



Ticker
IES.L

Admitted to the London Stock Exchange’s
Alternative Investment Market (AIM)
2006

First received the Green Economy Mark
2019

ICB Industry
Industrials

LSEG Green Revenues Sector
Energy Management and Efficiency



Invinity: Powering Britain’s battery innovation

Invinity Energy Systems is the UK’s largest manufacturer of grid-scale energy storage systems, and has held the Green Economy Mark since 2019. Manufactured in Scotland’s central belt between Edinburgh and Glasgow, Invinity’s vanadium flow batteries (VFB) provide long duration energy storage,^{1,2} enabling surplus wind and solar power to be stored and dispatched when needed. By unlocking more low-cost wind and solar power for electricity grids, Invinity supports grid resilience, and energy security while enabling greater integration of renewable energy.

As Invinity has raised growth capital, the Green Economy Mark has played an important part in opening doors with investors. Over the past seven years, Invinity has raised more than £123 million in funding, supporting both the development of its new Endurium™ battery and the scaling of its operations.

“There have been a number of significant conversations that probably would not have happened without the Green Economy Mark,” states Jonathan Marren, Invinity’s CEO. “We have had a number of financing rounds, and believe that the Green Economy Mark remains a helpful proof point for certain investors.”

Creating commercial and environmental value

As the global energy landscape adapts to higher levels of intermittent renewable generation and escalating demand from digital infrastructure, Invinity is creating both commercial and environmental value. The company’s growth demonstrates how profit and purpose can go hand in hand.

As electricity systems globally transition towards renewable energy and face rapidly growing energy demand from data centres, Invinity’s vanadium flow batteries play a critical role in providing the energy storage flexibility needed to maintain grid stability. They store large volumes of wind and solar power and enable this energy, through long-duration storage that typically ranges from 4–18 hours, to be dispatched when required. For data centres, this helps to manage their intensive and fluctuating power demand. Compared to the more widespread lithium-ion batteries, Invinity’s vanadium flow batteries offer long-duration storage, no inherent fire risk and over 30 years of operation with minimal performance degradation.^{3,4}

While the UK serves as Invinity’s launchpad, the company has clear global ambitions, with growing activity internationally. China, the world’s largest battery storage market, represents a key focus where Invinity is actively developing opportunities, with India also emerging as an important source of future growth. In the US, Invinity has several large projects, particularly in California, and the company also plans to establish local manufacturing. Across Europe, the company has projects in Hungary, alongside a growing pipeline of opportunities across the wider region.

1 [Invinity Energy Systems in the UK](#)
2 [Invinity launches large-scale application long-duration flow battery – Best Magazine](#)
3 [Invinity “Super Battery” Delivered in UK First / Invinity](#)
4 [Vanadium Flow Battery Lifespan – Invinity](#)

A transformational year

Invinity is at a watershed moment in its development. The Endurium™ battery, launched at the end of 2024, has a significantly lower production cost than its VS3 predecessor and is optimised for significantly larger project sizes. The National Wealth Fund supported the battery’s development through a £25 million equity investment in 2024,⁵ providing both capital and institutional validation as Invinity transitions from technology development into large-scale commercial deployment.

“Following the last few years’ technology development, we now have a product that can confidently compete on price and we continue to build our pipeline of commercial projects,” explains Jonathan Marren, Invinity’s CEO. “This last year has been transformational for us and that’s continuing.”

Invinity continues to invest strongly in research capability and skills, employing more than 40 people in research and development, alongside approximately 100 in product development. Illustrating the scale and potential of its technology, Invinity has built the 20.7 MWh Copwood VFB Energy Hub in Uckfield, East Sussex, which will be the largest VFB system of its kind in Europe.⁶ Part funded by the Department for Energy Security & Net Zero, Invinity will own and operate the Copwood facility. The project will demonstrate how excess solar energy generated can be stored and discharged into the UK grid during peak periods and overnight.

Expanding order book

After several years of technology and product development, AIM-quoted Invinity has a growing order book. Notably, it looks set to benefit from the UK Long-Duration Energy Storage (LDES) Cap & Floor Scheme, a government-backed support scheme for “super battery” projects designed to strengthen the grid’s capacity for renewable energy.

“The government is progressing towards a final decision in the LDES Cap and Floor Scheme designed to address the intermittency challenges faced by the UK electricity system, as well as boosting energy security and helping to reduce consumer and industrial prices,” says Marren.⁷ “If all our bids were successful, we would create up to 1,000 jobs in Scotland’s central belt, giving us the potential to scale up manufacturing and grow significantly.”

Invinity has delivered more than 2,000 batteries to customer projects globally and more than 9 GWh of electricity has been dispatched in service for the company’s customers to date, making Invinity’s VFB technology one of the most established and proven alternatives to lithium-ion batteries for stationary energy storage applications worldwide.⁸

Profit and purpose

Invinity points to the Green Economy Mark as an independent data driven validation of the environmental value generated through its commercial activities. As a result, the Green Economy Mark is reflected prominently in Invinity’s annual reports, investor presentations and on the company website.

“Profit and purpose are both equally important, not just in our narrative but also in how we operate day to day,” notes Marren. “We provide energy security, at lower prices to consumers and industrial businesses so that we can grow our manufacturing base. And we do it in a way that’s working towards reducing carbon emissions and our impact on the planet.”



Invinity batteries at the Copwood site: Image credit: Utu design

“There have been a number of significant conversations that probably wouldn’t have happened without the Green Economy Mark. We’ve had a number of financing rounds, and believe that the Green Economy Mark remains a helpful proof point for certain investors.”

Jonathan Marren
CEO, Invinity

This case study was created based on an interview with Invinity Energy Systems where we discussed the London Stock Exchange’s Green Economy Mark. Statements regarding Invinity Energy Systems are based on information supplied by Invinity Energy Systems. This case study is not intended to be an endorsement of, or promotion for, Invinity Energy Systems.

5 nationalwealthfund.org.uk/news-and-publications/news/uk-infrastructure-bank-backs-storage-innovator-invinity-to-boost-longer-duration-energy-storage-in-the-uk

6 invinity.com/case-study-invinity-copwood-vfb-energy-hub

7 gov.uk/government/publications/long-duration-electricity-storage-technical-details-of-the-scheme-and-its-operation

8 [Invinity_factsheet_Dec24.pdf](#)