Case Study: Industrial Power Leader

Fuel Cells for Modular Hydrogen Power

How EH Energy became the fuel cell partner behind a leading clean-energy integrator's clean power systems

Overview

Since 2020, a leading international clean-energy company has built its modular hydrogen power products on EH Energy fuel cells. What began as stack supply has grown into a multi-year partnership - from a 220 kW containerized power system to an expanding line of stationary and mobility deployments, now scaling toward megawatt-class solutions.

CLIENT SNAPSHOT	
Client	A leading international clean-energy systems integrator
Sector	Modular hydrogen power systems - stationary and mobility
Partnership	EH Energy fuel cell stack and system supply since 2020
Deployed	220 kW (peak 250 kW) containerized fuel cell system, plus ongoing stack and system deliveries
Status	Active and scaling - multi-year supply with a megawatt-class roadmap

The Client

The company is a leading international clean-energy business that designs, manufactures and integrates modular hydrogen energy solutions - from small off-grid systems through to large-scale industrial deployments. Its products deliver decarbonized, resilient and autonomous power for sectors including data centers, critical infrastructure, EV charging, maritime and remote community energy. To build these systems, the company needs fuel cells that are compact, efficient and flexible enough to integrate across a wide range of applications - and it has turned to EH Energy as its fuel cell technology partner since 2020.

The Challenge

For a systems integrator building modular hydrogen products, the fuel cell is the heart of the system - and it has to meet demands that few suppliers can satisfy at once:

Compact, high power density.

Containerized and modular products need to pack meaningful power into a small footprint, without a heavy or bulky stack.

A wide power range from one technology family.

Applications span a few kilowatts to hundreds of kilowatts, ideally served by a single, compatible platform to simplify integration.

Application and duty-cycle flexibility.

The same core technology has to work across stationary backup, continuous power, EV charging and marine use.

Supply that can scale.

As demand grows, the fuel cell partner must move reliably from prototypes to repeat orders and volume.

The Partnership

Across the relationship, EH Energy has moved from supplying stacks to underpinning the company's flagship products - and is now scaling with them.

A 220 kW containerized power system

EH Energy delivered a 220 kW (peak 250 kW) fuel cell system - configured as two jointly-controlled 110 kW units - which the company integrated into its containerized hydrogen power product alongside battery storage, power electronics and hydrogen supply. The result is a self-contained, zero-emission generator aimed at stationary applications including EV fast-charging, ship-to-shore power for vessels in dock and resilient backup power.

Ongoing stack and system supply

Beyond the flagship system, EH Energy has supplied the company with its compact EH-51 fuel cell stacks - complete with cell-voltage monitoring - and EH Energy Systems, spanning stationary power and range-extender applications. Repeat orders have followed as the company expands its product portfolio across new use cases.

Scaling toward megawatt-class solutions

In 2025 the two companies set out their intent to expand the relationship into a multi-year supply program - spanning small stacks through 250 kW systems, with modular scaling toward megawatt-class solutions for data centers, industrial power and off-grid and remote-community energy.

Why EH Energy?

For an integrator, the choice of fuel cell shapes the whole product. Several factors make EH Energy the platform of choice for this integrator:

Class-leading power density.

A patented flat-plate PEM cell microstructure delivers the industry's highest power density in a single-stack architecture - critical for compact, modular products.

One family, wide power range.

A single compatible technology spanning roughly 5 kW to 250 kW and beyond lets the company build across applications without switching supplier or architecture.

System-level simplicity.

A single stack with a single balance of plant means fewer components, lower cost and easier integration into the company's modular systems.

Integration-ready supply.

Stacks ship with cell-voltage monitoring and integration support, shortening the company's path from component to finished product.

Proven, repeatable delivery.

Multiple deployments since 2020, with repeat orders, demonstrate a supply relationship that scales.

Certified, scalable manufacturing.

ISO 9001:2015 certified operations and a proprietary automated production line, built to scale toward gigawatt-level output.

Build on EH Energy

EH Energy supplies fuel cell stacks and systems to clean-energy developers and systems integrators worldwide. If you are building hydrogen power products and need a compact, high-power-density fuel cell partner that scales with you, we welcome the conversation.

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