



## QuantumScape Begins Customer Shipments of Alpha-2 Prototypes, a Key Goal for 2024

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SAN JOSE, Calif.--(BUSINESS WIRE)-- [QuantumScape Corporation](#) (NYSE: QS), a leader in next-generation solid-state lithium-metal battery technology, today announced it started customer shipments of Alpha-2 prototype battery cells, fulfilling a goal for 2024.

Alpha-2 prototypes are a significant milestone on the roadmap to deliver QSE-5, QuantumScape's first planned commercial product. QuantumScape entered the automotive qualification process in December 2022 after shipping A0 prototypes to customers. Alpha-2 prototypes integrate many of the company's significant component improvements made over the last year. The six-layer Alpha-2 prototype is more energy-dense than the earlier 24-layer A0 prototype. This is primarily due to higher-loading cathodes (i.e., packed with more active material) and more efficient packaging that optimizes the materials and space within the cell. The packaging improvements include tighter internal margins, thinner current collectors, and a slimmer design, all of which are integral to the final product.

As an intermediate step between the A0 and the QSE-5 B0 prototypes planned for later this year, Alpha-2 cells feature the main functionality of the QSE-5 and are an opportunity for customers to test key performance parameters and prototype-level reliability. While Alpha-2 prototypes are being tested in customer labs, QuantumScape is working to integrate those component-level improvements into the planned QSE-5 cells, which will consist of 24 layers and use electrolyte-separators produced using the faster Raptor equipment and process.

"The Alpha-2 shipments represent an important milestone on our path to commercialization," said Dr. Siva Sivaram, president and CEO of QuantumScape. "Customer feedback is the most critical input in the product development cycle as it provides insight into areas that need improvement and strengthens collaboration. The faster we can get new product iterations into customers' hands, the faster we get to production. We are very encouraged by the initial Alpha-2 performance results and excited about the first QSE-5 cells we expect to manufacture later this year."

"The improvements in energy and power densities demonstrated by the Alpha-2 prototypes indicate that QSE-5 can push the boundaries of solid-state battery performance," said Tim Holme, co-founder and CTO of QuantumScape. "We continue to advance our anode-free, solid-state battery in performance and maturity with methodical execution on our milestones."


The company will continue to build and ship Alpha-2 prototypes to automotive customers over the coming months while focusing on reliability improvements and ramping up production. QuantumScape's remaining key goals for 2024 include ramping up the Raptor production process, beginning low-volume QSE-5 prototype production, and preparing for high-volume production of its solid-state electrolyte-separator using the Cobra equipment and process, which is set to begin in 2025.

### About QuantumScape Corporation

QuantumScape is on a mission to transform energy storage with solid-state lithium-metal battery technology. The company's next-generation batteries are designed to enable greater energy density, faster charging and enhanced safety to support the transition away from legacy energy sources toward a lower carbon future. For more information, visit [www.quantumscape.com](http://www.quantumscape.com).

### Forward-Looking Statements

Certain information in this press release may be considered "forward-looking statements," within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including, without limitation, statements regarding the company's plans and objectives for future operations and production ramping up, the prospects and timing of cell sample manufacturing and shipment, the testing results of cell samples, among others. These forward-looking statements are based on management's current expectations, assumptions, hopes, beliefs, intentions and strategies regarding future events and are based on currently available information as to the outcome and timing of future events. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements, including due to challenges related to the management transition, the building out of high volume processes, and the achievement of the quality, consistency, reliability, safety, cost and throughput required for commercial production and sale, changes in economic and financial conditions and due to other factors discussed in the section titled "Risk Factors" in our Annual Report and Quarterly Reports and other documents filed with the Securities and Exchange

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For Investors  
[ir@quantumscape.com](mailto:ir@quantumscape.com)

For Media  
[media@quantumscape.com](mailto:media@quantumscape.com)

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