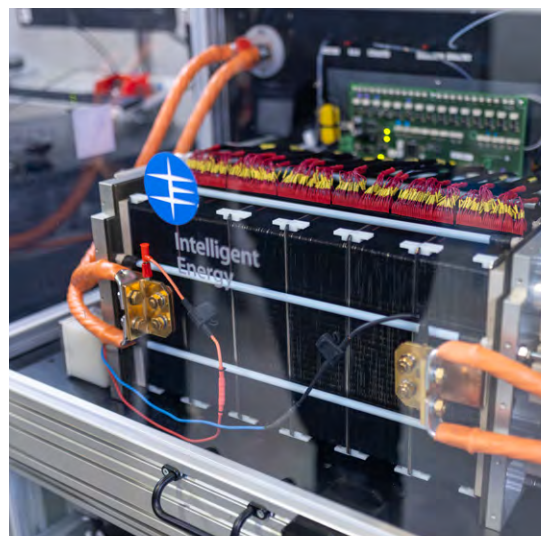




Powering the hydrogen future™



Fast
dynamic
response



Scalable
reliable
power



High
power
fuel cells

IE-GRID fuel cells

Scalable, zero-emission power solutions for back-up and off-grid use

As industries worldwide seek cleaner, more resilient energy solutions, alternatives to diesel generators are increasingly in demand – for standby power, grid balancing, or as permanent off-grid sources.

Fuel cells are powering the next era of intelligent infrastructure – delivering clean, resilient energy for AI data centres, businesses, and communities seeking freedom from grid constraints. Purpose-built for next-generation microgrids, IE-GRID™ units combine high power density with a compact footprint, scaling easily to megawatt levels.

Reliable, clean, independent power

IE-GRID is Intelligent Energy's scalable hydrogen fuel cell power solution ranging from 4kW to multi-megawatt for applications including telecommunications, construction, critical infrastructure, airports, maritime and remote sites.

It delivers quiet, zero-carbon emission power, without CO₂, NO_x and SO_x and can be configured to suit individual site requirements.

IE-GRID benefits:

- ✓ Zero carbon emissions
- ✓ High power density at system level
- ✓ 24/7 operation capability
- ✓ Improved operational efficiency
- ✓ Low noise
- ✓ Minimal system footprint
- ✓ Scalable to multi-megawatts
- ✓ AC or DC output (model dependent)
- ✓ Black-start capability – delivering full power in <30s
- ✓ Class-leading response from the fuel cell system, >60kW/s (per 100kW)
- ✓ True load-following capability
- ✓ Proven technology in stationary power applications up to 600kW

Example applications



AIRSIDE POWER



CONSTRUCTION



DATA CENTRES



OFF-GRID POWER



PORTS - SHORE-TO-SHIP POWER



TV & FILM

Fuel cell power solutions for back-up and off-grid use

Modular design for scalable power demand

A key feature of Intelligent Energy's PEM fuel cell technology is its modularity.

IE-GRID: up to 30kW

For lower power IE-GRID solutions, our proven 4kW air-cooled IE-POWER™ systems can be supplied in various configurations at a range of scalable power outputs, 4kW to 30kW.

These systems are typically used for construction sites, critical infrastructure, remote sites and telecommunication applications.

IE-GRID: up to multi-MW

For IE-GRID systems above 100kW, we leverage the proven HD100 platform. Our HD100 units can be configured in parallel or series to deliver tailored solutions up to 3MW in a single container, with multiple containers installed to deliver multi-MW power.

These systems can support applications where larger diesel gensets are currently used such as data centres, TV and Film, or shore-to-ship power in ports.

Fast power response

Fewer batteries & supercapacitors

Simplified balance of plant

Compact footprint

Zero carbon emissions

Simple integration



MICROGRID

600kW stationary power system for the US Air Force in Honolulu, HI.



MICROGRID

100kW containerised system for testing within a microgrid environment.

Who are we?

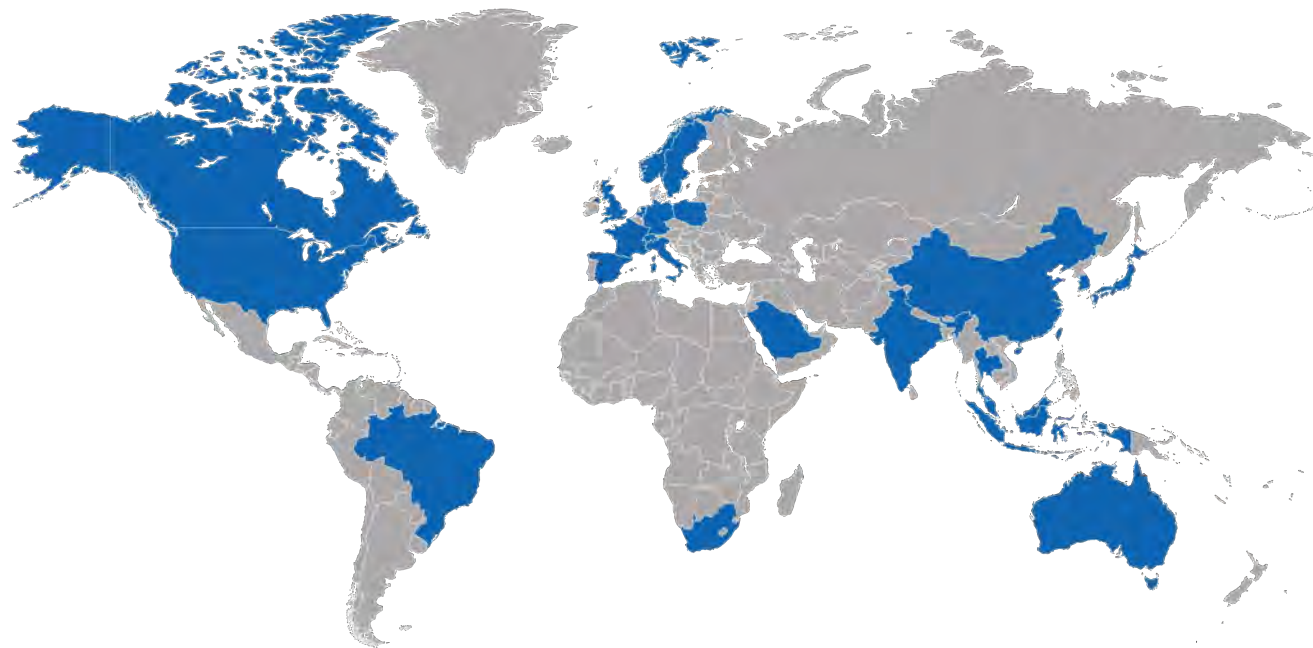
Since 2001, Intelligent Energy has been building a successful hydrogen fuel cell manufacturing business focused on the development of its lightweight, robust, fuel cell systems.

The fuel cell modules range from sub-1kW to 100kW+ for demanding applications across aerospace, stationary power, automotive, telecoms, unmanned aerial vehicles, and material handling equipment.

Where are we?

Our headquarters and manufacturing are based in the UK, with our systems being used by our partners and customers worldwide.

Located within the 750-acre Chelveston Renewable Energy Park in Northamptonshire, UK, Intelligent Energy's test facility is a dedicated site for advancing hydrogen fuel cell systems for aerospace and high-power stationary applications.



Intelligent Energy Headquarters

Charnwood Building, Holywell Park, Ashby Road, Loughborough. LE11 3GB. United Kingdom

Reliable, clean,
independent
power

REMOTE POWER

Portable power generation in the Alps
using IE-POWER 4.

OFF-GRID POWER

Microgrid using IE-POWER 4 to support a
rural hospital in Papua New Guinea.



Powering the hydrogen future™

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