QuantumScape®

Q2 FISCAL 2022
LETTER TO SHAREHOLDERS

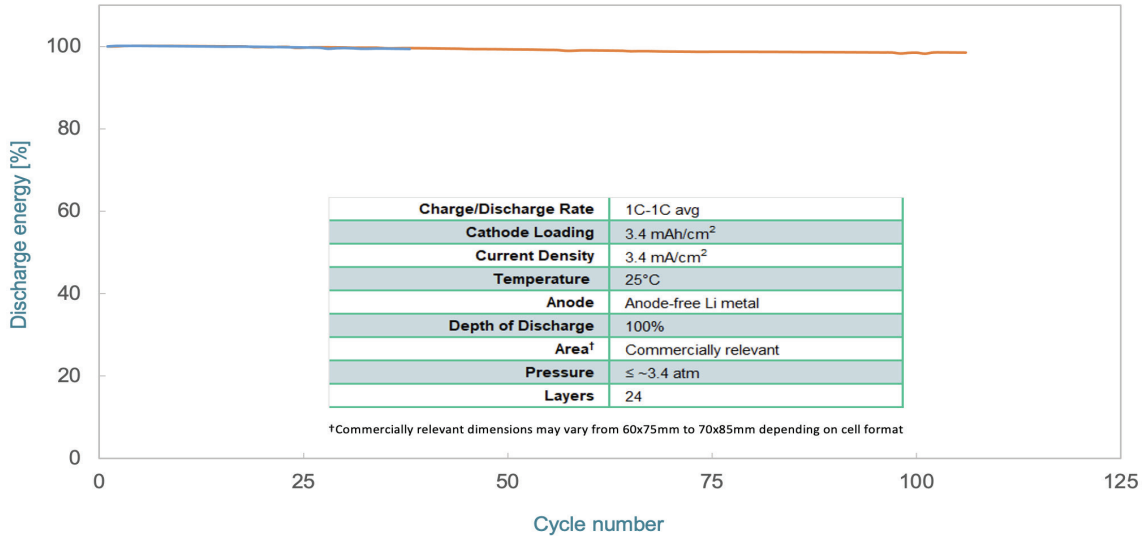
JULY 27, 2022

Dear shareholders,

With the first half of 2022 behind us, we are pleased to provide an update on our progress over the past quarter.

24-layer Cells

In 2020, we showed our first single-layer cell; in 2021, we showed four- and 10-layer cells, and earlier this year we showed our first 16-layer cells. **Building on this momentum, we are pleased to report we have now made our first prototype 24-layer cells and put them on test.** The cells on the chart below show similar early capacity retention behavior to our single-, four-, 10- and 16-layer cells.



Cycle energy retention vs cycle count for early 24-layer prototype cells

This is an important result because, as we have previously indicated, 24-layer cells represent A-sample candidates for some automotive OEMs. While the precise definition of an A sample will vary by customer, delivering any such cell to an automotive customer is a high bar and remains one of our key goals for the year. Doing so requires that we make cells with sufficient performance and quality to meet our standards, and in sufficient quantities to complete our validation process and ship to a customer.

During the quarter, we encountered a number of challenges related to the quality and throughput of our production processes. These challenges ranged from discovery of a contaminant in our material to identifying defects introduced during the production process. While we have successfully addressed a number of these, we continue to work through others. We are encouraged by the fact that despite these challenges, our team has been able to make progress on 24-layer prototype cells.

The 24-layer prototype cells we've made were packaged in a variety of formats, including early variants of the proprietary format we are developing, designed to accommodate the expansion and contraction characteristic of lithium-metal batteries during charge and discharge (resulting from plating and stripping of lithium metal). As part of our development work, we have built and tested many cells of varying layer counts in this new format, including some that have achieved over 600 cycles and are still cycling. However, more work remains to complete development of this design.

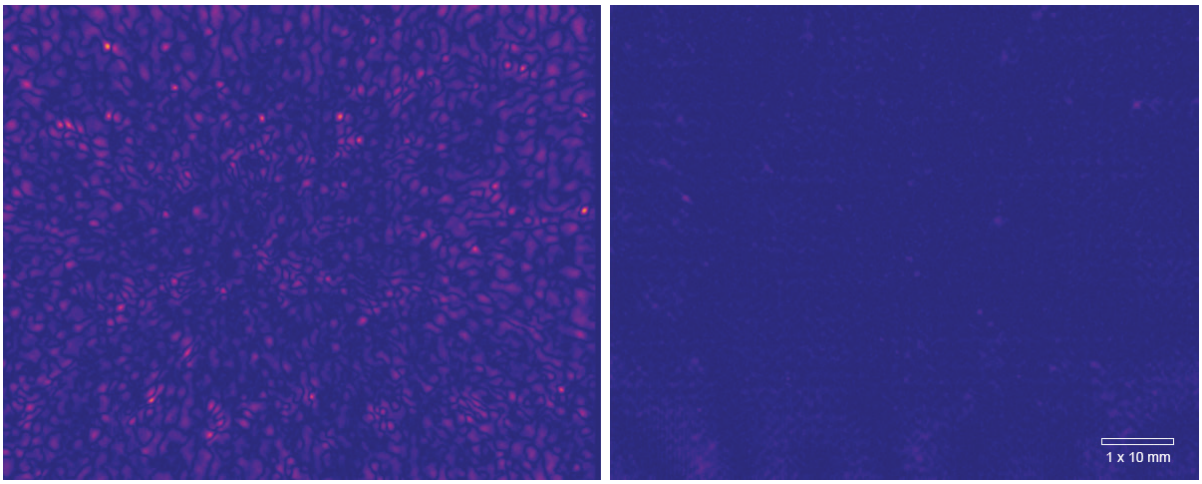
Delivery of the A sample represents the beginning of the automotive qualification process, which involves several major delivery milestones — A, B and C samples — followed by the start of production. Each major sampling stage may consist of several generations of increasingly mature prototypes. We are currently targeting approximately 18 months between the A sample and prototype B-sample cells, which may use some low-volume processes. We anticipate a similar timeframe to go from B samples to C samples. Of course, these timelines involve uncertainty and will be influenced by a number of factors, including product and process development risks; the specification, ordering, and qualification of production tooling; other supply chain dynamics; and OEM validation timeframes.

Quality Improvements

While we have already published data on single- and multilayer cells demonstrating industry-leading performance, to continue scaling up our layer counts and production throughput, we are also working to further improve the quality distribution of our films and cells. For any given quality metric, performance falls on a spectrum, and improving the quality distribution means moving the entire spectrum toward higher quality.

To achieve this goal, we are working to implement a variety of quality improvements to our processes and materials, including advances in separator manufacturing and the implementation of our second-generation catholyte.

One recent improvement we have made to our separator manufacturing process is a change that results in higher uniformity, as illustrated in the following images. The image on the left is a separator made using our baseline process, which is already very good — it is the process that has delivered the industry-leading performance results we've shown to date, such as 800 cycles under gold-standard testing conditions[1] and repeated 15-minute fast charging at 25 °C. However, we believe that improved uniformity translates to even better performance, reliability, and scalability, and as the image on the right illustrates, **the new process results in even better uniformity**.

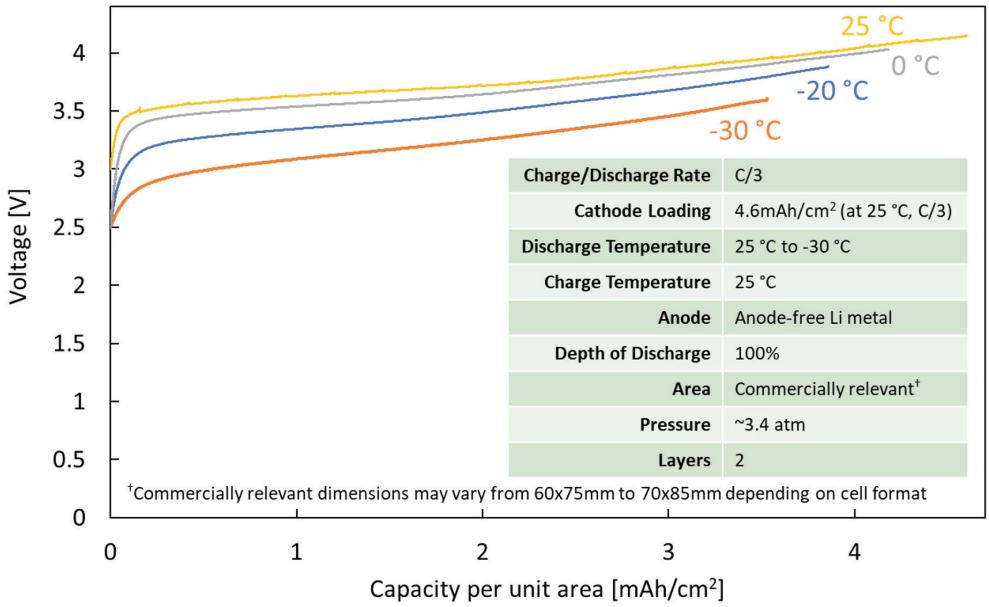


False-color signal-processed image of separators made using the baseline process (left) and new process (right). The pink represents non-uniformities generally not visible to the naked eye.

[1] By "gold-standard" test conditions we mean: average charge/discharge rates of 1C or faster, temperatures of 25 °C, 100% depth of discharge, and externally applied pressure of no more than 3.4 atmospheres, simultaneously. For a more detailed discussion of why these parameters are important, please read CTO Tim Holme's blog on the subject.

We have also been pursuing improvements to the ion conductor in the cathode of our cells (the *catholyte*). In conventional lithium-ion cells, the electrolyte makes contact with both the cathode, where the voltage is high, and the anode, where the voltage is low, and therefore must be stable at both high and low voltage. In contrast, low-voltage stability is not required for the catholyte in our cells because our ceramic separator isolates the cathode from the anode, allowing us to use catholyte materials that are incompatible with other systems.

Our second-generation catholyte has a set of properties that we believe offers better low-pressure performance, improved low-temperature behavior, better high-rate support, and improved cell reliability compared to our first-generation catholyte. The compelling single-layer results we presented earlier this year showing zero applied pressure and repeated 15-minute fast charging performance were obtained with this new catholyte. As the following chart shows, cells made with this catholyte are also capable of discharging at ultralow temperatures of -30 °C with good capacity retention.



Discharge capacity vs voltage as a function of temperature using our second-generation catholyte

This quarter, we incorporated the second-generation catholyte into our baseline process, and are preparing to baseline improvements to the separator manufacturing process. Once fully implemented, we believe these improvements will have a positive impact on the quality distribution of our cells.

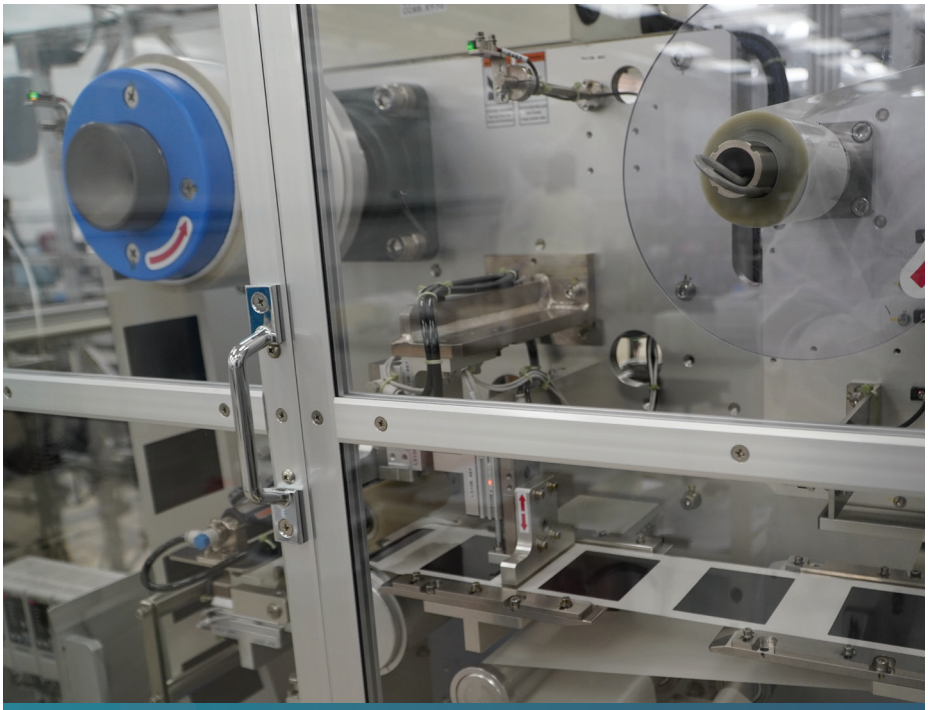
Manufacturing Scale Up

Our cell manufacturing process has many similarities to conventional lithium-ion cell manufacturing. The parts that are proprietary can largely be grouped into two main tasks: separator production and cell assembly. A key ongoing goal of our Phase 1 engineering line is to improve the quality, consistency, and throughput of our separator production, and the first goal of our Phase 2 engineering line is to do the same for cell assembly.

We are pleased to report that our Phase 2 engineering line is now operational and cell assembly has transitioned to this line. Located at QS Campus, the Phase 2 line benefits from six times more floorspace for cell assembly, increasing flexibility to iterate on our process, expand automation and in-line metrology, and add more cell assembly lines as we continue to scale production.

As part of bringing Phase 2 online, this quarter we took delivery and completed qualification of several key tools. Notably, we have completed site acceptance testing on our first-generation automatic cell stacker, which automates the first step of the cell build process. This new tool is designed to improve throughput; a step that previously took more than five minutes can now be accomplished in approximately 30 seconds. Consistency is another benefit of automation; a properly configured and maintained piece of automated equipment can perform the same operation repeatedly with low variation from run to run, which can improve cell quality.

While we are pleased with this progress, further work is required for us to achieve our goals. For example, we will need additional stacker tools to automate subsequent steps in the cell stacking and assembly process.



First-generation automatic cell stacking tool on our Phase 2 engineering line

This quarter, we achieved a peak of greater than 5,000 weekly separator film starts. To improve the quality distribution of our cells, we have been using much of our separator production capacity to baseline the quality improvements already discussed. While we don't expect linear increases in starts each quarter, we retain our goal of achieving peak weekly starts of 8,000 before the end of the year.

Customer Engagement

We continue to collaborate closely with Volkswagen Group as we work to bring our technology to market. Volkswagen Group brings not only decades of experience in high-volume, high-quality manufacturing, but has also become a hub of battery excellence, and recently announced the creation of PowerCo, its in-house battery manufacturing arm. Our collaboration with Volkswagen Group's engineering teams has intensified in recent months, with regular technical and product development meetings; their expertise has proved especially valuable as we build competence in mass manufacturing.

In addition to Volkswagen Group and our previously announced deals, **we are pleased to report two additional customer sampling agreements with automotive OEMs**. We have now announced agreements with six prospective automotive customers — from global top-10 manufacturers by revenue to premium performance and luxury automakers, encompassing both pure EV and conventional OEMs. We have engaged with companies we believe provide us with a strategic mix across geographic footprints and vehicle segments. This breadth of customer engagement gives us confidence that demand for next-generation solid-state lithium-metal batteries remains robust across the automotive industry, and if we can accomplish our goals, the scope of the opportunity ahead of us remains compelling.

Financial

In Q2, cash operating expenses, defined as operating expenses less stock-based compensation and depreciation, were $59.7M, in-line with our expectations. Capital expenditures of $27.6M were below our guidance of $35M to $65M. We are actively working to prioritize investment into critical milestones while conserving cash to maintain flexibility through the current difficult macroeconomic environment.

Drivers of lower capex spend varied by project and included deliberate postponement to refine equipment specifications, delays imposed by supply chain factors or technical challenges (as covered earlier), realized cost savings, and improved visibility into order times. As an example of realized savings, facility capex to support our Phase 2 engineering line came in below budget as a result of value engineering that helped reduce our construction spending. During Q2, we also started insourcing some construction activities to our facilities department.

A significant portion of our Q2 capital investment included payments toward our Phase 2 engineering line, including facility buildout, cell assembly and testing equipment, and metrology tooling. The remainder of our capex was primarily related to the QS-0 line and QS Campus buildouts. We continued construction on the facilities that will house QS-0, our quality lab, test center, and warehouse, and made progress payments on continuous kiln tooling and coating equipment.

While we reiterate our cash opex guidance of $225M to $275M for FY'22, we now estimate our capital expenditures to be between $175M and $225M for FY'22 (versus our prior guidance of $325M to $375M) as the drivers of lower Q2 spend also impact full year capex projections. We believe most of the reduction in our forecasted 2022 capex spend will now be pushed into 2023.

Despite the lower capex spend in 2022, we remain focused on achieving our goals for the year, including delivery of an A-sample prototype cell to a customer, demonstration of a cell format designed to accommodate lithium plating and stripping, scale up of peak film starts to 8,000 per week, and taking delivery of the majority of QS-0 equipment toward a 2023 line start. We note that on the last goal, there is a distinction between equipment sufficient to allow us to make the first cells on the pre-pilot line and equipment required to make significantly higher volumes. We believe we remain on track with respect to the former, but expect some of the tools required for the latter to be received in 2023.

Based on these projections — primarily due to the pushout of capex spend from FY'22 into FY'23 — we now expect to exit the year with more than $950M in liquidity, an increase from the greater than $800M in year-end liquidity referenced in the Q1'22 shareholder letter.

Strategic Outlook

We have made significant strides in cell development, manufacturing and customer engagement, despite facing the hurdles discussed earlier. We are grateful for the exceptional focus and discipline our team has shown through the challenges of delivering on a never-before-realized technology, and the commitment of our automotive partners to help us bring this technology to market. We remain focused on our key goal of delivering a 24-layer A sample to an automotive customer this year and look forward to reporting on our continued progress in the coming months.

Jagdeep Singh
Founder, CEO & Chairman

Kevin Hettrich
CFO

QuantumScape Corporation
Condensed Consolidated Balance Sheets (Unaudited)
(In Thousands)

	June 30, 2022	December 31, 2021
Assets		
Current assets		
Cash and cash equivalents ($3,365 and $3,382 as of June 30, 2022 and December 31, 2021, respectively, for joint venture)	$ 343,368	$ 320,700
Marketable securities	924,752	1,126,975
Prepaid expenses and other current assets	10,328	15,757
Total current assets	1,278,448	1,463,432
Property and equipment, net	233,778	166,183
Right-of-use assets - finance lease	29,450	30,886
Right-of-use assets - operating lease	63,494	36,913
Other assets	18,425	18,234
Total assets	$ 1,623,595	$ 1,715,648
Liabilities, redeemable non-controlling interest and stockholders' equity		
Current liabilities		
Accounts payable	$ 23,105	$ 14,182
Accrued liabilities	4,948	6,078
Accrued compensation and benefits	8,724	9,119
Operating lease liability, short-term	2,577	1,209
Finance lease liability, short-term	461	19
Total current liabilities	39,815	30,607
Operating lease liability, long-term	64,753	36,760
Finance lease liability, long-term	39,337	39,378
Other liabilities	6,855	315
Total liabilities	150,760	107,060
Redeemable non-controlling interest	1,684	1,693
Total stockholders' equity	1,471,151	1,606,895
Total liabilities, redeemable non-controlling interest and stockholders' equity	$ 1,623,595	$ 1,715,648

QuantumScape Corporation
Condensed Consolidated Statements of Operations and Comprehensive Loss (Unaudited)
(In Thousands, Except per Share Amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Operating expenses:				
Research and development	$ 65,133	$ 35,776	$ 126,478	$ 65,241
General and administrative	30,740	13,846	60,052	$ 29,056
Total operating expenses	95,873	49,622	186,530	94,297
Loss from operations	(95,873)	(49,622)	(186,530)	(94,297)
Other (loss) income:				
Interest expense	(607)	(238)	(1,207)	$ (238)
Interest income	1,510	349	2,326	$ 596
Change in fair value of assumed common stock warrant liabilities	—	130,504	—	$ 99,740
Other (expense) income	133	(5)	221	$ 98
Total other income	1,036	130,610	1,340	100,196
Net Income (loss)	(94,837)	80,988	(185,190)	5,899
Less: Net loss attributable to non-controlling interest, net of tax of $0 for the three and six months ended June 2022 and 2021	(8)	—	(9)	$ (10)
Net income (loss) attributable to common stockholders	$ (94,829)	$ 80,988	$ (185,181)	$ 5,909
Net income (loss)	$ (94,837)	$ 80,988	$ (185,190)	$ 5,899
Other comprehensive income (loss):				
Unrealized loss on marketable securities	(3,321)	(837)	(14,937)	$ (663)
Total comprehensive income (loss)	(98,158)	80,151	(200,127)	5,236
Less: Comprehensive loss attributable to non-controlling interest	(8)	—	(9)	$ (10)
Comprehensive income (loss) attributable to common stockholders	$ (98,150)	$ 80,151	$ (200,118)	$ 5,246
Net income (loss) per share of common stock attributable to common stockholders				
Basic	$ (0.22)	$ 0.20	$ (0.43)	$ 0.02
Diluted	$ (0.22)	$ (0.12)	$ (0.43)	$ (0.24)
Weighted-average shares used in computing net income (loss) per share of common stock				
Basic	431,523	404,957	430,435	386,970
Diluted	431,523	410,372	430,435	396,059

QuantumScape Corporation
Condensed Consolidated Statements of Cash Flows (Unaudited)
(In Thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Operating activities				
Net income (loss)	$ (94,837)	$ 80,988	$ (185,190)	$ 5,899
Adjustments to reconcile net income (loss) to net cash used in operating activities:				
Depreciation and amortization	5,782	2,803	10,506	4,853
Amortization of right-of-use assets and non-cash lease expense	1,906	900	3,698	1,271
Amortization of premiums and accretion of discounts on marketable securities	1,528	3,022	3,713	5,432
Stock-based compensation expense	30,926	11,607	59,407	23,283
Change in fair value of assumed common stock warrant liabilities	—	(130,504)	—	(99,740)
Other	48	(9)	608	(113)
Changes in operating assets and liabilities:				
Prepaid expenses and other current assets	3,156	(2,011)	5,238	468
Accounts payable, accrued liabilities and accrued compensation	(1,967)	765	701	5,016
Other long-term liabilities	2,100	—	2,100	—
Operating lease liability	26	(459)	486	(804)
Net cash used in operating activities	(51,332)	(32,898)	(98,733)	(54,435)
Investing activities				
Purchases of property and equipment	(27,631)	(30,494)	(66,925)	(43,655)
Proceeds from maturities of marketable securities	200,740	300,000	419,240	411,000
Proceeds from sales of marketable securities	1,992	121,455	15,105	121,455
Purchases of marketable securities	(66,895)	(819,339)	(250,787)	(819,339)
Net cash (used in) provided by investing activities	108,206	(428,378)	116,633	(330,539)
Financing activities				
Proceeds from exercise of stock options and employee stock purchase plan	3,680	8,572	4,967	9,452
Proceeds from exercise of warrants	—	3,185	—	112,318
Payment of Business Combination share issuance costs	—	—	—	(1,016)
Proceeds from issuance of common stock, net of issuance costs paid	—	(899)	—	462,926
Proceeds from issuance of Class A Common Stock pursuant to Legacy QuantumScape Series F Preferred Stock Purchase Agreement, net of issuance costs	—	99,930	—	99,930
Principal payment for finance lease, net of credit	(199)	38	(199)	38
Net cash provided by financing activities	3,481	110,826	4,768	683,648
Net increase in cash, cash equivalents and restricted cash	60,355	(350,450)	22,668	298,674
Cash, cash equivalents and restricted cash at beginning of period	300,536	764,534	338,223	115,410
Cash, cash equivalents and restricted cash at end of period	$ 360,891	$ 414,084	$ 360,891	$ 414,084
Supplemental disclosure of cash flow information				
Cash paid for interest	$ 607	$ 238	$ 607	$ 238
Purchases of property and equipment, not yet paid	$ 17,871	$ 13,090	$ 17,871	$ 13,090
Fair value of assumed common stock warrants exercised	$ —	$ 9,080	$ —	$ 441,504

Net Loss to Adjusted EBITDA

Adjusted EBITDA is a non-GAAP supplemental measure of operating performance that does not represent and should not be considered an alternative to operating loss or cash flow from operations, as determined by GAAP. Adjusted EBITDA is defined as net income (loss) before interest expense, non-controlling interest, revaluations, stock-based compensation and depreciation and amortization expense. We use Adjusted EBITDA to measure the operating performance of our business, excluding specifically identified items that we do not believe directly reflect our core operations and may not be indicative of our recurring operations. Adjusted EBITDA may not be comparable to similarly titled measures provided by other companies due to potential differences in methods of calculations. A reconciliation of Adjusted EBITDA to net loss is as follows:

($ in Thousands)	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
GAAP net income (loss) attributable to Common Stockholders	**$ (94,829)**	**$ 80,988**	**$ (185,181)**	**$ 5,909**
Interest expense (income), net	(903)	(111)	(1,119)	(358)
Other expense (income), net	(133)	5	(221)	(98)
Change in fair value of assumed common stock warrant liabilities	—	(130,504)	-	(99,740)
Net loss attributable to non-controlling interests	(8)	—	(9)	(10)
Stock-based compensation	30,926	11,607	59,407	23,283
Non-GAAP operating loss	**$ (64,947)**	**$ (38,015)**	**$ (127,123)**	**$ (71,014)**
Depreciation and amortization expense	5,782	2,803	10,506	4,853
Adjusted EBITDA	**$ (59,165)**	**$ (35,212)**	**$ (116,617)**	**$ (66,161)**

Management's Use of Non-GAAP Financial Measures

This letter includes certain non-GAAP financial measures as defined by SEC rules. These non-GAAP financial measures are in addition to, and not a substitute for or superior to, measures of financial performance prepared in accordance with U.S. GAAP. There are a number of limitations related to the use of these non-GAAP financial measures versus their nearest GAAP equivalents. For example, other companies may calculate non-GAAP financial measures differently or may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial measures as tools for comparison. We urge you to review the reconciliations of our non-GAAP financial measures to the most directly comparable U.S. GAAP financial measures set forth in this letter, and not to rely on any single financial measure to evaluate our business.

Forward-Looking Statements

This current report contains forward-looking statements within the meaning of the federal securities laws and information based on management's current expectations as of the date of this current report. All statements other than statements of historical fact contained in this current report, including statements regarding the future development of the Company's battery technology, the anticipated benefits of the Company's technologies and the performance of its batteries, plans and objectives for future operations, forecasted cash usage, including spending and investment, are forward-looking statements. When used in this current report, the words "may," "will," "estimate," "pro forma," "expect," "plan," "believe," "potential," "predict," "target," "should," "would," "could," "continue," "believe," "project," "intend," "anticipates," "seek," "working toward," "embarking" the negative of such terms and other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. 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.
These forward-looking statements involve significant risks and uncertainties that could cause the actual

results to differ materially from the expected results. Many of these factors are outside the Company's control and are difficult to predict. Factors that may cause such differences include, but are not limited to ones listed here. The Company faces significant barriers in its attempts to produce a solid-state battery cell and may not be able to successfully develop its solid-state battery cell. Building high volumes of multilayer cells in commercially relevant area and with higher layer count requires substantial development effort. The Company could encounter significant delays and/or technical challenges in replicating the performance seen in its single-layer and early multilayer cells and in achieving the high quality, consistency and throughput required for commercial production and sale (e.g., unanticipated contamination issues). The Company has encountered delays and other obstacles in acquiring, installing and operating new manufacturing equipment for automated and/or continuous-flow processes, including vendor delays (which we have already experienced) and other supply chain disruptions and challenges optimizing complex manufacturing processes. The Company may encounter delays in hiring the engineers it needs to expand its development and production efforts, delays in building out QS-0, and delays caused by the COVID-19 pandemic. Delays in increasing production of engineering samples have slowed the Company's development efforts. These or other sources of delay could delay our delivery of A-samples and B-samples. Delays or difficulties in meeting technical milestones could cause prospective JV partners not to purchase cells from our pre-production line or not to proceed with a manufacturing joint venture. The Company may be unable to adequately control the costs associated with its operations and the components necessary to build its solid-state battery cells at competitive prices. The Company's spending may be higher than currently anticipated. The Company may not be successful in competing in the battery market industry or establishing and maintaining confidence in its long-term business prospectus among current and future partners and customers. The Company cautions that the foregoing list of factors is not exclusive. The Company cautions readers not to place undue reliance upon any forward-looking statements, which speak only as of the date made.

Except as otherwise required by applicable law, the Company disclaims any duty to update any forward-looking statements. Should underlying assumptions prove incorrect, actual results and projections could differ materially from those expressed in any forward-looking statements. Additional information concerning these and other factors that could materially affect the Company's actual results can be found in the Company's periodic filings with the SEC. The Company's SEC filings are available publicly on the SEC's website at www.sec.gov.