
- Ultra-low acoustic, thermal, and chemical signatures for reduced detection risk in sensor-heavy contested environments



CCA-H2

Combat Craft Assault Repower

- Combatant Craft Assault (CCA) repowered with a stealth hydrogen-electric Z-class system
- Silent, low-signature operation with tactical fueling flexibility.
- Extending the vessel's service life and mission capabilities without the cost or complexity of acquiring new asset.



Same power stack. New missions. All interoperable.

H2-FOB

Hydrogen Powered Forward Operating Base of the Future



1 Fuel Production and Storage



Turn Any Electrical Source and Water into Fuel

2 Fuel Transfer and Handling



Fuel Your Platforms Anywhere

3 On-site Power Generation

Z-class



Ultra-low Signature Power for Your Equipment

4 Integrated Vehicle Platforms

Z-class



Force Multiplying Stealth Power

Dual use technology also being deployed in commercial markets





Proven Track Record

MV Sea Change: First U.S. hydrogen-powered passenger ferry. Built by ZEI. Certified by USCG. Operating today.

FCV Vanguard: Fastest stealth hydrogen-electric craft fielded to date. Z-class powered.

FTcase: In use across commercial, racing, and remote applications.

Honda Racing: FTcase selected by Honda as the only hydrogen fueling solution on the market that could meet the mobile and rapidly deployable needs of fueling in the austere environment of Pikes Peak. Successfully supported the first ever hydrogen run of Pikes Peak International Hill Climb.

Partners & Customers

ZEI is trusted to deliver cutting-edge hydrogen solutions for mission-critical environments. These organizations trust ZEI not because of our claims — but because of our delivery. Our systems operate in the real world, under real mission demands.





- **Platform Engine Swap** – Eliminate thermal and acoustic signature from your primary mobility platforms: HSACs, MRAPs, ULTVs, etc. You pick, we'll plug and play.
- **Extend the range and runtime of electric platforms you're already fielding** – without increasing weight or compromising stealth.
- **Convert existing combustion platforms** into low-signature, hydrogen-powered assets.
- **Deliver power at the edge** – whether it's a remote ISR node, forward C2 position, or a denied terrain comms hub.
- **Provide silent, low/no thermal, long-endurance energy** for your UAVs, USVs, or UUVs with modular hydrogen systems.
- **Eliminate reliance on diesel gensets or fuel convoys** with drop-in hydrogen solutions.
- **Deploy a full operational test kit** – power system, fueling, and control – for your environment and use case.

Tell us your problem set. We'll bring the kit.