



Altech Batteries
Limited

ASX ANNOUNCEMENT AND MEDIA RELEASE

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ALTECH – NEXT GENERATION CERENERGY® PACK ACHIEVES 90 KWH IN R&D BENCHMARK

Highlights

- R&D work developed an expanded CERENERGY® module concept, increasing capacity from 48 to 72 cells per module in a beehive arrangement
- Each five-module pack now delivers 90 kWh (from 60 kWh) of energy while retaining the existing casing and factory setup, requiring no infrastructure changes.
- System-level benefits include higher energy and power density, improved thermal behaviour, and cost reductions of ~30% at module and pack level
- Thermal modelling confirms uniform heat distribution with no excessive build-up, resulting in lower internal resistance, reduced ΔT across cells, and stable performance
- Engineering refinements—simplified cell contacting, optimised welding, repositioned sensors, and a redesigned frame—improve layout, assembly efficiency, and long-term reliability
- The redesign enhances competitiveness in €/kWh and strengthens scalability towards full industrial production
- No final decision on final design as yet – further modelling work
- R&D work on incorporation into a grid pack has commenced

Altech Batteries Limited (ASX: ATC, FRA: A3Y) is pleased to announce that the latest research and development efforts for the CERENERGY® cell and battery pack have resulted in the design possibility of a higher-capacity battery system. Development has focused on an expanded module concept that delivers greater energy within the same casing. By shifting from the current 48-cell configuration to a beehive arrangement of **72 cells per module**, each pack—comprising five modules—now achieves an energy **capacity of 90 kWh** (from 60 kWh) while maintaining the existing battery casing structure.

Importantly, this innovation requires no modification to the established factory design and setup. At the system level, the improvements deliver higher energy and power density, enhanced thermal performance, and cost reductions of approximately 30% at both the module and pack levels.

The redesign reduces inactive or unheated areas within the battery, with R&D efforts focused on analysing thermal distribution and heat accumulation during operation. Thermal modelling confirms that effective heat management is achievable, showing no excessive build-up during charging and discharging. Results demonstrate a uniform temperature profile, leading to lower internal resistance, reduced ΔT across cells, and more stable performance under load.

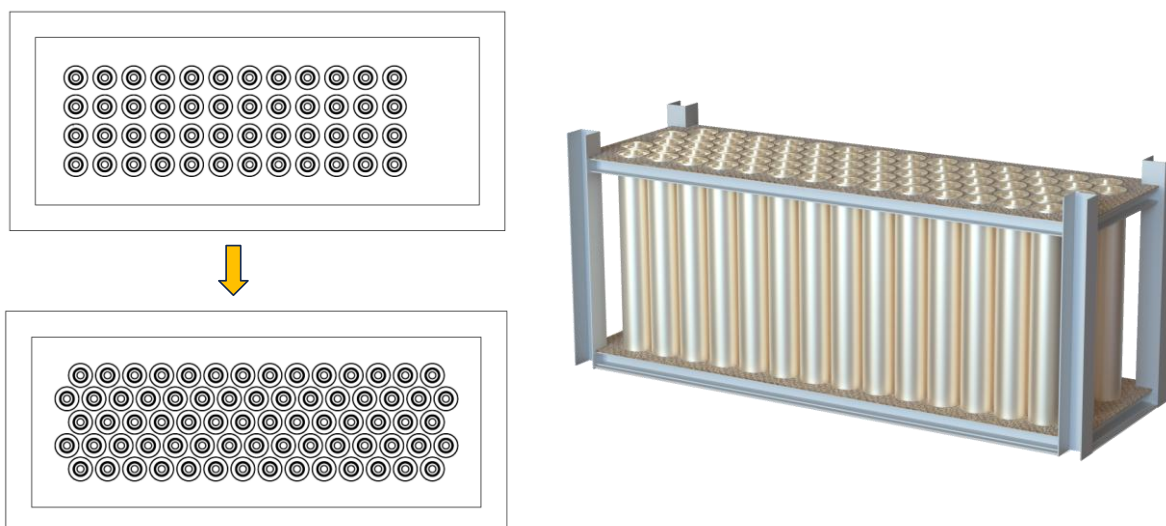


Figure 1 – Diagram showing the packing of cells in same size module from 48 to 72 cells

From an engineering perspective, the new module concept also resolves practical design challenges. It introduces simplified cell contacting, creating additional internal space and a cleaner layout. Further refinements include optimised welding techniques, repositioned temperature sensors, and a redesigned frame—collectively enhancing assembly efficiency, structural robustness, and long-term reliability.

At the system level, these advancements deliver higher energy and power density, improved thermal behaviour, and cost reductions of around 30% at both the module and pack levels. This results in a more competitive €/kWh and strengthens scalability towards full industrial production.

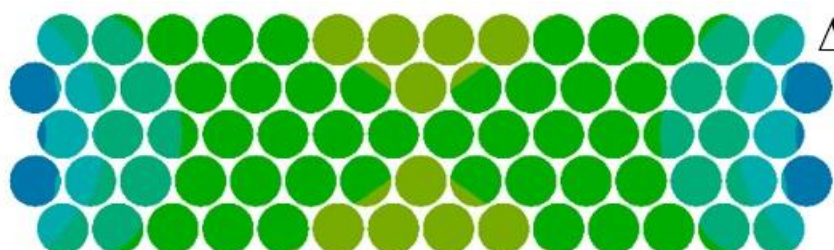
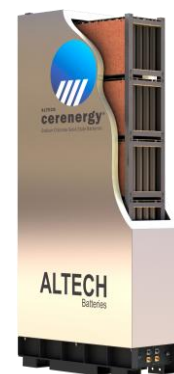


Figure 2 – Thermal modelling conducted to assess temperature profile of expanded module

A final decision on the design has not yet been reached, as additional modelling work continues alongside ongoing R&D focused on achieving seamless integration into a grid-scale battery pack, ensuring optimised performance, reliability, and cost-efficiency for future commercial deployment.

Group Managing Director, Iggy Tan said *“We are very encouraged by the outcome of our latest CERENERGY® development program. Achieving a 72--cell beehive module design that lifts pack capacity to 90 kWh—without any change to the existing casing or factory setup—is a significant milestone. Not only does this innovation increase energy density, it also simplifies engineering, enhances thermal management, and reduces cost by nearly 30%. These results strengthen the commercial competitiveness of CERENERGY® and*

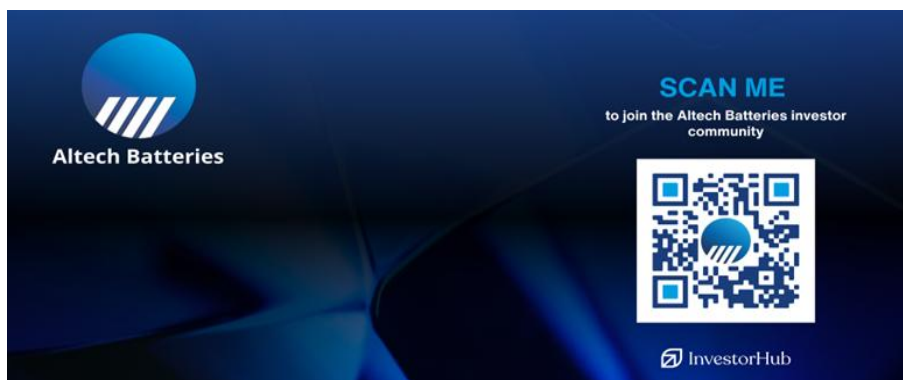


confirm its scalability towards full industrial production. With each step, we are moving closer to delivering a next-generation, high-performance battery solution for the global energy storage market.”

Authorised by: Iggy Tan (Managing Director)

Altech Batteries Interactive Investor Hub

Altech’s interactive Investor Hub is a dedicated channel where management interacts regularly with shareholders and investors who wish to stay up-to-date and to connect with the Altech Batteries leadership team. Sign on at our Investor Hub <https://investorhub.altechgroup.com> or alternatively, scan the QR code below.



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About Altech Batteries Ltd (ASX:ATC) (FRA:A3Y)

CERENERGY® Batteries Project

Altech Batteries Ltd is a specialty battery technology company that has a joint venture agreement with world leading German government battery institute Fraunhofer IKTS ("Fraunhofer") to commercialise the revolutionary CERENERGY® Sodium Chloride Solid State (SCSS) Battery. CERENERGY® batteries are the game-changing alternative to lithium-ion batteries. CERENERGY® batteries are fire and explosion-proof; have a life span of more than 15 years and operate in extreme cold and desert climates. The battery technology uses table salt and is lithium-free; cobalt-free; graphite-free; and copper-free, eliminating exposure to critical metal price rises and supply chain concerns.

The joint venture is commercialising its CERENERGY® battery, with plans to construct a 120 MWh production facility on Altech's land in Saxony, Germany. The facility intends to produce CERENERGY® battery modules to provide grid storage solutions to the market.



Silumina Anodes™ Battery Materials Project

Altech Batteries has licenced its proprietary high purity alumina coating technology to 75% owned subsidiary Altech Industries Germany GmbH (AIG), which has finalised a Definitive Feasibility Study to commercialise an 8,000tpa silicon alumina coating plant in the state of Saxony, Germany to supply its Silumina Anodes™ product to the burgeoning European electric vehicle market.

This Company's game changing technology incorporates high-capacity silicon into lithium-ion batteries. Through in house R&D, the Company has cracked the "silicon code" and successfully achieved a 30% higher energy battery with improved cyclability or battery life. Higher density batteries result in smaller, lighter batteries and substantially less greenhouse gases, and is the future for the EV market. The Company's proprietary silicon product is registered as Silumina Anodes™.

The Company is in the race to get its patented technology to market, and recently announced the results of a Definitive Feasibility Study for the construction of a 8,000tpa Silumina Anodes™ material plant at AIG's 14-hectare industrial site within the Schwarze Pumpe Industrial Park in Saxony, Germany. The European silicon feedstock supply partner for this plant will be Ferroglobe. The project has also received green accreditation from the independent Norwegian Centre of International Climate and Environmental Research (CICERO). To support the development, AIG has commenced construction of a pilot plant adjacent to the proposed project site to allow the qualification process for its Silumina Anodes™ product. AIG has executed NDAs with German and North American automakers and battery material supply chain companies.

Silumina Anodes™