
SES
Letter to Our Shareholders
Q1 2023 Earnings

Dear Shareholders,

2023 is starting out to be a great year for SES. A few years from now when we expect our Li-Metal battery technology will be in mass production, we think we will look back and say 2023 was a key turning point as we laid several crucial foundations.

First we'd like to give you an update on our three OEM JDAs. As we have discussed previously, we were the world's first Li-Metal battery company to enter automotive A-sample JDAs, and we did so with GM, Hyundai, and Honda. We believe our biggest value to them, in addition to deep material development capability, is the ability to build and test many large 100Ah Li-Metal cells. With this ability, our ideas become data, and data becomes intelligence. Even Elon Musk tweeted after the starship launch "high production rate solves many ills."

It's been more than a year now since our three A-sample lines have been up and running, one in Shanghai China and two in Cheongchungbuk-do South Korea, producing and testing large 50Ah and 100Ah Li-Metal cells. We believe these are the most advanced and battle-tested large Li-Metal cell production lines anywhere in the world, and what a difference they have made. They provide a safe and reliable platform for us to test new ideas and make improvements to the technology.

It is safe to say, as we have discussed in previous shareholder letters, we simply didn't know what we didn't know until we started making these large cells in higher volumes. Many of the manufacturing issues that we detailed have now been solved or are close to being solved. For example:

1. **Ultra-thin lithium anode wrinkling and tearing during large format rolling and lamination** -- after three rounds of iterations and improvements on our A-sample lines and in collaboration with our equipment and material vendors, we have significantly improved this issue. We have even started testing new processes for anode lamination and believe we will completely eliminate this issue in future designs.

2. **Novel electrolyte solvent scale-up** -- while our material R&D team continues to develop new solvent molecules, our scale-up team has completed 4 different types of electrolyte solvents for production.

3. **Electrode stacking misalignment and overhang** -- our approach of manufacturing Li-Metal cells using Li-ion processes really paid off here as our team of experienced Li-ion engineers quickly addressed this issue by borrowing from their Li-ion stack pouch cell experience.

4. **Powder formation during electrode punching** -- this is unique to our lithium metal anode, and we now have two teams working on laser and metal die approaches in parallel, understanding the fundamental mechanism, we believe we will be able to choose

the best solution after fully understanding both approaches.

5. **Formation pressure and voltage stability** -- this is also unique to our Li-Metal cells, and after three rounds of iterations and improvements and working with our vendor, we believe we now have a solution and that we will implement across our current equipment and future designs.

6. **Finding efficient ways to do image scanning on large format cells and developing proper ways to store, handle, test and recycle Li-Metal cells** -- this is a really interesting and important area that many companies don't pay enough attention to. We are integrating imaging tools including x-ray, CT, SEM, ultrasound and others to our manufacturing and Avatar systems. We are also developing new tools such as large 100Ah Li-Metal cell teardown robots, smart test boxes, and very sophisticated large cell testing and storage monitoring facilities. All to provide a safe environment for us to innovate and test cutting-edge ideas on large 100Ah Li-Metal cells.

7. **Avatar** -- our large cell Avatar prediction accuracy increased from 0% to 60% last year, and in a recent experiment, our Avatar successfully predicted 18 out of 21 abnormal cells, that's getting close to 90%.



SES employee operating X-ray machine

Furthermore, we significantly improved quality management through diligently working with our OEM partners. For example, our control plan went from about 200 control points to now more than 1,400 control points. We are targeting more than 4,000 control points, since Li-Metal is a new technology, and we want to fully characterize every detail in the entire process. These issues could not have been addressed through simulation or discussion, they required extensive trial and error, and that's what our three A-sample lines did. We have built and tested hundreds to thousands of large 100Ah Li-Metal cells. We don't think any other Li-Metal battery company has done this. And we believe that if you don't do this, you just can't push Li-Metal forward.

And we didn't stop there. We believe these three A-sample lines are already the most advanced in the world for large 100Ah Li-Metal cell

production, but we want to integrate all the learnings that we have accumulated, and build a brand-new line, one that is a leapfrog, at least one generation ahead of our three A-sample lines. This is our Line 4. Line 4 will be for the next phase of automotive large 100Ah Li-Metal cell development, basically B-sample.



Line 4 buildup

Compared to the current three A-sample lines, Line 4 is expected to have many of the new concepts including Avatar-integration and rigorous quality control plan built-in from its design phase. The exterior facility buildout is already completed, we expect the dry rooms to be completed this summer, and the equipment to start arriving this fall, and the entire Line 4 to achieve ready-to-use status in the first-half of 2024. We believe this will be key to enable us to transition to B-samples, which we are still on track to achieve this year.

Lastly, we want to address our stock price. Frankly, it's not something we think about every day. Recently we had our one-year anniversary since listing on the NYSE, and we completed two procedural filings. One was the Form S-3, which allows us to fundraise in the future, although we have no plans to fundraise anytime soon. Another was the Form 4, where management, including myself, sold some shares purely to cover taxes on vested RSUs. I, as the Founder of SES have never sold a single share, other than to pay taxes, or made a single dollar from our stock since I started the company more than 11 years-ago. We just wanted to clarify these two matters in case there have been any misinterpretations.

I'm super excited about the progress that we are making. It was painful last year, but now it's getting to be fun again. Our new Line 4 will be a step change in our development roadmap and a major part of the transition to B-samples. We will continue to keep you posted as we take additional steps to get Line 4 up and running.

1Q23 Financial Highlights and Outlook

In the first quarter, we reported operating expenses of $21.6 million, reflecting research and development expenses of $8.5 million and general and administrative expenses of $13.1 million. On a fully-diluted basis, net loss attributable to common stockholders was a loss of $0.05 per share.

During the first quarter, cash used in operations was $15.4 million. Capital spending for the quarter was $6.0 million reflecting payments for equipment and facilities.

Our balance sheet remains very strong. We ended the first quarter with cash, cash equivalents, and marketable securities of $373 million. We continue to believe our liquidity is sufficient to get us to commercialization.

For 2023, our financial guidance is unchanged. We continue to expect cash usage from operations to be in the range of $80 - $100 million and capital expenditures in the range of $50 – $70 million. In total, we expect cash usage for the year in the range of $130 - $170 million. This level of spending is necessary to support our growth as we expect to transition from A-samples to B-samples in 2023. Significant areas of spending in 2023 continue to be for headcount, lab expansion, equipment and manufacturing facilities, and materials.



Qichao Hu
Founder, CEO and Chairman



Jing Nealis
Chief Financial Officer

Forward-Looking Statements

This letter contains statements that SES believes are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, without limitation, statements relating to expectations for future financial performance, business strategies or expectations for our business. These statements are based on the beliefs and assumptions of the management of SES. Although SES believes that its plans, intentions and expectations reflected in or suggested by these forward-looking statements are reasonable, it cannot provide assurance that it will achieve or realize these plans, intentions or expectations. These statements constitute projections, forecasts and forward-looking statements, and are not guarantees of performance. Such statements can be identified by the fact that they do not relate strictly to historical or current facts. When used in this press release, words such as "anticipate", "believe", "can", "continue", "could", "estimate", "expect", "forecast", "intend", "may", "might", "plan", "possible", "potential", "predict", "project", "seek", "should", "strive", "target", "will", "would" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking.

You should not place undue reliance on these forward-looking statements. Should one or more of a number of known and unknown risks and uncertainties materialize, or should any of SES's assumptions prove incorrect, our 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, but are not limited to the following risks: risks related to the development and commercialization of SES's battery technology and the timing and achievement of expected business milestones; risks relating to the uncertainty of achieving and maintaining profitability; risks relating to the uncertainty of meeting future capital requirements; the ability of SES to integrate its products into electric vehicles ("EVs"); the risk that delays in the pre-manufacturing development of SES's battery cells could adversely affect SES's business and prospects; potential supply chain difficulties; the ability of SES to engage target original equipment manufacturers ("OEMs") customers successfully and integrate SES's products into EVs manufactured by OEM customers; the ability to obtain raw materials, components or equipment through new or existing supply relationships; risks resulting from SES's joint development agreements and other strategic alliances and investments; product liability and other potential litigation, regulation and legal compliance; SES's ability to attract, train and retain highly skilled employees and key personnel; the uncertainty in global economic conditions and risks relating to health epidemics, including the COVID-19 pandemic and any operational interruptions; developments in alternative technology or other fossil fuel alternatives; risks related to SES's intellectual property; business, regulatory, political, operational, financial and economic risks related to SES's business operations outside the United States; SES has identified material weaknesses in its internal control over financial reporting and may identify material weaknesses in the future or otherwise fail to develop or maintain an effective system of internal controls; the volatility of SES's common stock and value of SES's public warrants; and the other risks described in "Part I, Item 1A. Risk Factors" in our annual report on Form 10-K for the fiscal year ended December 31, 2022 filed with the Securities and Exchange Commission ("SEC") on March 16, 2023 and

other documents filed from time to time with the SEC. There may be additional risks that SES presently knows and/or believes are immaterial that could also cause actual results to differ from those contained in the forward-looking statements. In addition, forward-looking statements reflect SES's expectations, plans or forecasts of future events and views only as of the date of this press release. SES anticipates that subsequent events and developments will cause its assessments to change. However, while SES may elect to update these forward-looking statements at some point in the future, SES specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing SES's assessments as of any date subsequent to the date of this letter.

SES AI Corporation
Condensed Consolidated Balance Sheet[1]
(Unaudited)

(in thousands, except share and per share amounts)	March 31, 2023	December 31, 2022
Assets		
Current Assets		
Cash and cash equivalents	$ 47,975	$ 106,623
Short-term investments	305,145	283,460
Receivable from related party	2,805	2,383
Inventories	502	383
Prepaid expenses and other current assets	6,362	3,792
Total current assets	362,789	396,641
Property and equipment, net	27,914	27,756
Long-term investments	19,541	—
Intangible assets, net	1,441	1,473
Right-of-use assets, net	11,591	11,363
Other assets	4,597	3,206
Total assets	$ 427,873	$ 440,439
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Equity		
Current Liabilities		
Accounts payable	$ 2,789	$ 6,187
Operating lease liabilities, current	2,066	1,899
Accrued expenses and other current liabilities	11,402	11,271
Total current liabilities	16,257	19,357
Sponsor Earn-Out Liability	10,392	10,961
Operating lease liabilities, non-current	9,902	10,165
Unearned government grant	6,434	6,657
Other liabilities	2,561	1,760
Total liabilities	45,546	48,900
Commitments and contingencies		
Stockholders' Equity		
Common stock: Class A shares, $0.0001 par value, 2,100,000,000 shares authorized; 305,930,731 and 305,833,589 shares issued and outstanding as of March 31, 2023 and December 31, 2022, respectively; Class B shares, $0.0001 par value, 200,000,000 shares authorized; 43,881,251 and 43,881,251 shares issued and outstanding as of March 31, 2023 and December 31, 2022, respectively	35	35
Additional paid-in capital	544,516	538,041
Accumulated deficit	(161,512)	(145,286)
Accumulated other comprehensive loss	(712)	(1,251)
Total stockholders' equity	382,327	391,539
Total liabilities, redeemable convertible preferred stock, and stockholders' equity	$ 427,873	$ 440,439

SES AI Corporation
Condensed Consolidated Statements of Operations and Comprehensive Loss[(1)]
(Unaudited)

(in thousands, except share and per share amounts)	Three Months Ended March 31, 2023	2022
Operating expenses:		
Research and development	$ 8,489	$ 4,067
General and administrative	13,123	15,130
Total operating expenses	21,612	19,197
Loss from operations	(21,612)	(19,197)
Other income (expense):		
Interest income, net	4,140	23
Other income (expense), net	820	(160)
Gain (loss) on change of fair value of Sponsor Earn-Out Liability, net	569	(7,688)
Total other income (expense), net	5,529	(7,825)
Loss before income taxes	(16,083)	(27,022)
Provision for income taxes	(143)	(11)
Net loss	(16,226)	(27,033)
Other comprehensive income:		
Unrealized gain on investments	467	—
Foreign currency translation adjustment	72	109
Total comprehensive loss	$ (15,687)	$ (26,924)
Net loss per share attributable to common stockholders:		
Basic and diluted	$ (0.05)	$ (0.12)
Weighted-average shares outstanding:		
Basic and diluted	313,422,442	219,180,317

SES AI Corporation
Condensed Consolidated Statements of Cash Flows[1]
(Unaudited)

(in thousands)	Three Months Ended March 31, 2023	2022
Cash Flows From Operating Activities		
Net loss	$ (16,226)	$ (27,033)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	6,462	3,186
Accretion income from debt securities	(2,946)	—
Depreciation and amortization	1,060	410
(Gain) loss from change in fair value of Sponsor Earn-Out liability	(569)	7,688
Other	(683)	—
Changes in operating assets and liabilities:		
Receivable from related party	(422)	373
Inventories	(120)	—
Prepaid expenses and other assets	(2,553)	(6,453)
Accounts payable	(15)	5,448
Accrued expenses and other liabilities	619	1,566
Net cash used in operating activities	(15,393)	(14,815)
Cash Flows From Investing Activities		
Purchases of property and equipment	(5,974)	(2,542)
Purchases of intangibles	—	(117)
Purchase of marketable securities	(97,119)	—
Maturities of marketable securities	60,000	—
Net cash used in investing activities	(43,093)	(2,659)
Cash Flows From Financing Activities		
Proceeds from Business Combination and PIPE Financing, net of issuance costs	—	282,940
Proceeds from stock option exercises	13	4
Net cash provided by financing activities	13	282,944
Effect of exchange rates on cash	(198)	109
Net (decrease) increase in cash, cash equivalents and restricted cash	(58,671)	265,579
Cash, cash equivalents and restricted cash at beginning of period	107,936	161,044
Cash, cash equivalents and restricted cash at end of period	$ 49,265	$ 426,623
Supplemental Non-Cash Information:		
Accounts payable and accrued expenses related to purchases of property and equipment	$ 1,034	$ 1,983
Lease liabilities arising from obtaining right-of-use assets	$ 776	$ —
Conversion of Redeemable Convertible Preferred Stock to shares of Class A Common Stock	$ —	$ (269,941)
Deferred offering costs included in accounts payable and accrued expenses and other liabilities	$ —	$ (12,954)
Liabilities of Ivanhoe acquired in the Business Combination	$ —	$ (387)

(1) The business combination between SES AI Corporation's ("SES") predecessor, SES Holdings Pte. Ltd. ("Old SES"), and Ivanhoe Capital Acquisition Corp. ("Ivanhoe"), which closed on February 3, 2022 (the "Closing"), is accounted for as a reverse recapitalization under U.S. GAAP. Under this method of accounting, Ivanhoe has been treated as the "acquired" company for financial reporting purposes. Accordingly, for accounting purposes, the financial statements of SES represent a continuation of the financial statements of Old SES with the business combination being treated as the equivalent of Old SES issuing shares for the net assets of Ivanhoe, accompanied by a recapitalization. The net assets of Ivanhoe are stated at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Closing are those of Old SES. As a result, the unaudited condensed consolidated financial statements reflect (i) the historical operating results of Old SES prior to the Closing; (ii) the combined results of SES and Old SES following the Closing; (iii) the assets and liabilities of Old SES at their historical cost; and (iv) share and per share amounts prior to the Closing have been retroactively converted using the exchange ratio for the business combination. See our Form 10-K for the year ended December 31, 2022 for additional information.