

EQONIC Developing Breakthrough Battery Technology That Slashes Energy Storage Costs by 70%

EQONIC's lithium-free, sodium-free & rare-earth-free battery tech addresses barriers to renewable energy adoption while mitigating fire & environmental risks

LONDON, UNITED KINGDOM, October 8, 2025 /EINPresswire.com/ -- [EQONIC](#) Developing Breakthrough [Battery Technology](#) That Slashes [Energy Storage](#) Costs by 70%

Company's lithium-free, sodium-free and rare-earth-free battery technology addresses critical barriers to renewable energy adoption while mitigating fire risk and environmental risk.



EQONIC R&D

- UK Battery pioneer EQONIC unveils next-generation battery technology with material costs just 30% of traditional lithium metal batteries

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Jas Kandola

- Revolutionary technology eliminates thermal runaway risk, addressing primary cause of battery fires in conventional systems
- Lithium-free, sodium-free proprietary composite uses only abundant, responsibly sourced materials with no rare earth metals which are engineered to achieve the required performance objectives
- Target manufactured cost of £50/kWh at scale—approximately half the industry average

- Technology development-first approach with 100% secured IP rights
- EQONIC plans to license its tech and to secure collaborations and partnerships with established manufacturers, reducing capital risk while enabling global deployment across diverse applications and markets

- In addition to its Innovations division, the company launched a commercial division with a comprehensive range of energy storage solutions serving B2B and D2B clients across industrial, commercial, and residential sectors
- Demand for EQONIC's current battery storage systems has resulted in deployment across a large number of projects with some high-profile clients and a multi-million pound projects pipeline



EQONIC R&D image

EQONIC Group a pioneering UK battery technology company, today announced its breakthrough battery technology that addresses the three critical challenges facing energy storage: cost, safety, and sustainability.

After years of development, EQONIC has created a next-generation battery system that achieves material costs of just 30% compared to traditional lithium metal batteries, a significant reduction given that materials account for around 60% of total battery production costs. This breakthrough translates to a target manufactured cost of £50/kWh at scale, approximately half the current industry average.

Unlike conventional battery technologies that rely on lithium or other materials prone to thermal runaway, EQONIC's proprietary composite materials are inherently non-flammable, eliminating the fire risk that has plagued widespread battery adoption in residential and commercial settings.

The technology also addresses critical supply chain vulnerabilities by using only abundant materials with no rare earth metals, no lithium and no sodium - particularly timely given recent geopolitical tensions and export restrictions on critical minerals.

EQONIC's accelerated energy density roadmap positions the technology to surpass sodium battery performance by 2026, exceed LFP performance by 2027, and achieve industry-leading NMC levels by 2029. Its batteries are designed for complete recyclability from conception, embodying a true circular economy approach.

Jas Kandola, Founder and CEO of EQONIC Group 'The energy storage industry is stuck in a compromise, choosing between cost, safety, or sustainability. We've eliminated that trade-off entirely. While others were rushing to market with incremental improvements, we took a different path: develop breakthrough technology first, then build the business around it. We handpicked cross-industry experts and assembled a highly experienced scientific and

engineering team from diverse sectors to tackle the fundamental challenges. The result is technology that costs 70% less (at material level) than traditional lithium batteries while being completely safe and sustainable – free of rare earth materials to avoid the huge environmental cost to extract, refine and transport.

‘After years of quiet development, we're now on track to demonstrate a market ready product in the near future, and the timing couldn't be more critical. The world needs affordable, safe energy storage at scale, and the conventional approaches simply can't deliver that.’

Rather than building its own gigafactory, EQONIC plans to license its technology and to secure collaborations and partnership to commercialise its innovations. This approach reduces the substantial capital risk and operational costs of large-scale battery manufacturing. By partnering with established partners, EQONIC will be a technology provider rather than competing directly with large-scale Asian producers - enabling multiple partners to deploy its innovations across diverse applications and markets.

EQONIC's strategic advisory board includes Craig Wilson, Non-Executive Director, who brings automotive engineering expertise from Williams Advanced Engineering where he helped grow the company from 30 to 1,000 employees, and Stuart Dyble, Non-Executive Director, with four decades of senior leadership including roles as Ford VP of Worldwide Communications and board positions at Aston Martin, Jaguar Land Rover, and Volvo.

While developing its battery technology, EQONIC has also established a robust commercial operation selling and installing complete LFP based energy storage solutions for B2B clients. Its current brand of EQONIC product portfolio offers comprehensive solutions across residential and commercial sectors, including low and high voltage batteries, on-grid and hybrid inverters, all-in-one systems, customisable power conversion systems, and air and liquid-cooled cabinet batteries through to container battery solutions.

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About EQONIC

EQONIC is a pioneering UK battery technology company at the forefront of energy innovation. The company is developing next-generation, lithium-free, sodium-free and rare-earth-free battery systems while simultaneously providing complete energy storage solutions that assist the transition to a Net Zero society. EQONIC serves B2B and D2B clients across industrial, commercial, and residential sectors, delivering tailored energy solutions for diverse market needs. The company's mission is to enable our clients to generate, store, and use their own renewable energy for true energy independence. With a dual focus on cutting-edge battery technology development and immediate market solutions, EQONIC is positioned as a key player in the UK's sustainable energy landscape.

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