

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)
☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2025

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to
Commission File Number: 001-39345

QUANTUMSCAPE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)
1730 Technology Drive
San Jose, CA
(Address of principal executive offices)

85-0796578
(I.R.S. Employer
Identification No.)

95110
(Zip Code)

Registrant's telephone number, including area code: (408) 452-2000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol (s)	Name of each exchange on which registered
Class A Common Stock, par value \$0.0001 per share	QS	The New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The number of shares of the registrant's Class A Common Stock, par value \$0.0001 per share outstanding was 515,685,016, and the number of shares of the registrant's Class B Common Stock, par value \$0.0001 per share outstanding was 43,241,267, as of April 18, 2025.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Unless the context otherwise requires, all references to “QuantumScape,” “we,” “us,” “our,” or the “Company” in this Quarterly Report on Form 10-Q (this “Report”) refer to QuantumScape Corporation and its subsidiaries.

The Company makes forward-looking statements in this Report and in documents incorporated herein by reference. All statements, other than statements of present or historical fact included in or incorporated by reference in this Report, regarding the Company’s future financial performance, as well as the Company’s strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used in this Report, the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intends,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “prospective,” “should,” “will,” “would,” 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. The Company cautions you that these forward-looking statements are subject to risks and uncertainties, including those described in Part II, Item 1A, “Risk Factors” in this Report, most of which are difficult to predict and many of which are beyond the control of the Company and incident to its business. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make.

In addition, forward-looking statements in this Report and in any document incorporated herein by reference should not be relied upon as representing the Company’s views as of any subsequent date, and the Company does not undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made, whether as a result of new information, future events or otherwise, except as may be required under applicable laws.

As a result of a number of known and unknown risks and uncertainties, the Company’s actual results or performance may be materially different from those expressed or implied by these forward-looking statements. Some factors that could cause actual results to differ include those discussed in Part II, Item 1A, “Risk Factors” in this Report and in our other filings with the Securities and Exchange Commission (“SEC”).

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

QuantumScape Corporation Condensed Consolidated Balance Sheets (Unaudited) (In Thousands, Except per Share Amounts)

	March 31, 2025	December 31, 2024
Assets		
Current assets		
Cash and cash equivalents	\$ 153,555	\$ 140,866
Marketable securities	706,754	769,901
Prepaid expenses and other current assets	11,173	11,519
Total current assets	871,482	922,286
Property and equipment, net	289,465	299,992
Right-of-use assets - finance lease	21,549	22,267
Right-of-use assets - operating lease	50,144	51,472
Other assets	26,252	26,378
Total assets	<u>\$ 1,258,892</u>	<u>\$ 1,322,395</u>
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 7,786	\$ 6,466
Accrued liabilities	22,176	17,447
Accrued compensation and benefits	13,332	32,212
Operating lease liability, short-term	5,693	5,526
Finance lease liability, short-term	3,319	3,233
Total current liabilities	52,306	64,884
Operating lease liability, long-term	51,474	52,913
Finance lease liability, long-term	30,995	31,865
Other liabilities	15,519	14,886
Total liabilities	150,294	164,548
Commitment and contingencies (see Note 7)		
Stockholders' equity		
Preferred stock- \$0.0001 par value; 100,000 shares authorized, none issued and outstanding as of March 31, 2025 and December 31, 2024	—	—
Common stock - \$0.0001 par value; 1,250,000 shares authorized (1,000,000 Class A and 250,000 Class B); 515,661 Class A and 43,241 Class B shares issued and outstanding as of March 31, 2025, 487,883 Class A and 54,666 Class B shares issued and outstanding as of December 31, 2024	56	54
Additional paid-in-capital	4,581,379	4,515,879
Accumulated other comprehensive income	100	428
Accumulated deficit	(3,472,937)	(3,358,514)
Total stockholders' equity	1,108,598	1,157,847
Total liabilities and stockholders' equity	<u>\$ 1,258,892</u>	<u>\$ 1,322,395</u>

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

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

	Three Months Ended March 31,	
	2025	2024
Operating expenses:		
Research and development	\$ 95,589	\$ 83,847
General and administrative	27,986	48,054
Total operating expenses	123,575	131,901
Loss from operations	(123,575)	(131,901)
Other income (expense):		
Interest expense	(528)	(572)
Interest income	9,769	12,065
Other expense, net	(89)	(220)
Total other income	9,152	11,273
Net loss	(114,423)	(120,628)
Less: Net income attributable to non-controlling interest, net of tax of \$0	—	20
Net loss attributable to common stockholders	\$ (114,423)	\$ (120,648)
Net loss	\$ (114,423)	\$ (120,628)
Other comprehensive income (loss):		
Unrealized gain (loss) on marketable securities	(328)	1,490
Total comprehensive loss	(114,751)	(119,138)
Less: Comprehensive income attributable to non-controlling interest	—	20
Comprehensive loss attributable to common stockholders	\$ (114,751)	\$ (119,158)
Basic and Diluted net loss per share	\$ (0.21)	\$ (0.24)
Basic and Diluted weighted-average common shares outstanding	548,006	496,145

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

QuantumScape Corporation
Condensed Consolidated Statements of Stockholders' Equity (Unaudited)
(In Thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Equity
	Shares	Amount				
Three Months Ended March 31, 2025						
Balance as of December 31, 2024	542,549	\$ 54	\$ 4,515,879	\$ (3,358,514)	\$ 428	\$ 1,157,847
Exercise of stock options	8,082	1	11,181	—	—	11,182
Shares issued upon vesting of restricted stock units	8,065	1	20,126	—	—	20,127
Shares issued under At-the-Market Offering, net of issuance costs	206	—	907	—	—	907
Stock-based compensation	—	—	33,286	—	—	33,286
Net loss	—	—	—	(114,423)	—	(114,423)
Unrealized loss on marketable securities	—	—	—	—	(328)	(328)
Balance as of March 31, 2025	558,902	\$ 56	\$ 4,581,379	\$ (3,472,937)	\$ 100	\$ 1,108,598

	Redeemable Non- Controlling Interest	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
		Shares	Amount				
Three Months Ended March 31, 2024							
Balance as of December 31, 2023	\$ 1,770	493,031	\$ 49	\$ 4,221,892	\$ (2,880,657)	\$ (2,877)	\$ 1,338,407
Exercise of stock options	—	1,201	—	1,948	—	—	1,948
Shares issued upon vesting of restricted stock units	—	5,255	1	20,216	—	—	20,217
Stock-based compensation	—	—	—	16,458	—	—	16,458
Net income (loss)	20	—	—	—	(120,648)	—	(120,648)
Unrealized gain on marketable securities	—	—	—	—	—	1,490	1,490
Balance as of March 31, 2024	\$ 1,790	499,487	\$ 50	\$ 4,260,514	\$ (3,001,305)	\$ (1,387)	\$ 1,257,872

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

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

	Three Months Ended March 31,	
	2025	2024
Operating activities		
Net loss	\$ (114,423)	\$ (120,628)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	18,335	11,983
Amortization of right-of-use assets and non-cash lease expense	2,046	1,985
Amortization of premiums and accretion of discounts on marketable securities	(5,048)	(8,159)
Stock-based compensation expense	40,639	19,287
Other	40	107
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets and other assets	472	(22,679)
Accounts payable, accrued liabilities and accrued compensation and benefits	(1,532)	61,564
Operating lease liability	(1,272)	(1,261)
Other liabilities	(6)	(144)
Net cash used in operating activities	(60,749)	(57,945)
Investing activities		
Purchases of property and equipment	(5,835)	(14,120)
Proceeds from maturities of marketable securities	281,220	384,639
Proceeds from sales of marketable securities	—	1,245
Purchases of marketable securities	(213,352)	(265,265)
Net cash provided by investing activities	62,033	106,499
Financing activities		
Proceeds from exercise of stock options	11,182	1,948
Proceeds from issuance of common stock, net of issuance costs paid	1,007	—
Principal payment for finance lease	(784)	(705)
Net cash provided by financing activities	11,405	1,243
Net increase in cash, cash equivalents and restricted cash	12,689	49,797
Cash, cash equivalents and restricted cash at beginning of period	158,914	160,572
Cash, cash equivalents and restricted cash at end of period	\$ 171,603	\$ 210,369
Supplemental disclosure:		
Cash paid for interest	\$ 528	\$ 572
Purchases of property and equipment, not yet paid	\$ 4,624	\$ 9,772
Common stock issuance costs, accrued but not paid	\$ 110	\$ —

The following table presents the Company's cash, cash equivalents and restricted cash by category in the Company's Condensed Consolidated Balance Sheets (Unaudited) (amounts in thousands):

	As of March 31,	
	2025	2024
Cash and cash equivalents	\$ 153,555	\$ 192,321
Other assets	18,048	18,048
Total cash, cash equivalents and restricted cash	\$ 171,603	\$ 210,369

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

QuantumScape Corporation
Notes to Condensed Consolidated Financial Statements (Unaudited)
March 31, 2025

Note 1. Nature of Business

Organization

The original QuantumScape Corporation, now named QuantumScape Battery, Inc. (“Legacy QuantumScape”), a wholly owned subsidiary of the Company (as defined below), was founded in 2010 with the mission to revolutionize energy storage to enable a sustainable future. In 2020, QuantumScape became a publicly traded company (NYSE: QS) through a business combination with a special purpose acquisition company named Kensington Capital Acquisition Corp. (“Kensington”) which changed its name to QuantumScape Corporation upon closing in November 2020 (the “Business Combination”). As a result of the Business Combination, QuantumScape Battery Inc. survived and became a wholly owned subsidiary of QuantumScape Corporation (the “Company”).

The Company is focused on the development and commercialization of its solid-state lithium-metal batteries. Planned principal operations have not yet commenced. As of March 31, 2025, the Company had not derived revenue from its principal business activities.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation

The Company’s unaudited condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) as determined by the Financial Accounting Standards Board (the “FASB”) Accounting Standards Codification (“ASC”) and pursuant to the regulations of the U.S. Securities and Exchange Commission (the “SEC”).

Since 2012, the Company has had a relationship with the Volkswagen Group, including its affiliates Volkswagen Group of America, Inc. (“VWGoA”) and Volkswagen Group of America Investments, LLC (“VGA”), collectively referred to as “Volkswagen.” Volkswagen as a related party stockholder is an approximately 26.2% and 24.0% voting interest holder of the Company as of March 31, 2025 and December 31, 2024, respectively.

All intercompany accounts and transactions are eliminated in consolidation.

Use of Estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of commitments and contingencies at the date of the financial statements as well as reported amounts of expenses during the reporting periods. Estimates made by the Company include, but are not limited to, those related to the determination of business milestone achievement dates related to stock awards with performance conditions, among others. The Company bases these estimates on historical experience and on various other assumptions that it believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying amounts of assets and liabilities that are not readily apparent from other sources. Actual results could differ materially from those estimates.

Unaudited Interim Condensed Consolidated Financial Statements

The accompanying interim Condensed Consolidated Balance Sheets as of March 31, 2025, the interim Condensed Consolidated Statements of Operations and Comprehensive Income (Loss), the interim Condensed Consolidated Statements of Stockholders’ Equity for the three months ended March 31, 2025 and 2024, and the interim Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2025 and 2024, are unaudited. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited annual consolidated financial statements and, in management’s opinion, include adjustments consisting of only normal recurring adjustments necessary for the fair statement of the Company’s financial position as of March 31, 2025 and its results of operations for the three months ended March 31, 2025 and 2024, and cash flows for the three months ended March 31, 2025 and 2024. The financial data and the other financial information disclosed in the notes to these condensed consolidated financial statements related to the three-month period is also unaudited. The results of operations for the three months ended March 31, 2025 and 2024 are not necessarily indicative of the results to be expected for the full fiscal year or any other period.

These unaudited interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and the related notes included in the Company’s audited annual consolidated financial statements for the year ended December 31, 2024, included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2024, filed on February 26, 2025 (the “Annual Report”).

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to credit risk consist principally of cash and cash equivalents and marketable securities. As of March 31, 2025 and December 31, 2024, approximately \$105.7 million and \$78.7 million of our total cash and cash equivalents and marketable securities, are held in U.S. money market funds, and \$641.8 million and \$695.5 million are invested in U.S. government and agency securities, respectively. The Company seeks to mitigate its credit risk with respect to cash and cash equivalents and marketable securities by making deposits with what we believe to be large, reputable financial institutions and investing in high credit rated shorter-term instruments.

Cash and Cash Equivalents and Restricted Cash

Management considers all highly liquid investments with original maturities of three months or less to be cash equivalents.

Restricted cash is maintained under an agreement that legally restricts the use of such funds and is reported within other assets as the date of availability or disbursement for all restricted cash is more than one year from March 31, 2025.

Restricted cash is comprised of \$18.0 million as of both March 31, 2025 and March 31, 2024, all of which is pledged as a form of security for the Company's lease agreements for its facilities. The restricted cash is maintained in certificates of deposits as of March 31, 2025.

Marketable Securities

The Company’s investment policy is consistent with the definition of available-for-sale securities. The Company does not buy and hold securities principally for the purpose of selling them in the near future. The Company’s policy is focused on the preservation of capital, liquidity, and return. From time to time, the Company may sell certain securities, but the objectives are generally not to generate profits on short-term differences in price.

These securities are carried at estimated fair value with unrealized gains and losses included in other comprehensive gain/loss in stockholders’ equity until realized. Gains and losses on marketable security transactions are reported on the specific-identification method. Dividend and interest income are recognized when earned.

Fair Value Measurement

The Company applies fair value accounting for all financial assets and liabilities measured on a recurring and nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. The accounting guidance established a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, used to determine the fair value of its financial instruments. A financial instrument’s level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

- Level 1 – Quoted prices in active markets for identical assets or liabilities that the entity has the ability to access.
- Level 2 – Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets and liabilities.
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities.

Property and Equipment

Property and equipment are recorded at historical cost, less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful life of the related asset. Improvements that increase functionality of the fixed asset are capitalized and depreciated over the asset’s remaining useful life. Deposits for purchases of property and equipment are included in construction-in-progress. Construction-in-progress is not depreciated until the asset is placed in service. Fully depreciated assets are retained in property and equipment, net, until removed from service.

The Company reviews the estimated useful lives of its fixed assets on an ongoing basis. The estimated useful lives of assets are generally as follows:

Computer equipment, hardware, and software	3 - 5 years
Furniture and fixtures	7 - 10 years
Machinery and equipment	3 - 10 years
Leasehold improvements	Shorter of the lease term (including estimated renewals) or the estimated useful lives of the improvements

Impairment of Long-Lived Assets

The Company evaluates the carrying value of long-lived assets when indicators of impairment exist. The carrying value of a long-lived asset is considered impaired when the estimated separately identifiable, undiscounted cash flows from such an asset are less than the carrying value of the asset. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair value of the long-lived asset. There were no material impairment charges in the three months ended March 31, 2025 and 2024.

Leases

The Company classifies arrangements meeting the definition of a lease as operating or financing leases, and leases are recorded on the Condensed Consolidated Balance Sheets as both a right-of-use (“ROU”) asset and lease liability, calculated by discounting fixed lease payments over the lease term at the rate implicit in the lease or the Company’s incremental borrowing rate which is the rate incurred to borrow on a collateralized basis over a similar term. Lease liabilities are increased by interest and reduced by payments each period, and the ROU asset is reduced over the lease term. For operating leases, interest on the lease liability and the non-cash lease expense result in straight-line rent expense over the lease term. For finance leases, interest on the lease liability and the amortization of the ROU asset results in front-loaded expense over the lease term. Variable lease expenses, including common maintenance fees, insurance and property tax, are recorded when incurred.

In calculating the right-of-use asset and lease liability, the Company elects to combine lease and non-lease components for all classes of assets, and elects to exclude short-term leases having terms of twelve months or less.

Segments

Operating segments are defined as components of an entity for which separate financial information is available and that is regularly reviewed by the Chief Operating Decision Maker (the “CODM”) in deciding how to allocate resources to an individual segment and in assessing performance. The Company’s CODM is its Chief Executive Officer.

The Company has determined that it operates in one operating segment and one reportable segment, as the CODM reviews financial information presented on a consolidated basis. The operating segment has not derived revenue from its business activities as of March 31, 2025. The CODM uses net loss for purposes of making operating decisions, allocating resources, and evaluating financial performance. Significant expenses include non-cash stock-based compensation and depreciation and amortization, which are reflected in the Consolidated Statement of Cash Flows for the three months ended March 31, 2025, and 2024. Significant expenses also include personnel costs of \$37.9 million, and \$38.1 million, respectively, for the three months ended March 31, 2025, and 2024; and professional services and legal contingency of \$3.3 million, and \$40.5 million, respectively, for the three months ended March 31, 2025, and 2024. Other expenses include materials, facilities, other research, development, and administrative expenses, which are recorded within operating expenses. Other segment items included in consolidated net loss are interest income, interest expense, and other expense, net, which are reflected in the Consolidated Statements of Operations and Comprehensive Income (Loss) for the three months ended March 31, 2025, and 2024.

The long-lived assets outside of United States are not material as of March 31, 2025. The measure of segment assets is reported on the balance sheet as total consolidated assets. Refer to the Consolidated Balance Sheets as of March 31, 2025 and December 31, 2024 for total consolidated assets.

Research and Development Cost

Costs related to research and development are expensed as incurred.

General and Administrative Expenses

General and administrative expenses represent costs incurred by the Company in managing the business, including salary, benefits, incentive compensation, marketing, insurance, professional fees and other operating costs associated with the Company’s non-research and development activities.

Stock-Based Compensation

The Company measures and recognizes compensation expense for all stock-based awards made to employees, directors, and non-employees, including stock options, restricted stock units and restricted shares, based on estimated fair values recognized over the requisite service period. The Company accounts for forfeitures when they occur.

The fair values of options granted with only service conditions are estimated on the grant date using the Black-Scholes option pricing model. This valuation model for stock-based compensation expense requires the Company to make assumptions and judgments about the variables used in the calculation, including the expected term (weighted-average period of time that the options granted are expected to be outstanding), the volatility of the Company’s common stock, and an assumed risk-free interest rate. The Company recognizes compensation expense for all options with only service conditions on a straight-line basis over the requisite service period of the awards, which is generally the option vesting term of four years.

The fair values of options granted with performance (e.g., business milestone) and market conditions (e.g., stock price target) are estimated at the grant date using a Monte Carlo simulation model. The model determined the grant date fair value of each vesting tranche and the future date when the market condition for such tranche is expected to be achieved. The Monte Carlo valuation requires the Company to make assumptions and judgments about the variables used in the calculation including the expected term, volatility of the Company’s common stock, an assumed risk-free interest rate, and cost of equity.

For performance-based options with a vesting schedule based on the attainment of both performance and market conditions, along with service conditions, each quarter the Company assesses whether it is probable that it will achieve each performance condition that has not previously been achieved or deemed probable of achievement and if so, the future time when the Company expects to achieve that business milestone, or its “expected business milestone achievement time.” When the Company first determines that a business milestone has become probable of being achieved, the Company allocates the entire expense for the related tranche over the number of quarters between the grant date and the then-applicable “expected vesting date,” which represents the requisite service period. The requisite service period at any given time is generally the period between the grant date and the later of (i) the expected time when the performance condition will be achieved (if the related performance condition has not yet been achieved) and (ii) the expected time when the market condition will be achieved (if the related market condition has not yet been achieved). The Company immediately recognizes a cumulative catch-up expense for all accumulated expense for the quarters from the grant date through the quarter in which the performance condition was first deemed probable of being achieved. Each quarter thereafter, the Company recognizes the then-remaining expense for the tranche through the end of the requisite service period except that upon vesting of a tranche, all remaining expense for that tranche is immediately recognized.

The fair values of restricted stock units granted with service conditions only are based on the closing price of the Company’s Class A Common Stock on the date of grant. The Company recognizes compensation expense for restricted stock units with only service conditions on a straight-line basis over the requisite service period of the awards, which is generally the award vesting term of four years.

The fair values of restricted stock units granted with service and performance conditions are based on the closing price of the Company’s Class A Common Stock on the grant date. The vesting schedule of such awards is based entirely on the attainment of both service and performance conditions. Each quarter the Company assesses whether it is probable that it will achieve each performance condition and if so, the future time when the Company expects to achieve that performance condition, the “expected vesting date”. When the Company first determines that a performance condition has become probable of being achieved, the Company allocates the entire expense for the related tranche over the number of quarters between the grant date and expected vesting date, which represents the requisite service period. The requisite service period at any given time is generally the period between the grant date and the expected time when the performance condition will be achieved with the service condition also being met.

The Company’s 2020 Employee Stock Purchase Plan (the “ESPP”) is compensatory in accordance with ASC 718-50-25. The Company measures and recognizes compensation expense for shares to be issued under the ESPP based on estimated grant date fair value recognized on a straight-line basis over the offering period.

The ESPP provides eligible employees with the opportunity to purchase shares of the Company’s Class A Common Stock at a discount through payroll deductions. There were no shares purchased under the ESPP during the three months ended March 31, 2025. As of March 31, 2025, 9.3 million shares of Class A Common Stock were reserved for future issuance under the ESPP.

The Company has established the corporate bonus plan since 2023 to settle in the form of restricted stock units to eligible employees upon the achievement of certain service and performance conditions (“the Bonus Plan”). The awards under the Bonus Plan are classified as a liability prior to the settlement of vested restricted stock units, upon which the liability is reclassified into equity. The Company recognizes compensation expense for the annual Bonus Plan to be settled in restricted stock units on a straight-line basis over the requisite service period of approximately a year. The Bonus Plan awards are measured at the grant date fair value, i.e., the closing price of the Company’s Class A Common Stock on the grant date, which is the settlement date.

Income Taxes

The Company accounts for income taxes under an asset and liability approach. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and operating loss carryforwards, measured by applying currently enacted tax laws. Valuation allowances are provided when necessary to reduce net deferred tax assets to an amount that is more likely than not to be realized.

The Company recognizes tax liabilities based upon its estimate of whether, and the extent to which, additional taxes will be due when such estimates are more likely than not to be sustained. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained.

The Company has no provision for income taxes for the three months ended March 31, 2025 and 2024. The Company has no current tax expense from losses and no deferred expense from the valuation allowance. The Company’s effective tax rate differs from the U.S. statutory rate primarily due to a valuation allowance against its net deferred tax assets as it is more likely than not that some or all of the deferred tax assets will not be realized.

Note 3. Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In August 2023, the FASB issued ASU 2023-05, Business Combinations - Joint Venture Formations (Subtopic 805-60): Recognition and Initial Measurement, which addresses the accounting for contributions made to a joint venture, upon formation, in a joint venture's separate financial statements. The ASU is effective prospectively for all joint venture formations with a formation date on or after January 1, 2025. Additionally, a joint venture that was formed before January 1, 2025 may elect to apply the amendments retrospectively. Early adoption is permitted, either prospectively or retrospectively. The Company adopted this guidance in the first quarter of fiscal 2025. The adoption of such guidance had no impact on the Company's consolidated financial statements as the Company does not have any joint venture as of March 31, 2025.

Recent Accounting Pronouncements Not Yet Adopted

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures, which enhances the transparency and decision usefulness of income tax disclosures. The ASU is effective for all public business entities for annual periods beginning after December 15, 2024. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. The Company is currently evaluating the impact that the adoption of this standard will have on its consolidated financial statements.

In November 2024, the FASB issued ASU 2024-03, Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses, which requires disclosure of specified information about certain costs and expenses in the notes to financial statements at interim and annual reporting periods. The ASU is effective for all public business entities for annual periods beginning after December 15, 2026 and interim periods within annual reporting periods beginning after December 15, 2027. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. The Company is currently evaluating the impact that the adoption of this standard will have on its consolidated financial statements.

Note 4. Fair Value Measurement

The Company's financial assets subject to fair value measurements on a recurring basis and the level of inputs used for such measurements were as follows (amounts in thousands):

	Fair Value Measured as of March 31, 2025		Total
	Level 1	Level 2	
Assets included in:			
Money market funds ⁽¹⁾	\$ 105,716	\$ —	\$ 105,716
Commercial paper ⁽²⁾	—	45,234	45,234
U.S. government and agency securities ⁽²⁾	—	641,808	641,808
Corporate notes and bonds ⁽²⁾	—	52,006	52,006
Total fair value	<u>\$ 105,716</u>	<u>\$ 739,048</u>	<u>\$ 844,764</u>

	Fair Value Measured as of December 31, 2024		Total
	Level 1	Level 2	
Assets included in:			
Money market funds ⁽¹⁾	\$ 78,736	\$ —	\$ 78,736
Commercial paper ⁽²⁾	—	61,926	61,926
U.S. government and agency securities ⁽²⁾	—	695,504	695,504
Corporate notes and bonds ⁽²⁾	—	54,615	54,615
Total fair value	<u>\$ 78,736</u>	<u>\$ 812,045</u>	<u>\$ 890,781</u>

(1) Money market funds are included in cash and cash equivalents on the Condensed Consolidated Balance Sheets.

(2) Marketable securities consist of commercial paper, U.S. government and agency securities, corporate notes and bonds. As of March 31, 2025 and December 31, 2024, marketable securities with original maturities of three months or less of \$32.3 million and \$42.1 million, respectively, are included in cash and cash equivalents on the Condensed Consolidated Balance Sheets.

Level 1 assets: Money market funds are classified as Level 1 within the fair value hierarchy, as fair value is based on unadjusted quoted prices in active markets for identical assets.

Level 2 assets: Investments in commercial paper, U.S. government and agency securities, and corporate notes and bonds are classified as Level 2 as they were valued based upon quoted market prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant inputs are observable in the market or can be corroborated by observable market data for substantially the full term of the assets.

The Company had no financial liabilities subject to fair value measurements on a recurring basis as of March 31, 2025 and December 31, 2024.

There have been no changes to the valuation methods utilized during the three months ended March 31, 2025. As of March 31, 2025 and December 31, 2024, the carrying values of cash and cash equivalents, accounts payable and accrued liabilities approximate their respective fair values due to their short-term nature.

Marketable Securities

The following table summarizes, by major security type, the Company's assets that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy. Amortized cost net of unrealized gain (loss) is equal to fair value as of March 31, 2025 and December 31, 2024. The fair value as of March 31, 2025 and December 31, 2024 are as follows (amounts in thousands):

	March 31, 2025			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Level 1 securities				
Money market funds	\$ 105,716	\$ —	\$ —	\$ 105,716
Level 2 securities				
Commercial paper	45,234	—	—	45,234
U.S. government and agency securities	641,706	133	(31)	641,808
Corporate notes and bonds	52,008	13	(15)	52,006
Total	\$ 844,664	\$ 146	\$ (46)	\$ 844,764

	December 31, 2024			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Level 1 securities				
Money market funds	\$ 78,736	\$ —	\$ —	\$ 78,736
Level 2 securities				
Commercial paper	61,926	—	—	61,926
U.S. government and agency securities	695,082	436	(14)	695,504
Corporate notes and bonds	54,609	28	(22)	54,615
Total	\$ 890,353	\$ 464	\$ (36)	\$ 890,781

Realized gains and losses and interest income from the investment are included in interest income.

The Company regularly reviews its available-for-sale marketable securities in an unrealized loss position and evaluates the current expected credit loss by considering factors such as historical experience, market data, issuer-specific factors, and current economic conditions. The following tables display additional information regarding gross unrealized losses and fair value by major security type for the 34 and 17 marketable securities in unrealized loss positions held by the Company as of March 31, 2025 and December 31, 2024, respectively (amounts in thousands):

	March 31, 2025					
	Less than 12 Consecutive Months		12 Consecutive Months or Longer		Total	
	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value
U.S. government and agency securities	\$ (31)	\$ 296,666	\$ —	\$ —	\$ (31)	\$ 296,666
Corporate notes and bonds	(15)	29,218	—	—	(15)	29,218
Total	\$ (46)	\$ 325,884	\$ —	\$ —	\$ (46)	\$ 325,884

	December 31, 2024					
	Less than 12 Consecutive Months		12 Consecutive Months or Longer		Total	
	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value
U.S. government and agency securities	\$ (14)	\$ 96,988	\$ —	\$ —	\$ (14)	\$ 96,988
Corporate notes and bonds	(19)	33,111	(3)	1,063	(22)	34,174
Total	\$ (33)	\$ 130,099	\$ (3)	\$ 1,063	\$ (36)	\$ 131,162

The unrealized losses were attributable to changes in interest rates that impacted the value of the investments, and not increased credit risk. There were no sales of available-for-sale marketable securities during the three months ended March 31, 2025. During the three months ended March 31, 2024, the Company received proceeds of \$1.2 million, including interest, from the sale of available-for-sale marketable securities. The Company realized immaterial gains as a result of such sales for the three months ended March 31, 2024. The Company does not intend to sell the investments that are in an unrealized loss position, nor is it more likely than not that the Company will be required to sell the investments before the recovery of the amortized cost basis, which may be its maturity. Accordingly, the Company did not record an allowance for credit losses associated with these investments.

The estimated amortized cost and fair value of available-for-sale securities by contractual maturity as of March 31, 2025 are as follows (amounts in thousands):

	March 31, 2025	
	Amortized Cost	Fair Value
Due within one year	\$ 844,664	\$ 844,764
Due after one year and through five years	—	—
Total	<u>\$ 844,664</u>	<u>\$ 844,764</u>

Note 5. Balance Sheet Components:

Property and Equipment

Property and equipment as of March 31, 2025 and December 31, 2024 consisted of the following (amounts in thousands):

	March 31, 2025	December 31 2024
Computer equipment, hardware, and software	\$ 7,843	\$ 7,831
Furniture and fixtures	122,968	107,886
Leasehold improvements	116,329	115,879
Machinery and equipment	172,649	161,460
Construction-in-progress	42,791	61,935
Property and equipment, gross	462,580	454,991
Accumulated depreciation and amortization	(173,115)	(154,999)
Property and equipment, net	<u>\$ 289,465</u>	<u>\$ 299,992</u>

Depreciation and amortization expense related to property and equipment was \$18.1 million and \$11.8 million for the three months ended March 31, 2025 and 2024, respectively.

Accrued Liabilities

Accrued liabilities as of March 31, 2025 and December 31, 2024 consisted of the following (amounts in thousands):

	March 31, 2025	December 31, 2024
Litigation-related accrual	\$ 11,950	\$ 11,950
Other	10,226	5,497
Accrued liabilities	<u>\$ 22,176</u>	<u>\$ 17,447</u>

Note 6. Leases

The Company leases its facilities and certain equipment, with current lease terms running through 2032. The Company did not include renewal options in the calculation of the lease liability and right-of use asset at the lease inception unless the exercise of such options was reasonably certain. Fixed rent generally escalates each year, and the Company is responsible for a portion of the landlords' operating expenses such as property tax, insurance and common area maintenance.

The Company's leases include various operating leases expiring at various dates through September 2032 and a finance lease expiring September 2032 for one of our buildings in San Jose. Many leases include one or more options to renew. The Company does not assume renewals in our determination of the lease term unless the renewals are deemed to be reasonably certain.

The Company's leases do not have any contingent rent payments and do not contain residual value guarantees.

The components of lease related expense are as follows (amounts in thousands):

Lease costs	Three Months Ended March 31,	
	2025	2024
Finance lease costs:		
Amortization of right-of-use assets	\$ 718	\$ 718
Interest on lease liabilities	528	572
Operating lease costs	2,250	2,249
Variable lease costs	1,277	856
Total lease expense	<u>\$ 4,773</u>	<u>\$ 4,395</u>

The components of supplemental cash and non-cash information related to leases are as follows (amounts in thousands):

	Three Months Ended March 31,	
	2025	2024
Operating outgoing cash flows - finance lease	\$ 528	\$ 572
Financing outgoing cash flows - finance lease	784	705
Operating outgoing cash flows - operating lease	2,248	2,188

The table below displays additional information for leases as of March 31, 2025 and December 31, 2024:

	March 31, 2025	December 31, 2024
Finance lease		
Weighted-average remaining lease term - finance lease (in years)	7.5	7.8
Weighted-average discount rate - finance lease	6.06 %	6.06 %
Operating lease		
Weighted-average remaining lease term - operating lease (in years)	7.4	7.7
Weighted-average discount rate - operating lease	6.34 %	6.34 %

As of March 31, 2025, future minimum payments during the next five years and thereafter are as follows (amounts in thousands):

Fiscal Year	Operating Leases	Finance Lease
2025 (remaining nine months)	\$ 6,841	\$ 3,959
2026	9,348	5,417
2027	9,575	5,566
2028	9,562	5,719
2029	9,686	5,876
2030	9,977	6,038
Thereafter	17,302	10,433
Total	72,291	43,008
Less present value discount	(15,124)	(8,694)
Lease liabilities	\$ 57,167	\$ 34,314

As the Company's lease agreements do not provide an implicit rate, the Company used an estimated incremental borrowing rate that will be incurred to borrow on a collateralized basis over a similar term at the lease commencement date or modification date in determining the present value of lease payments.

Asset Retirement Obligations

The Company establishes assets and liabilities for the present value of estimated future costs to return certain of our leased facilities to their original condition upon the termination or expiration of a lease. The recognition of an asset retirement obligation requires the Company to make assumptions and judgments including the actions required to satisfy the liability, inflation rates and the credit-adjusted risk-free rate. The initially recognized asset retirement cost is amortized using the same method and useful life as the long-lived asset to which it relates. Accretion expense is recognized over time as the discounted liability is accreted to its expected settlement value. The Company recorded asset retirement obligation of approximately \$13.1 million and \$12.4 million as of March 31, 2025 and December 31, 2024, respectively, in Accrued liabilities in the Condensed Consolidated Balance Sheets.

Note 7. Commitments and Contingencies

From time to time, and in the ordinary course of business, the Company is subject to certain claims, charges and litigation concerning matters arising in connection with the conduct of the Company's business activities.

Securities Class Action Litigation

Beginning in January 2021, class action lawsuits were filed in the United States District Court for the Northern District of California by purported purchasers of Company securities (together, the "Securities Class Action Litigation"). The lead plaintiff filed a consolidated complaint on June 21, 2021, which alleged a purported class that includes all persons who purchased or acquired our securities between November 27, 2020 and April 14, 2021. The consolidated complaint named the Company, its then-Chief Executive Officer, its Chief Financial Officer, and its Chief Technology Officer as defendants. The consolidated complaint alleges that the defendants purportedly made false and/or misleading statements and failed to disclose material adverse facts about the Company's business, operations, and prospects, including information regarding the Company's battery technology. In April 2024, the parties reached an agreement in principle to settle these consolidated actions. We recorded for the year ended December 31, 2024 a net charge of \$24.5 million for the settlement of these actions. This net charge represents the gross settlement amount of \$47.5 million and \$0.4 million of related legal fees, offset by \$23.4 million for amounts recovered under our applicable insurance policies. The court granted final approval of the settlement in January 2025 and final judgment was accordingly entered in the action. As of March 31, 2025, there is no outstanding liability related to this matter.

Shareholder Derivative Litigation

Two shareholder derivative suits were filed in February 2021 in the United States District Court for the Northern District of California against 11 officers and directors of the Company and have been consolidated into one action, with the first-filed complaint being designated the operative one. The Company is the nominal defendant. The complaint alleges that the individual defendants breached various duties to the Company and contains additional similar allegations based on the same general allegations in the class action described immediately above. VGA is also named as a defendant in the derivative litigation. The action is currently stayed. A shareholder derivative suit was filed in October 2024 in the United States District Court for the Northern District of California against current and former officers and directors of the Company and VGA alleging breaches of duties to the Company. The Company is the nominal defendant. The action was deemed related to the consolidated action and is currently stayed.

Since June 2022, four shareholder derivative suits have been filed in the Court of Chancery of the State of Delaware against current and former directors and officers of the Company. The Company is the nominal defendant. The complaints allege that the individual defendants breached various duties to the Company. VGA is also named as a defendant in three of those actions. In September 2022, the four actions were consolidated and stayed. A consolidated amended complaint was filed on July 30, 2024.

A shareholder derivative action was filed in the United States District Court for the District of Delaware on February 22, 2024, against current and former directors and officers of the Company. The Company is the nominal defendant. The complaint alleges that the individual defendants breached various duties to the Company and includes a claim for contribution related to the class action. The complaint also alleges that plaintiff previously sent a litigation demand to the Board and alleges that the demand has effectively been rejected. The action is currently stayed.

Two additional shareholder derivative actions were filed in the Court of Chancery of the State of Delaware, on May 30, 2024 and October 14, 2024, against current and former directors and officers of the Company. The Company is the nominal defendant. The complaints allege that the individual defendants breached various duties to the Company. The complaints also allege that the plaintiffs previously sent a litigation demand to the Board and allege that the demands had effectively been rejected. The action filed in May 2024 is currently stayed.

Delaware Class Action

A shareholder derivative suit was filed in the Court of Chancery of the State of Delaware on August 16, 2022, against former and current directors and officers of the Company and of Kensington. Defendants moved to dismiss the complaint. Plaintiff filed an amended complaint on March 3, 2023, this time seeking relief on behalf of a putative class of holders of Kensington Class A Common Stock who held such stock prior to the November 23, 2020 redemption deadline and were allegedly entitled to redeem their shares but did not. The amended class action complaint alleges that the defendants breached various duties to Kensington stockholders or aided and abetted such breaches. Defendants moved to dismiss the amended complaint on May 8, 2023, and a hearing was held on February 21, 2024. The Kensington Defendants' motion to dismiss was denied. The Legacy QuantumScape Defendants' motion to dismiss was denied as to two defendants and granted as to the others. In October 2024, the parties reached an agreement in principle to settle the action and a final approval hearing is scheduled for July 11, 2025.

Private Attorneys General Actions

The Company is a defendant in two Private Attorneys General Act (“PAGA”) wage-and-hour actions filed in Santa Clara County Superior Court by former employees, along with a related class action in arbitration. The complaints allege violations of California’s Labor Code. The actions are presently stayed. The Company denies the allegations. In April 2025, the parties reached an agreement in principle to settle the claims.

For many legal matters, particularly those in early stages, the Company cannot reasonably estimate the possible loss (or range of loss), if any. The Company records an accrual for legal matters at the time or times it determines that a loss is both probable and reasonably estimable. As of March 31, 2025 and December 31, 2024, the amount accrued for each matter was individually not material, and the aggregate amount accrued was approximately \$12 million, respectively. Regarding matters for which no accrual has been made (including the potential for losses in excess of amounts accrued), the Company currently believes, based on its own investigations, that any losses (or ranges of losses) that are reasonably possible and estimable will not, in the aggregate, have a material adverse effect on its financial position, results of operations, or cash flows. However, the ultimate outcome of legal proceedings involves judgments, estimates, and inherent uncertainties and cannot be predicted with certainty. Should the ultimate outcome of any legal matter be unfavorable, the Company’s business, financial condition, results of operations, or cash flows could be materially and adversely affected. The Company may also incur substantial legal fees, which are expensed as incurred, in defending against legal claims.

Other commitments

The Company’s minimum purchase commitments consist of non-cancellable agreements to purchase goods and services, primarily for materials, and licenses and hosting services, entered into in the ordinary course of business.

As of March 31, 2025, future minimum purchase commitments in aggregate during the next five years and thereafter are as follows (amounts in thousands):

Fiscal Year	Minimum Purchase Commitments	
2025 (remaining nine months)	\$	3,143
2026		2,142
2027		1,418
Thereafter		—
Total	\$	6,703

Note 8. Stockholders’ Equity

As of March 31, 2025 and December 31, 2024, 1,350,000,000 shares, \$0.0001 par value per share are authorized, of which, 1,000,000,000 shares are designated as Class A Common Stock, 250,000,000 shares are designated as Class B Common Stock, and 100,000,000 shares are designated as Preferred Stock.

Common Stock

Holders of common stock are entitled to dividends when, as, and if, declared by the Company’s Board of Directors (the “Board”), subject to the rights of the holders of all classes of stock outstanding having priority rights to dividends. As of March 31, 2025, the Company had not declared any dividends. The holder of each share of Class A Common Stock is entitled to one vote, and the holder of each share of Class B Common Stock is entitled to ten votes.

In August 2023, the Company completed an underwritten public offering of 37.5 million shares of its Class A Common Stock for an aggregate purchase price of \$288.2 million, net of issuance costs of \$11.8 million (the “August 2023 Public Offering”).

In February 2023, the Company entered into separate Distribution Agreements with J.P. Morgan Securities LLC, Cowen and Company, LLC, Deutsche Bank Securities Inc. and UBS Securities LLC, as sales agents, pursuant to which the Company is able to, from time to time, issue and sell common stock with an aggregate offering price of up to \$400 million (the “ATM offering”) under the prospectus supplement to the Form S-3 filed on February 28, 2023 (File No. 333-266419). During the year ended December 31, 2024, 24.9 million shares of the Company’s Class A Common Stock were sold pursuant to the ATM offering for aggregate proceeds of approximately \$128.5 million, net of issuance costs paid. During the three months ended March 31, 2025, 0.2 million shares of Class A Common Stock were sold pursuant to the ATM offering for aggregate proceeds of approximately \$1.0 million, net of issuance costs paid.

Equity Incentive Plans

Prior to the Business Combination, the Company maintained its 2010 Equity Incentive Plan (the “2010 Plan”), under which the Company granted options and restricted stock units to purchase or directly issue shares of common stock to employees, directors, and non-employees.

Upon the closing of the Business Combination, awards under the 2010 Plan were converted at an exchange ratio of 4.02175014920, and assumed into the 2020 Equity Incentive Award Plan (the “2020 Plan”, and together with the 2010 Plan, the “Plans”). The 2020 Plan permits the granting of awards in the form of incentive stock options, nonqualified stock options, stock appreciation rights, restricted shares, restricted stock units and performance awards to employees, directors, and non-employees.

As of March 31, 2025, 136,592,934 shares of Class A Common Stock are authorized for issuance pursuant to awards under the 2020 Plan, plus any shares of Class A Common Stock subject to stock options, restricted stock units or other awards that were assumed in the Business Combination and terminate as a result of being unexercised or are forfeited or repurchased by the Company, with the maximum number of shares to be added to the 2020 Plan equal to 69,846,580 shares of Class A Common Stock.

Stock Options

Stock option activity under the Plans, including the EPA Program discussed below, is as follows:

	Number of Shares Outstanding (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Intrinsic value (in thousands)
Balance as of December 31, 2024 ⁽¹⁾	24,043	\$ 7.36	4.21	
Cancelled and forfeited ⁽²⁾	(3,990)	23.04	—	
Expired	(1)	1.72	—	
Exercised	(8,082)	1.38	—	
Balance as of March 31, 2025	11,970	\$ 6.17	4.37	\$ 16,538
Vested and expected to vest as of March 31, 2025 ⁽³⁾	10,837	\$ 4.41	4.12	\$ 16,538
Vested and exercisable as of March 31, 2025	9,940	\$ 2.96	3.91	\$ 16,538

(1) This includes 5.9 million options granted and outstanding as of December 31, 2024 pursuant to the EPA Program.

(2) This represents options cancelled under the EPA Program.

(3) This includes 0.8 million options granted pursuant to the EPA Program that are expected to vest as of March 31, 2025. None of the options granted pursuant to the EPA Program were vested and exercisable as of March 31, 2025.

There were no options granted during the three months ended March 31, 2025 or March 31, 2024. The aggregate intrinsic value of options exercised during the three months ended March 31, 2025 and 2024 was \$25.3 million and \$6.3 million, respectively.

Excluding options granted pursuant to the EPA Program, as of March 31, 2025, the Company had stock-based compensation of \$0.4 million related to unvested stock options not yet recognized that are expected to be recognized over an estimated weighted average period of 0.4 years.

EPA Program

In December 2021, the Company granted stock options for the purchase of an aggregate of approximately 14.7 million shares of the Company’s Class A Common Stock to the Company’s Chief Executive Officer at the time and other members of the Company’s management team pursuant to the EPA Program that was approved by the Company’s stockholders in December 2021. In December 2022, the remaining 2.1 million stock options under the EPA Program were granted to members of the Company’s management team under the same terms as those in the initial grant in 2021, representing the final grant pursuant to the EPA Program approved in December 2021. The EPA Program consists of five equal tranches (each a “Tranche”) that vest if the Company meets certain business milestones (performance conditions) and stock price targets (market conditions).

Business Milestones

The compensation committee of the Board selected the following 11 business milestones for the EPA Program, of which one new business milestone must be achieved for each Tranche.

- Delivery of an A-sample battery cell that meets specifications agreed upon with an automaker
- The validation by an auto maker of a completed B-sample battery cell (a B-sample battery cell is a functional, complete battery cell prototype produced from our pilot line)
- Delivery of at least 1-gigawatt hour (GWh) of battery cells to a single customer
- Delivery of at least 3-gigawatt hour (GWh) of battery cells to each of three or more customers, with at least one of such customers being an auto maker
- \$5 billion in GAAP revenue over a period of trailing four quarters
- \$10 billion in GAAP revenue over a period of trailing four quarters
- Total cumulative battery cell production of 500 GWh
- Total cumulative battery cell production of 1,000 GWh
- Adjusted EBITDA margin of at least 25% over four consecutive quarters
- 10% of worldwide market share in automotive battery cells (excluding China)
- 20% of worldwide market share in automotive battery cells (excluding China)

Once a business milestone has been achieved, that business milestone will be considered achieved, even if later the Company does not maintain performance at that level.

Stock Price Targets

The stock price targets of the five Tranches of the EPA Program are \$60, \$120, \$180, \$240 and \$300.

To meet the stock price targets, the stock price must be sustained and not merely momentarily achieved. Except in the case of a change in control, the Company's stock price for the purposes of assessing the stock price target will be the 120-day trailing average closing price (based on trading days), but a stock price target will not be achieved unless the trailing average closing price of the last 30 trading days of such 120-trading day period also meets or exceeds the applicable stock price target. For a stock price target for any given Tranche to be achieved, the last day of the 120-day measurement period must occur on or after the date that the requisite number of business milestones have been achieved for such Tranche.

Vesting Tranches

Each of the five Tranches vests only if the Company first achieves a new business milestone from the eleven identified business milestones, and then achieves the next applicable stock price target within 10 years of the initial grants. Additionally, in order to vest in any Tranche, the participant generally must continue to provide service through the date of vesting in the same position, or a similar or higher role, as when the EPA Program awards are granted.

Tranche	Business Milestone Requirement	Stock Price Target
1	Achievement of 1 business milestone	\$60
2	Achievement of 2 business milestones (inclusive of the business milestone applicable to Tranche 1)	\$120
3	Achievement of 3 business milestones (inclusive of the business milestone applicable to Tranche 2)	\$180
4	Achievement of 4 business milestones (inclusive of the business milestone applicable to Tranche 3)	\$240
5	Achievement of 5 business milestones (inclusive of the business milestone applicable to Tranche 4)	\$300

Change in Control

In the event of a change in control of the Company, a portion of the EPA Program awards may also be eligible to vest; in such event, the business milestone requirement will not be applicable and the Company's stock price for the purposes of the stock price targets will be the price per share paid in such change in control. In the event that the Company's stock price by this measure falls between two stock price targets, linear interpolation between the two applicable stock price targets will be used to determine an additional portion of the EPA Program awards that will vest. Any portion of an EPA Program award that is not vested upon and after giving effect to a change in control will terminate.

The Company accounts for the compensation expense associated with each Tranche when it determines that achievement of a related business milestone is considered probable. As of March 31, 2025, the business milestone for one Tranche had been achieved; however, because the related stock price target has not yet been achieved, no shares have vested to date. As of March 31, 2025, one other Tranche was considered probable.

In February 2025, certain named executive officers and certain other senior employees entered into agreements with the Company to waive the stock options granted to them under the Company's 2021 Extraordinary Performance Award Program. The total number of shares of the Company's Class A Common Stock underlying such waived stock options was 3,989,584. As such, these stock options were cancelled in February 2025. The remaining number of shares outstanding under the EPA Program is approximately 1.9 million.

For the three months ended March 31, 2025, the Company recorded stock-based compensation expense of \$6.0 million related to the EPA Program, including \$5.7 million for the EPA awards cancelled in February 2025 where the unamortized expense was fully recognized. For the three months ended March 31, 2024, the Company recorded a credit in stock-based compensation expense of \$14.9 million for the EPA Program, primarily due to the reversal of the previously recognized expense of \$16.0 million for the options where the requisite service period had not been completed at the time of forfeiture. As of March 31, 2025, the Company had approximately \$1.9 million of total unrecognized stock-based compensation expense for the business milestones currently achieved or considered probable of achievement, which will be recognized over an estimated weighted-average period of 2.0 years. As of March 31, 2025, the Company had approximately \$9.4 million of total unrecognized stock-based compensation expense for the business milestones currently considered not probable of achievement.

Restricted Stock Units Activities

In 2023 and 2024, the Company granted 4.4 million and 4.2 million shares of restricted stock units with service and performance conditions ("PSU"), respectively, to members of the Company's management team and certain other employees under the Company's 2020 Plan. The performance conditions for these PSUs are related to the Company's product development milestones through May 2026, and May 2027, respectively. These PSUs will expire in May 2026 and May 2027, respectively, if performance conditions are not met. No such PSUs were granted during the three months ended March 31, 2025. For the three months ended March 31, 2025 and 2024, the Company recorded stock-based compensation expense of \$3.8 million and \$5.2 million, respectively, related to these PSUs, for the product development milestones currently achieved or considered probable of achievement.

The Company's Bonus Plan is settled in the form of restricted stock units to eligible employees upon the achievement of certain service and performance conditions. These performance conditions are related to the Company's product development, operational, and business milestones for the year. The stock-based compensation expense related to the Bonus Plan were recorded as liabilities under Accrued compensation and benefits prior to the settlement of vested restricted stock units, upon which the liability is reclassified into equity. In February 2025, approximately 4.3 million restricted stock units were granted and vested under the 2024 Bonus Plan for final settlement, resulting in approximately \$20.1 million in additional paid in capital. For the three months ended March 31, 2025 and March 31, 2024, the Company recorded stock-based compensation expense of approximately \$7.4 million and \$2.8 million, respectively, related to the current year and prior year Bonus Plans. No shares have been granted under the 2025 Bonus Plan as of March 31, 2025.

Restricted stock units with service conditions only ("RSU") and PSU activities under the Plans are as follows:

	RSUs Outstanding		PSUs Outstanding	
	Number of Units (in thousands)	Weighted Average Grant Date Fair Value	Number of Units (in thousands)	Weighted Average Grant Date Fair Value
Balance as of December 31, 2024	26,875	\$ 7.51	6,575	\$ 6.92
Granted	715	4.89	4,291	4.69
Vested	(2,780)	9.46	(5,285)	5.02
Forfeited	(1,491)	7.43	—	—
Balance as of March 31, 2025	23,319	\$ 7.20	5,581	\$ 7.01

The fair value of RSUs which vested during the three months ended March 31, 2025 and March 31, 2024 was \$15.4 million and \$15.3 million, respectively. The fair value of PSUs which vested during the three months ended March 31, 2025 was \$25.6 million in total, consisting of the final settlement under the 2024 Bonus Plan and the PSUs granted to management team and certain other employees. The fair value of PSUs which vested during the three months ended March 31, 2024 was \$20.2 million, which was the final settlement under the 2023 Bonus Plan.

As of March 31, 2025, unrecognized compensation costs related to unvested RSUs and PSUs were \$152.1 million and \$9.7 million, respectively, and are expected to be recognized over a weighted average period of 2.4 years and 1.4 years, respectively.

Stock-Based Compensation Expense

Total stock-based compensation expense recognized in the accompanying Condensed Consolidated Statements of Operations and Comprehensive Loss for all awards is as follows (amounts in thousands):

	Three Months Ended March 31,	
	2025	2024
Research and development	\$ 25,738	\$ 20,648
General and administrative	14,901	(1,361)
Total stock-based compensation expense	\$ 40,639	\$ 19,287

Note 9. Earnings (Loss) Per Share

Basic net loss per share is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share adjusts basic earnings per share for the potentially dilutive impact of stock options. As the Company has reported a loss for the three months ended March 31, 2025 and 2024, potentially dilutive securities are antidilutive and accordingly, basic net loss per share equals diluted net loss per share.

The following table sets forth the computation of basic and diluted loss per Class A Common Stock and Class B Common Stock (amounts in thousands, except per share amounts):

	Three Months Ended March 31,	
	2025	2024
Numerator:		
Net loss attributable to common stockholders	\$ (114,423)	\$ (120,648)
Denominator:		
Weighted average Class A and Class B Common Stock outstanding - Basic and Diluted	548,006	496,145
Net loss per share attributable to Class A and Class B Common stockholders - Basic and Diluted	\$ (0.21)	\$ (0.24)

Basic and diluted earnings per share was the same for each period presented as the inclusion of all potential Class A Common Stock and Class B Common Stock outstanding would have been anti-dilutive.

The following table presents the potential common stock outstanding that was excluded from the computation of diluted net loss per share of common stock as of the periods presented because including them would have been antidilutive (amounts in thousands):

	As of March 31,	
	2025	2024
Options	11,970	32,541
RSUs	23,319	22,278
PSUs	10,412	9,704
Total	45,701	64,523

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis should be read in conjunction with our unaudited consolidated financial statements and the related notes appearing elsewhere in this Report. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in the section titled "Risk Factors" as set forth in this Report. Unless the context otherwise requires, references in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" to "the Company", "we", "us" and "our" refer to the business and operations of QuantumScape Corporation and its consolidated subsidiaries.

Overview

We are developing next-generation battery technology for EVs and other applications. We believe that our technology will enable a new category of battery that meets the requirements for broader market adoption. The lithium-metal solid-state battery technology that we are developing is being designed to offer greater energy density, faster charging, and greater safety when compared to today's conventional lithium-ion batteries.

We are a development-stage company with no revenue to date, have incurred a net loss from operations of approximately \$123.6 million for the three months ended March 31, 2025, and an accumulated deficit of approximately \$3.5 billion from our inception through March 31, 2025. We expect to incur significant expenses and continuing losses for the foreseeable future.

Key Trends, Opportunities and Uncertainties

We are a pre-revenue company. We believe that our performance and future success depend on several factors that present significant opportunities for us but also pose significant risks and challenges, including those discussed below and in the section titled "Risk Factors" appearing elsewhere in this Report.

Product Development

We have demonstrated capabilities of our solid-state separator and battery technology in single-layer and multilayer cell cycling data, and in 2022, shipped our first A0 prototype battery cells to multiple OEMs for testing. Following that shipment, we continued focusing our research and development on subsequent generations of prototype samples incorporating advances in cell functionality, process and reliability, as well as bringing online our pilot line in San Jose, California. In 2023, we announced our first targeted commercial product, the QSE-5, a cell with a capacity of approximately 5 amp-hours. In 2024, we began producing low volumes of our first B-sample cells, and we began shipping these cells for automotive customer testing. These are B-samples of QuantumScape's first product, QSE-5, with an energy density of over 800 Wh/L and <15 minute 10% to 80% fast-charging capability.

Our research and development currently includes programs for the following areas:

- *Continued improvement of the cathode.* Our cathodes use a conventional cathode active material such as NMC mixed with a catholyte. We plan to benefit from industry cathode chemistry improvements and/or cost reduction, which in the future may include use of other cathode active materials, including cobalt-free compositions (e.g., LFP), as well as cathode processing advances such as dry electrode processing. Over the years, we have developed catholytes made of differing mixtures of organic liquid electrolyte in an effort to optimize performance across multiple metrics such as voltage, temperature, power, and safety, among others. We have tested solid, gel and liquid catholytes in our cells. The solid catholyte is part of our ongoing research and development investigation into inorganic catholytes. Our solid-state cathode platform is being designed to enable high rates of charge and discharge for even thicker cathode electrodes, which, when combined with a lithium-metal anode, may further increase cell energy densities.
- *Continued improvement in quality, consistency and reliability.* We are working to improve the quality and uniformity of our cells, including our separators, to further improve, among other things, the cycling behavior, power, operating conditions, and reliability of our cells. For some of our early-generation processes, we used methods of continuous processing found at scale in both the battery and ceramic industries and we are working on continuous improvement of these processes, including better quality, consistency, and higher throughput through automation and process control (including specification tightening and adding or improving inspection points along the manufacturing process flow), quality of material inputs, and particle reduction across our process. We are also developing subsequent methods not typically used in ceramics that offer significant potential cost savings.

- *Continued improvement in throughput.* Increasing the volume of separator production results in the increased quantities to support internal development, prototype sampling to prospective customers, and supply chain development. We continue to invest and deploy resources to automate our manufacturing process, including purchasing higher throughput manufacturing equipment, that we expect will substantially improve our manufacturing processes and, as a result, increase throughput required for product qualification and to achieve the cost, performance and volume levels required for commercial shipments to support our prospective launch program and technology transfer activities.
- *Cell design.* We have demonstrated capabilities of our solid-state separator and battery technology in single-layer and multilayer solid-state cells in commercially relevant areas (ranging from approximately 60x75mm to 70x85mm). In order to advance the maturity of our prototype cells and produce commercially viable solid-state battery cells, we must produce battery cells that achieve target cell design and capacities set by our customers and we may have to vary cell layer count and dimensions; while we target our first commercial product, the QSE-5, to have approximately 5 amp-hours of capacity, the exact number of layers and dimensions will vary and depend upon customer specifications, cell design considerations, and other factors. We will need to overcome production challenges to produce sufficient volumes of our separators and prototype battery cells to complete development of our first commercial product and for customer evaluation and product qualification purposes, as well as subsequent cell designs that may require different capacity, layer counts and dimensions.

Our team of scientists, engineers, technicians, and other staff is highly motivated and committed to solving these challenges ahead. However, any delays in the completion of these tasks will require additional cash use and delay market entry.

Process Development

Our architecture depends on our proprietary solid-state ceramic separator. Though our separator's design is unique, our early-generation process relied on established or similar high-volume production processes already deployed in other industries. We are developing subsequent, proprietary higher-volume separator manufacturing processes that seek to further reduce cost, increase throughput, and improve quality.

Our separator is being designed to enable our 'anode-free' architecture. As manufactured, our solid-state battery cell has no anode; the lithium-metal anode is formed during the first charge of the cell. The lithium that forms the anode comes from the cathode material we purchase. Eliminating the anode bill of materials and associated manufacturing costs found in conventional lithium-ion cells could result in a meaningful cost of goods sold (COGS) advantage once sufficient scale and process maturity are achieved. In addition, our solid-state battery cell is being designed to reduce the time and capital-intensity of the formation and aging process step as compared to conventional lithium-ion manufacturing.

We are focused on the throughput and capability of our pilot line in San Jose, California. As part of the continued expansion of our throughput we are automating our manufacturing process and purchasing higher throughput battery-cell manufacturing equipment. We will need to substantially improve our battery cell manufacturing processes to increase throughput required for higher numbers of battery cells and to achieve the cost, performance and volume levels required for commercial shipments.

Our pilot line is intended to serve four purposes. First, to provide a sufficient quantity of separators and cells for internal development and customer sampling. Second, to provide the basis for continued manufacturing process development and to help inform equipment selection and specifications for future manufacturing activities by us or our partners. Third, we target the initial production of QSE-5 cells at the pilot line. Fourth, to support collaboration and future technology transfer activities as part of the collaboration and licensing arrangements with PowerCo as well as potential future commercial arrangements. Delays in the successful buildout of our pilot line may impact both our development and future scale-up timelines.

We will need to achieve significant cost savings in battery design and manufacturing, in addition to the cost savings associated with the elimination of an anode from our solid-state battery cells as manufactured, while controlling costs associated with the manufacture of our separator, including achieving substantial improvements in quality, consistency, reliability, throughput and safety required to hit commercial targets. Further, we will need to capture industry cost savings in the materials, components, equipment, facilities design, and processes that we share, notably in the cathode and cell design.

Commercialization and Market Focus

The automotive qualification process generally includes several major delivery milestones of A, B and C samples. Each major sampling stage may consist of several generations of increasingly mature prototypes. The timelines for each stage involve uncertainty and will be influenced by a number of factors, including product and process development risks; the specification, ordering, and qualification of production equipment; other supply chain dynamics; and OEM validation timeframes.

We have demonstrated capabilities of our solid-state separator and battery technology in single-layer and multilayer solid-state cells in commercially relevant areas (ranging from approximately 60x75mm to 70x85mm). We will work to continue improving quality, consistency, reliability, throughput, and safety and optimize all components of the cell. We will continue to work to further develop our manufacturing processes to enable increasing volumes of prototype shipments and, through successful technology transfer, high volume manufacturing by our licensing partners.

In July 2024, we entered into the PowerCo Collaboration Agreement with the goal of industrializing the solid-state lithium-metal battery technology we intend to use in our first planned product—the QSE-5 Technology. PowerCo was formed by Volkswagen in 2022 as a company intended to consolidate Volkswagen’s activities in the development and production of battery cells. In connection with the PowerCo Collaboration Agreement and subject to the completion of certain milestones, we and PowerCo intend to enter into the PowerCo IP License Agreement under which we will grant PowerCo a non-exclusive, limited, royalty-bearing license to use the QSE-5 Technology for the purpose of manufacturing and selling batteries primarily for automotive applications, and PowerCo will pre-pay an initial royalty fee of \$130 million, against which any future royalties due will be credited. The initial royalty is subject to a time-based diminishing clawback if the PowerCo IP License Agreement is terminated early by PowerCo under certain conditions. The PowerCo Collaboration Agreement supersedes the JVA, which was terminated concurrently. As compared to a joint venture arrangement of similar output volumes, we expect the licensing arrangement to result in less revenue, as well as lower costs and capital requirements.

In addition to the signed agreement with PowerCo with the goal of commercializing our battery technology, we intend to continue working closely with automotive OEMs to make our solid-state battery cells widely available over time. We have also signed customer sampling agreements with a number of OEMs, ranging from leading manufacturers by global revenue to premium performance and luxury carmakers, to collaborate with us in the testing and validating of our solid-state battery cells with the goal to include such cells into pre-production prototype vehicles and ultimately into serial production vehicles. We are currently focused on automotive EV applications, which have among the most stringent sets of requirements for batteries. Meanwhile, our solid-state battery technology has applicability in other large and growing markets including stationary storage and consumer electronics such as smartphones and wearables and we intend to explore opportunities in those areas as appropriate.

We believe that our technology enables a variety of business models and presents opportunities with a variety of potential customers, such as automotive OEMs, end-users, and licensees, as applicable. In addition to the collaboration with PowerCo, which contemplates a licensing arrangement, we may operate solely-owned manufacturing facilities, license technology to other manufacturers, or enter into joint venture arrangements, among other approaches. We intend to continue to invest in research and development to improve battery cell performance, improve manufacturing processes, and reduce cost.

Access to Capital

Based on our current business plan, we believe that our cash resources will last into the second half of 2028. In July 2022, we filed a shelf registration statement on Form S-3 with the SEC (File No. 333-266419) (the “Form S-3”), which the SEC declared effective in August 2022, for the offer and sale of Class A Common Stock, preferred stock, depositary shares, debt securities, warrants, subscription rights, purchase contracts and units in one or more offerings and in any combination for an aggregate offering price of up to \$1 billion. In February 2023, we filed a prospectus supplement to the Form S-3 for the issuance and sale of our Class A Common Stock from time to time for an aggregate offering price of up to \$400 million (the “ATM offering”). During the year ended December 31, 2024, 24.9 million shares of our Class A Common Stock were sold pursuant to the ATM offering for aggregate proceeds of approximately \$128.5 million, net of issuance costs paid. During the three months ended March 31, 2025, 0.2 million shares of our Class A Common Stock were sold pursuant to the ATM offering for aggregate proceeds of approximately \$1.0 million, net of issuance costs paid including immaterial commission fees to the sales agents.

Changes to our technology development, operating costs and scale-up, including our ability to meet the milestones to enable the entry into the PowerCo IP License Agreement and related receipt of the initial royalty fee from PowerCo, could materially impact us and the availability of our capital resources. We may also need additional cash resources due to changed business conditions or other developments, including unanticipated delays in negotiations with automotive OEMs and tier-one automotive suppliers or other suppliers, supply chain challenges, competitive pressures, inflation, instability in global economic markets, increased trade tariffs, and regulatory developments, among others. To the extent that our current resources are insufficient to satisfy our cash requirements, we may need to seek additional equity or debt financing. If such financing is not available, or if the financing terms are onerous given the high-interest rate environment or less desirable than we expect, we may be forced to decrease our level of investment in product development or scale back our operations, which could have an adverse impact on our business and financial prospects.

Regulatory Landscape

We operate in an industry that is subject to many established environmental regulations, which have generally become more stringent over time, particularly in hazardous waste generation and disposal and pollution control. Regulations in our target markets include economic incentives to purchasers of EVs, tax credits for EV manufacturers, and economic penalties that may apply to a car manufacturer based on its fleet-wide emissions which may indirectly benefit us to the extent that the regulations expand the market size of EVs. While we also expect environmental regulations to provide a tailwind to our growth, it is possible for certain regulations to result in margin pressures. Trade restrictions and tariffs, while historically minimal between the European Union and the United States where most of our production and sales are initially expected, are subject to unknown and unpredictable changes that could impact our ability to meet projected sales or margins. For example, with a change in administration in the United States in 2025, there has been an economic policy shift towards increasing tariffs, which in turn has led and could lead to further retaliatory tariffs. In addition, there are government regulations pertaining to battery safety, transportation of batteries, use of batteries in cars, and factory safety. We will ultimately have to comply with these regulations to sell our batteries into the market. The license and sale of our battery technologies abroad is likely to be subject to more stringent export controls in the future.

Basis of Presentation

We currently conduct our business through one operating segment. As a pre-revenue company with no commercial operations, our activities to date have been limited and were conducted primarily in the United States. Our historical results are reported under United States of America generally accepted accounting principles (“U.S. GAAP”) and in U.S. dollars. Upon commencement of commercial operations, we expect to expand our global operations substantially, including in the United States and the European Union, and as a result we expect our future results to be sensitive to foreign currency transaction and translation risks and other financial risks that are not reflected in our historical financial statements. As a result, we expect that the financial results we report for periods after we begin commercial operations will not be comparable to the financial results included in this Report.

Components of Results of Operations

We are a research and development stage company and we have not generated any revenues to date. Our historical results may not be indicative of our future results for reasons that may be difficult to anticipate. Accordingly, the drivers of our future financial results, as well as the components of such results, may not be comparable to our historical or projected results of operations.

Operating Expenses

Research and Development Expense

To date, our research and development expenses have consisted primarily of personnel-related expenses for scientists, experienced engineers and technicians as well as costs associated with the construction and ramp up of our pilot line in San Jose, including the material and supplies to support the product development and process engineering efforts. As we ramp up our engineering operations to complete the development of our solid-state, lithium-metal batteries and required process engineering to meet automotive cost targets, we anticipate that research and development expenses will increase significantly for the foreseeable future as we continue to invest in additional plant and equipment for product development (e.g., multilayer cell stacking, packaging engineering), building prototypes, and testing of battery cells as our team works to meet the full set of automotive product requirements. We also recognize significant non-cash stock-based compensation to employees directly involved in research and development activities. For stock-based compensation awards with performance and market conditions, such as the awards granted under our Extraordinary Performance Award Program (the “EPA Program”) in December 2022 and 2021, and for stock-based compensation awards with performance conditions, such as the restricted stock units with performance conditions (“PSUs”) granted in 2023 and 2024, the non-cash expense recognized is based on a probability assessment of the performance conditions, and as such, research and development expenses may fluctuate in the future as the performance conditions are re-assessed at each reporting period. Further, should the stated market conditions of the EPA Program grants be achieved prior to the expected achievement period, we may accelerate the stock-based compensation expense recognized, which could result in significant fluctuations in research and development expense recognized in the future. For more information on the EPA Program grants and PSUs, see [Note 8, Stockholders’ Equity](#), to our consolidated financial statements included elsewhere in this Report.

As we ramp toward commercialization of our technology, we will begin to incur expenses that are directly associated with such, including allocation of indirect costs from research and development.

General and Administrative Expense

General and administrative expenses consist mainly of personnel-related expenses for our executive, sales and marketing, insurance and other administrative functions as well as outside professional services, including legal, accounting and other advisory services. We are continuing to expand our supporting systems, in anticipation of planning for and supporting the commercialization of our technology and due to the ongoing requirements of being a public company. Accordingly, we expect our general and administrative expenses to increase in the near term and for the foreseeable future. Upon commencement of commercial operations, we also expect general and administrative expenses to include customer and sales support and advertising costs. We also recognize significant non-cash stock-based compensation to executives and certain employees. The non-cash expenses recognized for EPA Program grants and PSUs are based on a probability assessment of the performance conditions, and as such, general and administrative expenses may fluctuate in the future as the performance conditions are re-assessed at each reporting period. Further, should the stated market conditions of the EPA Program awards be achieved prior to the expected achievement period, we may accelerate the stock-based compensation expense recognized, which could result in significant fluctuations in general and administrative expense recognized in the future.

As we ramp toward commercialization of our technology, we will begin to incur expenses that are directly associated with such, including allocation of indirect costs from general and administrative activities.

Other Income (Expense)

Interest Expense

Interest expense consists primarily of interest expense associated with our finance lease for one of our facilities.

Interest Income

Interest income consists primarily of interest income from marketable securities.

Other Income (Expense)

Our other income (expense) consists of miscellaneous income and expenses.

Income Tax Expense (Benefit)

Our income tax provision consists of an estimate for U.S. federal and state income taxes based on enacted rates, as adjusted for allowable credits, deductions, uncertain tax positions, changes in deferred tax assets and liabilities, and changes in tax law. We maintain a valuation allowance against the full value of our U.S. federal and state net deferred tax assets because we believe the recoverability of the tax assets is not more likely than not.

Results of Operations

Comparison of the Three Months Ended March 31, 2025 to the Three Months Ended March 31, 2024

The following table sets forth our historical operating results for the periods indicated (amounts in thousands):

	Three Months Ended March 31,		\$	%
	2025	2024	Change	Change
Operating expenses:				
Research and development	\$ 95,589	\$ 83,847	\$ 11,742	14 %
General and administrative	27,986	48,054	(20,068)	(42)%
Total operating expenses	123,575	131,901	(8,326)	(6)%
Loss from operations	(123,575)	(131,901)	8,326	(6)%
Other income (expense):				
Interest expense	(528)	(572)	44	(8)%
Interest income	9,769	12,065	(2,296)	(19)%
Other expense, net	(89)	(220)	131	(60)%
Total other income	9,152	11,273	(2,121)	(19)%
Net loss	(114,423)	(120,628)	6,205	(5)%
Less: Net income attributable to non-controlling interest	—	20	(20)	(100)%
Net loss attributable to common stockholders	\$ (114,423)	\$ (120,648)	\$ 6,225	(5)%

Research and Development

The increase in research and development expense in the three months ended March 31, 2025 compared to the three months ended March 31, 2024 primarily resulted from an increase of \$6.3 million related to depreciation and amortization, and a non-cash stock-based compensation expense increase of \$5.1 million primarily due to the net effect of new restricted stock units granted offset by full amortization of awards subsequent to March 31, 2024, and the recognition of all unamortized expense for EPA awards cancelled in February 2025.

General and Administrative

The decrease in general and administrative expenses in the three months ended March 31, 2025 compared to the three months ended March 31, 2024 primarily resulted from a decrease of \$24.5 million due to the net settlement of the accrual in the three months ended March 31, 2024 for the Securities Class Action Litigation, a decrease of \$12.5 million in charges related to other legal matters, professional fees, outside services and office administration, primarily offset by a non-cash stock-based compensation expense increase of \$16.3 million primarily due to the reversal of previously recognized expense of \$16.0 million for the EPA awards forfeited in the three months ended March 31, 2024 where the requisite service period had not been completed at the time of forfeiture, the net effect of new restricted stock units granted offset by full amortization of awards subsequent to March 31, 2024, and the recognition of all unamortized expense for EPA awards cancelled in February 2025.

Other Income (Expense)

Interest Income

The decrease in interest income during the three months ended March 31, 2025 compared to the three months ended March 31, 2024 was mainly due to the decrease in interest rates.

Other Expense, net

Other expense for the three months ended March 31, 2025 and the three months ended March 31, 2024, respectively, are not material individually or in aggregate.

Liquidity and Capital Resources

As of March 31, 2025 and December 31, 2024, our principal sources of liquidity were our cash and cash equivalents and marketable securities in the amount of approximately \$860.3 million and \$910.8 million, respectively. Our cash equivalents are invested in U.S. money market funds, U.S. Treasury bonds and commercial paper. Our marketable securities are invested in U.S. Treasury notes and bonds, commercial paper, and corporate notes and bonds.

We have yet to generate any revenue from our business operations. To date, we have funded our capital expenditure and working capital requirements through equity as further discussed below. Our ability to successfully develop our products, commence commercial operations and expand our business will depend on many factors, including our working capital needs, the availability of equity or debt financing and, over time, our ability to generate cash flows from operations.

During the year ended December 31, 2023, we completed the August 2023 Public Offering of 37.5 million shares of our Class A Common Stock and received net proceeds of \$288.2 million.

During the year ended December 31, 2024, we sold 24.9 million shares of our Class A Common Stock pursuant to the ATM offering and received approximately \$128.5 million in proceeds, net of issuance costs paid.

We believe that our cash on hand will be sufficient to meet our working capital and capital expenditure requirements for a period of at least twelve months from the date of this Report. Based on our current business plan, we believe that our cash resources will last into the second half of 2028, in part due to our transition from the JVA arrangement to the licensing arrangement with PowerCo, which, if entered into, is expected to have significantly lower costs and capital requirements. However, any changes to our technology development, operating costs and scale-up, including our ability to meet the milestones to enable the entry into the PowerCo IP License Agreement and related receipt of the initial royalty fee from PowerCo, could materially impact us and the availability of our capital resources. We may need additional cash resources due to changed business conditions or other developments, including unanticipated delays in negotiations with automotive OEMs and tier-one automotive suppliers or other suppliers, supply chain challenges, competitive pressures, inflation, and regulatory developments, among others. To the extent that our current resources are insufficient to satisfy our cash requirements, we may need to seek additional equity or debt financing. If such financing is not available, or if the financing terms are onerous given the high-interest rate environment or less desirable than we expect, we may be forced to decrease our level of investment in product development or scale back our operations, which could have an adverse impact on our business and financial prospects.

In July 2022, we filed the Form S-3, which the SEC declared effective in August 2022, for the offer and sale of Class A Common Stock, preferred stock, depositary shares, debt securities, warrants, subscription rights, purchase contracts and units in one or more offerings and in any combination for an aggregate offering price of up to \$1 billion, or \$700 million subsequent to our August 2023 Public Offering. Such securities may be offered pursuant to the base prospectus contained in the shelf registration statement and a prospectus supplement that would be prepared and filed at the time of any offering.

In February 2023, we filed a prospectus supplement to the Form S-3 for the issuance and sale of our Class A Common Stock from time to time for an aggregate offering price of up to \$400 million through J.P. Morgan Securities LLC, Cowen and Company, LLC, Deutsche Bank Securities Inc. and UBS Securities LLC, as the sales agents. We entered into Distribution Agreements with each of these sales agents in February 2023, in connection with the ATM offering. We have up to three years from the date of the Distribution Agreements to sell the shares, however we are not obligated to sell any such shares. Any net proceeds from the sale of shares will be used for working capital and other general corporate purposes and would further extend our forecasted cash runway. During the three months ended March 31, 2025, 0.2 million shares of our Class A Common Stock were sold pursuant to the ATM offering for aggregate proceeds of approximately \$1.0 million, net of issuance costs paid including immaterial commission fees to the sales agents.

Cash Flows and Material Cash Requirements

The following table provides a summary of our cash flow data for the periods indicated (amounts in thousands):

	For the Three Months Ended March 31,	
	2025	2024
Net cash used in operating activities	\$ (60,749)	\$ (57,945)
Net cash provided by investing activities	62,033	106,499
Net cash provided by financing activities	11,405	1,243

Operating Activities

Our cash flows used in operating activities to date have been primarily driven by the growth in our underlying business to support the research and development of next-generation battery technology. To support our research and development activities and our plan to build out and scale up our pilot line, we are expecting cash payments of approximately \$9.2 million during the next twelve months and approximately \$63.1 million thereafter for the operating lease commitments as of March 31, 2025. From time to time, we also enter into non-cancellable service and purchase commitments. We are expecting cash used in operating activities to include payments of approximately \$3.9 million in the next twelve months and approximately \$2.8 million thereafter through 2027 for our non-cancellable commitments as of March 31, 2025.

Cash used in operating activities for the three months ended March 31, 2025 was primarily driven by a net loss of \$114.4 million, offset by non-cash expense of \$40.6 million related to stock-based compensation, non-cash expense of \$18.3 million related to depreciation and amortization, non-cash lease expense and amortization of right-of-use assets of \$2.0 million. Cash used in the operating activities was further driven by \$5.0 million in amortization of premiums and accretion of discounts on marketable securities, a decrease of \$1.5 million in accounts payable, accrued liabilities and accrued compensation and benefits, and a decrease of \$1.3 million in operating lease liability.

Cash used in operating activities for the three months ended March 31, 2024 was primarily driven by a net loss of \$120.6 million, offset by non-cash expense of \$19.3 million related to stock-based compensation, non-cash expense of \$12.0 million related to depreciation and amortization, non-cash lease expense and amortization of right-of-use assets of \$2.0 million. Cash used in the operating activities was further driven by an increase of \$22.7 million in prepaid expenses, other current assets and other assets, and \$8.2 million in amortization of premiums and accretion of discounts on marketable securities, and offset by an increase of \$61.6 million in accounts payable, accrued liabilities, and accrued compensation and benefits.

Investing Activities

Our cash flows from investing activities to date have been comprised of purchases of property and equipment and purchases, maturities and sales of our marketable securities. We expect the level of capital investment to increase substantially in the near future as we acquire the property and equipment to build out our pilot line.

Cash provided by investing activities for the three months ended March 31, 2025 primarily consists of proceeds from the maturity of marketable securities of \$281.2 million. These were offset by \$213.4 million used for the purchase of marketable securities and \$5.8 million used for the purchase of various property and equipment, primarily to support our research and development activities.

Cash provided by investing activities for the three months ended March 31, 2024 primarily consists of proceeds from the maturity and sale of marketable securities of \$384.6 million and \$1.2 million, respectively. These were offset by \$265.3 million used for the purchase of marketable securities and \$14.1 million used for the purchase of various property and equipment, primarily to support our research and development activities.

Financing Activities

Our cash flows from financing activities primarily consist of proceeds from the issuance of common stock and exercise of stock options. Finance lease commitment for one of our buildings will result in net cash payments of \$5.3 million in the next twelve months and payments of \$37.7 million thereafter.

Cash provided by financing activities during the three months ended March 31, 2025 is primarily due to \$11.2 million received from the exercise of stock options.

Cash provided by financing activities during the three months ended March 31, 2024 is primarily due to \$1.9 million received from the exercise of stock options.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with U.S. GAAP. In the preparation of these consolidated financial statements, we are required to use judgment in making estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, as well as the reported expenses incurred during the reporting periods.

We consider an accounting judgment, estimate or assumption to be critical when (1) the estimate or assumption is complex in nature or requires a high degree of judgment and (2) the use of different judgments, estimates and assumptions could have a material impact on the consolidated financial statements. Our significant accounting policies are described in [Note 2, Summary of Significant Accounting Policies](#), to our unaudited consolidated financial statements included elsewhere in this Report. We believe that the following accounting estimates are the most critical to fully understand and evaluate our reported financial results, as they require our most subjective or complex management judgments, resulting from the need to make estimates about the effect of matters that are inherently uncertain and unpredictable.

Recent Accounting Pronouncements

See [Note 3, Recent Accounting Pronouncements](#), to the condensed consolidated financial statements elsewhere in this Report for more information about recent accounting pronouncements, the timing of their adoption, and, to the extent it has made one, of their potential impact on our financial condition and its results of operations and cash flows.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

There have been no material changes to the Company's market risk during the three months ended March 31, 2025. For a discussion of the Company's exposure to market risk, refer to the Company's market risk disclosures set forth in Part II, Item 7A, "Quantitative and Qualitative Disclosures About Market Risk" of our Annual Report.

Item 4. Controls and Procedures.**Limitations on Effectiveness of Controls and Procedures**

In designing and evaluating our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended ("Exchange Act")), management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Report. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of March 31, 2025, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended March 31, 2025 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

Information regarding legal proceedings is available in [Note 7, Commitments and Contingencies](#), to the condensed consolidated financial statements elsewhere in this Report.

Item 1A. Risk Factors.

The following summary risk factors and other information included in this Report should be carefully considered. The summary risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not currently known to us or that we currently deem less significant may also affect our business operations or financial results. If any of the following risks actually materializes, our stock price, business, operating results and financial condition could be materially adversely affected. For more information, see below for more detailed descriptions of each risk factor.

Risk Factor Summary

Risks Related to Our Technology Development, Manufacturing and Performance

- Challenges involving our development of solid-state battery cells.
- Challenges related to manufacturing and scale-up of our separator and solid-state battery cells.
- Any failure to meet targets around cost, performance characteristics or other specifications as set out by us or our customers.
- Reliance on third-party suppliers for necessary materials, components or equipment.
- An inability to control the costs associated with our operations and the price of raw materials.
- Any risk and uncertainty around the use of complex machinery for our operations and production.
- An inability to attract and retain customers during the development stage or for higher volume production.
- Any loss or early obsolescence of our manufacturing equipment.

Customer Risks and Risks Related to Our Relationship with Volkswagen

- Any failure to meet requirements or achieve milestones under our collaboration with PowerCo.
- Increased reliance on PowerCo to scale up and commercialize our technology.
- Concentration of agreements and relationships that can restrict our business operations, commercialization opportunities and revenue generation.
- Challenges to accurately estimate the future supply and demand for our batteries.

Our Intellectual Property Risks

- Any failure to protect or assert our intellectual property rights.
- Any intellectual property infringement claims or other litigation that we need to defend ourselves against.
- Adverse decisions related to our patent applications and contests to our patent rights.

Other Business Risks

- Challenges to successfully compete in an evolving and highly competitive battery market.
- Dependence on consumer adoption of EVs for future growth and success.
- Historical and continuing financial losses as an early-stage company.
- Risks and tradeoffs related to pursuing a variety of business models and arrangements.
- Changes to our objectives and targets due to unfavorable changes to our initial assumptions and analyses.
- Any issues with operations of or disruptions to our information technology and communications systems.
- Increased exposure to artificial intelligence related risks and challenges.
- Evolving scrutiny over our ESG practices and value propositions.
- Involvement in litigation, regulatory actions or government investigations and inquiries.
- Exposure to product liability claims due to third-party use of our batteries.

- Exposure to risks and regulations in various jurisdictions where we conduct activities.
- Adverse effects of inflation and increased interest rates.
- Adverse effects of tariffs, including increased supply chain costs or decreased margins on sales.
- Challenges arising from management's limited experience in operating a public company.
- Any negative impacts from epidemics, pandemics, and other outbreaks.

Our Regulatory Risks

- Evolving or unfavorable global trade policies and export/import regulations related to the battery and EV industry.
- Environmental and safety risks related to battery technology development and manufacturing.

Risks Related to Ownership of Our Common Stock and Our Certificate of Incorporation and Bylaws Provisions

- Volatility of our Class A Common Stock.
- Dilution to stockholders in the event of sales of substantial amounts of our Class A Common Stock in the capital markets.
- Any failure to raise additional capital on attractive terms.
- Manipulative activity by short sellers.
- Changes to our reasonable estimates and probability-based assumptions that can affect our results of operations.
- Concentration of capital stock ownership among certain insiders.
- The dual class structure of our Common Stock.
- Provisions in our Certificate of Incorporation or Bylaws and under Delaware law that can limit stockholders' ability to change management.
- Limits to our stockholders' ability to obtain a chosen judicial forum for disputes.
- No cash dividends to stockholders in the foreseeable future.

General Risk Factors

- Challenges attracting and retaining key employees and qualified personnel.
- Natural disasters and other catastrophic events outside of our control.
- Volatile global economic conditions due to real or perceived financial crises.
- Changes in U.S. or foreign tax policies.
- Limitations to our use of deferred tax assets to offset future taxable income.
- Insufficient insurance coverage for future losses or claims against us.
- Any inability to comply with NYSE continued listing standards.
- Significant expenses and administrative burdens as a public company.
- Any failure to maintain an effective system of internal controls which may lead to a material weakness.
- Limitations in our disclosure controls and procedures that may not prevent or detect all errors or acts of fraud.
- Any changes to analyst publications about us, our business, or the market.

The following risk factors apply to our business and operations. These risk factors are not exhaustive, and investors are encouraged to perform their own investigation with respect to our business, financial condition, and prospects. We may face additional risks and uncertainties that are not presently known to us, or that we currently deem immaterial, which may also impair our business. The following discussion should be read in conjunction with the financial statements and notes to the financial statements included elsewhere in this Report.

Risks Related to Our Technology Development, Manufacturing and Performance

We face significant challenges in our attempt to develop a solid-state battery cell and produce it at higher volumes with acceptable performance, quality, consistency, reliability, throughput, safety, and costs. Delays or failures in accomplishing our development objectives may delay or prevent successful commercialization of our technology and negatively impact our business.

Developing lithium-metal solid-state batteries that meet the requirements for wide adoption by automotive OEMs is a difficult undertaking and, as far as we are aware, has never been done before. We are still in the development stage and face significant challenges in completing the development of our battery cells and in producing battery cells in commercial volumes with acceptable performance, quality, consistency, reliability, throughput, safety, and costs. Some of the development challenges include increasing the quality, consistency, reliability and production throughput of our separators and cells, increasing the size and layer count of our multilayer cells, increasing manufacturing scale to produce the volume of cells needed for our technology development and customer applications, installing, bringing up and optimizing higher throughput equipment, packaging design and engineering to ensure adequate cycle life, pressure management, cost reduction, completion of the rigorous and challenging specifications required by our automotive partners, including but not limited to, calendar life, mechanical, safety, and abuse testing.

Our solid-state separator is in the development stage and has never been used before for battery applications (or to our knowledge, for any other applications). There are significant quality, consistency, reliability and throughput, cost and manufacturing process challenges to be solved in order for the separators to be produced and used commercially. We have had and are likely to continue to encounter engineering challenges as we increase the lateral dimensions, reduce the thickness and defects and increase the production volume of our separators. In addition, we are continuously evaluating multiple cathode material compositions for inclusion in our battery cells and have not yet finalized the cathode composition or formulation, or the design of related cell assembly components. We also have not validated that the current cell design meets all automotive requirements. If we are not able to overcome these barriers in developing and producing separators and battery cells at commercial volumes, our business would likely fail.

We have tested single-layer and multilayer cells in commercially relevant areas that measure approximately 60x75mm to 70x85mm, and shipped our first A0 prototype battery cells in 2022. In 2024, we shipped the first B0 prototype samples of our QSE-5 cell. While we target our first commercial product, the QSE-5, to have a capacity of approximately 5 amp-hours, the exact capacity, number of layers and dimensions may vary and depend upon specific customer preference, cell design considerations, and other factors. Any delay in the development or manufacturing scale-up of our solid-state battery cells would negatively impact our business as it will delay time to revenue and negatively impact our customer relationships.

We need to overcome production challenges to produce higher volumes of our separators and prototype battery cells and we may encounter delays and cost overruns related to planning, permitting, construction, equipment installation and reliability, utilities infrastructure installation and operations start-up of our manufacturing facilities, which could delay or prevent the introduction of our product and negatively impact our business.

We will need to overcome production challenges to produce sufficient volumes of our separators and prototype battery cells to complete development of our first commercial product and for customer evaluation and product qualification purposes, as well as subsequent cell designs that may require different capacity, layer counts or dimensions. We have not yet validated a manufacturing process or acquired the equipment necessary to produce higher volumes of our separator, cathode electrode or related cell assembly components that meet customer requirements. We will need to produce these cells at improved yields without compromising performance, and simultaneously solve related packaging and reliability challenges in a way that is scalable and low-cost. There are significant engineering and mechanical challenges that we must overcome to advance the scale up of our battery cells. In addition, we have been designing and procuring certain equipment to continue developing the manufacturing processes necessary to make these battery cells at higher volumes. If we are not able to overcome these developmental hurdles in building our cells, our business is likely to fail.

In addition, we must advance our current manufacturing processes to include more automation, such as automated film handling and stacking, and use higher volume equipment and processes, such as moving to higher throughput continuous flow equipment. We must also continue process development and innovation efforts toward substantially shortening cycle time, improving process control and equipment reliability, and reducing consumables (including energy usage), with the target end goal of increasing the quality, consistency, reliability and throughput of our separators and battery cells.

Further, we must build our pilot line in San Jose, California, to provide a sufficient quantity of separators and cells for internal development, customer sampling, and higher volumes of QSE-5 cells. Ultimately, we need to build out our pilot line to serve as the basis for continued manufacturing process development, including to support collaboration and future technology transfer activities as part of the collaboration and licensing arrangements with PowerCo as well as potential future commercial arrangements. However, we could encounter significant delays and cost overruns related to planning, permitting, construction, equipment delivery, installation, qualification, and reliability, utilities infrastructure installation, and operations start-up of our manufacturing facilities, including those containing our pilot line. Examples include global supply chain issues that impact our equipment suppliers, supplier non-performance and equipment damage in transit. In particular, we have experienced short-term power outages at our San Jose facilities that have been resolved, but similar disruptions may occur in the future; delays associated with material shortage and backups at key shipping ports could impact the capacity at which we can run the facility; and certain of our construction contractors have previously reported delays due to labor strikes of their employees that were ultimately resolved but may reoccur in the future. If we are unable to substantially improve our manufacturing processes to increase yield and throughput to achieve the cost, performance and volume levels required for commercial shipments, our business could be materially impacted.

If the cost, performance characteristics or other specifications of the battery fall short of our targets or our customer requirements, our ability to develop, market, and sell our batteries could be harmed.

Even if we complete development and achieve volume production of our solid-state battery, if the cost, performance characteristics or other specifications of the battery fall short of our targets or our customer requirements, our sales, product pricing and margins would likely be adversely affected.

In addition, our battery cells must simultaneously satisfy all the commercial and safety requirements of our customers. Our solid-state battery cell uses a ceramic separator which we believe is safer than conventional polymer separators. We have conducted, and we will continue to conduct, a suite of performance and safety tests on our prototype cells, including on a limited number of QSE-5 B-samples to date. Although certain of our cells tested in our laboratories have passed automotive performance and safety test levels, some of these cells have been subject to additional modified test conditions and tested to the point of failure. However, these performance and safety test results for our prototype cells are not necessarily representative of those of subsequent generations of our cells since performance and safety are a function of the composition of a cell's materials, which may change from one generation of cells to another and depend on the final design of the battery package. Additional safety tests, with much larger samplings of cells, need to be performed as our materials and processes evolve to ensure efficacy and statistical significance.

Once commercial production of our solid-state battery cells commences, our batteries may contain defects in design and manufacture that may cause them to not perform as expected or that may require repairs, recalls, and design changes. Our batteries are inherently complex and incorporate technology and components that have not been used for other applications and that may contain defects and errors, particularly when first introduced. We have a limited frame of reference from which to evaluate the long-term performance of our solid-state batteries. There can be no assurance that we will be able to detect and fix any defects in our solid-state batteries prior to the sale to potential consumers. If our batteries fail to perform as expected, we could lose design wins and customers may delay deliveries, terminate further orders or initiate product recalls, each of which could adversely affect our sales and brand and could adversely affect our business, prospects and results of operations.

We may not be able to establish supply relationships for necessary materials, components or equipment, which could delay the introduction of our product and negatively impact our business.

We rely on third-party suppliers for components and equipment necessary to develop and manufacture our solid-state batteries, including key supplies, such as our cathode material and manufacturing equipment for both our solid-state separator and solid-state battery cells. We are collaborating with key suppliers but have not yet entered into agreements for the supply of production quantities for many of these materials. To the extent that we are unable to enter into commercial agreements with these suppliers on beneficial terms, or these suppliers experience difficulties or delays ramping up their supply of materials to meet our requirements, the introduction of our battery will be delayed. For example, we have previously experienced minor disruptions to the supply of process gas due to the shortage of truck drivers related to the COVID-19 pandemic and due to an incident at our main supplier's facilities, and have also experienced and could continue to experience disruption to the supply of petroleum-derived products as a result of certain weather and geopolitical events and conflicts and any related political or economic responses and counter-responses or otherwise by various global actors. The war in Ukraine and resulting sanctions against Russia by certain countries has also led to, and a further escalation of the armed conflict in the Middle East could also lead to, an increase in the price of petroleum and petroleum-derived products, which has in certain instances increased and may in the future further increase the cost of manufacturing, input material pricing and logistics costs. These challenges may be exacerbated in situations where we source certain of our materials and equipment exclusively from one or a few suppliers.

Any disruption in the supply of components, equipment or materials could temporarily disrupt research and development activities or production of our batteries until an alternative supplier is able to supply the required material. Changes in business conditions, unforeseen circumstances, political, economic and social instability, governmental changes, disruptions caused by power outages, climate change and natural disasters, and other factors beyond our control or which we do not presently anticipate, could also affect our suppliers' ability to deliver components or equipment to us on a timely basis. Any of the foregoing could materially and adversely affect our results of operations, financial condition and prospects.

Currency fluctuations, trade barriers, tariffs or shortages and other general economic or political conditions may limit our ability to obtain key materials, components or equipment for our solid-state batteries or significantly increase freight charges, raw material costs and other expenses associated with our business, which could further materially and adversely affect our results of operations, financial condition and prospects. In particular, tariffs—whether imposed as part of trade disputes, protective measures, or broader geopolitical strategies—could substantially drive up the cost of components and materials critical to our operations, putting significant pressure on our overall cost structure. For example, in February 2025, the United States imposed additional tariffs on imports from China, and significantly increased those tariffs in April 2025. These tariffs, any additional tariffs imposed on foreign goods, as well as retaliation by a foreign government against such tariffs or policies may affect, directly or indirectly, the prices and supply of key materials necessary for our or our supply chain operations. Such developments may also create uncertainty in the supplier landscape, causing suppliers to reassess their own sourcing strategies or delay shipments, further impacting our ability to plan and execute on our operational goals. We may also be subject to a number of geopolitical risks, including U.S. and foreign government trade restrictions or sanctions and any political or economic responses or counter-responses to such restrictions or sanctions. As global competition for raw materials continues to intensify, particularly in light of rising demand for battery technologies, including due to policy-driven market instability or the reallocation of global supply in response to protectionist measures, we may face difficulties securing critical supplies on favorable terms or at all, which could materially harm our ability to produce batteries at scale and threaten the viability of our business.

We may be unable to adequately control the costs associated with our operations and the components necessary to develop and commercialize our solid-state battery technology, and, if we are unable to control these costs and achieve cost advantages, our business will be adversely affected.

We require significant capital to develop and grow our business and expect to incur significant expenses, including those relating to research and development, raw material procurement, leases, sales, distribution, and technology transfer as we build our brand and market our battery technology, and general and administrative costs as we scale our operations, including the costs of our activities under the PowerCo Collaboration Agreement and, if entered into, the PowerCo IP License Agreement. For example, there has been volatility in prices and availability of raw material such as cobalt, nickel, and lithium and such material may face industry-wide shortages. Our ability to become profitable in the future will not only depend on our ability to successfully market or license our solid-state battery technology, but also to control our costs and achieve our target cost projections, including our or our licensing partners' projected cost advantage when compared to the costs of building traditional lithium-ion batteries at scale or the costs of building solid-state batteries by other market players. If we or our partners, as applicable, are unable to cost efficiently design, manufacture, market, sell and distribute our solid-state battery technology, including under the PowerCo Collaboration Agreement, our margins, profitability and prospects would be materially and adversely affected. We or our partners have not yet produced any solid-state battery cells at commercial capacity or in volume and our forecasted cost advantage for the production of these cells at scale, compared to conventional lithium-ion cells, will require rates of throughput, use of electricity and consumables, yield, and levels of automation that we or our partners have not yet achieved. If we or our partners are unable to achieve these targeted rates, our business will be adversely impacted.

In particular, while we have estimated that eliminating the anode host material and the associated manufacturing costs will provide savings in production at scale compared to the costs of building traditional lithium-ion batteries at leading manufacturers, that estimate is subject to numerous assumptions and uncertainties. To achieve those savings, we or our partners, as applicable, will need to achieve significant cost savings in battery design and manufacturing, in addition to the cost savings associated with the elimination of an anode from our solid-state battery cells, while controlling costs associated with the manufacturing of our separator, including achieving substantial improvements in throughput and yield required to hit commercial targets. Further, we or our partners, as applicable, will need to capture industry-wide cost savings in the materials, components, equipment, facilities design, and processes that our technology shares with traditional lithium-ion battery manufacturing, notably in the cathode and cell design. We cannot be certain that we or our partners will achieve these cost savings or that future efficiency improvements in lithium-ion battery manufacturing will not reduce or eliminate these estimated cost savings.

We expect to incur significant costs related to procuring materials required to manufacture and assemble our samples and batteries. We expect to use various materials in our batteries that will require us to negotiate purchase agreements and delivery lead-times on advantageous terms. We and our partners may not be able to control fluctuation in the prices for these materials or negotiate agreements with suppliers on terms that are beneficial to us or our partners. Our business depends on the continued supply of certain proprietary materials for our products. We are exposed to multiple risks relating to the availability and pricing of such materials and components, including reliance upon our vendors to construct and produce equipment to increase volumes, which may lead to delays or the requirement that we make additional upfront payments. Increases in the prices for our raw materials or components would increase our operating costs and negatively impact our prospects. For example, our shipping costs have increased in the past as suppliers have applied fuel surcharges. Costs for certain key raw materials and components have also increased due to fluctuations in global commodity prices. Our suppliers' increasing labor costs have also contributed to rising prices. Given that we have yet to generate any revenue from our business operations, we are also limited in our ability to pass on the cost of any such increases to our customers.

In addition, the cost of producing battery cells depends in part upon the prices and availability of raw materials such as lithium, nickel, cobalt and/or other metals. The prices for these materials fluctuate and their available supply may be unstable, depending on market conditions and global demand for these materials. For example, demand for lithium has increased dramatically in recent years, and is expected to continue to increase, due to the ongoing rapid increase in use of lithium batteries in portable electronics and the growing EV and energy storage markets. Furthermore, significant sources of supply of certain raw and intermediate materials are available in countries that may be subject to political, economic and social instability or where there is an ongoing risk of tariffs or import prohibitions being imposed by the United States or the European Union on the procurement of such materials from such countries. Certain countries are also imposing controls on the export of such materials. There can be no assurance that suppliers of these materials may be able to meet our or our partners' volume and other specific needs at reasonable prices, particularly as we ramp up our commercial operations.

We rely on complex machinery for our operations, and production of our solid-state battery cells involves a significant degree of risk and uncertainty in terms of operational performance and costs.

We rely heavily on complex machinery for our operations and the production of our solid-state battery cells, and this equipment has not yet been qualified to operate at large-scale manufacturing by us or our partners. The work required to integrate this equipment into the production of our solid-state battery cells is time intensive and requires us and our partners to work closely with the equipment provider to ensure that it works properly for our unique battery technology. This integration work will involve a significant degree of uncertainty and risk and may result in a delay in the scaling up of production or result in additional cost to our battery cells.

Higher throughput machinery is required to achieve our goals to commercialize our battery technology. Such machinery is likely to suffer unexpected malfunctions from time to time and may require repairs and spare parts to resume operations, which may not be available when needed, particularly if global supply chain disruptions continue or are not fully resolved. Unexpected malfunctions of our or our partners' production equipment may significantly affect the intended operational efficiency. In addition, because this equipment has not been used to build our solid-state battery cells before, the operational performance and costs associated with this equipment can be difficult to predict and may be influenced by factors outside of our or our partners' control, such as, but not limited to, failures by suppliers to deliver necessary components of our products in a timely manner and at prices and volumes acceptable to us or our partners, environmental hazards and remediation, difficulty or delays in obtaining governmental permits, damages or defects in systems, industrial accidents, fires, seismic activity and other natural disasters.

Operational problems with manufacturing equipment could result in the personal injury to or death of our or our partners' workers, the loss of production equipment, damage to manufacturing facilities, monetary losses, delays and unanticipated fluctuations in production. The potential risks of operational problems at our facilities also apply to individuals not employed and equipment not owned by us, such as third-party contractors, and our business partners' personnel and equipment. In addition, operational problems may result in environmental damage, administrative fines, increased insurance costs and potential legal liabilities. These operational problems could have a material adverse effect on our business, results of operations, cash flows, financial condition or prospects.

We may not succeed in attracting and retaining customers, including licensees, during the product development stage or for higher volume commercialization of our technology, and our future growth and success may be adversely affected.

We may not succeed in attracting and retaining customers, including licensees, during the product development stage or for higher volume commercialization of our technology. If we are unable to attract new customers in need of our products or the licensing of our battery technology, whether due to inadequate product-market fit or for other reasons, our business may suffer. Conversely, we may not be able to retain existing customers in case of delays or capacity limitations in the development of our solid-state battery technology, which would negatively impact our business.

Many of our potential customers tend to be large enterprises that often undertake a significant evaluation process and are frequently subject to budget constraints, multiple approvals and unanticipated administrative, processing and other delays, that result in a lengthy sales or licensing cycle. Therefore, our future success will depend on our ability to effectively sell our products or license our technology to such large customers. Sales to these end-customers involve risks that may not be present (or that are present to a lesser extent) with sales to smaller customers. These risks include, but are not limited to, (i) increased purchasing power and leverage held by large customers in negotiating contractual arrangements with us, including a greater ability to push back on attempts to pass on increased operating and procurement costs and require provisions that can lead to a delay in revenue recognition, (ii) longer sales and implementation cycles and the associated risk that substantial time and resources may be spent on a potential end-customer that elects not to purchase our solutions, and (iii) greater product functionality and scalability requirements, including a broader range of services. There are also only a limited number of OEMs in the automotive sector. All of these factors can add further risk to business conducted with these potential customers.

While we have signed customer sampling agreements with a number of OEMs, we are still in the process of development and scale-up of our San Jose pilot line and there is no assurance or guarantee that we can sufficiently develop our solid-state battery technology or that any of our customers or potential customers will be able to successfully complete their testing and validation processes and, therefore, enter into definitive volume production or license agreements with us.

We may be negatively impacted by any early obsolescence of our manufacturing equipment.

We depreciate the cost of our equipment over their expected useful lives. However, our cell design or manufacturing processes may change periodically, and we may decide to update our design or manufacturing processes more quickly than expected. Moreover, improvements in engineering and manufacturing expertise and efficiency may result in our ability to manufacture our cells using less of our currently installed equipment. Alternatively, as we develop our production processes, we may discontinue the use of already installed equipment in favor of different or additional equipment. The useful life of any equipment that would be retired early as a result would be shortened, causing the depreciation on such equipment to be accelerated, and our results of operations may be harmed. For example, during the year ended December 31, 2024, we wrote off approximately \$13.3 million of property and equipment for assets with no remaining future benefit.

Customer Risks and Risks Related to Our Relationship with Volkswagen

Our relationship with Volkswagen and PowerCo is subject to various risks which could adversely affect our business and future prospects. There are no assurances that we will be able to achieve the milestones for the commercialization of solid-state batteries under our collaboration with PowerCo or that we will enter into the PowerCo IP License Agreement.

On July 5, 2024, we entered into the PowerCo Collaboration Agreement with the goal of industrializing the solid-state lithium metal battery technology we intend to use in our first planned product—the QSE-5 Technology. Under the PowerCo Collaboration Agreement, the parties will collaborate to enable PowerCo to manufacture battery cells incorporating the QSE-5 Technology, including through a joint scale-up team that was established to facilitate the transfer of QSE-5 Technology into a cell size determined by PowerCo and by carrying out the activities set forth in statements of work (the “Project”). In connection with the Project and subject to the completion of certain milestones, the parties intend to enter into the PowerCo IP License Agreement under which we will grant PowerCo a non-exclusive, limited, royalty-bearing license to use the QSE-5 Technology for the purpose of manufacturing and selling batteries primarily for automotive applications, initially at one or more PowerCo facilities that together have an annual capacity of up to 40 GWh, expandable by an additional 40 GWh of annual capacity or such other capacity as may be agreed to by the parties.

There is no assurance that we will be able to complete the development of the solid-state battery cells or achieve the technical milestones in the time frame required by the PowerCo Collaboration Agreement or to satisfy PowerCo's business needs, or that the joint scale-up team will cooperate successfully or complete in a timely and cost-effective manner the responsibilities assigned to them under the PowerCo Collaboration Agreement. If we do not complete this development in a timely manner, PowerCo may terminate the PowerCo Collaboration Agreement. If we are not able to reach certain milestones under the PowerCo Collaboration Agreement, PowerCo has no obligation to enter into the PowerCo IP License Agreement and we will not receive the initial royalty fee otherwise due to us thereunder and will not realize any of the benefits otherwise expected from this agreement. These factors could result in a material adverse effect on our business and financial results. The amounts of royalties to be paid under the PowerCo IP License Agreement, if entered into, will depend on the performance of our solid-state battery and the demand for the vehicles that Volkswagen develops specifically to use with the solid-state battery cells produced under the PowerCo IP License Agreement. If we cannot complete the development of our solid-state battery cells, if PowerCo does not select our solid-state battery cell for commercialization or if there is a delay in the introduction of the Volkswagen vehicles that intend to use our solid-state battery cells, our business will be harmed.

Volkswagen is our largest shareholder and holds the right to designate two directors to our Board. The strong relationship that we have developed with Volkswagen, including as a shareholder, and PowerCo and rights under the PowerCo Collaboration Agreement and, if entered into, the PowerCo IP License Agreement, may deter other automotive OEMs from working closely with us. While the PowerCo IP License Agreement, if entered into, would be non-exclusive, allowing us to license our intellectual property to other third parties, we may still need to incur significant additional expenditures for design, development, and testing to meet the needs of these third parties. If we are not able to expand our other customer relationships to a license or commercialization intent, or if we become too dependent on Volkswagen for our revenue, our business could be harmed. Volkswagen may have economic, business or legal interests or goals that are inconsistent with our goals. Any significant disagreements with Volkswagen may impede our ability to maximize the benefits of our relationship and slow the commercialization of our solid-state battery. In addition, if PowerCo is unable or unwilling to meet its economic or other obligations under the PowerCo Collaboration Agreement and PowerCo IP License Agreement, if entered into, we may be required to terminate such agreements and thereby may not realize any of the benefits otherwise expected from such agreements. These factors could result in a material adverse effect on our business and financial results. While we have entered into the PowerCo Collaboration Agreement and also expect to enter into the PowerCo IP License Agreement with PowerCo, we cannot predict the extent to which PowerCo's activities may pose a competitive risk to, or otherwise be in conflict with, our business.

If the milestones under the PowerCo Collaboration Agreement are met and the PowerCo IP License Agreement is entered into, we will become reliant on PowerCo to scale up and commercialize our technology, preserve the value of our license, and will be exposed to risks related to PowerCo's financial and business conditions.

While we continue to explore opportunities to commercialize our technology with existing and potential partners, the PowerCo Collaboration Agreement is currently the only agreement we have with the intent to commercialize our technology. Therefore, entering into the PowerCo IP License Agreement will make us reliant on PowerCo to scale up and commercialize our technology and preserve the value of our license. It will also result in us having less direct control over decisions relating to the manufacturing of our technology and, compared to the prior JVA arrangement, require us to rely more significantly on the alignment of incentives between us and PowerCo.

PowerCo, established in 2022 by Volkswagen, is a newly formed entity without a proven track record in battery manufacturing, thereby presenting several risks. Its operational capabilities remain untested, raising uncertainties regarding its ability to develop, scale up, and efficiently produce battery cells. Furthermore, PowerCo's capacity to secure the requisite capital for technology development and scaling remains unproven, potentially resulting in delays to key milestones. PowerCo is wholly owned by and dependent on Volkswagen and its financial and operational resources, changes in or poor execution of business plans by either PowerCo or Volkswagen—including any decision by Volkswagen to reduce or terminate the business of PowerCo or to curtail investments in EV production through cost-cutting measures—could adversely harm our business. As PowerCo continues to execute its business plan, there are inherent risks associated with its ability to meet manufacturing timelines, manage labor relations, and sustain supplier and customer relationships. Our concentrated customer base and specific partnership with PowerCo further heighten our exposure to fluctuations in its operations and business model, any of which may impede decision-making and adversely impact the commercialization of our technology.

Additionally, verifying royalty amounts owed to us under the PowerCo IP License Agreement may be difficult. While the agreement will require PowerCo to provide reasonable documentation supporting royalties and grant us the right to audit their books and records, these audits can be expensive and time-consuming, potentially adversely affecting our financial condition and operating results.

Certain agreements and relationships currently restrict or in the future may restrict our business operations, commercialization opportunities, and revenue generation.

Our existing and future commercial agreements may limit or delay our ability to expand our customer base, collaborate with other customers and commercialize our intellectual property, including certain intellectual property jointly developed under such agreements. Certain agreements may also require us to prioritize certain customers' commercialization efforts and focus on developing products that are configured to our customers' specifications with potentially limited end-use applications, which could have an adverse impact on our results of operations if we divert resources to address these customer specific requirements and obligations. Additionally, certain agreements may require us to provide certain customers with advantageous business terms, restricting our ability to negotiate competitive terms with others and potentially reduce our anticipated revenue from royalty payments. These obligations could deter other potential partners and limit or delay our opportunities to generate revenue through licensing our technology, impacting our overall business flexibility and financial outcomes. The concentration of our customer base increases our risks related to the financial condition of our customers, and the fluctuations in financial condition of a single customer or the failure of a single customer to perform its obligations could have a material and adverse effect on our results of operations and cash flow.

We may not be able to accurately estimate the future supply and demand for batteries incorporating our technology, which could result in a variety of inefficiencies in our or our partners' business and hinder our ability to generate revenue. If we fail to accurately predict and forecast the demand for our battery technology, the success of our licensing model may be negatively impacted.

It is difficult to predict our future revenues and appropriately budget for our expenses, and we may have limited insight into trends that may emerge and affect our or our partners' businesses. We anticipate being required to provide demand forecasts or adoption projections to our current and prospective licensees to support their production planning and supply chain coordination. Currently, there is no historical basis for making judgments on the demand for batteries utilizing our technology or for assessing our ability to successfully license, support, and scale our technology through third-party manufacturing partners. Our future revenue will also depend on the timing and prioritization of commercialization and industrialization activities by our customers, which are subject to their internal strategies, resource allocation, and market conditions. As these decisions are entirely within our customers' control and may shift over time, they introduce additional uncertainty into our revenue forecasting and further contribute to the difficulty in predicting the pace and magnitude of our commercial growth. If we overestimate potential demand our licensees may invest in excess manufacturing capacity or materials, indirectly increasing costs or lowering margins for them, which could negatively impact our long-term commercial relationships and revenue. If we underestimate our requirements, our licensees may face inventory shortages or production delays, which could impact their ability to meet end-customer expectations, delay milestone or royalty payments to us, and damage the perceived reliability of our technology. In addition, lead times for materials and components that our partners and suppliers order may vary significantly and depend on factors such as the specific supplier, contract terms, geopolitical conditions, and macroeconomic demand for each component at a given time. If our partners are unable to source critical components in a timely manner, or if they choose to delay their commercialization efforts for any reason, the commercialization timeline for our technology could be delayed, which would harm our business, financial condition and operating results.

Our Intellectual Property Risks

We rely heavily on our intellectual property portfolio. If we are unable to protect or assert our intellectual property, our business and competitive position would be harmed.

We may not be able to prevent unauthorized use of our intellectual property, which could harm our business and competitive position. We rely upon a combination of the intellectual property protections afforded by patents, trademarks and trade secrets in the United States and other jurisdictions, as well as license agreements and other contractual protections, to establish, maintain and enforce rights in our proprietary technologies. In addition, we seek to protect our intellectual property through non-disclosure and invention assignment agreements with our employees and consultants, and through non-disclosure agreements with business partners and other third parties. Despite our efforts to protect our proprietary rights, insiders and third parties, including our business partners, may attempt to copy or otherwise obtain, use or practice our intellectual property without our consent, and we may have been, and may continue to be, subject to intentional or inadvertent systems disruptions and physical or virtual security incidents, including theft or unauthorized use of our confidential information, trade secrets and proprietary technology, including with respect to our batteries and cells. Monitoring unauthorized use or loss of our intellectual property is difficult and costly, and the steps we have taken or will take to prevent misappropriation may not be sufficient. Any enforcement efforts we undertake, including litigation, may not be successful and could be time-consuming and expensive and could divert management's attention, which could harm our business, results of operations and financial condition. In addition, existing intellectual property laws and contractual remedies may afford less protection than needed to safeguard our intellectual property portfolio or our competitive position.

Patent, trademark and trade secret laws vary significantly throughout the world. A number of foreign countries do not protect intellectual property to the same extent as do the laws of the United States. Government actions may also undermine our intellectual property. For example, a decree was adopted by the Russian government in March 2022, allowing Russian companies and individuals to exploit inventions owned by patentees from the United States without consent or compensation. Therefore, our intellectual property may not be as strong or as easily enforced outside of the United States and efforts to protect against the unauthorized use of our intellectual property, technology and other proprietary rights may be more expensive and difficult outside of the United States. Failure to adequately protect our intellectual property could result in our competitors using our intellectual property to offer products, potentially resulting in the loss of some of our competitive advantage and a decrease in our revenue which would adversely affect our business, prospects, financial condition and operating results.

Under the PowerCo Collaboration Agreement, we agreed to jointly own with PowerCo certain types of foreground intellectual property. This joint ownership may reduce our ability to protect or assert some of our intellectual property rights. More specifically, we agreed to jointly own certain foreground intellectual property that is jointly developed under the PowerCo Collaboration Agreement and that either party is free to exploit their share of such jointly owned intellectual property without the other's consent, subject to certain conditions. Similarly, we have entered into, and may continue to enter into, other agreements—including joint development agreements with various partners—that involve joint ownership of foreground intellectual property. These agreements may allow our partners to independently use, license, or develop improvements to or derivatives of jointly owned intellectual property without requiring our approval, which could impact our competitive position or limit our ability to fully capitalize on such innovations. Because PowerCo and other partners may exploit such jointly owned intellectual property without our consent, we may not be able to prevent them or their licensees from using or exploiting such jointly owned intellectual property, or any improvements to or derivatives of such intellectual property developed by these partners. Additionally, our ability to innovate on or practice our intellectual property could be adversely hindered by any new such intellectual property created by our partners, and could undermine the value of our intellectual property and negatively impact our ability to work with additional prospective partners, thereby weakening our competitive position.

Furthermore, under these arrangements, including with Volkswagen and PowerCo, our partners have and will have access to certain proprietary information or intellectual property, increasing the risk of misappropriation, unauthorized use, or inadvertent disclosure due to insufficient safeguards, cybersecurity breaches, employee misconduct, or other vulnerabilities. Such risks could undermine the value of our intellectual property, disrupt our business, or impair our ability to effectively protect our rights.

Under the PowerCo IP License Agreement, if entered into, we intend to grant PowerCo a perpetual license to some of our intellectual property. This license may limit our ability to prohibit third parties, including PowerCo and its sublicensees, from exploiting our licensed intellectual property in perpetuity.

We may need to defend ourselves against intellectual property infringement claims, which may be time-consuming and could cause us to incur substantial costs.

Companies, organizations or individuals, including our current and future competitors, may hold or obtain patents, trademarks or other proprietary rights that would prevent, limit or interfere with our ability to make, use, develop or sell our products, which could make it more difficult and costly for us to operate our business. From time to time, we may receive requests from third parties inquiring whether we are infringing their intellectual property and/or seek court declarations that they do not infringe upon our intellectual property. Companies holding patents or other intellectual property relating to our business, including intellectual property for batteries, ceramics, electric motors, electronic power management systems, or manufacturing processes may bring suits alleging infringement of such rights or otherwise asserting their rights and seeking licenses. Additionally, joint ownership of intellectual property, including under agreements such as the PowerCo Collaboration Agreement, may increase the risk of disputes over the use, licensing, or enforcement of jointly owned intellectual property. Such disputes could result in litigation, which may be costly, time-consuming, and disruptive to our operations. In addition, if we are determined to have infringed a third party's intellectual property, we may be required to do one or more of the following:

- cease selling, incorporating or using products, methods or other assets that incorporate or otherwise infringe or misappropriate the challenged intellectual property;
- pay substantial damages;
- obtain a license from the holder of the infringed intellectual property, which license may not be available on reasonable terms or at all; or
- redesign our affected products and methods.

In the event of a successful claim of infringement against us and our failure or inability to obtain a license to the infringed technology on reasonable terms, our business, prospects, operating results and financial condition could be materially adversely affected. In addition, any litigation or claims, whether or not well-founded, could result in substantial costs and diversion of resources and management's attention.

We also license patents and other intellectual property and technology from third parties, and we may face claims that our use of this intellectual property or technology infringes the rights of others. In such cases, we may seek indemnification from our licensors under our license contracts with them. However, our rights to indemnification may be unavailable or insufficient to cover our costs and losses, depending on our use of the technology, whether we choose to retain control over conduct of the litigation, and other factors. Further, joint ownership arrangements may limit our ability to assert or defend claims relating to jointly owned intellectual property, as partners may independently enforce or license such intellectual property, creating additional risks of conflict, misalignment, or exposure to third-party litigation.

Our patent applications may not result in issued patents or our patent rights may be contested, circumvented, invalidated or limited in scope, any of which could have a material adverse effect on our ability to prevent others from interfering with our commercialization of our products.

Our patent applications may not result in issued patents, which may have a material adverse effect on our ability to prevent others from commercially exploiting products similar to ours. The status of patents involves complex legal and factual questions and the breadth of claims allowed is uncertain. As a result, we cannot be certain that the patent applications that we file will result in patents being issued, or that our patents and any patents that may be issued to us will afford protection against competitors with similar technology. Numerous patents and pending patent applications owned by others exist in the fields in which we have developed and are developing our technology and operating our business. Any of our existing or pending patents may be challenged by others on the basis that they are invalid or unenforceable. Furthermore, patent applications filed in foreign countries are subject to laws, rules and procedures that differ from those of the United States, and thus we cannot be certain that foreign patent applications related to issued U.S. patents will be issued.

Even if our patent applications succeed and we are issued patents in accordance with them, these patents may still be contested, circumvented, invalidated or limited in scope in the future. The rights granted under any issued patents may not provide us with meaningful protection or competitive advantages, and some foreign countries provide significantly less effective patent enforcement than in the United States. In addition, the claims under any patents that issue from our patent applications may not be broad enough to prevent others from developing technologies that are similar or that achieve results similar to ours. The intellectual property of others could also bar us from licensing and exploiting any patents that issue from our pending applications. In addition, patents issued to us may be infringed or designed around by others and others may obtain patents that we need to license or design around, either of which would increase costs and may adversely affect our business, prospects, financial condition and operating results.

Our Business Risks

The battery market continues to evolve, is highly competitive, and we may not be successful in competing in this industry or establishing and maintaining confidence in our long-term business prospects among current and future partners and customers, including licensees.

The battery market in which we compete continues to evolve and is highly competitive. To date, we have focused our efforts on our lithium-metal solid-state battery technology, which is being designed to outperform conventional lithium-ion battery technology. However, lithium-ion battery technology has been widely adopted and our current competitors have, and future competitors may have, greater resources than we do and may also be able to devote greater resources to the development of their current and future technologies. These competitors also may have greater access to customers, including licensees, and may be able to establish cooperative or strategic relationships amongst themselves or with third parties that may further enhance their resources and competitive positioning. In addition, lithium-ion battery manufacturers may continue to reduce cost and expand supply of conventional batteries and thereby reduce the prospects for our business or negatively impact the ability for us to sell or license our products at a market-competitive price with sufficient margins. The lithium-ion battery industry may also experience periods of excess manufacturing capacity; this imbalance between demand and supply capacity may create further downward pressure on prices and could lead to competitors selling at or below material costs. In such scenarios, even if our batteries outperform conventional technologies, our competitive advantage may become irrelevant if we cannot offer pricing that meets market expectations, further threatening the viability of our business. For example, Chinese production has significantly driven down the costs of lithium-ion batteries for EVs through massive scale and government support. As of 2024, China's average battery pack price was approximately 30% lower than costs in Europe and the United States.

Many automotive OEMs, a number of battery technology companies, and consortiums subsidized by countries, such as China, are researching and investing in solid-state battery efforts and, in some cases, in battery development and production. There are a number of companies seeking to develop alternative approaches to solid-state battery technology, including lithium-metal batteries. We expect competition in battery technology and EVs to intensify due to increased demand for EVs and a regulatory push for EV adoption, continued globalization, and consolidation in the worldwide automotive industry. For example, PowerCo is intended to consolidate Volkswagen's activities along the value chain for batteries—from processing raw materials to developing a unified Volkswagen battery to managing the European gigafactories. Additionally, in 2024, China announced the China All-Solid-State Battery Collaborative Innovation Platform, which brings together government, academia and industry to develop and manufacture solid-state batteries that can compete globally. Developments in alternative technologies or improvements in battery technologies made by competitors may materially adversely affect the sales, pricing and gross margins of our batteries. If a competing technology is developed with superior operational or price performance, our business will be harmed. For example, early results of silicon-anode battery technologies suggest they may offer significant competition to our business. These technologies claim to deliver higher energy densities, faster charging times, and potentially lower costs, which could reduce the demand for our solid-state batteries or require us to adjust our pricing or margins to remain competitive. Furthermore, a sustained decline in battery prices—whether due to overcapacity, aggressive pricing by competitors, or subsidies—could make it difficult for us to recover our costs, no matter how advanced our technology is. If we fail to accurately predict and ensure that our battery technology can address customers' changing needs or emerging technological trends, or if our customers fail to achieve the benefits expected from our solid-state batteries, our business will be harmed.

We must continue to commit significant resources to develop our battery technology to establish a competitive position, and these commitments will be made without knowing whether such investments will result in products potential customers will find acceptable. There is no assurance we will successfully identify new customer requirements, develop and bring our batteries to market on a timely basis, or that products and technologies developed by others will not render our batteries obsolete or noncompetitive, any of which would adversely affect our business and operating results.

Customers will be less likely to purchase our batteries if they are not convinced that our business will succeed in the long term. Similarly, suppliers and other third parties will be less likely to invest time and resources in developing business relationships with us if they are not convinced that our business will succeed in the long term. Accordingly, to build, scale up and maintain our business, we must maintain confidence among current and future partners, customers, suppliers, analysts, ratings agencies and other parties in our long-term financial viability and business prospects. Maintaining such confidence may be particularly complicated by certain factors including those that are largely outside of our control, such as our limited operating history, market unfamiliarity with our products, any delays in scaling manufacturing, delivery and service operations to meet demand, competition and uncertainty regarding the future of EVs and our eventual production and sales performance compared with market expectations.

Our future growth and success are dependent upon consumers' willingness to adopt EVs.

Our growth and future demand for our products is highly dependent upon the adoption by consumers of alternative fuel vehicles in general and EVs in particular. In recent years, many countries, companies and consumers have accelerated targets with respect to decreasing dependency on fossil fuels, which in turn is expected to increase demand for EVs; however, the market for new EVs continues to evolve rapidly and is also characterized by rapidly changing technologies, competitive pricing and other competitive factors, evolving government regulation and industry standards, and changing consumer demands and behaviors. In addition, several challenges could slow the adoption of EVs, including the availability and affordability of raw materials critical to EV production, such as lithium, nickel, and cobalt, the adequacy of EV charging infrastructure, and concerns over battery performance, safety, and recyclability. Furthermore, economic uncertainty, fluctuating interest rates and energy prices, and geopolitical events, such as trade restrictions or conflicts affecting supply chains, could also affect consumer purchasing decisions. For example, in 2024, automotive companies across Europe have announced plant closures and layoffs to address weak demand, high costs, and competition from China in the EV market. If the market for EVs in general does not develop as expected, or develops more slowly than expected, our business, prospects, financial condition and operating results could be harmed.

We are an early-stage company with a history of financial losses and expect to incur significant expenses and continuing losses from operations for the foreseeable future.

We incurred a loss from operations of approximately \$123.6 million, a net loss of approximately \$114.4 million for the three months ended March 31, 2025, and an accumulated deficit of approximately \$3.5 billion from our inception in 2010 through March 31, 2025. We believe that we will continue to incur operating losses each quarter until at least the time significant production of our lithium-metal solid-state batteries begins, and such production is not expected to begin in the near future.

We expect the rate at which we will incur losses to be significantly higher in future periods as we, among other things, continue to incur significant expenses in connection with the design, development and manufacturing of our batteries; expand our research and development activities; invest in manufacturing capabilities; build up inventories of components for our batteries; increase our sales and marketing activities; develop our distribution infrastructure; and increase our general and administrative functions to support our growing operations. We may find that these efforts are more expensive than we currently anticipate or that these efforts may not result in revenues, which would further increase our losses.

We believe that our technology enables a variety of business models, including but not limited to sole manufacturing, joint ventures, and licensing, each of which may involve certain risks and tradeoffs.

We believe that our technology enables a variety of business models and presents opportunities with a variety of potential customers, such as automotive OEMs, end-users, and licensees, as applicable. In addition to the collaboration with PowerCo, which contemplates a licensing arrangement, we may license technology to other manufacturers, operate our own manufacturing facilities, or enter into joint venture arrangements, among other approaches, each with potential risks and tradeoffs.

Operating solely-owned manufacturing facilities would allow us full control over production and quality, helping us protect proprietary processes and maintain consistency. However, this approach would require significant capital investment in infrastructure, equipment, and workforce, leading to increased operational expenses and financial exposure, and the capital required for such investment may not be available on attractive terms, if at all. Managing manufacturing operations also exposes us to risks such as supply chain disruptions, production delays, cost overruns, equipment failures, and scaling challenges, which may hinder our ability to meet demand or maintain competitive pricing. Without third-party manufacturers to rely on, any inefficiency or failure in our facilities could have a materially adverse effect on our business, profitability, and reputation.

In a joint venture arrangement, we would collaborate with third parties to commercialize and manufacture our battery technology, sharing both risks and resources. This could provide access to additional capital, markets, and expertise, but also introduces risks related to control and management. Disagreements with partners over operational decisions, strategy, or investments could disrupt our business plans, while our reliance on their performance could pose additional risks. If a joint venture partner fails to fulfill their obligations or experiences financial or operational issues, it could lead to inefficiencies, delays, or disruptions that harm our business and reputation.

Under a licensing model, for example if we enter into the PowerCo IP License Agreement with PowerCo, we can leverage our battery technology by licensing it to third parties for commercialization and manufacturing. This approach could reduce capital requirements by limiting investments in infrastructure and operations and potentially enable faster market penetration. However, licensing could lead to lower revenue, reduced control over production, and distribution challenges. Licensing agreements may also pose risks of third-party noncompliance, inconsistent execution, quality issues, or competitive disadvantages. Additionally, relying on third-party licensees could result in missed market opportunities or reputational damage due to negative association with certain third parties, ultimately impacting our profitability and growth.

Aside from the business models described above, if we pursue other types of arrangements or business models, we potentially face other risks and tradeoffs that could have a materially adverse effect on our business, profitability, and reputation.

Our expectations and targets regarding when we will achieve various technical, pre-production and production objectives depend in large part upon assumptions and analyses developed by us. If these assumptions or analyses prove to be incorrect, we may not achieve these milestones when expected or at all.

Our expectations and targets regarding when we will achieve various technical, pre-production and production objectives reflect our current expectations and estimates, and are projections based on information readily available to us when setting such milestones. When or whether we will achieve these objectives within the projected timelines depends on a number of factors, many of which are outside our control, including, but not limited to:

- success and timing of development activity;
- unanticipated technical or manufacturing challenges or delays;
- technological developments relating to lithium-ion, lithium-metal solid-state or other batteries that could adversely affect the commercial potential of our technologies;
- whether we can obtain sufficient capital to continue our research and development activities, build our manufacturing facilities and sustain and grow our business;
- adverse developments in our collaboration with Volkswagen, including termination of the PowerCo Collaboration Agreement or PowerCo IP License Agreement, if entered into, delays in achieving the milestones set forth in the PowerCo Collaboration Agreement or failing to meet the milestones prerequisite to our entering into the PowerCo IP License Agreement;
- our ability to manage our growth;
- whether we can manage relationships with key suppliers;
- our ability to retain existing key management, integrate recent hires and attract, retain and motivate qualified personnel; and
- the overall strength and stability of domestic and international economies.

Unfavorable changes in any of these or other factors, most of which are beyond our control, could materially and adversely affect our ability to achieve our objectives when planned and our business, results of operations and financial results.

Our ability to manage our business is highly dependent on IT systems and our website, systems, and data may be subject to intentional or inadvertent disruption, security incidents, or alleged violations of laws, regulations, or other obligations relating to data handling could adversely impact our reputation and future sales.

We are highly dependent upon a variety of information systems to operate our business. The information systems (including internal and external systems such as our website or systems used by partners, service providers, suppliers, customers, and other third parties') supporting our research, development, and the manufacturing of our batteries, and the data we maintain, including our intellectual property, may be subject to intentional or inadvertent disruption, such as telecommunications or network failures, security incidents, or alleged violations of laws, regulations, or other obligations relating to data handling. Any such matters, or perceptions that any of them have occurred, could result in private claims, demands and litigation, regulatory investigations and other proceedings, as well as fines and other liabilities, which could adversely impact our reputation and future sales. We expect to face significant challenges with respect to information security and maintaining the security and integrity of our systems and other systems used in our business, as well as with respect to the data stored on or processed by these systems. Advances in technology, including increased adoption of artificial intelligence technology by us and third-party service providers, suppliers, customers, and other third-party partners, an increased level of sophistication and expertise of hackers, new discoveries in the field of cryptography or other technological developments can result in actual or perceived compromise or breach of, or other security incident with respect to, the systems used in our business or of security measures used in our business to protect intellectual property, confidential information, personal information, and other data. Additionally, remote working further increases the security threats that we and our third-party service providers, suppliers, and customers face.

The availability and effectiveness of our batteries, and our ability to conduct our business and operations, depend on the continued operation of information technology and communications systems, some of which we have yet to develop or otherwise obtain the ability to use. We must routinely update our IT infrastructure and our various IT systems throughout the organization, or we may not continue to meet our current and future business needs. Systems used in our business by us and our third-party service providers, suppliers, customers, and partners, including data centers and other information technology systems, may also be vulnerable to damage or interruption. Such systems could also be subject to physical or electronic break-ins, corporate sabotage or state-sponsored espionage, and intentional acts of vandalism, infection by ransomware, viruses, or other malware, as well as disruptions and security incidents as a result of non-technical issues, including intentional or inadvertent acts or omissions by employees, service providers, suppliers, customers or others, to among other things, properly implement our software and related security patches and updates. We use service providers to help provide certain services, and any such service providers face similar security and system disruption risks as us. Some of the systems used in our business are not and will not be fully redundant, and our disaster recovery planning cannot account for all eventualities. Any data security incidents or other disruptions to any data centers or other systems used in our business by us and our third-party service providers, suppliers, and customers could result in lengthy interruptions in our service and may adversely affect our business, prospects, financial condition and operating results.

Significant capital and other resources may be required in efforts to enhance our current IT systems, implement new IT systems, protect against information security breaches, security incidents, and system disruptions, or to alleviate problems caused by actual or suspected information security breaches and other data security incidents and system disruptions. The resources required may increase over time as the methods used by hackers and others engaged in online criminal activities and otherwise seeking to obtain unauthorized access to systems or data, and to disrupt systems, are increasingly sophisticated and constantly evolving. In addition, the risk of cyberattacks may be heightened due to the war in Ukraine. Such cyberattacks could disrupt the economy more generally and could also impact our operations either directly or indirectly.

Security breaches and/or incidents can also remain undetected for an extended period, including situations in which hackers mine data over time or optimize the timing and potency of their cyberattacks or disruptions. Any failure or perceived failure by us or our service providers, suppliers, customers, and partners, to prevent information security breaches or other security incidents or system disruptions, or to comply with privacy policies or any actual or asserted legal obligations relating to privacy or information security, or any compromise of security that results in or is perceived or reported to result in unauthorized access to, or loss, theft, alteration, release, transfer, unavailability, or other processing of, our information, or any personal information or other customer data or confidential information, that we or our service providers, suppliers, customers, and partners, maintain or otherwise process, could cause our potential customers to lose trust in us, result in loss or theft of proprietary or sensitive data and intellectual property, could harm our reputation and competitive position and could expose us to legal claims, demands, and litigation, regulatory investigations and proceedings, and fines, penalties, and other liability. Any such actual or perceived security breach, security incident or disruption could also divert the efforts of our technical and management personnel and could require us to incur significant costs and operational consequences in connection with investigating, remediating, eliminating and putting in place additional equipment and devices designed to prevent actual or perceived security breaches and other incidents and system disruptions.

Additionally, our handling of data relating to individuals is subject to a variety of laws and regulations relating to privacy, data protection, and data security, and may become subject to additional obligations, including contractual obligations, relating to our maintenance and other processing of this data. Laws, regulations, and other actual and potential obligations relating to privacy, data protection, and data security are evolving rapidly, and we expect to potentially be subject to new laws and regulations, or new interpretations of laws and regulations, in the future in various jurisdictions. These laws, regulations, and other obligations, and changes in their interpretation, could require us to modify our operations and practices, restrict our activities, and increase our costs, and it is possible that these laws, regulations, and other obligations may be inconsistent with one another or be interpreted or asserted to be inconsistent with our business or practices. Any failure or perceived failure to comply with any applicable laws, regulations, or other obligations relating to privacy, data protection, or data security could also result in regulatory investigations and proceedings, and misuse of or failure to secure data relating to individuals could also result in claims and proceedings against us by governmental entities or others, penalties and other liability, and damage to our reputation and credibility, and could have a negative impact on potential future revenues and profits.

In addition, if any issues concerning the IT systems result in, or contribute to, a delay in our timely reporting of our results of operations for any period or our not filing one or more periodic reports with the SEC on time, the price of our Class A Common Stock could decline substantially, and we could face costly lawsuits, including securities class actions, and also could impair our ability to raise necessary capital to run our operations and progress our product development efforts. Further, as we are dependent upon our ability to gather and promptly transmit accurate information to key decision makers, our business, results of operations and financial condition may be adversely affected if our information systems do not allow us to transmit accurate information, even for a short period of time. Failure to properly or adequately address these issues could negatively impact our ability to perform necessary business operations, which could adversely affect our reputation, competitive position, business, results of operations and financial condition. While our enterprise resource planning (“ERP”) system is designed to accurately maintain our books and records and provide important information to our management team for use in the operation of the business if the ERP system or any other implemented system does not operate as intended, it could adversely affect our financial reporting systems and our ability to produce financial reports and process transactions.

We are exposed to risks related to the use of artificial intelligence by us, our suppliers, partners and competitors.

We are increasingly incorporating artificial intelligence capabilities into our business operations. Artificial intelligence technology is complex and rapidly evolving and presents risks and challenges that may impact our business, including subjecting us to significant competitive, legal, regulatory, operational and other risks. There is no guarantee that use of artificial intelligence will enhance our technologies, benefit our business operations, or produce products and services that are preferred by our partners and customers. Additionally, artificial intelligence algorithms or training methodologies may be flawed, and datasets may contain irrelevant, insufficient, biased or proprietary information, including the intellectual property of others, which can result in output errors and inadvertent infringement of others’ intellectual property rights, and may give rise to legal liability and materially harm our business. Our competitors may also be more successful in their artificial intelligence strategy and develop competitive products with the aid of artificial intelligence technology. As a result, any issues in the development and use of artificial intelligence by us or our suppliers, partners and competitors, combined with an uncertain regulatory environment, may result in reputational harm, liability, or other adverse consequences to our business operations.

Evolving scrutiny and changing expectations from global regulators and our stakeholders regarding our environmental, social and governance (ESG) practices and value proposition could adversely affect our business, brand and reputation.

There is evolving focus, including from global regulators and stakeholders such as our investors, customers and partners, on ESG matters, including climate change, environmental stewardship, diversity and inclusion, and sustainability strategy. In particular, increasing public awareness and concern over climate change may result in new or increased legal and regulatory requirements to reduce or mitigate the effects of climate change on the environment. Increased costs of energy or compliance with emissions standards due to increased legal or regulatory requirements may cause disruptions in or increased costs associated with our development and manufacturing operations. It is also possible that requirements or guidance in one jurisdiction, such as the United States, may contradict or diverge from requirements or guidance in other jurisdictions, such as the European Union. Agreements with customers and partners, such as the PowerCo Collaboration Agreement, include and may include obligations related to sustainability targets. There can be no certainty that we will manage such matters successfully, or that we will successfully meet the (at times contradictory) expectations of stakeholders as to our proper role with respect to ESG matters. Any failure or perceived failure to timely manage, respond, or meet ESG related contractual, legal or regulatory requirements, expectations or targets, including with respect to reducing our or our partners' impact on the environment, or addressing climate change related impacts or other sustainability concerns, could subject us to significant costs and liabilities and adversely affect our business and reputation.

From time to time, we are involved in litigation, regulatory actions or government investigations and inquiries, which could have an adverse impact on our profitability and consolidated financial position.

We are involved in a variety of litigation, other claims, suits, regulatory actions or government investigations and inquiries and commercial or contractual disputes that, from time to time, are significant. See [Note 7, Commitments and Contingencies](#), to the consolidated financial statements included elsewhere in this Report for a description of certain litigation matters that we are involved in.

In addition, from time to time, we may also be involved in legal proceedings and investigations arising in the normal course of business including, without limitation, commercial or contractual disputes, including warranty claims and other disputes with potential customers and suppliers; intellectual property matters; personal injury claims; environmental issues; tax matters; and employment matters including actions under California's Private Attorney General Act.

It is difficult to predict the outcome or ultimate financial exposure, if any, represented by these matters, and there can be no assurance that any such exposure will not be material. Such claims may also negatively affect our reputation.

We may become subject to product liability claims, which could harm our financial condition liquidity and reputation if we are not able to successfully defend or insure against such claims.

We may become subject to product liability claims, even those without merit, which could harm our business, prospects, reputation, operating results, and financial condition. We face inherent risk of exposure to claims in the event our batteries do not perform as expected, fail to meet relevant safety standards or requirements, or malfunction resulting in personal injury or death. Our risks in this area are particularly pronounced given our batteries have not yet been commercially tested or mass produced. A successful product liability claim against us could require us to pay a substantial monetary award. Moreover, a product liability claim could generate substantial negative publicity about our batteries and business and inhibit or prevent commercialization of other future battery candidates, which would have a material adverse effect on our brand, business, prospects and operating results. Any insurance coverage might not be sufficient to cover all potential product liability claims. Any lawsuit seeking significant monetary damages either in excess of our coverage, or outside of our coverage, may have a material adverse effect on our reputation, business and financial condition. We may not be able to secure additional product liability insurance coverage on commercially acceptable terms or at reasonable costs when needed, particularly if we do face liability for our products and are forced to make a claim under our policy.

We are subject to anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions and similar laws, and non-compliance with such laws can subject us to administrative, civil and criminal fines and penalties, collateral consequences, remedial measures and legal expenses, all of which could adversely affect our business, results of operations, financial condition and reputation.

We are subject to anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions and similar laws and regulations in various jurisdictions in which we conduct or in the future may conduct activities, including the U.S. Foreign Corrupt Practices Act (“FCPA”), the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.K. Bribery Act 2010, the U.S. Bank Secrecy Act, as amended, and other similar laws and regulations. The FCPA and the U.K. Bribery Act 2010 prohibit us and our officers, directors, employees and business partners acting on our behalf, including agents, from corruptly offering, promising, authorizing or providing anything of value to a “foreign official” for the purposes of influencing official decisions or obtaining or retaining business or otherwise obtaining favorable treatment. The U.K. Bribery Act also prohibits non-governmental “commercial” bribery and soliciting or accepting bribes. The U.S. Bank Secrecy Act, particularly 18 U.S.C. §§ 1956, 1957, generally prohibits persons from engaging in transactions where the proceeds at issue derive from, or are intended to facilitate or conceal, illegal activity, or where a party to the transaction is “willfully blind” to the illegal sources of the proceeds.

We may leverage third parties to conduct our business. We, our directors, officers, employees, representatives, consultants, agents, and business partners may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities and we may be held liable for the corrupt or other illegal activities of these directors, officers, employees, representatives, consultants, agents, and business partners even if we do not explicitly authorize such activities. The FCPA also requires companies to make and keep books, records and accounts that accurately reflect transactions and dispositions of assets and to maintain a system of adequate internal controls and compliance procedures designed to prevent such violations. While we have policies and procedures designed to ensure compliance with these laws and regulations, we cannot guarantee that none of our directors, officers, employees, representatives, consultants, agents, and business partners will not engage in improper conduct for which we may be held responsible.

Any allegations of or violations of anti-corruption, anti-bribery, anti-money laundering, or financial and economic sanctions laws could subject us to whistleblower complaints, adverse media coverage, investigations, and severe administrative, civil and criminal sanctions, collateral consequences, remedial measures and legal expenses, all of which could materially and adversely affect our business, results of operations, financial condition and reputation. Responding to any investigation or action will likely result in a materially significant diversion of management’s attention and resources and significant defense costs and other professional fees. In addition, changes in economic sanctions laws in the future could adversely impact our business and investments in our Class A Common Stock.

Inflation and increased interest rates may adversely affect our financial condition and results of operations.

Our operations could be adversely impacted by inflation, primarily due to higher material, labor, and construction costs. To date, we do not believe that inflation has had a material impact on our results of operations, capital resources or liquidity; however, we have experienced increases in prices of raw materials, components and labor costs. Our future mitigation strategies may include considering alternative vendors, vertically integrating certain aspects of our supply chain and redesigning our product or production process. It is difficult to determine what impact inflationary pressures will have on our long-term growth strategies, as there is uncertainty regarding how long higher levels of inflation may persist, and to what level these increased costs will affect commercialization of our product. If we are not able to fully offset higher costs through price increases or other corrective measures, this may adversely affect our business, financial condition and results of operations.

Our management has limited experience in operating a public company.

Some of our executive officers have limited experience in the management of a publicly traded company. As a public company, we are subject to significant regulatory oversight and reporting obligations under federal securities laws, and certain executives’ limited experience in dealing with the increasingly complex laws pertaining to public companies could be a significant disadvantage in that it is likely that an increasing amount of their time may be devoted to these activities which will result in less time being devoted to the management and growth of our Company. Additionally, we may not have adequate personnel with the appropriate level of knowledge, experience, and training in the accounting policies, practices or internal controls over financial reporting required of public companies in the United States.

We may be negatively impacted by epidemics, pandemics, and other outbreaks.

We face various risks related to epidemics, pandemics, and other outbreaks. For example, the COVID-19 pandemic resulted in changes in consumer and business behavior, a severe market downturn, and restrictions on business and individual activities, as well as in significant volatility in the global economy and reduced economic activity. The spread of COVID-19 also impacted our potential customers and our suppliers by disrupting the manufacturing, delivery and overall supply chain of battery, EV and equipment manufacturers and suppliers and led to a global decrease in battery and EV sales in markets around the world. In response to the pandemic, government authorities implemented numerous measures to try to contain the virus, such as travel bans and restrictions, quarantines, stay-at-home or shelter-in-place orders, and business shutdowns, which affected our operations and the operations of our suppliers, vendors and business partners.

In the event of a further epidemic, pandemic or other outbreak, we may face similar adverse effects as experienced during the COVID-19 pandemic. For example, we may be required to take a variety of measures as may be required by government authorities or that we determine are in the best interests of our employees, suppliers, vendors and business partners, and any such measures may adversely affect our future manufacturing plans, supply chain sales and marketing activities, business and results of operations.

The extent to which any such epidemic, pandemic or other outbreak would impact our business, prospects and results of operations will depend on future developments, which are highly uncertain and cannot be predicted, including the duration and spread of any such epidemic, pandemic or other outbreak, the actions to contain the outbreak or treat its impact, including the development, distribution and administration of effective vaccines, a waning immunity among persons already vaccinated, an increase in fatigue or skepticism with respect to initial or booster vaccinations, the severity of breakthrough cases and variants, including potentially vaccine-resistant variants, and how quickly and to what extent normal economic and operating activities can resume. Even after any such epidemic, pandemic or other outbreak has subsided, we may continue to experience an adverse impact to our business as a result of the global economic impact, including any recession that has occurred or may occur in the future, or due to changes in consumer behavior, for example an increase in remote work leading to a decrease in demand for automobiles.

Our Regulatory Risks

Global trade issues and changes in and uncertainties with respect to trade policies and export regulations, including import and export license requirements, trade sanctions or restrictions, tariffs and international trade disputes, could substantially harm our business and operating results.

Our batteries, and the sale of EVs and motor vehicles in general, are subject to substantial regulation under international, federal, state and local laws, including export control laws. We expect to incur significant costs in complying with these regulations. Regulations related to the battery and EV industry and alternative energy are currently evolving and we face risks associated with changes to these regulations as well as potential for heightened regulatory scrutiny. For example, laws and regulations may be passed that make manufacturers financially responsible for the collection, treatment, recycling and disposal of certain products, including batteries for EVs. The costs of complying with such requirements, as they now exist or as may be introduced in the future, and the associated administrative burden could adversely affect our financial condition and results of operations, particularly if we are unable to pass on such costs to our customers. The costs of complying with such requirements, as they now exist or as may be introduced in the future, and the associated administrative burden could adversely affect our financial condition and results of operations, particularly if we are unable to pass on such costs to our customers.

Internationally, there may be laws and regulations in the United States or in jurisdictions we have not yet entered or laws we are unaware of in jurisdictions we have entered that may restrict our sales or other business practices. The laws in this area can be complex, difficult to interpret and may change over time. Continued regulatory limitations and other obstacles that may interfere with our ability to engage with partners or commercialize our products can negatively impact demand for our future product, increase our supply chain complexity and manufacturing costs, reduce the competitiveness of our products, or restrict our ability to sell products or raise capital, any or all of which could have a negative and material impact on our business, prospects, financial condition and results of operations.

In addition, the complex relationships among the United States and the countries in which we may conduct business, pose inherent risk that political, diplomatic, and national security factors can lead to global trade restrictions and changes in trade policies and export regulations that affect the EV industry. As geopolitical conflicts, such as wars in Ukraine and in the Middle East and the U.S.-China trade tensions continue, or possibly escalate, this may lead to further disruption, instability and volatility in global markets and industries that could negatively impact our operations and our supply chain. The U.S. government and other governments have already imposed severe sanctions and export controls against Russia and Belarus, as well as entities in China and other countries that are supporting Russia's invasion of Ukraine, and may yet impose additional sanctions and controls. The impact of these measures, as well as potential responses to them by Russia, China, and other countries, is currently unknown and they could adversely affect the global economy, our business, supply chain, partners or customers.

The U.S. government has and may continue to make significant changes in U.S. trade policy, including further expanding its controls on exports and imposing new tariffs on imports globally, which could negatively impact U.S. trade and result in the adoption of retaliatory tariffs by other countries as well, leading to a global trade war. More specifically, the U.S. government has imposed significant tariffs on and prohibited imports of products from China. In retaliation, China has implemented additional tariffs on a wide range of American products, imposed controls on exports of rare earth minerals to the United States and may impose additional tariffs and controls on inputs used by the EV industry. Such tariffs and prohibitions, if expanded to other categories, could have a significant impact on our business, adversely affect supply chains, and may impact our ability to access materials or production equipment in a timely manner, including around the importation of parts of our batteries and certain production equipment that is manufactured in, or with inputs from, China. If we attempt to renegotiate prices with suppliers or diversify our supply chain in response to tariffs, such efforts may not yield immediate results or may be ineffective. We might also consider increasing prices to our customers once we commence sales of our products; however, this could reduce the competitiveness of our products and adversely affect net sales.

We cannot predict what actions may ultimately be taken with respect to tariffs or trade relations between the United States and other countries, what products may be subject to such actions, or what actions may be taken by the other countries in retaliation. If we fail to manage these dynamics successfully, gross margins and profitability could be adversely affected. As of the date of this report, tariffs have not had a material impact on our business, but should there be further disruption, instability and volatility in global markets and industries resulting from the dynamics of geopolitical relations between the United States and China, or the United States and other countries, our business could be materially and adversely affected, including due to volatility of prices and lead times of equipment and materials sourced from or with a supply chain passing through China and other impacted countries.

The U.S. or foreign governments may take additional administrative, legislative, or regulatory action that could materially interfere with our ability to sell products in certain countries. Sustained uncertainty about, or worsening of, current global economic conditions and further escalation of trade tensions between the United States and its trading partners, especially China, could result in a global economic slowdown and long-term changes to global trade, including retaliatory trade restrictions which may have an adverse effect on our business, financial condition and results of operations. Any alterations to our business strategy or operations made in order to adapt to or comply with any such changes would be time-consuming and expensive, and certain of our competitors may be better suited to withstand or react to these changes.

To the extent regulations change, we may not be in compliance with applicable international, federal, state or local regulations, which would have an adverse effect on our business. Compliance with changing regulations could be burdensome, time consuming, and expensive. To the extent compliance with new regulations is cost prohibitive, our business, prospects, financial condition and operating results would be adversely affected.

We are subject to environmental and safety risks and requirements relating to environmental and safety regulations and environmental remediation matters which could adversely affect our business, results of operation and reputation.

Battery technology development and manufacturing involves certain inherent environmental and safety risks. Some of our employees handle hazardous materials, including chemicals, such as materials containing lithium and sulfide, that pose specific challenges. We have engineering and administrative controls in place for handling these materials along with any hazardous substances and the employees who handle such materials are required to follow certain safety procedures, including the use of personal protective equipment such as respirators where needed, chemical goggles, and other protective clothing. In addition to exposure, materials with lithium and sulfides have the propensity to start fires. While we believe we have taken precautionary measures which include engineering controls, personal protective equipment, procedures and training to prevent human exposures and fires, including annual safety training for our employees, we cannot ensure that human or environmental exposure to hazardous materials used in our development activities and prototype products will not occur. Any such exposure could result in future third-party claims against us, damage to our reputation, and heightened regulatory scrutiny, remedial and corrective action obligations or the incurrence of capital expenditures, any of which could limit or impair our ability to attract customers. The occurrence of future events such as these could have a material adverse effect on our business, financial condition and results of operations.

We utilize new manufacturing equipment, techniques and processes, including specialized automated manufacturing equipment within our separator, cathode, and cell assembly process areas. These equipment and processes pose hazards typical to manufacturing such as but not limited to hazardous materials, moving parts, and high voltage and/or high current electrical systems typical of large manufacturing equipment and related safety incidents. Although we conduct equipment and process reviews before use, we may not be able to prevent the occurrence of safety incidents that damage machinery or our products, slow or stop production, or harm employees. Consequences to such safety incidents may include litigation, regulation, fines, increased insurance premiums, personal injury to or death of our employees, mandates to temporarily halt production, workers' compensation claims, damage to our facilities, or other actions that impact our company brand, finances, or ability to operate.

In addition to the risks listed above, we are subject to numerous federal, state and local environmental laws and regulations governing, among other things, solid and hazardous waste storage, treatment and disposal, and remediation of releases of hazardous materials. There are significant capital, operating and other costs associated with compliance with these environmental laws and regulations. Environmental laws and regulations, including used battery recycling, recovery and reuse, are cost intensive activities that we support. Federal, state and local authorities also regulate a variety of matters, including, but not limited to, health, safety and permitting in addition to the environmental matters discussed above. New legislation and regulations may require us to make material changes to our operations, resulting in significant increases to the cost of production.

Risks Related to Ownership of Our Common Stock and Our Certificate of Incorporation and Bylaws Provisions

Our Class A Common Stock has been and may in the future continue to be subject to extreme volatility.

The trading price of our Class A Common Stock has been and may in the future continue to be subject to extreme volatility. For example, from November 27, 2020, the date our Class A Common Stock began trading on the NYSE, through March 31, 2025, our Class A Common Stock has experienced an intra-day trading high of \$132.73 per share and an intra-day trading low of \$4.03 per share. At certain times during such period, the daily fluctuations in the trading price of our Class A Common Stock were substantially greater than 10%. We cannot predict the magnitude of future fluctuations in the trading price of our Class A Common Stock. The trading price of our Class A Common Stock may be affected by a number of factors, including events described in the risk factors set forth in this Report and in our other reports filed with the SEC from time to time, as well as our operating results, financial condition and other events or factors. Any of the factors listed below could have a material adverse effect on your investment in our securities. Factors affecting the trading price of our securities may include:

- announcements by us or our competitors regarding technical developments and levels of performance achieved by our or their battery technologies;
- announcements by us regarding the timing of our production objectives, including regarding our pilot line and our QSE-5 product;
- announcements by us or Volkswagen regarding developments in our relationship with Volkswagen, or changes in Volkswagen's investment in us;
- misinformation or negative information available in public media published or disseminated by third parties and not otherwise attributable to official statements made by us;
- our ability to bring our products and technologies to market on a timely basis, or at all;
- our operating results or development efforts failing to meet the expectation of securities analysts or investors in a particular period;
- actual or anticipated fluctuations in our quarterly financial results or the quarterly financial results of companies perceived to be similar to us;
- changes in the market's expectations about our operating results or the EV industry;
- success of competitors actual or perceived development efforts;
- changes in financial estimates and recommendations by securities analysts concerning us or the battery industry in general;
- operating and share price performance of other companies that investors deem comparable to us;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain and assert intellectual property protection for our technologies;
- changes in laws and regulations affecting our business;
- our ability to meet compliance requirements;
- commencement of, resolution of, or involvement in, litigation involving us;
- contests, actions or requests by activist stockholders seeking to effect change in our strategic operations;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- the trading volume of shares of our Class A Common Stock;
- the level of demand for our stock, including the amount of short interest in our Class A Common Stock;
- any major change in our Board or management;

- sales of substantial amounts of the shares of Class A Common Stock by our directors, executive officers or significant stockholders, including Volkswagen, or the perception that such sales could occur;
- changes in the estimates and assumptions that we make in the preparation of our financial statements that may result in the fluctuation of our results of operations; and
- general economic and political conditions such as recessions, interest rates, fuel prices, international currency fluctuations, acts of terrorism, hostilities or the perception that hostilities may be imminent, and military conflict and acts of war.

Broad market and industry factors may materially harm the market price of our securities irrespective of our operating performance and such impact may be exacerbated during periods of greater economic and market volatility. The stock market has experienced price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of securities may not be predictable. A loss of investor confidence in the market or the securities of other companies which investors perceive to be similar to us could depress the market price of our securities regardless of our business, prospects, financial conditions or results of operations. A decline in the market price of our securities also could adversely affect our ability to issue additional securities and our ability to obtain additional financing in the future.

Following certain periods of volatility in the market price of our securities, we may become the subject of securities litigation. We have experienced and may in the future experience additional litigation following periods of volatility. This type of litigation may result in substantial costs and a diversion of management's attention and resources.

Sales of substantial amounts of our Class A Common Stock in the capital markets by us or our stockholders could result in additional dilution of the percentage ownership of our stockholders and could reduce the price of our Class A Common Stock.

Sales of a substantial number of shares of our Class A Common Stock in the capital markets could result in additional dilution of the percentage ownership of our stockholders, and the perception that such sales could occur could adversely affect the market price of our Class A Common Stock, which may make it more difficult for you to sell your Class A Common Stock at a time and price that you deem appropriate.

We have filed registration statements with the SEC to register shares for certain stockholders to sell their shares. We have also filed registration statements with the SEC to register shares reserved for future issuance under our equity compensation plans. Subject to there being effective registration statements covering the sales of such shares, the satisfaction of applicable exercise periods and expiration of any applicable lock-up agreements, the shares issued upon exercise of outstanding stock options and settlement of outstanding restricted stock units will be available for immediate resale in the open market.

We completed underwritten public offerings in March 2021 and August 2023 and made sales pursuant to the ATM offering during the year ended December 31, 2024 and the three months ended March 31, 2025. All shares sold pursuant to such offerings are freely tradable without restrictions or further registration under the Securities Act, except for any shares sold to or purchased by any of our "affiliates" as defined in Rule 144 under the Securities Act. We may in the future offer for sale additional shares of our Class A Common Stock or other securities convertible into or exchangeable for our Class A Common Stock. For example, we may use the ATM offering or conduct other capital raises in the future, any of which may be dilutive to existing stockholders. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by you for your existing shares, and investors purchasing shares or other securities in future offerings could have rights superior to existing stockholders. A significant portion of our total outstanding shares are eligible to be sold into the market, which could cause the market price of our Class A Common Stock to drop significantly, even if our business is doing well.

Developing solid-state batteries is capital-intensive, and we may not be able to raise additional capital on attractive terms, if at all. If we cannot raise additional capital when needed, our operations and prospects could be materially and adversely affected.

The development, design, manufacture and license or sale of batteries is a capital-intensive business, which to date we have financed through joint venture arrangements, other third-party financings and issuance of additional equity. As a result of the nature of our business, we can be expected to continue to sustain substantial operating expenses without generating sufficient revenues to cover expenditures. Over time, we expect that we will need to raise additional funds, including through entry into new collaboration, license or joint venture arrangements, through the issuance of equity, equity-related or debt securities or through obtaining credit from financial institutions to fund, together with our principal sources of liquidity, ongoing costs such as research and development relating to our batteries, the construction and scale up of our pilot line, any significant unplanned or accelerated expenses, and new strategic investments. We cannot be certain that additional capital will be available on attractive terms, if at all, when needed, which could materially and adversely affect our financial condition, results of operations, business and prospects.

Any failure by our management to use the proceeds effectively from our completed public offerings or any future offerings of equity or debt instruments, whether from the ATM or other sources of liquidity, such as the royalty fee under the PowerCo IP License Agreement, if entered into, could harm our business, and we may invest such proceeds in a manner that does not produce income or that loses value, which may negatively impact the market price of our Class A Common Stock.

Short sellers may engage in manipulative activity that could drive down the market price of our Class A Common Stock.

Short selling is the practice of selling securities that the seller does not own but rather has borrowed or intends to borrow from a third party with the intention of later buying lower priced identical securities to return to the lender. Accordingly, it is in the interest of a short seller of our Class A Common Stock for the price to decline. Some short sellers publish, or arrange for the publication of, opinions about or characterizations of our business which may create negative market momentum, even if they contain false and misleading statements about our Company. Issuers, like us, whose securities have historically had limited trading history or volumes and/or have been susceptible to relatively high volatility levels can be particularly vulnerable to such short seller attacks. No assurances can be made that similar declines in the market price of our Class A Common Stock will not occur in the future, in connection with the activities of short sellers. If we are subject to unfavorable allegations promoted by short sellers, we may have to expend a significant amount of resources to investigate such allegations and defend ourselves.

We are required to use judgments in making estimates and assumptions in the preparation of our consolidated financial statements, and our results of operations may fluctuate significantly as a result of changes to our estimates and assumptions.

Certain of our accounting policies require the application of subjective or complex judgments, often requiring us to make estimates about the effects of matters that are inherently uncertain and may change in subsequent periods, or for which the use of different estimates that could have reasonably been used in the current period would have had a material impact on our financial condition and results of operations.

All stock-based awards are required to be recognized based on their estimated grant date fair values. The amount recognized could vary depending on a number of assumptions or changes that may occur. We have granted stock-based awards to certain members of our management team pursuant to the EPA Program. EPA Program awards have a vesting schedule based on the attainment of both performance (e.g., business milestones) and market conditions (e.g., stock price target).

For awards containing service, performance and market conditions, where all conditions must be satisfied prior to vesting, such as the EPA Program awards, compensation expense is recognized over the requisite service period, which is based on management's estimate of the probability and timing of the performance condition being satisfied, assessed at each reporting period. These estimates require management's judgments and changes in the probability-based assumptions can materially affect the timing of recognition of stock-based compensation expense and consequently, the related amount recognized in our statements of operations and comprehensive income.

Concentration of ownership among a few stockholders and our executive officers, directors and their affiliates and the dual class structure of our Common Stock may prevent other stockholders from influencing significant corporate decisions, including the outcome of important transactions, including a change in control.

As of March 31, 2025, our executive officers, directors and their affiliates as a group and each of our stockholders who own 10% or more of our outstanding Class A Common Stock or our Class B Common Stock (together, the "Common Stock"), in the aggregate, beneficially own approximately 21.5% of our Class A Common Stock and 91.9% of our Class B Common Stock outstanding, representing approximately 53.5% of the vote. As a result, these stockholders, including Volkswagen, will be able to exercise a significant level of control over all matters requiring stockholder approval, including the election of directors, any amendment of our Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and approval of significant corporate transactions. In addition, Volkswagen holds the right to designate two directors to our Board. Currently, Dr. Günther Mendl, Head of the Center of Excellence Battery at Volkswagen AG, and Sebastian Schebera, Head of Strategic Partnerships at Volkswagen AG, are members of our Board. This control could have the effect of delaying or preventing a change of control or changes in our management and will make the approval of certain transactions difficult or impossible without the support of these stockholders and of their votes. Further, shares of Class B Common Stock have 10 votes per share, while shares of Class A Common Stock have one vote per share. Even though the holders of our Class B Common Stock are not party to any agreement that requires them to vote together, they may have interests that differ from yours and may vote in a way with which you disagree, and which may be adverse to your interests. This concentrated control may have the effect of delaying, preventing or deterring a change in control of us, could deprive our stockholders of an opportunity to receive a premium for their capital stock as part of a sale of us, and might ultimately affect the market price of shares of our Class A Common Stock.

Our dual class structure may depress the trading price of the Class A Common Stock.

We cannot predict whether our dual class structure will result in a lower or more volatile market price of the Class A Common Stock, in adverse publicity, or in other adverse consequences. For example, certain index providers have in the past imposed, and may again in the future impose, restrictions on including companies with multiple-class share structures in certain of their indexes. In addition, several stockholder advisory firms oppose the use of multiple class structures. As a result, the dual class structure of our Common Stock may cause stockholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices or any actions or publications by stockholder advisory firms critical of our corporate governance practices or capital structure could adversely affect the value and trading market of the Class A Common Stock.

Anti-takeover provisions in our Certificate of Incorporation or Bylaws and under Delaware law could make an acquisition of us more difficult, limit attempts by our stockholders to replace or remove our management and limit the market price of our Class A Common Stock.

Our Certificate of Incorporation, our amended and restated Bylaws (the “Bylaws”) and Delaware law contain provisions which could have the effect of rendering more difficult, delaying or preventing an acquisition deemed undesirable by our Board. These provisions include:

- authorizing “blank check” preferred stock, which could be issued by our Board without stockholder approval and may contain voting, liquidation, dividend and other rights superior to the Common Stock;
- limiting the liability of, and providing indemnification and exculpation rights to, our directors and officers;
- prohibiting cumulative voting in the election of directors;
- providing that vacancies on our Board may be filled only by a majority of directors then in office of our Board, even though less than a quorum;
- prohibiting the ability of our stockholders to call special meetings;
- establishing advance notice procedures for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our Board;
- requiring that, once there are no longer any outstanding shares of the Class B Common Stock, any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specifying that special meetings of our stockholders can be called only by a majority of our Board, the chair of our Board, or our Chief Executive Officer;
- requiring the approval of holders of at least two-thirds of the outstanding voting securities to amend the Bylaws and certain provisions of the Certificate of Incorporation once there are no longer any outstanding shares of Class B Common Stock; and
- reflecting two classes of Common Stock.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (“DGCL”), which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder.

Our Bylaws provide, subject to limited exceptions, that the Court of Chancery of the State of Delaware and the federal district courts of the United States will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a chosen judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our Bylaws provide that, unless otherwise consented to by us in writing, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another State court in Delaware or the federal district court for the District of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for the following types of actions or proceedings: (i) any derivative action or proceeding brought on behalf of the Company; (ii) any action asserting a claim of breach of a fiduciary duty owed by, or otherwise wrongdoing by, any of our directors, officers, or other employees to us or our stockholders; (iii) any action arising pursuant to any provision of the DGCL or the Certificate of Incorporation or the Bylaws; (iv) any action to interpret, apply, enforce or determine the validity of the Certificate of Incorporation or the Bylaws; or (v) any other action asserting a claim that is governed by the internal affairs doctrine, in all cases subject to the court having jurisdiction over indispensable parties named as defendants. The Bylaws further provide that, unless otherwise consented to by the Company in writing, the federal district courts of the United States will be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act against any person in connection with any offering of the Company's securities, including any auditor, underwriter, expert, control person or other defendant. These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act.

Any person or entity purchasing, holding or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these provisions. These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum of its choosing for disputes with the Company or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. There is uncertainty as to whether a court would enforce such provisions, and the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings. It is possible that a court could find these types of provisions to be inapplicable or unenforceable, and if a court were to find the choice of forum provisions contained in the Bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results and financial condition.

We do not expect to declare any dividends in the foreseeable future.

We do not anticipate declaring any cash dividends to holders of our Common Stock in the foreseeable future. Consequently, investors may need to rely on sales of their shares after price appreciation, which may never occur, as the only way to realize any future gains on their investment.

General Risk Factors

If we are unable to attract and retain key employees and qualified personnel, our ability to compete could be harmed.

Our success depends on our ability to attract and retain our executive officers, key employees and other qualified personnel. Achieving this objective may be difficult due to many factors, including fluctuations in global economic and industry conditions, management or organizational changes, the availability of qualified employees, evolving immigration and export control policies and restrictions, the attractiveness of our compensation and benefit programs, our career growth and development opportunities, and our employment policies. Specifically, as we build our brand and become more well known, there is increased risk that competitors or other companies will seek to hire our personnel. None of our employees are bound by a non-competition agreement. The failure to attract, integrate, train, motivate and retain these personnel could seriously disrupt our operations and harm our business and prospects. Further, any future reduction in force may yield unintended consequences, such as making future retention and recruiting of qualified personnel more difficult, attrition beyond our planned reduction in workforce, decline in employee productivity and reduced employee morale, which may cause our remaining employees to seek alternative employment.

In addition, we are highly dependent on the services of our senior technical and management personnel, who would be difficult to replace. Any changes in our management team, including if any senior management or key technical personnel were to depart, could negatively impact our prospects, trigger further departures and limit our ability to operate and grow our business.

Our facilities or operations could be damaged or adversely affected by natural disasters and other catastrophic events outside of our control.

Our facilities or operations could be adversely affected by events outside of our control, such as natural disasters, wars, epidemics, pandemics, and other calamities. We cannot assure you that any backup systems will be adequate to protect us from the effects of fire, floods, typhoons, earthquakes, power loss, telecommunications failures, break-ins, war, riots, terrorist attacks or similar events. Any of the foregoing events may give rise to interruptions, breakdowns, system failures, technology platform failures or internet failures, which could cause the loss or corruption of data or malfunctions of software or hardware as well as adversely affect our ability to provide services.

Any economic, financial or banking crisis, or perceived threat of such a crisis, including a significant decrease in consumer confidence, may materially and adversely affect our business, financial condition and results of operations.

In recent years, the United States and global economies suffered dramatic downturns as a result of the COVID-19 pandemic, a deterioration in the credit markets and related financial crisis as well as a variety of other factors including, among other things, extreme volatility in security prices, severely diminished liquidity and credit availability, ratings downgrades of certain investments and declining valuations of others, and volatility in the capital and credit markets and uncertainty with respect to the health of the U.S. banking system. The U.S. and certain foreign governments have taken unprecedented actions in an attempt to address and rectify these extreme market and economic conditions by providing liquidity and stability to the financial markets. If in future crises governments refuse to take such actions or if the actions taken by these governments are not successful, and/or if the uncertainty in the macroeconomic environment, including elevated inflation concerns, elevated interest rates, tighter credit, currency fluctuations, or concerns or speculation about similar banking disruption events or risks, continues, the resulting adverse economic conditions could lead to market-wide liquidity problems and other disruptions, which may negatively impact the demand for our solid-state battery cells and may negatively impact our liquidity and ability to raise capital, if needed, on a timely basis and on acceptable terms or at all.

Our results of operations and financial condition could be materially affected by the enactment of legislation implementing changes in the U.S. or foreign taxation of business activities or the adoption of other tax reform policies.

As we expand the scale of our business activities, any changes in the U.S. or foreign taxation of such activities may increase our worldwide effective tax rate and harm our business, results of operations, and financial condition. For example, the Organisation for Economic Co-operation and Development has proposed implementing changes to existing tax laws, including a proposed 15% global minimum tax. Numerous countries have enacted tax legislation to adopt this global minimum tax beginning in 2024. Further, beginning in 2022, the Tax Cuts and Jobs Act of 2017 eliminated the option to deduct research and development expenditures currently and requires taxpayers to capitalize and amortize them over five or fifteen years. This requirement may impact our effective tax rate and our cash tax liability in future years.

In addition, the Inflation Reduction Act of 2022 (the “IRA”) includes numerous incentives and tax credits aimed at reducing the effects of climate change, such as the extension and expansion of EV charging infrastructure tax credits under Section 30C of the Internal Revenue Code of 1986 (the “Code”), the expansion of tax credits for EVs under Section 30D of the Code, the expansion of advanced manufacturing tax credits under Section 48C of the Code, and enactment of advanced manufacturing production credits for eligible component production in the United States under Section 45X of the Code. Such tax credits may potentially benefit incumbents more than new entrants, and consequently have adverse competitive effects for new entrants. However, the full impact of the IRA cannot be known, and many of the IRA’s provisions are not self-executing and require further guidance from the Internal Revenue Service (the “IRS”) and Treasury Department (the “Treasury”), which we expect to be issued in the coming months and years. On May 6, 2024, the Treasury and the IRS, in conjunction with the Department of Energy, released final regulations that contain guidance regarding the “battery component” and “critical mineral” sourcing requirements that must be met to be eligible to claim the Section 30D credit, including that at least 50% (for EVs placed in service in 2024) of the value of certain critical minerals in an EV’s battery are extracted and processed in the United States or a trade partner country, increasing by 10% per year through 2027 to 80% for EVs placed in service in 2027 and later years, and at least 60% of the value of the battery components in an EV’s battery are manufactured or assembled in North America, increasing by 10% per year through 2027 and to 100% for EVs placed in service in 2028 and later years. The final regulations also provide that an EV is not eligible for the Section 30D credit if any of its battery components or applicable critical minerals are supplied by a “foreign entity of concern,” such as Russia or China, regardless of its overall value percentage.

These incentives may expire on a particular date, end when the allocated funding is exhausted, or be reduced or terminated as a matter of regulatory or legislative policy. Any other reduction in rebates, tax credits or other financial incentives could materially reduce the demand for EVs, which could adversely impact the battery demand for EVs, or materially reduce the amount of incentives available for the manufacture of our products and have an adverse impact on our business. While certain tax credits and other incentives for EVs have been available in the past, there is no guarantee these programs will be available in the future. The impact of future changes to U.S. and foreign tax law on our business is uncertain and could be adverse, and we will continue to monitor and assess the impact of any such changes.

Our ability to use our deferred tax assets to offset future taxable income is subject to certain limitations, which may have a material impact on our business, financial condition or results of operations.

In general, under Section 382 of the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to use its pre-change net operating loss carryforwards (“NOLs”) to offset future taxable income. An “ownership change” is generally defined as a greater than 50 percentage point change (by value) in a corporation’s equity ownership by certain stockholders over a three-year period. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. As a result, even if we earn net taxable income in the future, our ability to use our pre-change NOLs and other tax attributes to offset such future taxable income or tax liability may be subject to limitations, which could potentially result in increased future income tax liability to us. We have determined that we have experienced ownership changes in the past. However, we do not believe that these ownership changes will result in limitation on the use of our NOL or other tax attributes. Future changes in our stock ownership, which may be outside of our control, may trigger additional ownership changes, which may further limit our ability to use our NOLs and other tax attributes.

There is also a risk that changes in law or regulatory changes, including suspensions on the use of net operating losses or tax credits, possibly with retroactive effect, may result in our existing net operating losses or tax credits expiring or otherwise being unavailable to offset future income tax liabilities. Limitations may also apply under state law. For example, recently enacted California legislation limits the use of state NOLs for tax years beginning on or after January 1, 2024 and before January 1, 2027.

Due to such limitations and changes in law, certain of our deferred tax assets may expire unutilized or underutilized, which could prevent us from offsetting future taxable income. We continue to assess the realizability of our deferred tax assets in the future. Future adjustments in our valuation allowance may be required, which may have a material impact on our quarterly and annual operating results.

Our insurance coverage may not be adequate to protect us from all business risks.

We may be subject, in the ordinary course of business, to losses resulting from products liability, cyber-attacks, accidents, acts of God, and other claims against us, for which we may have no insurance coverage. As a general matter, the policies that we do have may include significant deductibles or self-insured retentions, and we cannot be certain that our insurance coverage will be sufficient to cover all future losses or claims against us. A loss that is uninsured or which exceeds policy limits may require us to pay substantial amounts, which could adversely affect our financial condition and operating results.

There can be no assurance that we will be able to comply with the continued listing standards of the NYSE.

Our Class A Common Stock is listed on the NYSE under the symbol “QS”. If we were to fail to meet the requirements and standards of the NYSE and if the NYSE were to consequently delist our Class A Common Stock from trading on its exchange and we are not able to list such securities on another national securities exchange, we expect such securities could be quoted on an over-the-counter market. If this were to occur, we and our stockholders could face significant material adverse consequences including:

- a limited availability of market quotations for our securities;
- reduced liquidity for our securities;
- a limited amount of news and analyst coverage; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

We have incurred and will continue to incur significant expenses and administrative burdens as a public company, which could have an adverse effect on our business, financial condition and results of operations.

As a public company, we incur significant legal, accounting, administrative and other costs and expenses associated with being subject to the reporting requirements of the Exchange Act, corporate governance requirements and listing standards. In addition, the Sarbanes-Oxley Act of 2002 (the “Sarbanes-Oxley Act”), including the requirements of Section 404, as well as rules and regulations subsequently implemented by the SEC, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and any rules and regulations promulgated and to be promulgated thereunder, the PCAOB and the securities exchanges, impose additional reporting and other obligations on public companies. Meeting the standards and controls required of a public company in the United States requires significant ongoing costs. It is possible that we will be required to further expand our employee base and hire additional employees to support our operations, particularly as such standards and controls continue to change over time, which will increase our operating costs in future periods.

Compliance with evolving public company requirements may continue to increase costs and make certain activities more time-consuming. For example, we have created new Board committees and adopted new internal controls and disclosure controls and procedures. In addition, expenses associated with SEC reporting requirements already have been and will continue to be incurred. Furthermore, if any issues in complying with those requirements are identified, such as a material weakness in our internal controls that requires a restatement of previously issued consolidated financial statements, we could incur additional costs rectifying those or new issues, and the existence of these issues could adversely affect our reputation or investor perceptions of it. The cost of director and officer liability insurance is significant and risks associated with our status as a public company may make it more difficult to attract and retain qualified persons to serve on our Board or as executive officers. The reporting and other obligations imposed by these rules and regulations have resulted in and may continue to result in significant accounting, administrative, financial compliance and legal costs. These costs have required and may continue to require us to divert a significant amount of money that could otherwise be used to expand the business and achieve strategic objectives. Advocacy efforts by stockholders and third parties have prompted and in the future may also prompt additional changes in governance and reporting requirements, which could further increase costs.

If we experience material weaknesses in the future or otherwise fail to maintain an effective system of internal controls in the future, our business could be adversely affected, and we may not be able to accurately report our financial condition or results of operations which may adversely affect investor confidence in us and, as a result, the value of our Class A Common Stock.

As a public company, we are required, under Section 404 of the Sarbanes-Oxley Act, to furnish annual reports by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment needs to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. A material weakness is a deficiency or combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual and interim financial statements will not be detected or prevented on a timely basis. If we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective. The effectiveness of our controls and procedures may be limited by a variety of factors, including:

- faulty human judgment and simple errors, omissions or mistakes;
- fraudulent action of an individual or collusion of two or more people;
- inappropriate management override of procedures; and
- the possibility that any enhancements to controls and procedures may still not be adequate to assure timely and accurate financial control.

Pursuant to the Sarbanes-Oxley Act and the rules and regulations promulgated by the SEC, we are required to furnish in this Report a report by our management regarding the effectiveness of our internal control over financial reporting. The report includes, among other things, an assessment of the effectiveness of our internal control over financial reporting as of the end of our fiscal year, including a statement as to whether or not our internal control over financial reporting is effective. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management. While we believe our internal control over financial reporting is currently effective, we have previously identified and had to remediate a material weakness and the effectiveness of our internal controls in future periods is subject to the risk that our controls may become inadequate because of changes in conditions. Establishing, testing and maintaining an effective system of internal control over financial reporting requires significant resources and time commitments on the part of our management and our finance staff, may require additional staffing and infrastructure investments and would increase our costs of doing business.

In addition, under the federal securities laws, our auditors are required to express an opinion on the effectiveness of our internal controls. If we are unable to confirm that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports, which could cause the price of our Class A Common Stock to decline.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

We are subject to the periodic reporting requirements of the Exchange Act. We designed our disclosure controls and procedures to provide reasonable assurance that information we must disclose in reports we file or submit under the Exchange Act is accumulated, communicated to management, recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business, or the market in which we operate, or if they change their recommendations regarding our securities adversely, the price and trading volume of our securities could decline.

The trading market for our securities will be influenced by the research and reports that industry or securities analysts may publish about us, our business, market or competitors. If any of the analysts who cover us change their recommendation regarding our shares of Class A Common Stock adversely, or provide more favorable relative recommendations about our competitors, the price of our shares of Class A Common Stock would likely decline. If any analyst who covers us were to cease our coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the price or trading volume of our Class A Common Stock to decline.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

Securities Trading Plans of Directors and Executive Officers

During our last fiscal quarter, none of our directors or officers, as defined in Rule 16a-1(f), adopted and/or terminated a “Rule 10b5-1 trading arrangement” or a “non-Rule 10b5-1 trading arrangement,” as defined in Regulation S-K Item 408.

Item 6. Exhibits.

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
2.1	Business Combination Agreement, dated as of September 2, 2020, by and among Kensington Capital Acquisition Corp., Kensington Capital Merger Sub Corp. and Legacy QuantumScape.	S-4/A	333-248930	2.1	November 12, 2020
2.2	Amendment No. 1 to Business Combination Agreement, dated as of September 21, 2020, by and among Kensington Capital Acquisition Corp., Kensington Capital Merger Sub Corp. and Legacy QuantumScape.	S-4/A	333-248930	2.2	November 12, 2020
3.1	Amended and Restated Certificate of Incorporation of the Company, as amended.	10-Q	001-39345	3.1	July 26, 2024
3.2	Amended and Restated Bylaws of the Company.	8-K	001-39345	3.1	October 25, 2022
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1†	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2†	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.				
101.SCH	Inline XBRL Taxonomy Extension Schema Document				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document				
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)				

* Filed herewith.

† These exhibits are furnished with this Quarterly Report on Form 10-Q and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of QuantumScape Corporation under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filings.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

QuantumScape Corporation

Date: April 25, 2025

By: /s/ Siva Sivaram
Siva Sivaram
President and Chief Executive Officer
(Principal Executive Officer)

Date: April 25, 2025

By: /s/ Kevin Hettrich
Kevin Hettrich
Chief Financial Officer
(Principal Financial and Accounting Officer)

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Siva Sivaram, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of QuantumScape Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 25, 2025

By: _____ /s/ Siva Sivaram

Siva Sivaram
President and Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Kevin Hettrich, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of QuantumScape Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 25, 2025

By: /s/ Kevin Hettrich

Kevin Hettrich
Chief Financial Officer
(Principal Financial and Accounting Officer)

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By: /s/ Siva Sivaram
Siva Sivaram
President and Chief Executive Officer
 (Principal Executive Officer)

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By: /s/ Kevin Hettrich
Kevin Hettrich
Chief Financial Officer
 (Principal Financial and Accounting Officer)