



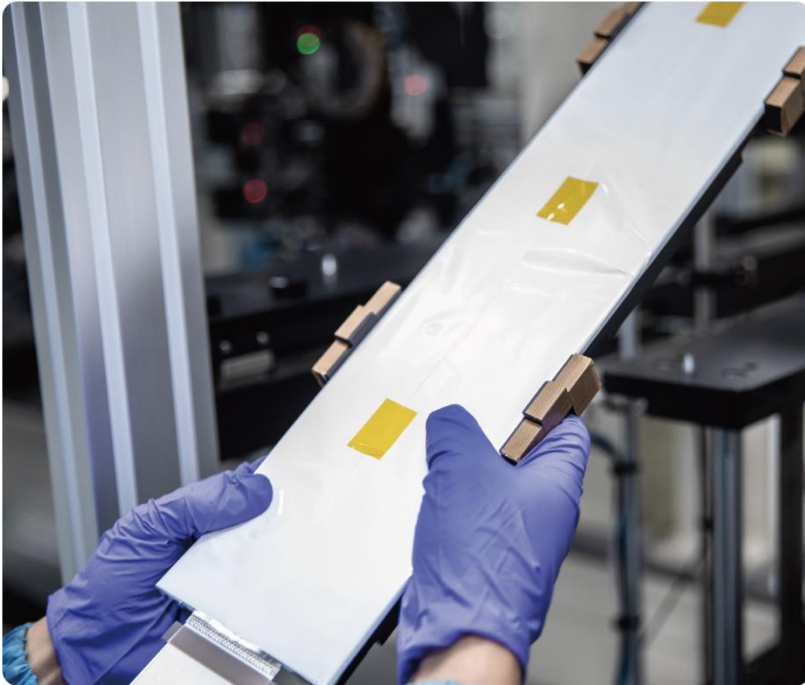
2023 ANNUAL REPORT



Dear SES AI Stockholders,

We are pleased to invite you to attend the 2024 Annual Stockholders Meeting of SES AI Corporation, to be held on **June 7, 2024 at 10:00 AM, Eastern time**. The Annual Meeting will be held in virtually via live audio webcast at <https://www.virtualshareholdermeeting.com/SES2024>.

SES AI's mission is to power a new era of electric transportation on land and in air with Li-Metal batteries. We believe Li-Metal is the "end game" for electric transportation energy storage with its step-change in energy density compared to current state-of-the-art Li-ion technologies. Our team has dedicated the past decade to developing a comprehensive and proprietary Li-Metal battery technology platform, including a high concentration solvent-in-salt electrolyte; an ultra-thin wide format lithium anode; a protective anode coating; and novel cell engineering processes that are based on scalable Li-ion manufacturing but address unique Li-Metal challenges.



Building large automotive Li-Metal cells



And as we build more automotive large capacity Li-Metal cells and generate more data, we believe AI will become an increasingly integral part of our business in both material development and battery health monitoring and incident prediction.

Li-Metal not only means longer range and more passengers, but we intend to reach near 100% safety guarantee and accelerated roadmap technology development.

Four pillars support our mission, and we continue to make exciting advancements in each one.

1. EV (Electric Vehicles)

Since our founding, EV has been our core focus.

- In 2012, we transitioned away from solid state Li-Metal, so our Li-Metal batteries could operate at room temperature and be manufactured at large scale.
- In 2015, we received the first strategic investment from General Motors.
- In 2021, we signed the **world's first three automotive A-sample Li-Metal joint development agreements (JDAs) with GM, Hyundai and Honda**. All three global automakers were cornerstone strategic investors in our IPO in 2022.
- In late 2023, we signed the **world's first automotive B-sample Li-Metal JDA** with a major global automaker.
- As of today, we operate a total of three A-sample lines and are building two B-sample lines.

We have made significant progress in large 50Ah and 100Ah automotive Li-Metal cell manufacturing. We addressed key manufacturing challenges in ultra-thin wide format lithium anode, powder and metal bur issues in lithium anode punching, high concentration electrolyte scale-up, and other quality and safety related issues. We have performed in-house testing on these 50Ah and 100Ah Li-Metal A-sample cells and shared data with our JDA OEM customers. We have also shipped these A-sample cells to third parties and OEM sites for performance and safety testing.



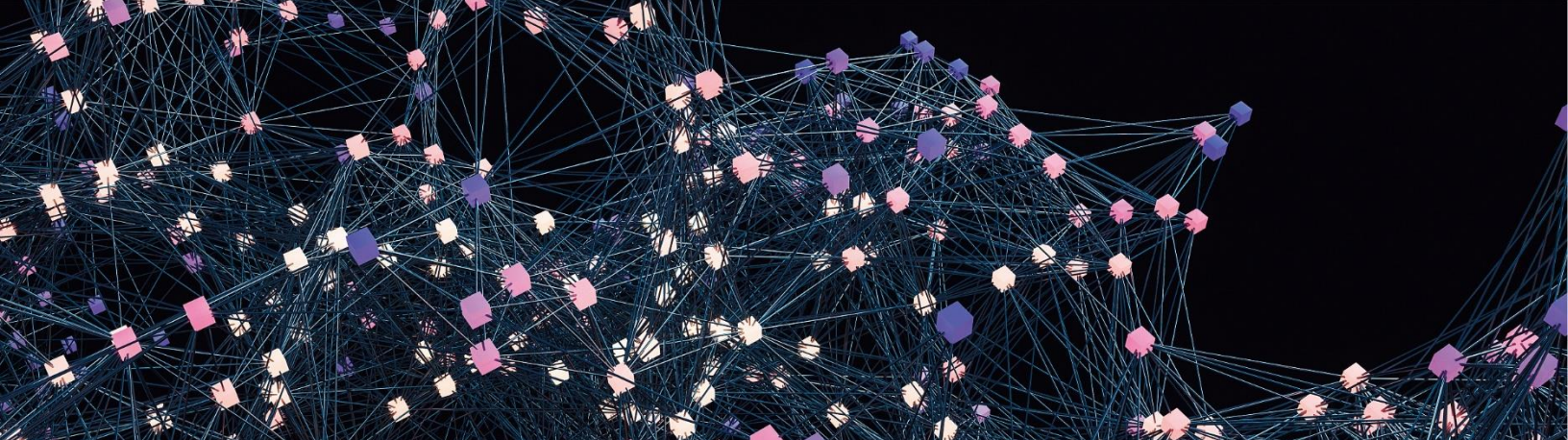
Large automotive Li-Metal cells in test boxes

2. UAM (Urban Air Mobility)

UAM is a perfect fit for Li-Metal. UAM or Air Taxis operate on a fleet business model. The key business metric in this model is revenue/passenger/mile, and weight is paramount. The step-change gravimetric energy density offered by Li-Metal means that the aircraft can carry twice the number of passengers - or twice the payload for cargo applications - or fly 300 miles instead of just 150 miles. This step-change has the potential to significantly improve the profitability of UAM operators' business models.

Now that we have reached B-sample status, we believe that there is little additional development required for UAMs as B-sample in EVs is almost equivalent to commercial production for UAMs.

We are seeing strong demand from UAM OEMs and have a growing number of cell sampling and supply agreements with the top five UAM OEMs. As a result of this demand, we are converting one EV A-sample line this year and dedicating it to UAM cell production. We are also working with UAM OEMs on pack development and certification.



3. AI (Artificial Intelligence)

We started two AI programs, Avatar and Prometheus, out of necessity – the need to reach a nearly 100% safety guarantee in the field, and the need to accelerate future roadmap material development.

To achieve a near 100% safety guarantee in the field, we are leveraging our automotive 50Ah and 100Ah cell production volume and quality data to train our Avatar AI.

- In 2022, we produced **less than 1,000 cells per year with 200 quality checkpoints**.
- In 2023, we produced **500 to 1,000 cells per month with 600 quality checkpoints**.
- This year, we expect to produce **more than 1,000 cells per month per line with 1,500 quality checkpoints** including imaging data such as X-ray, CT, ultrasound and vision.



Examining Li-Metal cells using X-ray

As we look to accelerate the speed of future roadmap electrolyte discovery, we are developing new AI models to screen a vast universe of small molecules for potential electrolyte solvent candidates. We are also building an Electrolyte Foundry for high throughput synthesis and testing of these materials.

With the increase in data and quality checkpoints, our Avatar AI prediction accuracy rose to 92% in 2023 from less than 60% in 2022, and we expect it to reach 95% by the end of this year. Achieving a nearly 100% safety guarantee in the field would be paramount to both EV and UAM OEMs.



SES AI scientists are looking for better electrolyte

4. SES Cares

We are executing several initiatives designed to improve the environmental sustainability of our business, reduce cost, and ensure the traceability of our Li-Metal battery supply chain. Technological innovations include dry electrodes that have the potential significantly reduce our electricity consumption and CO₂ and chemical solvent emissions; and the recycling of Li-Metal that allows us time to build a new supply chain with better traceability and robustness.

In our operations, the main consumer of energy is our dry rooms. We are using more energy efficient dry room dehumidifiers for our B-sample lines than our previous A-sample lines.

We also announced SES Cares, an initiative in which we power advanced drones with our Li-Metal A-samples and B-samples to collect field data to train Avatar AI, while at the same time, partnering with organizations that aim to bring benefits to society such as forest fire monitoring and marine animal protection.

We believe 2024 will be a key year in the commercialization of Li-Metal batteries for automotive applications. We plan to continue to focus on EV B-sample JDAs. This includes building and operating B-sample lines; addressing cell manufacturing quality issues; improving cell practical safety; and accelerating future roadmap electrolyte development. We will plan to build and ship UAM cells to UAM customers; improve Avatar AI prediction accuracy by deploying Avatar infrastructure and training it across a wide range of data.

To help us meet these challenges, we recently announced the appointment of Brian Krzanich to our board of directors. Brian brings extensive experience in the commercialization of next-generation technologies for automotive applications.

In 2023, we also named Daniel Li as our Chief Manufacturing Officer to focus on large automotive cell manufacturing, and Kang Xu as Chief Scientist to focus on the training and development of AI for battery science.

On behalf of the board of directors of SES AI, we thank you for your participation in this annual meeting. Your vote is important. Whether or not you attend the annual meeting, it's important that your shares be represented and voted at the annual meeting. We urge you to vote as soon as possible. Thank you again for your support.

Sincerely,



Qichao Hu

Founder, Chief Executive Officer, and Chairman



UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2023

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: 001-39845

SES AI Corporation

(Exact name of registrant as specified in its Charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

35 Cabot Road Woburn, MA
(Address of principal executive offices)

88-0641865
(I.R.S. Employer
Identification No.)

01801
(Zip Code)

Registrant's telephone number, including area code: (339) 298-8750

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

<u>Title of Each Class</u>	<u>Trading Symbol(s)</u>	<u>Name of Exchange on which registered</u>
Class A common stock, par value \$0.0001 per share	SES	The New York Stock Exchange
Warrants to purchase one share of Class A common stock, each at an exercise price of \$11.50	SES WS	The New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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

The aggregate market value of the voting and non-voting stock held by non-affiliates of the registrant as of June 30, 2023, the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$0.7 billion, calculated by using the closing price of the registrant's Class A common stock on such date on the New York Stock Exchange of \$2.44.

As of February 21, 2024, there were 311,083,047 shares of the registrant's Class A common stock and 43,881,251 shares of the registrant's Class B common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant intends to file a proxy statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2023. Portions of such proxy statement are incorporated by reference into Part III of this Annual Report on Form 10-K.

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EXPLANATORY NOTE

Unless otherwise stated or unless the context otherwise requires, the terms “we,” “us,” “our,” “SES,” and the “Company” refer to SES AI Corporation, a Delaware corporation (f/k/a Ivanhoe Capital Acquisition Corp., a Cayman Islands exempted company (“Ivanhoe”)) and its consolidated subsidiaries, after giving effect to the Business Combination (as defined below).

We were originally formed as a Cayman Islands exempted company in July of 2020 for the purpose of effecting a merger, share exchange, asset acquisition, stock purchase, reorganization, recapitalization or other similar business combination with one or more businesses. On January 11, 2021, we consummated our initial public offering (the “IPO”), following which our securities began trading on the New York Stock Exchange (the “NYSE”).

On February 3, 2022 (the “Closing Date”), Ivanhoe consummated its previously announced business combination (the “Business Combination”) with SES Holdings Pte. Ltd., a Singapore private company limited by shares (“Old SES”), pursuant to the terms of that certain Business Combination Agreement (as amended, the “Business Combination Agreement”) by and among Ivanhoe, Old SES, and Wormhole Amalgamation Sub Pte. Ltd., a Singapore private company limited by shares, and a direct, wholly-owned subsidiary of Ivanhoe (“Amalgamation Sub”).

Pursuant to the terms of the Business Combination Agreement and in connection with the closing of the Business Combination (the “Closing”), (i) Ivanhoe migrated out of the Cayman Islands and domesticated as a Delaware corporation (the “Domestication”) by way of continuation and deregistration under Part XII of the Cayman Islands Companies Act and domestication under Section 388 of the Delaware General Corporation Law (“DGCL”), (ii) Ivanhoe changed its name to “SES AI Corporation” (“SES,” or the “Company”), and (iii) Amalgamation Sub merged with and into Old SES, with Old SES as the surviving company (the “Amalgamation”) (the time that the Amalgamation became effective is referred to as the “Effective Time”). As a result of the Amalgamation, Old SES became our wholly-owned subsidiary.

CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS AND RISK FACTORS SUMMARY

This Annual Report on Form 10-K (this Annual Report”) contains statements that the Company 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 the Company. Although the Company 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 Annual Report, 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 our assumptions prove incorrect, 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, but are not limited to the risks below, which also serves as a summary of the principal risks of an investment in our securities:

- We face significant challenges in developing a Lithium-Metal (“Li-Metal”) battery that can be commercialized for use in electric vehicles (“EVs”), urban air mobility (“UAM”), and other applications, and the pace of development is often unpredictable and subject to delays.
- We have a history of no revenues and of net losses and expect to continue to incur losses for the foreseeable future. While we expect to become profitable eventually, our internal assumptions may prove incorrect, and we may never achieve or maintain profitability.
- We will need substantial additional capital in the future to fund our business and may be unable to meet our future capital requirements, impairing our financial position and results of operations.
- Our Li-Metal technology is untested in actual EVs and may ultimately prove unworkable.
- If our batteries fail to perform as expected our ability to develop, market and sell our batteries could be harmed.

- Delays in the pre-manufacturing development of our battery cells could adversely affect our business and prospects.
- We may not be able to engage target original equipment manufacturers (“OEMs”) customers successfully and to convert such contacts into meaningful orders in the future.
- If we are unable to integrate our products into EVs manufactured by OEM customers, our results of operations could be impaired.
- We may not be able to establish new, or maintain existing, supply relationships for necessary raw materials, components or equipment or may be required to pay costs for raw materials, components or equipment that are more expensive than anticipated, which could delay the introduction of our product and negatively impact our business.
- Our ability to manufacture our Li-Metal batteries at scale depends on our ability to build, operate and staff our facilities successfully.
- We have pursued and may continue to pursue joint development agreements (“JDAs”) and other strategic alliances, which could have an adverse impact on our business if they are unsuccessful or if we are unable to enter into new JDAs.
- Certain components of our batteries pose safety risks that may cause accidents. We may be subject to financial and reputational risks due to product recalls and product liability claims, and we could face substantial liabilities that exceed our resources.
- Our business depends substantially on the continuing efforts of our senior executives and other key personnel as well as the ability to attract, train and retain highly skilled employees and key personnel.
- Developments in alternative technology or other fossil fuel alternatives may adversely affect the demand for our battery products.
- Our patent applications may not result in issued patents or our patent rights may be challenged, invalidated or limited in scope, any of which could have a material adverse effect on our ability to prevent others from competing or interfering with the commercialization of our products.
- We rely heavily on our intellectual property portfolio, including unpatented proprietary technology. If we are unable to protect our intellectual property rights from unauthorized use, our business and competitive position would be harmed.
- The international scope of our business exposes us to business, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States.
- We have incurred and will continue to incur increased costs related to operating as a public company, and our management will be required to devote substantial additional time to compliance and corporate governance practices.
- The price of our common stock has been and may continue to be volatile.
- Our public warrants may never be in the money, and they may expire worthless.
- We are controlled or substantially influenced by Dr. Qichao Hu and certain entities affiliated with Dr. Hu, whose interests may conflict with other stockholders. The concentrated ownership of our dual class common stock could prevent stockholders from influencing significant decisions.
- the other factors described in “Part I, Item 1A” in this Annual Report.

PART I

Item 1. Business

Overview

SES AI Corporation and its consolidated subsidiaries (together the “Company” or “SES”) is a pre-commercialization stage company engaged in the development and production of high-performance, Lithium-Metal (“Li-Metal”) rechargeable battery technologies for electric vehicles (“EVs”), urban air mobility (“UAM”), which encompasses electric vehicle take-off and landing (“eVTOL”) technology, and other applications. We were founded in 2012 and our mission is to facilitate the widespread adoption of sustainable electric transportation, both on land and in air, by creating best-in-class, high energy density Li-Metal batteries centered around long-range performance and safety.

We have developed what we believe to be the world’s most advanced Li-Metal battery technology, and we have the management team in place to become a leading provider of batteries. Our differentiated battery technology has been designed to combine the high energy density of Li-Metal with large-scale manufacturability of conventional Lithium-ion (“Li-ion”) batteries and will help to promote the transition from the global dependence on fossil fuel-based automotive vehicles to clean and efficient EVs and help enable an era of electric transportation in air.

We believe that our Li-Metal batteries demonstrate industry-leading energy density and performance and will:

- deliver a lightweight and compact battery, and substantially reduce range anxiety of EV consumers;
- provide fast-charge capability to charge the battery to 80% in less than 15 minutes, significantly reducing charging times;
- incorporate artificial intelligence (“AI”) software and battery management systems (“BMS”), which will accurately monitor the state of health of the battery and apply appropriate self-healing protocols;
- achieve rapid market adoption due to our strategic partnerships, including with leading global original equipment manufacturers (“OEMs”), such as General Motors (“GM”), Hyundai Motor Company (“Hyundai”), and Honda Motor Company, Ltd. (“Honda”);
- capitalize on the innovation occurring in Li-ion, including improvements in energy density, manufacturing efficiency and cost reduction, as our manufacturing processes are very similar to Li-ion.

Limitations of Current Battery Technology

Conventional Li-ion technology is currently being used in most commercially available EVs. Li-ion typically uses a metal oxide-based or phosphate-based cathode and graphite or graphite/silicon-based anodes. The anode and cathode are separated by a polymer-based separator. Finally, the whole cell is filled with a liquid electrolyte that conducts lithium ions from the anode to the cathode as the vehicle is being driven (or battery is being discharged), and from the cathode to the anode as the vehicle (or the battery) is being charged. Conventional Li-ion cells have been instrumental in kick starting the current EV market and are being manufactured at scale at capacities of hundreds of GWh today. However, the automotive industry desires a battery with higher energy density to improve the electric driving range (the distance that a vehicle can be driven on a single charge) while reducing battery cost to enable mass-adoption.

Li-Metal Batteries

Li-Metal is widely considered and accepted as the EV battery technology capable of achieving the highest energy density. In fact, switching the current Li-ion graphite/silicon anode with Li-Metal will currently result in the highest possible energy density for any given cathode in lithium chemistry. Li-Metal is the lightest un-engineered pure metal on earth and since the lithium ions do not have to diffuse in and out of the anode host material (like in the case of graphite or silicon in conventional Li-ion), the battery cells made with Li-Metal anode can be very compact and light. This combination of a lightweight and compact anode results in the highest possible gravimetric (Watt-hour (“Wh”)/kg) and volumetric (Wh/liter) energy density, respectively, for any given cathode in lithium chemistry.

Our Technology

SES’s approach to Li-Metal cell utilizes the high energy density benefits of lithium metal anode while utilizing a cell design that primarily uses a liquid electrolyte in the cathode and separator to transport the lithium ions. There is also a protective anode coating between the anode and the separator. This approach results not only in improved energy density due to using a lithium metal anode, but also superior performance at room and lower than room temperatures and enables manufacturing at scale just like Li-ion, which is manufactured at scale today. In fact, we have been successfully making multi-Amp-hour (“Ah”), multi-layer cells using our Li-Metal approach for many years.

The key breakthrough in SES's Li-Metal cells is its proprietary and patented liquid electrolyte. This electrolyte is developed internally at SES with many years of scientific research and development. We use a high-concentration, solvent-in-salt electrolyte. While liquid electrolytes used in conventional Li-ion cells are volatile and flammable, SES's liquid electrolyte has low volatility and is self-extinguishing. Conventional liquid electrolytes are primarily made up of organic solvents with low concentrations of salt to aid lithium-ion conduction. SES's liquid electrolyte primarily consists of salt with a low concentration of proprietary solvent molecules. This new type of high-concentration solvent-in-salt liquid electrolyte is fundamentally different from conventional liquid electrolyte. It maintains the manufacturability advantage of liquid electrolytes in conventional Li-ion manufacturing but can enable Li-Metal due to its stability on lithium metal.

SES's Li-Metal technology also helps resolve an issue that has plagued Li-Metal adoption and progress for decades. With repeated charge and discharge cycles, lithium metal anodes are known to develop needle-like mossy structures known as dendrites, which can penetrate the separator and short-circuit the battery cell. The use of our liquid electrolyte changes the morphology of dendrite formation in our Li-Metal battery cells from needle-like mossy structures to a smooth lithium metal surface or dense deposition. Our proprietary anode coating provides an added layer of protection against separator penetration by making lithium plating denser during charging. Additionally, our AI-powered safety software and BMS monitors the state-of-health of the battery cells and can accurately detect any safety issues much earlier. The combination of these elements significantly increases cell cycle life and safety.

The rest of the cell is assembled using our proprietary ultra-thin wide-width Li-Metal anode, a conventional separator and a cathode. With the exception of the Li-Metal anode, all materials and components utilized in our battery cells are either already being manufactured at scale or have the capability to be easily manufactured at scale without the need for intensive research and development, or development of new equipment.

To our knowledge, SES Li-Metal battery cells are the only Li-Metal cells demonstrated to meet or exceed the preliminary OEM target requirements for energy density, low temperature discharge, room temperature fast charge and discharge, cycle life and safety.

Our unique high-energy density Li-Metal battery is expected to be:

- light and compact, with high energy density of at least 400 Wh/kg and 1000 Wh/liter;
- durable and safe, with the ability to meet stringent cycle life, overall lifetime and safety targets for EVs and urban air mobility ("UAM") aircrafts;
- capable of fast charge, charging up to 80% in less than 15 minutes;
- capable of high power discharge, at room and low temperatures;
- low-cost, taking advantage of existing Li-ion manufacturing scale and best-practices to enable cost-reduction;
- capitalizing on the innovation occurring in Li-ion, in terms of incremental improvement in energy density, supply chain development, cost reduction and manufacturing efficiency, since the cathode and cell manufacturing process are the same as in Li-ion; and
- smarter, with AI-powered safety software and BMS that can predict safety incidents in real time and make appropriate diagnostic recommendations.

Our Competitive Strengths

Differentiated Battery Technology

As described above, our Li-Metal batteries are expected to be lighter, more energy dense, safer, faster-charging, and lower cost solution than Li-ion batteries, and to include smart technology. Our Li-Metal battery technology has projected energy density of 400 Wh/kg / 1,000 Wh/L in our large 100 Ah cells, compared to approximately 265 Wh/kg / 535 Wh/L in Li-ion battery cells using a high nickel content cathode. This higher energy density is expected to translate into significantly more range, which we believe will help to enable the expansion of an electrified world. Currently, one version of our 100 Ah multi-layer battery cells have demonstrated energy density of 380 Wh/kg / 850 Wh/L in third-party testing, along with fast charging up to an 80% charge in less than 15 minutes, bolstering our confidence in our ability to achieve industry-leading performance. Our batteries are expected to be cheaper in the long-term, while providing fast-charge capabilities, best-in-class durability and a high degree of safety.

Designed For Manufacturing At Scale

Over the last 11 years of research and development, we have strived to develop a technology that is not only differentiated, but also scalable and manufacturable. We are producing our large 50 and 100 Ah cells using manufacturing processes very similar to Li-ion cells and batteries.

Strategic Partnerships

We believe that our products will experience swift market adoption due to our current strategic partnerships with leading global OEMs GM, Hyundai and Honda. To our knowledge, we are the only company working on Li-Metal technology that has entered into B-Sample joint development agreement (“JDAs”) with a major OEM for EVs. We plan to collaborate with other OEMs to expedite such adoption and increase market acceptance of our Li-Metal battery over time.

Our Growth Strategy

Battery Development for OEMs. We have transitioned from developing and making A-Sample batteries to B-Samples that meet carmakers' requirements for their electric vehicles. We aim to have B-Samples developed and initially produced in 2024, followed by C-Samples in 2026. We expect this progress will pave the way for commercial production of our technology in 2027. For more information on collaborations with these OEMs, see “Our Partnerships” below. A-Sample batteries are functional prototypes developed for OEMs based on their technical specifications. These are in contrast with B-Sample batteries, which are A-sample batteries manufactured under much higher throughput and tested in actual vehicles, and C-Sample batteries, which would be fully functional, mature samples for mass production and tested for full drivability in actual vehicles. As we remain focused on A-Sample and B-Sample battery development, we do not yet have any arrangements with OEMs to manufacture consumer-ready batteries for their EVs.

Battery Manufacturing at Scale. We will continue to enhance our production processes to enable volume manufacturing in a cost-effective manner. Phase I of our pilot facility in Shanghai was completed and ready-to-use in March 2022 and fully operational in the third quarter of 2022, and our pilot facility in South Korea was completed and ready-to-use in September 2022. We expanded our facilities in South Korea through renting additional space that was operational in February 2023. We expect to continue to expand and modify our production facilities in 2024 and beyond as we work with our OEM partners to progress towards facilities for eventual C-Sample battery development and production ahead of this planned commercial production.

Partnership Development and Expansion. We will continue to strengthen our partnerships with GM, Hyundai and Honda in the use of our battery technology. Also, we intend to work closely with other OEMs and other strategic partners to develop and produce our Li-Metal battery cells, with the aim of making them widely available in EVs, UAM aircrafts and other applications over time.

Supply Chain. We expect to explore opportunities for partial vertical integration, both upstream and downstream, to ensure scalability of our battery cells and battery technology. Upstream, we intend to explore integrating vendors of key materials of our cells and providers of key equipment and engineering capabilities, such as cell assembly, anode processing, chemical processing and safety testing. Downstream, we plan to explore integrating providers of key engineering capabilities, such as battery state-of-health monitoring software, charging optimization software, battery module development and recycling.

Continued Battery Innovation. We intend to continue leveraging our world-class science, engineering and manufacturing expertise to innovate future products that will continue to provide leading technology coupled with manufacturability. We continue to invest in research and development in areas such as cell chemistry and structure, battery materials, AI and machine learning software and advanced manufacturing, to build on our intellectual property portfolio.

Our Partnerships

We intend to work closely with OEMs and other strategic partners to develop and produce our Li-Metal battery cells, with the aim of making them widely available in EVs, UAM, and other applications over time.

We have maintained a strong partnership with GM since 2015, when GM led our Series B financing, and since then, GM has invested approximately \$70.0 million in our company, including a \$50.0 million investment in our Series D funding round and a \$10.0 million investment in the private placement transaction in connection with the Business Combination (the “PIPE Financing”), via GM’s affiliates and subsidiaries. GM is one of the world’s largest car companies and has voiced its desire to be a leader in EVs. GM has announced plans to launch more than 30 new EV models by 2025 and only sell zero-emission vehicles by 2035. Our partnership initially involved close technical and research and development collaboration on SES’s battery technology.

We have also fostered a partnership with Hyundai, another global automobile leader. In May 2021, Hyundai made an investment of \$50.0 million in our Series D plus funding round. Hyundai also purchased \$50.0 million of our Class A common stock in the PIPE Financing.

Honda purchased \$75.0 million of our Class A common stock in the PIPE Financing as the single largest PIPE Financing investor.

We entered into A-Sample JDAs with each of GM, Hyundai and Honda in February 2021, May 2021 and December 2021, respectively, with initial terms of three years in the case of GM and Hyundai, and eighteen months in the case of Honda. We are currently transitioning to B-Sample and have entered into a new B-Sample JDA with one of our OEM partners which includes technical milestones and a timeline for delivery of B-Sample cells. We are also in discussions with our other OEM partners regarding B-Sample agreements.

Our JDAs do not represent commitments by OEMs to purchase our Li-Metal battery cells and are focused on development. Although the JDAs set timeframes for the attainment of certain development milestones, these timeframes are objectives only and may be subject to ongoing collaboration and change by the parties. The JDAs also do not prohibit OEMs or SES from entering into additional agreements with other third parties. To our knowledge, neither GM, Hyundai nor Honda has entered into new agreements with other automotive or battery companies for the development of A-Sample Li-Metal batteries.

Our Research and Development

We conduct research and development at our facilities in Woburn, Massachusetts in the United States, Shanghai, China, and Chungju, South Korea, and we expect to eventually build additional facilities in other parts of the world. Research and development activities concentrate on making further improvements to our battery technology, including improvements to battery performance and cost.

Major development efforts include, but are not limited to, programs in the following areas.

- **Scale-up:** Our design is further being customized with and validated by several OEMs. Based on our collaborations with OEMs, we believe that a roughly 100 Ah cell-size manufactured at GWh scale (five to seven cells-per-minute) is needed to achieve commercialization in EVs and UAMs at a large, global scale. We are developing processes and upgrading equipment to scale up the manufacturing of our current cell design from three to nine Ah capacity to 50 Ah and 100 Ah.
- **Module and Pack Design:** Li-Metal cells must be integrated into modules and packs as part of their integration into vehicles. Our active development efforts are focused on the integration of our Li-Metal cells into modules to enable our Li-Metal cells to perform as intended once they are integrated into modules and vehicles.
- **AI Software and BMS:** Software is critical to the ongoing monitoring of battery health and safety. We continue to develop AI algorithms to diagnose battery cell-related health issues, develop advanced control algorithms and charging methods to enhance cycle life and safety, and port such software on to a BMS that can be integrated into a battery pack.
- **Advanced Materials and Coatings:** We continue to research and develop advanced electrolyte and anodes to further improve cycle life and safety. In addition, we continue to develop novel methods of laminating or depositing lithium metal onto current collector that can be deployed at commercial GWh scale.
- **Cathode Materials and Design:** We develop our Li-Metal cells for a variety of different cathode materials, cathode design and cathode processing methods that can provide ultra-high energy density and/or significant cost-reduction.
- **Li-Metal Recycling:** Along with other battery components that are already being recycled today, Li-Metal foil will also need to be recycled in the future. We continue to explore methods of recycling that are productive and cost-effective.

Our Intellectual Property

To maintain a competitive advantage, we believe we must develop and preserve the proprietary aspect of our technologies. We rely on a combination of copyright, patent, trademark, trade secret, license and other intellectual property laws in the United States and other jurisdictions, as well as license agreements and other contractual protections, including non-disclosure agreements and other measures to establish, maintain, enforce and protect our proprietary rights. Our policy is to require our employees, consultants, and advisers to execute non-disclosure agreements in connection with their employment, consulting, or advisory relationships with us, where appropriate. We also have a policy that requires employees, consultants, and advisers who work on our products to agree to disclose and assign to us all inventions conceived during their work with us that are developed using our property or relate to our business. In addition, we seek to protect our proprietary and intellectual property position by, in addition to filing patent applications in various jurisdictions related to our proprietary

technology, relying on trade secrets, know-how and continuing technological innovation. Despite measures taken to protect our intellectual property, unauthorized parties may attempt to copy aspects of our proprietary technology or obtain and use information that we regard as proprietary, which could harm our business and competitive position. For a more comprehensive discussion of the risks related to our intellectual property, please see “Part I, Item 1A. Risk Factors—Risks Relating to Our Business and Technology” and “Risk Factors—Risks Relating to Our Intellectual Property.”

Patents

As of December 31, 2023, we have been granted 76 patents, with expiration dates ranging from 2032 through 2041, and have over 108 patent applications pending in the United States and in other jurisdictions. We also rely substantially on unpatented proprietary technology, including know-how and 30 trade secrets as of December 31, 2023. The issued and pending patents, licenses, know-how and trade secrets cover the following:

- ***Cell design***, including physical format, component layout, application tuning, cell formation and support structures.
- ***Materials***, including salt preparation and purification, design of synthetic solvents, state-of-the art electrolyte formulations, lithium foil production, separator composition and anodes.
- ***Battery management***, including charge/discharge profiles, rapid charging, safety systems and algorithms, telemetry harvesting and big data analysis.
- ***Environmental***, including low-impact production of cell materials and recyclability of spent materials.

Trademarks

We have registered various trademarks associated with our business with the United States Patent and Trademark Office on the Principal Register and in other appropriate jurisdictions. As of December 31, 2023, we have 82 registered or allowed trademarks, with 33 trademark applications pending. Depending upon the jurisdiction, trademarks are valid if they are in use and/or their registrations are properly maintained.

Our Suppliers

Currently, we are in product development and our product design has yet to be finalized, so our volume demand is limited, and we do not have long-term supply arrangements. As volume demand grows, we expect to negotiate long-term supply contracts. For our current product development needs, we source from third-party suppliers for raw materials, components and equipment necessary to develop and manufacture our Li-Metal battery cells.

Human Capital Resources

Employees

Our people are our most valuable asset, and we believe they are among the best in the EV battery industry. We strive to attract and retain team members who are passionate about electric transportation and battery technologies and have the humility and discipline to be building blocks in our fast-paced and challenging business operations. We seek the best talent with competitive compensation and benefits, opportunities for growth and development, and a culture that emphasizes fair and equitable treatment and diversity and inclusion. As of December 31, 2023, we had approximately 300 full-time employees, representing a 50% increase over the prior year. Approximately 35% of our employees, including all of our executive management team, are located in the United States, with the remaining located in China, South Korea and Singapore. The workforce in our China and South Korea locations primarily consists of operators for our prototype manufacturing lines. Currently, approximately 80% of our employees worldwide are engaged in research and development and related functions, with expertise in all aspects of the development process, including materials science, chemistry, engineering and software. Many of these employees have extensive experience from large Li-ion companies and hold advanced engineering and scientific degrees, including many from the world’s top universities.

Training and Development

We are committed to fostering an environment in which our employees continuously learn and develop, and we offer extensive training programs.

Pay and Benefits

Our compensation program is designed to align employee compensation with performance and to provide the proper incentives to attract, retain, and motivate employees to achieve superior results. The structure of our compensation program balances incentive earnings for both short-term and long-term performance and is designed to be competitive and consistent with employee positions, skill levels, experience, knowledge, and geographic location.

We are also committed to providing comprehensive benefit options that allow our employees and their families to live healthier and more secure lives.

Health and Safety

We maintain an occupational health and safety management system that covers all our employees and contractors, because we are committed to the safety and well-being of our workforce. By minimizing risks at our facilities and implementing training to enhance awareness of hazards, we are able to promote safe practices and preserve the health of our employees.

Our Facilities

We have leased facilities located in Woburn, Massachusetts in the United States, Shanghai, China, and Chungju and Seoul, South Korea. Our Woburn facility, which also serves as the Company's headquarters, focuses on chemistry, material and algorithm research and development, as well as engaging with our OEM and strategic partners. Our Shanghai facility focuses on supply chain development, manufacturing process development, battery cell development and production, AI software, BMS and module development. Phase I of our pilot facility in Shanghai was completed and ready-to-use in March 2022 and was fully operational in the third quarter of 2022. Our Chungju pilot facility focuses on manufacturing process development and battery cell product development and was completed and ready-to-use in September 2022 and fully operational in the fourth quarter of 2022. We have also set up an office in Seoul focused on supply chain, customer relations and our collaboration with partners in the region. Furthermore, in June 2023, we entered into a new lease for a facility near our Woburn facility for an electrolyte foundry, which we started using in January 2024. This facility will focus on novel electrolyte molecule discovery and synthetic pathway development.

As the joint development of Li-Metal batteries with our OEM partners continues to progress, we also expect to launch future research facilities and, eventually, commercial production manufacturing facilities in the United States, while also significantly increasing our headcount. We expect to convert our third EV A-Sample production line dedicated for making cells for UAM applications. Furthermore, we expect to launch our fourth and fifth production line in 2024, which will be dedicated to B-sample EV cells.

Competition

The battery market, like the EV market it services, is fast-growing, extremely competitive and driven by the innovation of both large incumbents and emerging entrants like SES. With the introduction of new technologies and the potential entry of new competitors into the market, we expect competition to increase in the future, which could harm our business, results of operations, or financial condition.

Our prospective competitors include major manufactures supplying the industry, automotive OEMs and potential new entrants to the industry. Existing suppliers of batteries to the EV industry include Contemporary Amperex Technology Co. Limited, SK Innovation, LG Energy Solutions, Panasonic Corporation and Samsung SDI. Although their offerings tend to be conventional Li-ion, they could develop Li-Metal batteries that would directly compete with our offerings. Additionally, many automotive OEMs, including Tesla, Nio, Rivian and Toyota, are researching and investing in efforts to develop their own EV battery production capabilities.

Newer entrants, including Northvolt, Sila Nanotechnologies, Solid Power, Enovix, QuantumScape, and Amprius, are also seeking to improve conventional lithium-ion batteries or to develop new technologies, including lithium-metal and solid-state batteries, or to develop new technologies for cathodes, anodes, electrolytes and additives. Some of these companies have established relationships with automotive OEMs and are in varying stages of development.

We acknowledge that incumbents and emerging entrants may have greater resources to invest in advancing their technologies, access to more potential customers, or strategic relationships with OEMs (or other third parties) that may give them a competitive edge. We further acknowledge that these disparities, where they exist, have the potential to harm our business, results of operations or financial condition.

Government Regulation and Compliance

There are government regulations pertaining to battery safety, transportation of batteries, use of batteries in vehicles, factory safety and disposal of hazardous materials. We will ultimately have to comply with these regulations to sell our batteries into the market. For more information, see “Part I, Item 1A. Risk Factors—Risks Relating to Regulations and Our Compliance With Such Regulations” discussing regulations and regulatory risks related to export controls (including our export controls compliance program), environmental, health and safety, anti-corruption, anti-bribery, data collection, trade and tax law compliance.

Company Information

Information that we furnish to or file with the SEC, including the Company’s annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to, or exhibits included in, these reports are made available for download, free of charge, through the Company’s website at www.ses.ai as soon as reasonably practicable. The Company’s SEC filings, including exhibits filed therewith, are also available directly on the SEC’s website at www.sec.gov.

The Company may use its website as a distribution channel of material company information. Financial and other important information regarding the Company is routinely posted on and accessible through the Company’s website. Accordingly, investors should monitor this channel, in addition to following the Company’s press releases, SEC filings and public conference calls and webcasts. Information contained on the Company’s website is not part of this report.

Item 1A. Risk Factors

We have identified the following risks and uncertainties that may have a material adverse effect on our business, financial condition, results of operations or reputation. The risks described below are not the only risks we face. Additional risks not presently known to us or that we currently believe are not material may also significantly affect our business, financial condition, results of operations or reputation. Our business could be harmed by any of these risks. The risk factors described below should be read together with the other information set forth in this Annual Report, including our consolidated financial statements and the related notes, as well as in other documents that we file with the SEC.

Risks Relating to Our Business and Technology

We face significant challenges in developing a Li-metal battery that can be commercialized for use in EVs and other applications, and the pace of development is often unpredictable and subject to delays.

To our knowledge, Li-Metal batteries have never been successfully used in automobiles. Li-Metal batteries have been successfully used for other applications, but their use in other vehicles, including UAM, has been limited thus far. We are still in the development stages for our Li-Metal batteries and face significant scientific challenges that will need to be solved prior to commercializing our Li-Metal batteries for use in EVs and other applications such as UAM. If we are not able to overcome these challenges, our Li-Metal batteries may not be able to be commercialized and our business may fail.

In particular, we need to build Li-Metal battery cells which meet OEM requirements for use in EVs and UAM. While we have been making progress toward these requirements, significant engineering and mechanical barriers remain which must be solved before our Li-Metal batteries will meet OEM requirements. It is difficult to predict with certainty the pace of scientific development which will allow us to solve these challenges, and delays in meeting these challenges, or the introduction of new, unforeseen challenges, could impact the timing of the commercialization of our Li-Metal batteries, or our ability to reach commercialization at all.

We have a history of no revenues and of net losses and expect to continue to incur losses for the foreseeable future. While we expect to become profitable eventually, our projections are based on internal assumptions that may prove incorrect, and we may never achieve or maintain profitability.

We incurred net losses of approximately \$53.4 million, \$51.0 million, and \$31.3 million for the years ended December 31, 2023, 2022 and 2021, and had an accumulated deficit of approximately \$198.7 million and \$145.3 million from our inception through December 31, 2023 and 2022, respectively. As discussed in “Business - Our Technology,” to date, we have only validated the capabilities of our Li-Metal battery cell technology and have not produced Li-Metal batteries for sale. As a result, we have yet to generate any revenue from our business operations, and since inception, we have not achieved profitable operations or positive cash flows from our operations.

Our plan is to achieve the development and initial production of B-Sample batteries in 2024 and C-Sample batteries in 2026, which we expect to enable us to commence commercial production of our technology in 2027. For more information, see “Part I, Item 1. Business—Our Growth Strategy.” As a result, we believe that we will continue to incur operating and net losses each quarter until at least 2028, the year following the one in which we expect to begin generating revenue as part of the commercialization of our Li-Metal battery technology. This plan and the related revenue and other financial projections reflect current estimates of future performance, based on certain financial and operational assumptions. Given our limited operating history, there can be no assurance that the actual results will be in line with our expectations. As discussed in other risk factors in this section, factors that could impact the timing and levels of our profitability include, but are not limited to: our ability to solve the scientific engineering and mechanical challenges to commercialize our products; the level of demand for our products; the performance of our products; the projected supply materials for our products; a reduction in the cost of Li-ion; average selling prices of EVs and our products; projected production capacities of our facilities; our collaboration with OEMs; the projected gross margin achievable upon sale of our products; and the extent to which growth of EV markets and continued shift in consumer preference will conform with projections.

Additionally, 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, including any significant unplanned or accelerated expenses and new strategic investments to expand our research and development activities in science, engineering, and technician personnel; invest in manufacturing capabilities; build up inventories of components for our batteries; invest in supply chain; 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, thus affecting the value of your investment.

We will need substantial additional capital in the future to fund our business and may be unable to meet our future capital requirements, impairing our financial position and results of operations.

The development, design, manufacture and sale of batteries is a capital-intensive business. We expect to sustain substantial operating expenses, without generating sufficient revenues to cover expenditures, for a number of years. To date, we have funded our operations through a combination of proceeds from the Business Combination and PIPE Financing and funding received through the sales of our redeemable convertible preferred stock. These funds are expected to finance our principal sources of liquidity and ongoing costs, such as research and development relating to our Li-Metal batteries and the construction of additional manufacturing facilities. In the future, if we are not able to fund our operations from cash flows generated from anticipated product sales, we expect that we will need to raise additional funds through a variety of possible methods, including, but not limited to, entry into joint ventures or other strategic arrangements, issuance of equity, equity-related or debt securities or through obtaining credit from financial institutions, as well as anticipated future revenue from product sales.

We believe that our cash on hand and marketable securities will be sufficient to meet our working capital and capital expenditure requirements for a period of at least 12 months from the date of this Report, and also sufficient to fund us to commercialization. However, additional funding may be required for a variety of reasons, including opportunities to build an integrated supply chain in the United States and delays in expected development of our Li-Metal battery cells. 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 and/or debt financing and, over time, our ability to generate positive cash flows from operations.

We cannot be certain that additional capital will be available on attractive terms, if at all, when needed, which could be dilutive to stockholders. 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. Furthermore, the cost of debt could be higher than anticipated, which could negatively affect our earnings.

Our Li-Metal technology is untested in actual EVs and may ultimately prove unworkable.

The results of third-party tests show that our multi-layer cells meet or exceed the preliminary OEM target requirements for energy density, low temperature discharge, room temperature fast charge and discharge, cycle life and safety. Additionally, Li-Metal is widely considered and accepted as the EV battery technology capable of achieving the highest energy density. However, we have not produced Li-Metal batteries for use by an actual EV, and no one has successfully demonstrated use of high energy density Li-Metal batteries in EVs. Our Li-Metal battery cell technology may prove unworkable when used in actual EVs, which would substantially undercut our business, operating results, financial condition and prospects, and could effectively eliminate the value of your investment.

The market for UAM, and for use of Li-Metal technology in UAM applications, is still emerging, and may not achieve the growth potential we expect.

The UAM market is still emerging, and it is uncertain to what extent market acceptance of UAM will grow, if at all. The market is new and rapidly evolving, characterized by rapidly changing technologies and evolving government regulation and industry standards. To our knowledge, there is no market standard battery technology for use in UAM applications. There can be no assurance that, even if the UAM market grows significantly, Li-Metal will emerge as a preferred battery technology for use in UAM applications. The success of our ability to sell Li-Metal batteries for use in UAM applications will depend on the growth and acceptance of UAM generally and the results of testing and certifications for use of our batteries in UAM applications. If the UAM market does not develop as we expect, or if our Li-Metal batteries do not perform as expected during testing for use in UAM applications, it could materially adversely affect our business, operating results, financial condition and prospects.

If our batteries fail to perform as expected our ability to develop, market and sell our batteries could be harmed.

Once commercial production of our Li-Metal battery technology 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 battery cells 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. For more information, see “Part I, Item 1. Business—Our Technology.” Due to our limited operating history, we have a restricted frame of reference from which to evaluate the long-term performance of our Li-Metal batteries. There can be no assurance that we will be able to detect and fix any defects in our batteries prior to the sale to potential consumers. If our batteries fail to perform as expected, 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, financial condition, operating results and prospects.

We are unable to predict user behavior when driving EVs with Li-Metal technology.

While conventional Li-ion battery technology has been tested in many applications for several decades, Li-Metal batteries have yet to be commercialized for use in EVs. Even if we work with OEMs to thoroughly test Li-Metal cells using pre-determined conditions, there is no guarantee that users in the field will not drive outside of recommended driving conditions and unintentionally abuse the batteries. In such events, performance and safety may be compromised, thus having a materially negative impact on our business, financial condition, operating results and prospects.

Delays in the pre-manufacturing development of our battery cells could adversely affect our business and prospects.

We have entered into JDAs with major OEMs to jointly develop Li-Metal batteries, with the expectation that such development will culminate in the widespread use of our technology in future EVs with these major OEMs, and eventually with other large OEMs. For more information, see “Part I, Item 1. Business—Our Partnerships.” However, as we are still in the developmental stages with each of these OEMs, we do not currently have existing arrangements to produce our Li-Metal cells for their vehicles, and production-ready models of our batteries will not be available until sufficiently tested and approved for inclusion in future OEMs’ EVs. Each time we produce a battery with a higher output, the product must undergo extensive pre-manufacturing development and testing. Anything that delays the consistent development and testing of pre-manufacturing battery cells samples at increasingly higher outputs, such as technology or engineering issues, could alter our prospects and adversely affect our business.

We may not be able to engage target OEM customers successfully and to convert such contacts into meaningful orders in the future.

Our success, and our ability to increase revenue and operate profitably, depends in part on our ability to identify OEM target customers and convert such contacts into meaningful orders or expand on current customer relationships. In some cases, our battery cells may be delivered to certain customers on a sampling basis, where they have the ability to evaluate whether our products meet their performance requirements before committing to joint development and meaningful orders. Our ongoing success depends on whether our target customers are willing to begin and continue using our battery technology, as well as whether their product lines continue to incorporate our products. Thus, our efforts to expand our manufacturing and sales to OEMs may not be successful and may never result in products that achieve market acceptance, create additional revenue or become profitable, thus harming our financial results and prospects.

Our research and development efforts strive to create products that are on the cutting edge of technology and are meeting the evolving requirements of our customers, but competition in our industry is high. To secure acceptance of our products, we must also constantly develop and introduce cost-effective, increasingly more scalable Li-Metal batteries with enhanced functionality and performance to meet evolving industry standards. If we are unable to retain target customers, or convert early trial deployments into meaningful orders, our

business, financial condition, operating results and prospects could be materially adversely affected. In addition, we may not receive adequate assistance from OEMs to commercialize our products successfully, which could impair our results of operations.

If we are unable to integrate our products into EVs manufactured by OEM customers, our results of operations could be impaired.

Our batteries are composed of modules assembled from battery cells, which we produce and intend to manufacture at scale. OEMs often require unique configurations or custom designs for batteries for their EVs. Once we enter into contracts with OEMs to produce batteries for their EVs, we expect to tailor the design of our batteries specifically to the EVs that these OEM customers manufacture. This development process requires not only substantial lead time between the commencement of design efforts for customized batteries and the commencement of volume shipments of the battery cells to the customer, but also the cooperation and assistance of the OEMs in order to determine the requirements for each specific application. Technical problems may arise that affect the acceptance of our product by the OEMs. If we are unable to design and develop products that meet the OEMs' requirements, we may lose opportunities to obtain purchase orders, and our reputation and prospects may be damaged.

We may not be able to establish new, or maintain existing, supply relationships for necessary raw materials, components or equipment or may be required to pay costs for raw materials, components or equipment that are more expensive than anticipated, which could delay the introduction of our product and negatively impact our business.

Currently, we are in product development and our product design has yet to be finalized, so our volume demand is limited, and we do not have long-term supply arrangements. As volume demand grows, we expect to negotiate long-term supply contracts. For our current product development needs, we source from third-party suppliers for raw materials, components and equipment necessary to develop and manufacture our Li-Metal battery cells. For more information, see "Part I, Item 1. Business—Our Suppliers."

To the extent that, when our volume demand so requires, if we are unable to enter into long-term agreements with our current or future suppliers on beneficial terms, or such suppliers experience difficulties ramping up their supply to meet our long-term requirements at reasonable cost, we may need to seek alternative sources for necessary raw materials, components or equipment necessary to develop and manufacture our Li-Metal battery cells, produce the raw materials or additional components in-house, or redesign our proposed products to accommodate available substitutes. To the extent that our suppliers experience any delays in providing or developing their products, we could also experience delays in delivering on our timelines.

Moreover, the price of raw materials, components and equipment could fluctuate significantly due to circumstances beyond our control. Substantial increases in prices would increase our operating costs and negatively impact our prospects. Any disruption in supply could also temporarily disrupt future research and development activities or production of our batteries until an alternative supplier is able to meet our requirements.

Changes in business conditions, unforeseen circumstances and governmental changes, as well as other factors beyond our control or which we do not presently anticipate, could affect our suppliers' ability to deliver raw materials, components or equipment to us on a timely basis. For instance, we may be impacted by currency fluctuations, trade barriers, tariffs or shortages and other general economic or political conditions (such as the ongoing military conflict between Russia and Ukraine or ongoing Israel-Hamas war and wider regional conflict, including attacks on shipping vessels in the Red Sea), which may limit our ability to obtain key raw materials or components for our Li-Metal batteries or significantly increase freight charges and other costs and expenses associated with our business. For more information, see "—Risks Relating to our International Operations—The international nature of our business exposes us to business, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States." Any of the foregoing could materially and adversely affect our business, financial condition, operating results and prospects.

Our ability to manufacture our Li-Metal batteries at scale depends on our ability to build, operate and staff our facilities successfully.

We expanded our China and South Korea facilities in 2023 and expect to continue to expand and modify our production facilities in 2024 and beyond as we work with our OEM partners to progress toward eventual C-Sample battery development and production ahead of planned commercial production. For more information, see "Part I, Item 1. Business—Our Growth Strategy and "Business—Our Facilities." Because we expect to rely heavily on complex machinery, well-trained personnel and well-managed supply chain for our operations in these facilities, our production will involve a significant degree of uncertainty and risk in terms of operational performance and costs.

Our manufacturing facilities consist of large-scale machinery combining many components. Such machinery will require us to make intensive capital expenditures prior to our ability to earn any revenues. The manufacturing facility machinery may suffer unexpected

malfunctions from time to time and will depend on repairs and spare parts to resume operations, which may not be available when needed. Additionally, unexpected malfunctions of the manufacturing facility machinery may significantly affect the intended operational efficiency, thus materially and adversely affecting our business, financial condition and operating results.

The production of our facilities also requires us to hire and train highly skilled personnel to operate such facilities, including engineers, workers, and indirect laborers. Recruiting and training such skilled staff takes significant cost and time, and an inability to do so timely or at all inhibits the successful operation of these facilities, thus negatively affecting our business. In addition, the manufacturing of our Li-Metal batteries at facilities requires us to obtain various production licenses and permits, receive the necessary internal approvals from our customers regarding specifications and enter into agreements for the supply of raw materials, components and manufacturing tools and supplies. If we do not complete such steps in a timely manner, our manufacturing timeline or output could be significantly delayed or inhibited.

Finally, the production of our Li-Metal batteries at scale and competitive cost, compared to conventional Li-ion cells, will require us to achieve rates of throughput, use of electricity and consumables, yield, and rate of automation demonstrated for mature batteries and battery material. As we have not produced Li-Metal batteries at scale, our ability to achieve such rates is untested and subject to significant constraints and uncertainties. Operational performance and costs can be difficult to predict and are often influenced by factors outside of our control, such as, but not limited to, environmental hazards and remediation, costs associated with commissioning of machines, damages or defects in electronic systems, industrial accidents, fire and seismic activity and natural disasters, and problems with equipment vendors. Should operational risks materialize, they may result in lower yield, which would negatively affect our revenue growth and profitability as projected. Additionally, they could cause personal injury to or death of workers, the loss of manufacturing equipment, damage to manufacturing facilities, monetary losses, delays and unanticipated fluctuations in production, environmental damage, administrative fines, increased insurance costs and potential legal liabilities, all of which could have a material adverse effect on our business, financial condition, operating results and prospects.

We have pursued and may continue to pursue JDAs and other strategic alliances, which could have an adverse impact on our business if they are unsuccessful or if we are unable to enter into new JDAs.

We have entered into strategic alliances and may in the future enter into additional strategic alliances. For example, we have entered into JDAs with GM, Hyundai and Honda, which expire at different points in time. For more information, including the expiration dates of these agreements, see “Part I, Item 1. Business—Our Partnerships” and Note 4 to our consolidated financial statements. We expect to form other strategic joint ventures in the future to support our supply chain as well as the build out of manufacturing facilities aimed at the commercialization of our batteries.

While offering potential benefits, these current and future strategic alliances with battery manufacturers, OEMs and others could subject us to a number of risks, including risks associated with sharing proprietary information, non-performance by our partners and costs of establishing and maintaining new strategic alliances, any of which may materially and adversely affect our business. We may have limited ability to monitor or control the actions of our partners and, to the extent any of them suffers negative publicity or harm to their reputation from events relating to their business, we may also suffer negative publicity or harm to our reputation by virtue of our association with them. For example, if we rely on our partners’ manufacturing facilities, those operations would be outside of our control. We could experience delays if our partners do not meet agreed-upon timelines or experience capacity constraints, and in turn, we could lose customers and face reputational harm.

Further, there is risk of potential disputes with any partners with whom we collaborate, and we could be affected by adverse publicity related to our partners, whether or not such publicity is related to their collaboration with us. Our ability to build a premium brand successfully could also be adversely affected by perceptions about the quality of our partners’ products. In addition, because we rely on our partners and third parties to meet our quality standards, there can be no assurance that we will successfully maintain quality standards. Finally, we may not be successful in signing into new JDAs in the future, whether with new OEM partners or with existing OEM partners with whom we want to continue our relationships. Any of the foregoing could adversely affect our business, financial condition, operating results and prospects.

The EV battery market continues to evolve and is highly competitive, and certain other battery manufacturers have significantly greater resources than we do.

The EV battery market, like the EV market it services, is fast-growing, extremely competitive and driven by the innovation of both large incumbents and emerging entrants like SES. For more information, see “Part I, Item 1. Business—Competition.” Li-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 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, Li-ion battery manufacturers may continue to reduce cost and expand supply of conventional batteries and therefore reduce the prospects for our business or negatively impact our ability to sell our products at a market-competitive price and yet with sufficient margins.

A number of development-stage companies are also seeking to develop new technologies for Li-Metal batteries. Potential new entrants are seeking to develop new technologies for cathodes, anodes, electrolytes and additives. Some of these companies have established relationships with OEMs and are in varying stages of development. Additionally, many OEMs are researching and investing in conventional Li-ion batteries and/or Li-Metal battery efforts and, in some cases, in battery development and production. Furthermore, other companies are developing alternative technologies such as advanced diesel, ethanol, fuel cells or compressed natural gas, as well as potential improvements in the fuel economy of the internal combustion engine. We expect competition in battery technology and EVs to intensify due to increased demand for these vehicles and a regulatory push for EVs, continuing globalization, and consolidation in the worldwide automotive industry. Developments in alternative technologies or improvements in battery technology made by competitors may materially adversely affect the sales, pricing and gross margins of our batteries. If a competing technology is developed that has superior operational or price performance, our business will be harmed. Similarly, 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 Li-Metal batteries, our business will be harmed.

We may not be able to estimate accurately the future supply and demand for our batteries, which could result in a variety of inefficiencies in our business and hinder our ability to generate revenue. If we fail to predict accurately our manufacturing requirements, we could incur additional costs or experience delays.

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 business. We anticipate being required to provide forecasts of our demand to our current and future suppliers prior to the scheduled delivery of products to potential customers. Currently, there is no historical basis for making judgments on the demand for our batteries or our ability to develop, manufacture, and deliver batteries, or our profitability in the future. If we overestimate our requirements, our suppliers may have excess inventory, which may increase our costs. If we underestimate our requirements, our suppliers may have inadequate inventory, which could interrupt manufacturing of our products and result in delays in shipments and revenues or potential liability for late delivery. In addition, lead times for raw materials, components and manufacturing equipment may vary significantly and depend on factors such as the specific supplier, contract terms and demand for each raw material, component or manufacturing equipment at a given time. Any of the foregoing could result in delays in the delivery of batteries to our potential customers, which would harm our business, financial condition, operating results and prospects.

Certain components of our batteries pose safety risks that may cause accidents. We may be subject to financial and reputational risks due to product recalls and product liability claims, and we could face substantial liabilities that exceed our resources.

Due to the high energy density inherent in lithium-based batteries, our batteries can pose certain safety risks, including the risk of fire. Our state-of-the-art software is designed to accurately monitor and predict most safety incidents. Nevertheless, accidents causing death or personal injury, or property damage can occur, and no high energy density battery will ever be 100% safe. For example, with repeated charge and discharge cycles, Li-Metal anodes are known to develop needle-like mossy structures known as dendrites, which can penetrate the separator and short-circuit the battery cell. Although we incorporate safety procedures in the research, development, manufacture and transportation of batteries that are designed to minimize safety risks - for example, our Li-Metal battery technology is designed to change the morphology of dendrite formation - the manufacture or use of our products may still cause accidents. Any accident, whether occurring at the manufacturing facilities or from the use of our products, may result in significant production interruption, delays or claims for substantial damages caused by personal injuries or property damage.

Product liability claims, even those without merit or those that do not involve our products, could harm our business, financial condition, operating results and prospects. The automobile industry in particular experiences significant product liability claims, and we face inherent risk of exposure to claims in the event that our battery products do not perform or are claimed not to have performed as expected. As is true for other commercial vehicle suppliers, we expect in the future that our battery products will be installed on vehicles that will be involved in crashes resulting in death or personal injury. Additionally, product liability claims that affect our competitors may cause indirect adverse publicity for us and our products.

A successful product liability claim against us could require us to pay a substantial monetary award. We may not be able to cover any substantial monetary judgment against us. Moreover, a product liability claim against us or our competitors could generate substantial negative publicity about our products and business and could have a material adverse effect on our brand, business, prospects, financial condition and operating results.

Our use of artificial intelligence and machine learning may result in legal and regulatory risk.

We use artificial intelligence and machine learning in our business, including using artificial intelligence in our battery management systems to monitor the state of health of the battery and using machine learning to assist in developing new molecules and synthesis techniques to improve battery performance. As with many technological innovations, there are significant risks and challenges involved in maintaining and deploying these technologies. Artificial intelligence algorithms or training methodologies may be flawed. Datasets may be overbroad or insufficient and information generated by artificial intelligence may be illegal or harmful. There can be no assurance that the usage of such technologies will enhance our products or services or be beneficial to our business, including our efficiency or profitability. Additionally, artificial intelligence entails significant legal risks. The IP ownership and license rights of new technologies such as artificial intelligence and machine learning have not been fully addressed by U.S. courts, and there is uncertainty and ongoing litigation in different jurisdictions as to the degree and extent of protection warranted for artificial intelligence technologies and relevant system input and outputs. If we fail to obtain protection for the intellectual property rights concerning technologies developed using artificial intelligence or machine learning, or later have our intellectual property rights invalidated or otherwise diminished, our competitors may be able to take advantage of our research and development efforts to develop competing products, which could adversely affect our business, reputation, financial condition, or results of operations. Moreover, the use or adoption of artificial intelligence and machine learning in our technology may expose us to breach of a data or software license, website terms of service claims, claimed violations of privacy rights or other tort claims. The regulatory landscape surrounding artificial intelligence is also evolving, and the use of machine learning technologies may also become subject to regulation under new laws or new applications of existing laws. On October 30, 2023, the Biden administration issued an Executive Order to, among other things, establish extensive new standards for AI safety and security. Other jurisdictions may decide to adopt similar or more restrictive legislation that may render the use of such technologies challenging. These restrictions may make it harder for us to conduct our business using artificial intelligence, and violations of these laws and regulations could result in fines and penalties, criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business, and damage to our reputation.

We may incur significant costs based on the warranties we may supply in our products and services.

Battery manufacturers are expected to give warranties that are reflective of the warranties given by manufacturers to users of the end product (e.g., from an OEM to a buyer of a vehicle). With respect to our battery products, we expect to offer warranties against any defects due to product malfunction or workmanship. We expect to provide a reserve for these potential warranty expenses, which is based on an analysis of historical warranty issues. There will be no assurance that future warranty claims will be consistent with past history, and in the event we experience a significant increase in warranty claims, there is no assurance that our reserves will be sufficient. This could have a material adverse effect on our business, financial condition and operating results.

If we fail to effectively manage eventual growth, then our business, results of operations and financial condition could be adversely affected.

Our future success depends upon our ability to grow, and if we are unable to manage our growth effectively, we may incur unexpected expenses and be unable to meet our eventual customers' requirements, all of which could materially adversely affect our business, financial condition, operating results and prospects. To manage our current and anticipated future growth effectively, we must continue to maintain and enhance our infrastructure, financial and accounting systems and controls. We must also attract, train and retain a significant number of scientists, engineers, sales and marketing personnel, customer support personnel, professional services personnel, technical personnel and management personnel, and the availability of such personnel may be constrained.

As we continue to grow, including from the integration of employees and businesses acquired in connection with future acquisitions, we may find it difficult to maintain important aspects of our corporate culture, which could negatively affect our profitability and our ability to retain and recruit qualified personnel who are essential for our future success. If we do not effectively manage our growth, we may not be able to execute on our growth plan, respond to competitive pressures, take advantage of market opportunities, satisfy customer requirements or manufacture high-quality products. Additionally, we may not be able to expand and upgrade our infrastructure to accommodate future growth.

Failure to effectively manage our growth could also lead us to over-invest or under-invest in development and operations; result in weaknesses in our infrastructure, systems or controls; give rise to operational mistakes, financial losses, loss of productivity or business

opportunities; and result in loss of employees and reduced productivity of remaining employees. Our growth is expected to require significant capital expenditures, which may lower our earnings, and may divert financial resources from other projects such as the development of new products and services. If we are unable to manage our growth effectively, our expenses may increase more than expected, our revenue may not increase or may grow more slowly than expected and we may be unable to implement our business strategy.

Our business depends substantially on the continuing efforts of our senior executives and other key personnel as well as the ability to attract, train and retain highly skilled employees and key personnel.

Our success depends on our ability to attract and retain our executive officers, key employees and other qualified personnel, and our operations may be severely disrupted if we lost their services. As we build our brand and become better known, there is increased risk that competitors or other companies will seek to hire our personnel. All of our executives and engineering staff are subject to non-competition agreements, but we may face challenges in enforcing these non-competition agreements, and such agreements may become illegal if the Federal Trade Commission's proposed Non-Compete Clause Rule is implemented. The failure to attract, integrate, train, motivate and retain these personnel could seriously harm our business and prospects.

To execute our business plan, we must attract and retain highly qualified personnel in research and development, sales and marketing, production and other leadership roles. Competition for these employees is intense, and we may not be successful in attracting and retaining qualified personnel. We have from time to time in the past experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled employees with appropriate qualifications in relevant industries. Many of the companies with which we compete for experienced personnel have greater resources than we have. In addition, in making employment decisions, particularly in high-technology industries, job candidates often consider the value of the equity they are to receive in connection with their employment. Employees may be more likely to leave us if the shares they own or the shares underlying their equity incentive awards have significantly appreciated or significantly reduced in value. A significant talent pool consists of nationals from countries that may require a license from the United States Bureau of Industry and Security to work with our technology, which raises the cost of hiring due to the uncertainty that a license may not be granted and the candidate would be unemployable in the role envisioned. If we fail to attract new personnel, or fail to retain and motivate our current personnel, our business and growth prospects could be harmed.

In addition, we are highly dependent on the services of Dr. Qichao Hu, our Founder and Chief Executive Officer, and other senior technical and management personnel, including our executive officers, who may take significant amounts of time to replace. If Dr. Hu or other key personnel were to depart, we may not be able to successfully attract and retain senior leadership necessary to grow our business.

If we do not maintain and continue to develop our corporate culture as we grow and evolve, it could also harm our ability to foster the innovation, creativity and teamwork we believe that we need to support our growth. Additions of executive-level management, significant numbers of new employees, our workforce reduction and higher employee turnover could significantly and adversely impact our culture.

Risks Relating to the EV Industry

Our future growth and success depend on the willingness of vehicle operators and consumers to adopt EVs.

Our growth is highly dependent upon the adoption of EVs by commercial vehicle and specialty vehicle operators and consumers. If the markets for EVs do not develop as we expect or develop more slowly than we expect, our business, prospects, financial condition and operating results will be harmed, because demand for our products and services will not increase as expected or may even be reduced. The market for alternative fuel vehicles is relatively new, rapidly evolving, characterized by rapidly changing technologies, price competition, numerous competitors, evolving government regulation and industry standards, frequent new vehicle announcements and changing consumer demands and behaviors.

Other factors may influence the adoption of EVs, including, but not limited to:

- perceptions about EV quality, design and performance, especially if adverse events or accidents occur that are linked to the quality or safety of EVs;
- volatility in sales of EVs;
- the costs of purchasing and maintaining EVs;
- perceptions about vehicle safety in general, namely, safety issues that may be attributed to the use of advanced technology, including vehicle electronics;

- negative perceptions of EVs, such as that they are more expensive than nonelectric vehicles and are only affordable with government subsidies or that they have failed to meet customer expectations;
- the limited range over which EVs may be driven on a single battery charge and the effects of weather on this range;
- the decline of an EV's range resulting from deterioration over time in the battery's ability to hold a charge;
- concerns about electric charging infrastructure availability and reliability, which could derail past and present efforts to promote EVs as a practical solution to vehicles which require gasoline;
- concerns about charging station standardizations, convenience and cost influencing consumers' perceptions regarding the convenience of EV charging stations;
- concerns of potential customers about the susceptibility of battery packs to damage from improper charging, as well as the lifespan of battery packs and the cost of their replacement;
- concerns regarding comprehensive vehicular insurance coverage related to EVs;
- developments in alternative technologies, such as advanced diesel, ethanol, fuel cells or compressed natural gas, or improvements in the fuel economy of the internal combustion engine, which could adversely affect sales of EVs;
- the environmental consciousness of consumers;
- the availability and volatility in the cost of natural gas, diesel, coal, oil, gasoline and other fuels relative to electricity;
- the availability of tax and other governmental incentives to purchase and operate EVs or future regulation requiring increased use of nonpolluting vehicles;
- concerns regarding the value and costs for upkeep of EVs in the used car market;
- the availability of enough skilled labor in after-sale maintenance and repair services of EVs; and
- macroeconomic factors.

Any of these factors could impair the development of the EV market, lowering demand. In anticipation of an expected increase in the demand for EVs in the next few years, we plan to develop, test, manufacture and commercialize our Li-Metal battery technology. However, the markets we expect to target, primarily those in North America, Europe and Asia, may not achieve the level of growth we expect. If any market fails to achieve our expected level of growth, we may have excess manufacturing capacity and may not be able to generate enough revenue to achieve or sustain our profitability.

Developments in alternative technology or other fossil fuel alternatives may adversely affect the demand for our battery products.

Significant developments in alternative technologies, such as fuel cell technology, advanced diesel, ethanol or natural gas, or breathing batteries, may materially and adversely affect our business, financial condition, operating results and prospects in ways that we may not currently anticipate. Existing and other battery technologies, fuels or sources of energy may emerge as customers' preferred alternatives to our battery products. Any failure by us to develop new or enhanced technologies or processes, or to react to changes in existing technologies, could materially delay our development and introduction of new and enhanced alternative products, which could result in decreased revenue and a loss of market share to our competitors.

Our research and development efforts may not be sufficient to adapt to changes in alternative fuel and EV technology. As technologies evolve, we plan to upgrade or adapt our energy solutions with the latest technology, in particular lighter weight modules and packs, advanced cooling methods, more sophisticated safety management software, more efficient manufacturing process, and advanced battery chemistry, which may also negatively impact the adoption of our other products. However, we may not compete effectively with alternative systems if we are not able to develop, source and integrate the latest technology into our battery products.

If the EVs in which our batteries are installed do not meet certain motor vehicle standards, our business, operating results and prospects could be adversely affected.

Our products are expected to be used as components in EVs. All vehicles sold must comply with applicable international, federal, and state motor vehicle safety standards, which vary by national and other jurisdictions. In the United States, vehicles that meet or exceed all federally mandated safety standards are certified under the federal regulations. Rigorous testing and the use of approved materials and equipment are among the requirements for achieving federal certification. Failure by our eventual EV manufacturing customers to satisfy motor vehicle standards could have a material adverse effect on our business and operating results.

Moreover, we may incur our own significant costs in complying with these regulations. Laws and regulations related to the EV industry and alternative energy are currently evolving and we face risks associated with changes to these laws and regulations.

To the extent laws and regulations become more stringent or otherwise change, our products or the vehicles into which they are incorporated may not comply with applicable international, federal, state or local laws, which would have an adverse effect on our business. Compliance with changing laws and regulations could be burdensome, time consuming and expensive. To the extent compliance with new laws and regulations is cost prohibitive, our business, financial condition, operating results and prospects would be adversely affected.

Internationally, there may be laws and regulations in jurisdictions we have not yet entered or laws of which we are unaware in jurisdictions we have entered that may restrict our sales or other business practices. Even for those jurisdictions we have analyzed, the laws and regulations in this area can be complex, difficult to interpret and may change over time. Continued regulatory limitations and other obstacles interfering with our or our eventual customers' ability to sell products could have a negative and material impact on our business, financial condition, operating results and prospects.

Our ability to successfully market our products will depend on the establishment of charging station networks meeting the needs of EVs using our products. If any of the charging station networks are not compatible with such products and technologies, our sales could be adversely affected.

We design, develop, and manufacture electric power batteries for EVs. However, we do not manufacture chargers or charging poles that are necessary for using our products. In addition, we will rely on third parties, such as city governments, utility providers and private investors, to build charging stations for EVs using our products. If no charging station networks are built in markets in which OEMs using our products target their EVs, there would be little demand for electric battery products in those areas.

Further, existing charging station networks have not been established under a uniform standard and it could diminish our sales if any of the networks are not compatible with EVs using our products and technologies. In order for our fast-charging batteries to become widely adopted in electric passenger cars, a critical mass of compatible fast-charging stations must be installed and in operation in any given urban area where our OEM customers plan to enter. Establishing a network of fast-charging stations requires significant capital investment and government approvals. It also requires government regulators to believe that the merits of fast-charging stations support the costs of such construction. If a sufficient number of charging stations that accommodate EVs using our products and technologies cannot be built up and be functional in a timely manner, it will be difficult for us to retain our existing customers and to attract new customers. As a result, our business, financial condition, operating results and prospects may be materially and adversely affected.

If emerging standards in charging station networks are not compatible with our current products or in development products and technologies, we may miss market opportunities and our financial performance will suffer. If other EV battery companies' products and services, including industry-standard technologies or other new standards, emerge or become dominant in any of these areas, or differing standards emerge in global markets, demand for our technology and products could diminish. As standards emerge, such as those in China including specifications for hardware, connecting equipment and service networks, and standards for communication and inspection, compatibility of prior fast-charging stations could be made obsolete.

The Biden Administration has put forth ambitious goals for advancing new battery technology, which may lead to a shortage of the metals required for manufacturing batteries.

The Biden Administration has put forth ambitious goals for investing in "clean energy," including goals to replace gasoline-operated vehicles with EVs, and signed into law the Inflation Reduction Act of 2022, which includes multiple incentives to promote clean energy, electric vehicles, battery and energy storage manufacture or purchase. In order to meet these ambitious goals, a secure supply chain of raw materials, including lithium, copper and nickel, will need to be obtained. Developing mines for these materials can take a significant amount of time. If production of battery technology increases faster than this supply chain can be secured, it may lead to a shortage of these raw materials, which could negatively affect our business.

Risks Relating to Our Intellectual Property

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

Our key technological innovations, including innovations that are currently commercialized in our products and innovations that we plan to deploy in the future, are described in our issued patents and pending patent applications, as well as patent applications that we plan to file in the future. For more information, see "Part I, Item 1. Business—Intellectual Property." The process of applying for and obtaining a patent is expensive, time consuming and does not always result in patent claims as expected or needed. We may not be able to file and prosecute

all necessary or desirable patent applications at a reasonable cost, in a timely manner, or in all jurisdictions where protection may be commercially advantageous, or we financially may not be able to protect our proprietary rights at all. There is also no assurance that the pending applications will result in issued patents.

In addition, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our products and practicing our technology. Alternatively, third parties may seek to market their products similar to or otherwise competitive with our products. In these circumstances, we may need to defend and/or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or agency with jurisdiction may find our patents invalid and/or unenforceable. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives. Under the terms of our JDAs, and as part of our sponsored research projects with universities, we may file patent applications with third parties and end up co-owning certain of our patents. Co-ownership of a patent may require us to enter into license agreements with third parties, which are less favorable than if we were the sole owner of the patent. Furthermore, if the other owners are unwilling to join us in an enforcement action, we may be unable to enforce our jointly owned patent rights against infringers. Such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. If one or more of our patents are held to be invalid or unenforceable, or if claims of those patents are interpreted narrowly, or if patents fail to issue from our pending applications, our competitiveness and value may also be undermined. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

We rely heavily on our intellectual property portfolio, including unpatented proprietary technology. If we are unable to protect our intellectual property rights from unauthorized use, 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 patent, trademark and trade secret laws 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.

We also rely substantially on unpatented proprietary technology, including know-how or trade secrets. We seek to protect our intellectual property rights in various ways, including through nondisclosure and invention assignment agreements with our employees and consultants and through non-disclosure agreements with business partners and other third parties. We cannot ensure that these agreements will provide meaningful protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use, misappropriation, or disclosure of such trade secrets, know-how or other proprietary information. There can be no assurance that employees, consultants, vendors and customers have executed such agreements or have not breached or will not breach their agreements with us, that we will have adequate remedies for any breach, or that our trade secrets will not otherwise become known or independently developed by competitors. The theft or unauthorized use or publication of our trade secrets and other confidential business information could reduce the differentiation of our products and harm our business, the value of our investment in development or business acquisitions could be reduced and third parties might make claims against us related to losses of their confidential or proprietary information. Any of the foregoing could materially and adversely affect our business.

Additionally, despite our efforts to protect our proprietary rights, third parties may attempt to copy or otherwise obtain and use our intellectual property. Monitoring unauthorized use 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, 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.

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 for us to operate our business. From time to time, we have received, and we may in the future receive, claims or inquiries from holders of patents or trademarks claiming that and/or inquiring whether we are infringing their proprietary rights and/or seeking court declarations that they do not infringe upon our intellectual property rights. Companies holding patents or other intellectual property rights relating to batteries, electric motors or electronic power management systems may bring suits alleging infringement of such rights or

otherwise asserting their rights and seeking licenses. In addition, if we are determined to have infringed upon a third party's intellectual property rights, we may be required to do one or more of the following:

- cease selling, incorporating or using products that incorporate the challenged intellectual property;
- pay damages;
- obtain a license from the holder of the infringed intellectual property right, which license may not be available on reasonable terms or at all; or
- redesign our batteries.

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

We may face risks relating to protecting our intellectual property in various countries.

Patent, trademark and trade secret laws vary significantly throughout the world. Filing, prosecuting, and defending patents in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection or licenses, but enforcement is not as strong as that in the United States.

A number of foreign countries do not protect intellectual property rights to the same extent as do the laws of the United States. Therefore, our intellectual property rights 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 rights, technology, and other proprietary rights may be more expensive and difficult outside of the United States. Some courts inside and outside the United States may be less willing or unwilling to protect trade secrets and agreement terms that address non-competition are difficult to enforce in many jurisdictions and might not be enforceable in certain cases. Failure to adequately protect our intellectual property rights 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, financial condition, operating results and prospects.

Risks Relating to our International Operations

The international nature of our business exposes us to business, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States.

While we are incorporated as a Delaware corporation, we have significant operations outside the United States. Battery manufacturing is capital intensive, and to reduce dilution and financial burden, SES has been applying for appropriate government financial support. We currently have an operating facility in Shanghai, China, focused on supply chain development, manufacturing process development, battery cell development and production, AI software, BMS and module development, and an operating facility in Chungju, South Korea, focused on manufacturing process development and battery cell product development. We have received financial support from the Government of South Korea to partially offset the expense of facility construction and plan to seek additional government financial support to the extent possible. Also, due to geopolitical considerations, we may be required to introduce certain commercial inefficiencies into our operations.

We are subject to, and could become further subject to, various legal, political, regulatory and social requirements and economic conditions both inside and outside the United States. Expansion into new markets requires significant resources and management's attention, as well as significant expenditures, including for the establishment of local operating entities, hiring of local employees and establishment of facilities in advance of generating any revenue. Some of the risks associated with international operations in China, South Korea and/or other countries, such as in the development, manufacturing, marketing or sale of our products, include, but are not limited to:

- general trade tensions between the United States and China have been escalating, and new legislation or regulations in either jurisdiction could impose additional restrictions and costs on our ability to operate in one or both jurisdictions, or even foreclose operations entirely;
- general political tension between South Korea and North Korea, including the ongoing risk of armed conflict between the two countries, which could disrupt our manufacturing operations in South Korea or foreclose our operations entirely;
- non-U.S. countries have enacted and could enact legislation or impose regulations or other restrictions, including unfavorable labor regulations or tax policies (such as Chinese regulations prohibiting our operating company from paying dividends out of accumulated

distributable profits unless 10% of such profits (up to half of the company's registered capital) are set aside annually, under Article 166 of China's Company Law), which could have an adverse effect on our ability to conduct business in or expatriate profits from those countries;

- tax rates in certain non-U.S. countries may exceed those in the United States and non-U.S. earnings may be subject to withholding requirements or the imposition of tariffs, exchange controls, or other restrictions, including restrictions on repatriation;
- the regulatory or judicial authorities of non-U.S. countries may not enforce legal rights and recognize business procedures in a manner to which we are accustomed or would reasonably expect;
- we may have difficulty complying with a variety of laws and regulations in non-U.S. countries, some of which may conflict with laws in the United States;
- changes in political and economic conditions may lead to changes in the business environment in which we operate, as well as changes in currency exchange rates;
- in the case of China, the degree of significant government control over China's economic growth through restrictions and limitations on foreign investment in certain industries, control over the allocation of resources, control over payment of foreign currency-denominated obligations, implementation of monetary policy, data localization and privacy requirements, technology transfer requirements, national security laws, influence over the courts and preferential treatment of particular industries or companies, could materially affect our liquidity, access to capital, intellectual property and ability to operate our business in China. If we are unable to operate our business in China, it would require us to redirect research and development efforts to facilities in other jurisdictions, which could result in additional expenditures which would negatively impact our business and results of operations;
- in the case of China, data localization requirements and restrictions on the use of foreign technology applications have already been enacted by the Chinese government, and restrictions on the use of Chinese technology and applications that have been or may be adopted in the future by the United States, may make it difficult to efficiently coordinate complex manufacturing supply chains in a global setting;
- in the case of China, new laws and regulations may require us to obtain additional permits or licenses, or complete or update registrations with regulatory authorities, and we may be unable to conduct our operations in China if we are unable to obtain required permits, licenses or registrations in a timely manner;
- restrictions or denials on visas for our personnel, may limit our ability to train and pass along proprietary information efficiently;
- differences in software usage and export controls, may make it difficult to share certain engineering documents and resources between global subsidiaries;
- changes to export controls and/or failure to obtain export licenses in the United States, China or other countries in which we do business could adversely affect our access to raw materials, ability to manufacture and ship our products or increase our costs to conduct research and development; and
- natural disasters or international conflict, including terrorist acts, could interrupt our research and development, manufacturing or commercialization or endanger our personnel.

Our ability to deal with these issues could be affected by existing or new U.S. laws and the need to protect our intellectual property and assets. The materialization of any such risks could have an adverse impact on our business, financial condition, operating results and prospects.

We could experience losses associated with our intellectual property in relation to our operations in China.

We rely upon the fair interpretation and enforcement of patent, copyright, trademark and trade secret laws in the U.S., similar laws in other countries, and agreements with employees, customers, suppliers, licensors and other parties. Such reliance serves to establish and maintain the intellectual property rights associated with the technology that we develop and ultimately sell. However, the laws and courts of certain countries at times do not protect intellectual property rights or respect contractual agreements to the same extent as the laws of the U.S. Therefore, in certain jurisdictions we may not be able to protect our intellectual property rights against counterfeiting or enforce our contractual agreements with other parties. Specifically, as discussed above, the Company conducts research and development operations in China. Article VII of the National Intelligence Law of China requires every commercial entity in China, by simple order of the Chinese government, to act as an agent of the government by committing espionage, technology theft, or whatever else the government deems to be in the national interest of China. If the Chinese government were to require the appropriation of certain of our intellectual property in the national interest, this could lead to material adverse effects on our operations and competitive positions.

Implementation of labor laws and regulations in China may adversely affect our business and results of operations.

Pursuant to the labor contract law of China that took effect in January 2008, its implementation rules that took effect in September 2008 and its amendment that took effect in July 2013, employers are subject to stricter requirements in terms of signing labor contracts, minimum wages, paying remuneration, determining the term of employees' probation and unilaterally terminating labor contracts. Due to lack of detailed interpretative rules and uniform implementation practices and broad discretion of the local competent authorities, it is uncertain as to how the labor contract law and its implementation rules will affect our current employment policies and practices. Our employment policies and practices may violate the labor contract law or its implementation rules, and we may thus be subject to related penalties, fines or legal fees. Compliance with the labor contract law and its implementation rules may increase our operating expenses, in particular our personnel expenses. In the event that we decide to terminate some of our employees or otherwise change our employment or labor practices, the labor contract law and its implementation rules may also limit our ability to effect those changes in a desirable or cost-effective manner, which could adversely affect our business and results of operations.

As the interpretation and implementation of these laws and regulations are still evolving, we cannot assure you that our employment practice will at all times be deemed in full compliance with labor-related laws and regulations in China, which may subject us to labor disputes or government investigations. If we are deemed to have violated relevant labor laws and regulations, we could be required to provide additional compensation to our employees and our business, financial condition and results of operations could be adversely affected.

Further, labor disputes, work stoppages or slowdowns at our operations facilities or any of our third-party service providers could significantly disrupt daily operation or our battery development plans and have materially adverse effects on our business.

The unavailability, reduction or elimination of, or uncertainty regarding, government and economic incentives or subsidies available to us, end-users or OEMs could have a material adverse effect on our business, financial condition, operating results and prospects.

In 2019, in connection with our establishment of our Shanghai facility, the first two years of rent on the facility totaling approximately RMB7.1 million was borne by the Jiading district local government which also took on certain renovations to the facility at the cost of approximately RMB 4.3 million such that it is suitable for our use. In 2020, we received an incentive award of RMB10,000 under the Jiading Industrial Zone Development Potential Award from the Jiading district local government. In 2022, we also received an incentive award from certain South Korean government agencies. We intend to apply for further grants in the future in the jurisdictions in which we operate. Government incentives and subsidies are granted in connection with government's efforts to promote the development of the local economy and other policies. Some local government incentives and subsidies may be challenged by higher-level government authorities. Therefore, government incentives and subsidies may be modified, terminated or subject to clawback at the sole discretion of the relevant governmental authorities. Additionally, because laws, regulations and policies with respect to incentives and subsidies may change, we cannot be sure that government incentives and subsidies will continue to be available. In the event that we cease to receive any government incentives or subsidies, any current or future incentive or subsidy is reduced, or any of our current or future incentives or subsidies are challenged, our business, financial condition and operating results may be adversely affected. See Note 10 "Government Grant" of the Notes to the Financial Statements for discussion of our accounting for government incentives.

Additionally, we believe that, currently, the availability of government incentives and subsidies available to end-users and OEMs is an important factor considered by customers when purchasing EVs, and that growth in the battery market will depend in part on the availability and amounts of these subsidies and incentives for EVs. Any further reduction or elimination of government and economic incentives or subsidies may result in the diminished competitiveness of the alternative fuel vehicle industry generally or EVs that use our batteries in particular.

Currently, government programs, including in China and Europe, favor the purchase of EVs, including through disincentives that discourage the use of gasoline-powered vehicles. In the United States, the Inflation Reduction Act of 2022 provides tax credits for the purchase of electric vehicles, and the states of California, Connecticut, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island and Washington have recently banned the sale of new gas-powered vehicles by 2035, and other states may follow. If such government laws or programs are reduced or eliminated, or the available benefits thereunder are exhausted earlier than anticipated, demand for EVs may decrease and our anticipated sales of EV battery products could be adversely affected. In addition, OEM customers may delay taking delivery of our battery products if they believe that certain EV incentives will be available at a later date, which may adversely affect our business, financial condition, operating results and prospects.

Our incentives from various governments are conditional upon achieving or maintaining certain performance obligations and are subject to reduction, termination, or clawback.

We have received, and may in the future continue to receive, benefits and incentives from national, state, and local governments in various regions of the world designed to encourage us to establish, maintain, or increase investment, workforce, or production in those regions. These incentives may take various forms, including grants, loan subsidies, and tax arrangements, and typically require us to achieve or maintain certain levels of investment, capital spending, employment, technology deployment, or research and development activities to qualify for such incentives or could restrict us from undertaking certain activities. We may be unable to obtain significant future incentives to continue to fund a portion of our capital expenditures and operating costs, without which our cost structure would be adversely impacted. We also cannot guarantee that we will successfully achieve performance obligations required to qualify for these incentives or that the granting agencies will provide such funding. These incentive arrangements typically provide the granting agencies with rights to audit our compliance with their terms and obligations. Such audits could result in modifications to, or termination of, the applicable incentive program. The incentives we receive could be subject to reduction, termination, or clawback, and any decrease or clawback of government incentives could have a material adverse effect on our business, results of operations, or financial condition.

Risks Relating to Regulations and Our Compliance With Such Regulations

Our operations expose us to litigation, environmental and other legal compliance risks. Compliance with laws and regulations can be expensive, and our failure to comply with these laws and regulations may result in monetary damages and fines, adverse publicity and a material adverse effect on our business.

We are subject to a variety of litigation, environmental, health and safety and other legal compliance risks. These risks include, among other things, possible liability relating to product liability matters, personal injuries, intellectual property rights, contract-related claims, health and safety liabilities, environmental matters and compliance with U.S. and foreign laws, competition laws and laws governing improper business practices.

Our operations in the United States, China, and South Korea may be subject environmental laws and regulations, including laws and regulations relating to water, discharges, emissions, chemicals, hazardous materials, natural resources, remediation and contamination. Compliance with these laws can be difficult and costly. For example, battery life cycle management regulations and regulations governing the transport of batteries may impose substantial requirements on our operations in the United States. Our operations may be required to obtain and comply with environmental permits, many of which may be difficult and expensive to obtain and must be renewed on a periodic basis. A failure to comply with these laws, regulations or permits could result in substantial liabilities, including fines, penalties, the suspension or loss of permits, and possibly orders to cease the non-compliant operations.

As a business with international reach, we are subject to complex laws and regulations in jurisdictions in which we operate. Those laws and regulations may be interpreted in different ways. They may also change from time to time, as may related interpretations and other guidance. Changes in laws or regulations could result in higher expenses and payments, and uncertainty relating to laws or regulations may also affect how we conduct our operations and structure our investments and could limit our ability to enforce our rights.

Changes in environmental and climate laws or regulations, including laws relating to greenhouse gas emissions, could lead to new or additional investment in manufacturing designs, subject us to additional costs and restrictions, including increased energy and raw materials costs, and could increase environmental compliance expenditures. We are subject to various environmental laws and regulations on air emission, waste water discharge, solid waste, noise and the disposal of hazardous materials. Cobalt and lithium are toxic materials that are important raw materials in our batteries. We also use, generate and discharge other toxic, volatile and hazardous chemicals and wastes in our research, development and manufacturing activities. Under Chinese, South Korean, and U.S. environmental regulations, we are required to maintain the pollutant emission levels at the facility within the levels prescribed by the relevant governmental authorities and obtain a pollution discharge permit for water and air emissions. In addition, certain laws and regulations require enterprises like us that generate hazardous wastes to engage companies which are licensed and qualified to process the hazardous wastes, and to collect, store, dispose of and transfer the hazardous waste.

If we fail to comply with national and local environmental protection laws and regulations, the relevant governmental authorities may impose fines or deadlines to cure instances of noncompliance and may even order us to cease operations if we fail to comply with their requirements. In particular, any breach by us in connection with requirements relating to the handling of hazardous wastes may subject us to monetary damages and fines. In addition, if any third party suffers any loss as a result of our pollutant emission practices, our improper handling of hazardous wastes or our noncompliance with environmental regulations, such third parties may seek damages from us.

There can be no assurance that we will be able to comply with all environmental laws and regulations at all times as the environmental legal regime is evolving and becoming more stringent, especially in China, South Korea, and the United States. Therefore, if these or other governments where we do business impose more stringent regulations in the future, we will have to incur additional substantial costs and expenses in order to comply with new regulations, which may negatively affect our results of operations. If we fail to comply with any of the present or future environmental regulations in any material aspect or cause any loss to any third parties due to our pollutant emission practices, improper handling of hazardous wastes or other environmental noncompliance, we may suffer from negative publicity and may be required to pay substantial fines, pay damages to such third parties, or suspend or even cease operations. Failure to comply with environmental laws and regulations may materially and adversely affect our business, financial condition, operating results and prospects.

Failure to comply with certain health and production safety laws and regulations governing hazardous materials could materially adversely affect our business and results of operations.

In the sourcing of our products throughout the world, we process, store, dispose of and otherwise use large amounts of hazardous materials. As a result, we are subject to extensive and evolving health and production safety laws and regulations governing, among other things: the health of our employees and safety production requirements regarding the generation, handling, storage, use and transportation of hazardous materials. Compliance with these laws and regulations results in ongoing costs. Failure to comply with these laws or regulations, or to obtain or comply with the relevant permits, could result in fines, criminal charges or other sanctions by regulators. Furthermore, we may be ordered to rectify a noncompliance within a stipulated deadline; and if we fail to do so, we may be ordered to cease operations. Our ongoing compliance with health and safety laws, regulations and permits could require us to incur significant expenses, limit our ability to modify or expand our facilities or continue manufacturing and make other capital improvements. In addition, private parties, including current or former employees, could bring personal injury or other claims against us due to the presence of, or exposure to, hazardous substances used, stored or disposed of by us or contained in our products.

We are subject to U.S. and foreign anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions and similar laws and regulations. We can face criminal liability and other serious consequences for violations, which can harm our business.

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.K. Bribery Act 2010, and other anti-corruption laws and regulations in countries in which we conduct activities. Anti-corruption laws prohibit us and our officers, directors, employees, contractors and business partners acting on our behalf, including agents, from corruptly offering, promising, authorizing or providing, directly or indirectly, anything of value to a “foreign official” for the purposes of influencing official decisions or obtaining or retaining business or otherwise obtaining favorable treatment. These laws also require 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 accounting controls. These laws also prohibit non-governmental “commercial” bribery and soliciting or accepting bribes. A violation of any of these laws or regulations could result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm and other consequences and adversely affect our business, financial condition, operating results and reputation. Our policies and procedures designed to ensure compliance with these laws and regulations may not be sufficient and our directors, officers, employees, representatives, consultants, agents, and business partners could engage in improper conduct for which we may be held responsible.

As we increase our international cross-border business and expand our operations abroad, we may continue to engage with business partners, suppliers and third-party intermediaries to market our services and to obtain necessary permits, licenses and other regulatory approvals. In addition, we or our third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We can be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, partners and agents, even if we do not explicitly authorize such activities. There can be no assurance that our employees and agents will not take actions in violation of our policies and applicable law, for which we may be ultimately held responsible. As we increase our international business, our risks under these laws may increase.

Detecting, investigating and resolving actual or alleged violations of anti-corruption, anti-bribery, anti-money laundering or financial and economic sanctions laws can require a significant diversion of time, resources and attention from management. Non-compliance with these laws could subject us to whistleblower complaints, adverse media coverage, investigations, subpoenas received, enforcement actions, prosecution and severe fines, damages and administrative, civil and criminal sanctions, collateral consequences, remedial measures and legal expenses, all of which could materially and adversely affect our business, financial condition, operating results and reputation. In addition, changes in these laws in the future could adversely impact our business and investments in our securities.

Governmental trade controls, including export and import controls, sanctions, customs requirements and related regimes, could subject us to liability or loss of contracting privileges, limit our ability to transfer technology or compete in certain markets and affect our ability to hire qualified personnel.

Our technology and products, including components of our products, are subject to export control and import laws and regulations, including those by the U.S. Export Administration Regulations, U.S. Customs regulations, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Control, and similar regulations by the South Korean government. These jurisdictions' export control laws and regulations and economic sanctions prohibit the shipment of certain products, technologies and services to embargoed or sanctioned countries, governments and persons, as well as to various countries and persons due to national security and foreign policy concerns. In particular, U.S. and South Korean export control laws apply to cells with an energy density greater than 350 Wh/kg and require a license for the export of technology and cells exceeding that threshold to many locations outside of each respective jurisdiction, including China and Singapore. Some of our technology and products are thus presently subject to these license requirements under export controls.

Complying with export control and sanctions regulations for a particular sale may be time-consuming and result in the delay or loss of sales opportunities. We have set up an export controls compliance program internally. If we fail to comply with these laws and regulations, we and even some of our employees could be subject to substantial civil and/or criminal penalties, including the possible loss of export or import privileges, fines, which may be imposed on us and responsible employees or managers and, in extreme cases, the incarceration of responsible employees or managers.

A significant talent pool is comprised of nationals from countries that may require a license from the Bureau of Industry and Security to work with our technology (such as China, India, Russia, South Korea, Taiwan and Japan), which raises the cost of hiring due to the uncertainty that a license may not be granted and the candidate would be unemployable in the role envisioned. In addition, changes in our products or solutions or changes in applicable export or import laws and regulations may create delays or prohibitions in the introduction and sale of our products and solutions in international markets, increase costs due to changes in import and export duties and taxes, prevent our customers from deploying our products and solutions or, in some cases, prevent the export or import of our products and solutions to certain countries, governments or persons altogether. Any change in export or import laws and regulations, shift in the enforcement or scope of existing laws and regulations, or change in the countries, governments, persons or technologies targeted by such laws and regulations, could also result in decreased use of our products and solutions, decreased ability to export or sell our products and solutions to customers, and decreased ability to import components or parts critical to the manufacture of our products. Any decreased use of our technology and products, limitation on our ability to export or sell our technology and products, or limitation on our ability to import raw materials, components or equipment would likely adversely affect our business, financial condition, operating results and prospects.

We have incurred and will continue to incur increased costs related to operating as a public company and our management will be required to devote substantial additional time to new compliance initiatives and corporate governance practices.

We have incurred and will continue to incur significant legal, accounting and other expenses that Old SES did not incur as a private company. We are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Protection Act, as well as rules adopted, and to be adopted, by the SEC and the NYSE. Our management is required to certify financial and other information in our quarterly and annual reports, as well as to establish and evaluate periodically disclosure controls and procedures and internal control over financial reporting. Additionally, as a "large accelerated filer", we are subject to expanded disclosure obligations regarding executive compensation in our periodic reports and proxy statements and the requirements to hold nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved, and are not able to take advantage of an extended transition period for complying with new or revised accounting standards available to "emerging growth companies".

Our management and other personnel have devoted and will need to continue to devote a substantial amount of time to these compliance initiatives. Moreover, we expect these rules and regulations to continue to increase substantially our legal and financial compliance costs, especially now that we are no longer an "emerging growth company," and to make certain activities more time-consuming and costly, which will increase our operating expenses. These rules and regulations applicable to public companies may make and have made it more difficult and more expensive for us to obtain director and officer liability insurance, and we will likely incur additional costs to maintain sufficient insurance coverage as a public company going forward.

As later discussed in this Annual Report, our management and independent registered public accounting firm have concluded that we did not maintain effective internal control over financial reporting as of December 31, 2023. For more information on the risks associated with

the compliance cost of remediating the material weaknesses in, and establishing and maintaining, effective internal control over financial reporting, as well as other related risks, see “—We have identified material weaknesses in our internal control over financial reporting, which could, if not effectively remediated, result in material misstatements in our financial statements, and a failure to meet our reporting and financial obligations.” If in the future, we are unable to record, process, summarize and report financial information accurately and within the time periods specified in the rules and forms of the SEC, our ability to meet these additional requirements in a timely manner will be adversely affected. This failure could negatively affect the market price and trading liquidity of our common stock, restrict our access to the capital markets, cause investors to lose confidence in our reported financial information, subject us to civil and criminal investigations and penalties, and generally materially and adversely impact our business and financial condition.

We have identified material weaknesses in our internal control over financial reporting, which could, if not effectively remediated, result in material misstatements in our financial statements, and a failure to meet our reporting and financial obligations.

Effective internal controls are necessary for us to provide reliable financial reports, prevent fraud and errors in our financial statements and operate successfully as a public company. As later discussed in this Annual Report, our management and independent registered public accounting firm have concluded that we did not maintain effective internal control over financial reporting as of December 31, 2023 and 2022. We are actively engaged in developing and implementing a remediation plan designed to address these material weaknesses and are committed to remediating it as promptly as possible. For more information, see “Part II, Item 9A. Controls and Procedures.” However, we cannot be certain that the current material weaknesses in internal control will be remediated and our internal control over financial reporting considered effective going forward. Because of its inherent limitations, our system of internal control over financial reporting may not prevent or detect every misstatement.

If we are unable to remediate the existing material weaknesses in our internal controls over financial reporting and achieve effective internal control, or if we identify additional material weaknesses in our internal control over financial reporting, we may be unable to accurately report our financial results, or report them within the timeframes required by the SEC. If this occurs, we also could become subject to sanctions or investigations by the SEC or other regulatory authorities. In addition, if we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, or expresses an adverse opinion, investors may lose confidence in the accuracy and completeness of our financial reports, we may face restricted access to the capital markets and our stock price may be adversely affected.

We also face risks associated with the cost of establishing effective internal control over financial reporting, insofar as we expect to continue to incur increased costs related to our internal control over financial reporting to remediate the above-described material weaknesses and improve further our internal control environment. We have expended, and expect to continue to undertake various actions, such as implementing additional internal controls and procedures and hiring additional compliance, accounting and financial staff with appropriate public company experience and technical knowledge, to develop and maintain the necessary documentation and testing procedures required by Section 404 of the Sarbanes-Oxley Act. The measures we take to remediate the deficiency in our internal control over financial reporting and to implement and maintain effective internal controls may also not be sufficient to satisfy our obligations as a public company and produce reliable financial reports, and we may not be able to implement the required controls in a timely fashion, which could have the additional adverse consequences described above.

Changes in U.S. and foreign tax laws could have a material adverse effect on our business, cash flow, results of operations or financial conditions.

We (as well as certain of our subsidiaries, including our subsidiary that is organized as a Singapore company) are subject to federal, state and local taxes in the United States and are also subject to tax in certain foreign jurisdictions. Changes to U.S. tax laws, including limitations on the ability of taxpayers to claim and utilize foreign tax credits and the deferral of certain tax deductions until earnings outside of the United States are repatriated to the United States, as well as changes to U.S. federal income tax laws, such as the recently enacted Inflation Reduction Act of 2022, and others that may be enacted in the future, could impact the tax treatment of our foreign earnings. Due to our international business activities, any changes in the taxation of such activities may increase our worldwide effective tax rate and adversely affect our financial position and results of operations.

Significant judgment is required in evaluating our tax positions and our worldwide provision for taxes. During the ordinary course of business, there are many activities and transactions for which the ultimate tax determination is uncertain. In addition, our tax obligations and effective tax rates could be adversely affected by changes in the relevant tax, accounting and other laws, regulations, principles and interpretations, including those relating to income tax nexus, if our earnings are lower than anticipated in jurisdictions where we have lower statutory rates and higher than anticipated in jurisdictions where it has higher statutory rates, by changes in foreign currency exchange rates,

or by changes in the valuation of its deferred tax assets and liabilities. We may be audited in various jurisdictions, and such jurisdictions may assess additional taxes against us. Although we believe our tax estimates are reasonable, the final determination of any tax audits or litigation could be materially different from our historical tax provisions and accruals, which could have a material adverse effect on our operating results or cash flows in the period or periods for which a determination is made.

Additionally, changes in corporate tax rates, the realization of net deferred tax assets relating to our operations, the taxation of foreign earnings, and the deductibility of expenses under future tax reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges in the current or future taxable years, and could increase our future tax expense, which could have a material adverse effect on our business, financial condition, operating results, and prospects.

Certain U.S. state tax authorities may assert that we have a state nexus and seek to impose state and local income taxes which could harm our results of operations.

There is a risk that certain state tax authorities where we do not currently file a state income tax return could assert that we are liable for state and local income taxes based upon income or gross receipts allocable to such states. States are becoming increasingly aggressive in asserting a nexus for state income tax purposes. If a state tax authority successfully asserts that our activities give rise to a nexus, we could be subject to state and local taxation, including penalties and interest attributable to prior periods. Such tax assessments, penalties and interest may adversely impact our results of operations.

Risks Relating to Privacy and Security

If we experience a significant cybersecurity breach or disruption in our information systems or any of our partners' information systems, our business could be adversely affected.

Malicious actors may be able to penetrate our network and misappropriate or compromise our confidential information or that of third parties, create system disruptions or cause shutdowns. Malicious actors also may be able to develop and deploy viruses, worms and other malicious software programs that attack our products or otherwise exploit any security vulnerabilities of our products. We manage and store various proprietary information and sensitive or confidential data relating to our business as well as information from our suppliers and customers. While we employ a number of protective measures, including firewalls, network infrastructure vulnerability scanning, anti-virus and endpoint detection and response technologies, these measures may fail to prevent or detect attacks on our systems due to the frequent evolving nature of cybersecurity attacks. Although these measures are designed to ensure the confidentiality, integrity and availability of our information and technology systems, there is no assurance that these measures will detect all threats or prevent a cybersecurity attack. If there are any breaches of our or any of our third party suppliers' security measures or the accidental loss, inadvertent disclosure or unapproved dissemination of proprietary information or sensitive or confidential data about us or our employees, contractors, customers, suppliers, or other third parties, including the potential loss or disclosure of such information or data as a result of fraud, trickery or other forms of deception, it could expose us or our employees, contractors, customers, suppliers, or other third parties to a risk of loss or misuse of this information, disruption of business operations, result in litigation, regulatory scrutiny, and potential liability for us, damage our brand and reputation or otherwise harm our business.

In addition, our hardware and software or third-party components and software that we utilize in our products may contain defects in design or manufacture, including "bugs" and other problems that could unexpectedly interfere with the operation or security of the products. The costs to us to eliminate or mitigate cyber or other security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant and, if our efforts to address these problems are not successful, could result in interruptions, delays, cessation of service and loss of existing or potential customers that may impede our sales, manufacturing, distribution or other critical functions.

To the extent we experience cybersecurity incidents, our relationships with our partners, suppliers and eventual customers may be materially impacted, our brand and reputation may be harmed and we could incur substantial costs in investigating, responding to and remediating the incidents, and in resolving any regulatory investigations or disputes that may arise with respect to them, any of which would cause our business, operations, or products to be adversely affected. In addition, the cost and operational consequences of implementing and adding further data protection measures could be significant.

Risks Relating to Our Common Stock and Warrants

Our CEO and certain entities affiliated with the CEO (the “SES Founder Group”) is a large and significant stockholder and, as a result, we are a “controlled company,” which exempts us from certain obligations to comply with certain corporate governance requirements.

As of February 21, 2024, the SES Founder Group owned approximately 12.4% of our outstanding common stock and 58.6% of the total voting power. Accordingly, we are a “controlled company” for purposes of the NYSE listing requirements. As such, we are exempt from the obligation to comply with certain corporate governance requirements, including the requirements that a majority of our board of directors must consist of independent directors, and that we have nominating and compensation committees that are each composed entirely of independent directors. These exemptions do not modify the requirement for a fully independent audit committee. If we cease to be a “controlled company,” we must comply with the independent board committee requirements as they relate to the nominating and compensation committees, subject to certain “phase-in” periods.

We are controlled or substantially influenced by the SES Founder Group, whose interests may conflict with other stockholders. The concentrated ownership of our dual class common stock could prevent stockholders from influencing significant decisions.

The SES Founder Group has the ability to control the outcome of most matters requiring stockholder consent. As our Chief Executive Officer, Dr. Hu has control over our day-to-day management and the implementation of major strategic investments, subject to authorization and oversight by our board of directors. As a board member and officer, Dr. Hu also owes a fiduciary duty to our stockholders and must act in good faith in a manner he reasonably believes to be in the best interests of our stockholders. However, Dr. Hu is still entitled to vote his shares, and has the ability to control the outcome of most matters requiring stockholder consent. This was designed to shepherd our long-term growth amidst significant near-term fluctuations and uncertainty in the market.

Moreover, for so long as the SES Founder Group holds at least a majority of SES’s outstanding common stock, it has the ability, through the Board, to control decision-making with respect to SES’s business direction and policies. Matters over which the SES Founder Group can, directly or indirectly, exercise control include:

- the election of SES’s board of directors and the appointment and removal of our officers;
- mergers and other business combination transactions requiring stockholder approval, including proposed transactions that would result in our stockholders receiving a premium price for their shares; and
- amendments to SES’s certificate of incorporation or increases or decreases in the size of our board of directors.

Even if the SES Founder Group’s ownership subsequently falls below 50%, the SES Founder Group may continue to be able to strongly influence or effectively control our decisions.

Provisions in our Certificate of Incorporation (the “Charter”) and Delaware law may inhibit a takeover attempt which could limit the price investors might be willing to pay in the future for our common stock and could entrench management.

Our Charter and Bylaws contain provisions to limit the ability of others to acquire control of us or cause us to engage in change-of-control transactions, including, among other things:

- provisions that authorize our board of directors (the “Board”), without action by our stockholders, to authorize by resolution the issuance of shares of preferred stock and to establish the number of shares to be included in such series, along with the preferential rights determined by our Board; provided that, our Board may also, subject to the rights of the holders of preferred stock, authorize shares of preferred stock to be increased or decreased by the approval of the Board and the affirmative vote of the holders of a majority in voting power of the outstanding shares of capital stock of the corporation;
- provisions that permit only a majority of our Board, the Chairperson of the Board or the Chief Executive Officer to call special stockholder meetings; provided, that for so long as Dr. Qichao Hu and certain entities affiliated with Dr. Hu beneficially own at least 50% of the voting power of the then outstanding shares of our capital stock, special meetings of stockholders may also be called by or at the request of stockholders holding a majority of the voting power of the issued and outstanding shares of our capital stock;
- provisions that impose advance notice requirements and other requirements and limitations on the ability of stockholders to propose matters for consideration at stockholder meetings; and
- a staggered board whereby our directors are divided into three classes, with each class subject to retirement and reelection once every three years on a rotating basis.

These provisions could have the effect of depriving our stockholders of an opportunity to sell their shares at a premium over prevailing market prices by discouraging third parties from seeking to obtain control of us in a tender offer or similar transaction. With our staggered

Board, at least two annual meetings of stockholders will generally be required in order to effect a change in a majority of our directors. Our staggered Board can discourage proxy contests for the election of our directors and purchases of substantial blocks of our shares by making it more difficult for a potential acquirer to gain control of our Board in a relatively short period of time.

Our Charter provides, subject to limited exceptions, that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our Charter requires, to the fullest extent permitted by law, that derivative actions brought in our name, actions against directors, officers and employees for breach of fiduciary duty and other similar actions may be brought only in the Court of Chancery in the State of Delaware (the "Chancery Court") and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to the personal jurisdiction of the Chancery Court and having service of process made upon such stockholder in any such action on such stockholder's counsel. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to these forum provisions. Notwithstanding the foregoing, our Charter provides that the exclusive forum provision does not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Additionally, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended (the "Securities Act") against us or any of our directors, officers, other employees or agents. However, there is uncertainty as to whether a court would enforce the exclusive forum provisions relating to causes of actions arising under the Securities Act.

Although we believe this exclusive forum provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, it may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our Charter 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.

The price of our common stock has been and may continue to be volatile.

The market price of our Class A common stock is affected by a number of factors, including:

- 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;
- success of competitors;
- our operating results failing to meet market expectations in a particular period;
- changes in financial estimates and recommendations by securities analysts concerning SES or the industry and market in general;
- operating and stock price performance of other companies that investors deem comparable to SES;
- our ability to market new and enhanced products on a timely basis;
- changes in laws and regulations affecting our business;
- commencement of, or involvement in, litigation;
- changes in our capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of shares of our Class A common stock available for public sale;
- any significant change in our Board or management;
- sales of substantial amounts of our Class A common stock by our directors, executive officers or significant stockholders or the perception that such sales could occur;
- general economic and political conditions such as recessions, interest rates, fuel prices, international currency fluctuations and acts of war or terrorism including disruptions resulting from regional conflicts; and
- disruptions resulting from public health crises (including pandemics such as the COVID-19 pandemic) or extreme weather events (including as a result of climate change).

Broad market and industry factors may depress the market price of our Class A common stock irrespective of our operating performance. The stock market in general and the NYSE have 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 these stocks, and of our securities, may not be predictable. A loss of investor confidence in the market for EV battery stocks or the stocks of other companies which investors perceive to be similar to SES could depress our stock price regardless of our business, prospects, financial conditions or results of operations. A decline in the market price of our Class A common stock also could adversely affect our ability to issue additional securities and our ability to obtain additional financing in the future.

Our public warrants may never be in the money, and they may expire worthless.

The exercise price for our warrants is \$11.50 per-share, subject to adjustment, which exceeds the market price of our Class A common stock, which was \$1.39 per-share based on the closing price of our Class A common stock on the NYSE on February 21, 2024. There can be no assurance that the public warrants will ever be in the money prior to their expiration and, as such, the warrants may expire worthless.

We may redeem unexpired public warrants prior to their exercise at a time that is disadvantageous to the warrant holders, thereby making the warrants worthless.

We may redeem outstanding warrants (excluding any private placement warrants held by the Ivanhoe Capital Sponsor LLC (the “Sponsor”) or its permitted transferees) at any time after they become exercisable and prior to their expiration, at \$0.01 per warrant, provided that the last reported sales price (or the closing bid price of our Class A common stock in the event our Class A common stock is not traded on any specific trading day) of our Class A common stock equals or exceeds \$18.00 per-share for any 20 trading days within a 30 trading-day period ending on the third business day prior to the date we send proper notice of such redemption, provided that on the date we give notice of redemption and during the entire period thereafter until the time we redeem the warrants, there is an effective registration statement under the Securities Act covering the shares of our Class A common stock issuable upon exercise of the warrants and a current prospectus relating to them is available. If and when the warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws. Redemption of the outstanding warrants could force a warrant holder: (i) to exercise its warrants and pay the exercise price therefore at a time when it may be disadvantageous for it to do so, (ii) to sell its warrants at the then-current market price when it might otherwise wish to hold its warrants or (iii) to accept the nominal redemption price which, at the time the outstanding warrants are called for redemption, will be substantially less than the market value of its warrants.

Warrants to purchase SES common stock became exercisable on March 3, 2022, which could increase the number of shares eligible for future resale in the public market and result in dilution to stockholders.

As of the closing of the Business Combination, there were 14,213,280 warrants outstanding. Each warrant entitles its holder to purchase one share of Class A common stock at an exercise price of \$11.50 per-share and will expire at 5:00 p.m., New York time, five years after the closing of the Business Combination or earlier upon redemption of our Class A common stock or our liquidation. To the extent warrants are exercised, additional shares of Class A common stock will be issued, which will result in dilution to our then existing stockholders and increase the number of shares eligible for resale in the public market. Sales of substantial numbers of such shares in the public market could depress the market price of our Class A common stock.

We may be subject to securities litigation, which is expensive and could divert management’s attention.

The share price of our Class A common stock has been and may continue to be volatile and, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. SES may be the target of this type of litigation in the future. Litigation of this type could result in substantial costs and diversion of management’s attention and resources, which could have a material adverse effect on its business, financial condition, results of operations and prospects. Any adverse determination in litigation could also subject us to significant liabilities.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Cybersecurity is an important priority at SES, and we actively manage this critical risk through comprehensive measures. Our processes for assessing, identifying, and managing material risks from cybersecurity threats are still in development and have yet to be integrated into our overall risk management system and processes.

- **Proactive Defense:** We utilize industry-standard mechanisms to assess, identify, and address potential threats from cybersecurity incidents. Our dedicated information technology (IT) team continuously monitors the evolving cybersecurity landscape and develops robust response processes to swiftly and effectively handle emerging threats.
- **Structured Framework:** Our company-wide cybersecurity policy outlines our security posture and incident response protocol, ensuring clear escalation procedures to inform senior management, the Audit Committee, and the Board of Directors of cybersecurity events as needed.
- **Independent Oversight:** The Audit Committee, composed entirely of independent directors under SEC and NYSE rules, oversees our cyber risk exposure and evaluates our risk mitigation strategies. The committee is regularly briefed by our VP, IT Services in depth, and in turn briefs the Board of Directors on any material cyber risks and events.

Additionally, we use processes to oversee and identify material risks from cybersecurity threats associated with our use of third-party technology and systems, including third party penetration tests, external security audits of our data loss prevention mechanisms and require that our vendors comply with Service Organization Control Type II requirements.

Michael Kraus, Vice President of Compliance and Information Technology, leads our information security program with his expertise, honed by over 30 years of experience in the high-tech industry designing and deploying high-performance communication networks. Mr. Kraus has global network building experience which we believe helps to bolster our security posture.

While cybersecurity threats remain a reality for all organizations, SES is committed to proactive risk management and continuous improvement in our security posture. We believe that the processes we have established for assessing, identifying, and managing material risks from cybersecurity allow us to effectively mitigate potential impacts and protect our business, operations, and products:

- **In-sourced IT Services:** By in-sourcing IT services in late 2023, we gained greater control over IT decisions, established a comprehensive knowledge base, and laid a framework allowing for unbiased assessments of future IT and cybersecurity investments.
- **24/7 Network Monitoring:** Our continuous 24/7 second-level maintenance and monitoring contract provides constant vigilance against network disruptions and potential cyber threats, ensuring swift detection and mitigation of incidents.
- **Cutting-edge Data Backup:** Deployment of our new data backup system is underway, offering robust protection against catastrophic failures, early detection of data loss prevention events, and near real-time mitigation of ransomware attacks. Full implementation is anticipated by the end of the first quarter of 2024.
- In addition, at times we also engage assessors, consultants, auditors, or other third parties to assist with assessing, identifying, and managing cybersecurity risks.

We face risks from cybersecurity threats that could have a material adverse effect on our relationship with our partners, suppliers and eventual customers, or on our business, operations or products. We have experienced, and will likely continue to experience, cybersecurity incidents in the normal course of our business, however, we are not aware that we have experienced a material cybersecurity incident during fiscal 2023. See “Risk Factors – Risks Related to Privacy and Security – If we experience a significant cybersecurity breach or disruption in our information systems or any of our partners’ information systems, our business could be adversely affected.”

Item 2. Properties

We have leased facilities located in Woburn, Massachusetts in the United States, in the vicinity of Woburn, Massachusetts, Shanghai, China, and Chungju and Seoul, South Korea. Our Woburn facility, which also serves as the Company’s headquarters, focuses on chemistry, material and algorithm research and development, as well as engaging with our OEM and strategic partners. We also leased a facility near our Woburn facility for an electrolyte foundry, which we started using in January 2024. This facility will focus on novel electrolyte molecule discovery and synthetic pathway development. Our Shanghai facility focuses on supply chain development, manufacturing process development, battery cell development and production, AI software, BMS and module development. Our Chungju facility focuses on manufacturing process development and battery cell product development. We have also set up an office in Seoul focused on supply chain, customer relations and our collaboration with partners in the region. For more information, see “Leases” in Note 12 to the consolidated financial statements included in Item 8 of this Form 10-K.

Item 3. Legal Proceedings

The information required by this Item is provided under “Legal Contingencies” in Note 14 to the consolidated financial statements included in Item 8 of this Form 10-K and is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our Class A common stock is traded on The New York Stock Exchange (the “NYSE”) under the symbol “SES.” Our public warrants are traded on the NYSE under the symbol “SES WS.”

Holders of Record

As of February 21, 2024, there were 125 holders of record of our Class A common stock and one holder of record of our public warrants. Such numbers do not include Depository Trust Company (“DTC”) participants or beneficial owners holding shares through nominee names.

There is no public market for our Class B common stock and one holder of record of our Class B common stock as of February 21, 2024.

Dividends

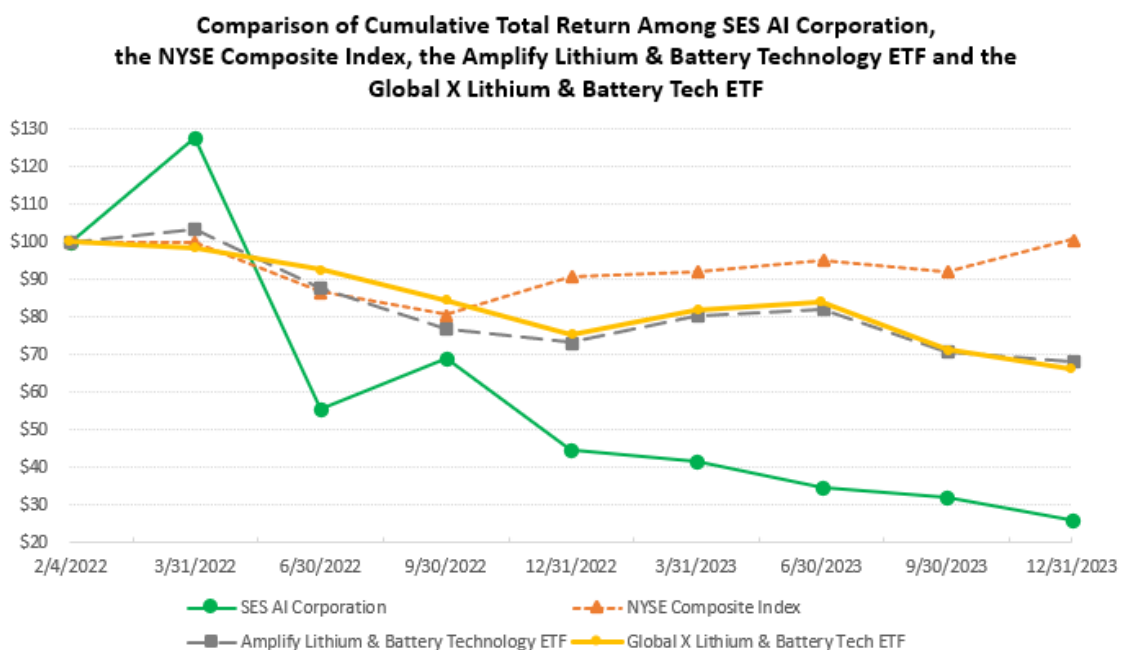
We have not paid any cash dividends on our shares of Class A common stock to date and do not anticipate paying any cash dividends for the foreseeable future. The payment of cash dividends in the future will be dependent upon our revenues and earnings, if any, capital requirements and general financial condition as well as general business conditions. The payment of any cash dividends will be within the discretion of the Board at such time.

Recent Sales of Unregistered Securities

None.

Stock Performance Graph

The following graph shows the changes in cumulative total return on \$100 invested in each of our Class A common stock, the NYSE Composite Index, the Amplify Lithium & Battery Technology ETF and the Global X Lithium & Battery Tech ETF, for the period beginning on February 4, 2022 (the first date that our Class A common stock began trading on the NYSE under the ticker symbol "SES") and ending on December 31, 2023, assuming reinvestment of all dividends. During 2023, we changed our peer indices to the Amplify Lithium & Battery Technology ETF and the Global X Lithium & Battery Tech ETF given these indices track companies in our industry, and given that the AXS De-SPAC ETF, which we used as a peer index in our prior year filing, was liquidated in February 2023, and thus it is not shown in the graph below. The comparisons in this graph are required by the SEC and are not intended to forecast or be indicative of the possible future performance of our common stock.



The material in this performance graph shall not be deemed to be filed with the SEC and is not incorporated by reference in any filing of SES AI Corporation under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made on, before or after the date of this filing and irrespective of any general incorporation language in such filing.

Item 6. [Reserved]

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

On February 3, 2022 (the “Closing Date”), SES consummated its previously disclosed business combination (the “Business Combination”). Prior to the closing of the Business Combination, Ivanhoe Capital Acquisition Corp. (“Ivanhoe”), a Cayman Islands exempted company, migrated out of the Cayman Islands and domesticated as a Delaware corporation (the “Domestication”) and changed its name to “SES AI Corporation.” On the Closing Date, SES AI Corporation and Wormhole Amalgamation Sub Pte. Ltd., a Singapore private company limited by shares and a direct, wholly-owned subsidiary of Ivanhoe (“Amalgamation Sub”), consummated the Business Combination, which was accounted for as a reverse recapitalization. Under this method of accounting, SES AI Corporation was treated as the “acquired” company for financial reporting purposes. Except as otherwise provided herein, our financial statement presentation includes (i) the historical operating results of Old SES prior to the Business Combination; (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) SES’s equity structure for all periods presented. See “Note 3 – Business Combination” set forth in Part II, Item 8 of this Annual Report on Form 10-K, for additional information.

The following discussion and analysis provides information which our management believes is relevant to an assessment and understanding of our consolidated results of operations and financial condition. The following discussion and analysis should be read in conjunction with our audited consolidated financial statements as of and for the years ended December 31, 2023 and 2022 and the accompanying notes included in this Annual Report on Form 10-K. The following discussion may contain forward-looking statements that reflect our plans, estimates and beliefs, which are subject to risks, uncertainties and assumptions. These forward-looking statements within the meaning of the federal securities law are based on our current expectations and beliefs concerning future developments and their potential effects on us. These forward-looking statements are not statements of historical fact and may include statements regarding possible or assumed future results of operations. There can be no assurance that future developments affecting us will be those that we have anticipated. Our actual results and the timing of events may differ materially from those expressed or implied as a result of various factors, including those set forth in the sections titled “Risk Factors” and “Cautionary Note Regarding Forward-Looking Statements.” Unless the context otherwise requires, references in this section to “the Company,” “we,” “us” and “our” refer to the business and operations of SES Holdings Pte. Ltd. (“Old SES”) and its consolidated subsidiaries prior to the Business Combination and to SES AI Corporation and its consolidated subsidiaries following the Closing. References in this section to our future plans that indicate the timing of when we expect such plans to be completed by a certain year mean at any point during that year.

Overview

We are a pre-commercialization stage company engaged in the development and production of high-performance, Lithium-Metal (“Li-Metal”) rechargeable battery technologies for electric vehicles (“EVs”), Urban Air Mobility (“UAM”), which encompasses electric vehicle take-off and landing (“eVTOL”) technology, and other applications. Our differentiated battery technology has been designed to combine the high energy density of Li-Metal with the large-scale manufacturability of conventional Lithium-ion (“Li-ion”) batteries and will help to promote the transition from the global dependence on fossil fuel-based automotive vehicles to clean and efficient EVs and help enable an era of electric transportation in the air.

Our mission is to facilitate the widespread adoption of sustainable electric transportation, both on land and in air, by creating best-in-class, high energy density Li-Metal batteries centered around long-range performance and safety. To assist in achieving this mission, we have partnered with leading global original equipment manufacturers (“OEMs”), General Motors (“GM”), Hyundai Motor Company (“Hyundai”), and Honda Motor Company, Ltd. (“Honda”), among other strategic partners, under joint development agreements (“JDAs”) to jointly develop and produce our Li-Metal battery cells and technology. We have transitioned from the development and production of A-Sample batteries to B-Sample batteries with specifications required by OEMs for their EVs. This transition began when we signed a B-Sample agreement for Li-Metal development of EVs. A-Sample batteries are functional prototypes developed for OEMs based on their technical specifications. These are in contrast with B-Sample batteries, which are A-sample batteries manufactured under much higher throughput and tested in actual vehicles, and C-Sample batteries, which would be fully functional, mature samples for mass production and tested for full drivability in actual vehicles.

We are also conducting research and development activities to further improve the performance, quality and cost of our battery technology by focusing on the following key areas, all of which we expect to help us achieve our commercialization goal, at our facilities in Woburn, Massachusetts in the United States, Shanghai, China, and Chungju, South Korea. These areas include:

- *Scale-up:* Our design is further being customized with and validated by several OEMs. Based on our collaborations with OEMs, we believe that a roughly 100 Ah cell-size manufactured at GWh scale (five to seven cells-per-minute) is needed to achieve commercialization in EVs and UAMs at a large, global scale. We are developing processes and upgrading equipment to scale up the manufacturing of our current cell design from three to nine Ah capacity to 50 Ah and 100 Ah.
- *Module and Pack Design:* Li-Metal cells must be integrated into modules and packs as part of their integration into vehicles. Our active development efforts are focused on the integration of our Li-Metal cells in modules to enable our Li-Metal cells to perform as intended once they are integrated into modules and vehicles.
- *Artificial Intelligence (“AI”) Software and Battery Management Systems (“BMS”):* Software is critical to ongoing monitoring of battery health and safety. We continue to develop AI algorithms to diagnose battery cell-related health issues, develop control algorithms and charging methods to enhance cycle life and safety, and port such software on to a BMS that could be integrated into a battery pack.
- *Advanced Materials and Coatings:* We continue to research and develop advanced electrolyte and anodes to further improve cycle life and safety. In addition, we continue to develop novel methods of laminating or depositing lithium metal onto current collector that can be deployed at commercial GWh scale.
- *Cathode Materials and Design:* We develop our Li-Metal cells for a variety of different cathode materials, cathode design and cathode processing methods that can provide ultra-high energy density and/or significant cost-reduction.
- *Li-Metal Recycling:* Along with other battery components that are already being recycled today, Li-Metal foil will also need to be recycled in the future. We continue to explore methods of recycling that are productive and cost-effective.

We continue to make improvements to our two A-sample production lines, one in China and one in South Korea, which are producing large 50 Ah and 100 Ah Li-Metal cells. We expect to convert our third EV A-Sample production line dedicated for making cells for UAM applications. In addition, we expect to launch our fourth and fifth production lines in 2024, which will be dedicated to B-sample EV cells. Furthermore, in June 2023, we entered into a new lease for a facility near our Woburn facility where we have built an electrolyte foundry, which we started using in January 2024. This facility will focus on novel electrolyte molecule discovery and synthetic pathway development.

Outlook

As the joint development of Li-Metal batteries with our OEM partners continues to progress, we transitioned from A-sample to B-sample battery development in the last quarter of 2023. We expect that this will lead to an increase in our headcount and footprint of our research and pre-production pilot facilities as we expand our existing facilities and enter into new facilities.

After B-Sample, we plan to transition to C-Sample in 2026, which we then expect to enable us to commence commercial production of our technology in 2027. We expect this transition to commercial production to lead to future research facilities and, eventually, commercial production manufacturing facilities in the United States, which will significantly increase our materials consumption and the rate of cash utilization over time.

Finally, we expect to explore opportunities for partial vertical integration, both upstream and downstream, to ensure scalability of our battery cells and battery technology. Upstream, we intend to explore integrating vendors of key materials of our cells and providers of key equipment and engineering capabilities, such as cell assembly, anode processing, chemical processing and safety testing. Downstream, we plan to explore integrating providers of key engineering capabilities, such as battery state-of-health monitoring software, charging optimization software, battery module development and recycling.

Results of Operations

The discussion of our results of operations for the year ended December 31, 2021 can be found in “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 filed with the Securities and Exchange Commission on March 16, 2023, which is incorporated herein by reference.

Factors Affecting Operating Results

We are an early-stage growth company in the pre-commercialization stage of development and conduct our business through one operating segment. We have not generated any revenue from sales to customers to date, have spent \$53.9 million, \$42.2 million and \$31.5 million on

research and development activities, which is prior to credits received by our OEM partners under the JDAs, and have incurred net losses of \$53.4 million, \$51.0 million, and \$31.3 million for the years ended December 31, 2023, 2022 and 2021, respectively, and had an accumulated deficit of \$198.7 million and \$145.3 million from our inception through December 31, 2023 and 2022, respectively. Our historical results may not be indicative of our future results for reasons that may be difficult to anticipate and our ability to generate revenue in the future that is sufficient enough to achieve profitability will depend largely on the successful development of our products. Accordingly, the drivers of our future financial results, as well as the components of such results, may not be comparable to our historical results of operations.

The following table sets forth our operating results for the periods indicated:

Operating Expenses

(in thousands)	Year Ended December 31,		\$ Change	% Change
	2023	2022		
Research and development	\$ 30,675	\$ 27,967	\$ 2,708	9.7 %
General and administrative	47,483	51,606	(4,123)	(8.0)%
Total operating expenses	\$ 78,158	\$ 79,573	\$ (1,415)	(1.8)%

Research and Development

Research and development expenses consist primarily of costs incurred for salaries and personnel-related expenses, including stock-based compensation expense, for scientists, experienced engineers and technicians, expenses for materials and supplies used in product research and development, process engineering efforts and testing, as well as payments to consultants, patent related legal costs, depreciation, and allocated facilities and information technology costs.

Research and development expenses for the year ended December 31, 2023 increased \$2.7 million, or 9.7%, to \$30.7 million, compared with \$28.0 million for the year ended December 31, 2022. The increase primarily resulted from a \$9.1 million increase in personnel costs mainly attributable to our growth in headcount to support our operations. Further, there was a \$5.1 million increase in facility costs due to rent, maintenance, utilities and depreciation expenses, a \$3.3 million increase in expenses for lab consumables and material supplies to support activity in our research and pre-production facilities, a \$1.1 million increase in professional fees and consulting costs, and a \$1.5 million increase in other lab related services. These increases were partly offset by a \$2.8 million decrease of stock-based compensation expense that primarily related to the completion of the derived service period and the accounting for forfeited awards for the earn-out shares during 2023, a \$2.5 million decrease in computer and software development costs due to a change in project specifications and timelines, a \$1.4 million decrease in JDA pass through costs, and a \$10.7 million increase in credits to research and development expense from billings to our JDA partners. We expect research and development expenses to significantly increase in 2024 compared with 2023 as we attempt to develop a battery cell with acceptable performance, yields and costs due to hiring, materials, engineering, and technical staff for product development, building prototypes and testing of battery cells.

General and Administrative

General and administrative expenses consist primarily of costs incurred for salaries and personnel-related expenses, including stock-based compensation expense, for our finance, legal and human resource functions, expenses for director and officer insurance, outside contractor and professional service fees, audit and compliance expenses, legal, accounting and other advisory services, as well as allocated facilities and information technology costs including depreciation. Upon commencement of commercial operations, we also expect to incur customer and sales support and advertising costs.

General and administrative expenses for the year ended December 31, 2023 decreased \$4.1 million, or 8.0%, \$47.5 million, compared with \$51.6 million for the year ended December 31, 2022. This decrease primarily resulted from a \$3.7 million decrease in insurance expense due to lower premiums incurred to cover potential liabilities under our indemnification obligations to our directors and certain officers of the Company compared to the prior year period, a \$3.5 million decrease in transaction costs incurred in the prior year as a result of the Business Combination completed in February 2022 with no comparable costs in the current year period, and a \$1.9 million decrease in marketing and public relations expenses due to a decrease in promotional events compared to the prior year period. These decreases were partly offset by a \$3.0 million increase in personnel costs mainly attributable to our growth in headcount to support our operations as a public company, \$0.7 million increase of stock-based compensation expense that primarily relates to our annual grant of RSUs and PSUs issued in April 2023, and a \$1.3 million increase in professional fees related primarily to increased accounting and audit related expenses, legal fees to support our operations as a public company, and recruiting and consulting services.

Non-Operating Items

Interest Income

Interest income primarily consists of interest earned on our cash and cash equivalents, which are primarily invested in money market funds, and short-term investments in marketable securities, which are invested in U.S. treasury securities, and accretion income from the marketable securities.

During the year ended December 31, 2023, we had interest income of \$16.7 million compared with \$6.2 million for the year ended December 31, 2022. This \$10.5 million increase was primarily due to an increased investment in marketable securities and higher interest rates during 2023 when compared with 2022.

Change of Fair Value of Sponsor Earn-Out Liabilities

During the year ended December 31, 2023, we incurred a \$6.8 million gain compared with a \$25.4 million gain for the year ended December 31, 2022 associated with the change in fair value of the Sponsor Earn-Out liabilities. This \$18.6 million decrease in gain on the change in fair value of the Sponsor Earn-Out liabilities is tied to SES's stock price. See "Note 11 – Sponsor Earn-Out Liabilities" to the consolidated financial statements for additional information.

Miscellaneous Income (Expense), Net

During the year ended December 31, 2023, we had miscellaneous income of \$0.4 million, compared with miscellaneous expense of \$1.8 million for the year ended December 31, 2022. This \$2.2 million decrease in miscellaneous expense was primarily the result of the accounting for certain postemployment benefits recorded in the prior year, partially offset by unrealized and realized foreign currency loss primarily due to the strengthening of the Chinese renminbi and South Korean won compared with the U.S. dollar.

Benefit (Provision) from Income Taxes

Benefit from income tax was \$0.9 million on pre-tax loss of \$54.3 million for the year ended December 31, 2023 compared with income tax expense of \$1.3 million on pre-tax loss of \$49.7 million for the year ended December 31, 2022. Our effective tax rate was 1.6% and (2.5)% for the years ended December 31, 2023 and 2022, respectively. The difference between our effective tax rate and the U.S. federal statutory rate of 21% was primarily driven by deferred tax benefits and release of valuation allowances from foreign jurisdictions. See "Note 18 – Income Taxes" to the consolidated financial statements for additional information on our income tax expense.

Liquidity and Capital Resources

On February 3, 2022, as a result of the aforementioned Business Combination and PIPE Financing, we raised \$282.9 million in net proceeds. Prior to that, since our inception we raised approximately \$269.9 million of funding through the sales of our redeemable convertible preferred stock. As of December 31, 2023, we had total cash and cash equivalents of \$85.7 million, short-term investments in marketable securities of \$246.8 million, and an accumulated deficit of \$198.7 million. As an early-stage growth company in the pre-commercialization stage of development, the net operating losses we have incurred since inception are consistent with our strategy and budget.

As a result of the capital-intensive nature of our business, we expect to sustain substantial operating expenses, without generating sufficient revenues to cover expenditures, for a number of years. To date, we have funded our operations through a combination of proceeds from the Business Combination and PIPE Financing and funding received through the sales of our redeemable convertible preferred stock. These funds are expected to finance our principal sources of liquidity and ongoing costs, such as research and development relating to our Li-Metal batteries and the construction of additional manufacturing facilities. In the future, if we are not able to fund our operations from cash flows generated from anticipated product sales, we expect that we will need to raise additional funds through a variety of possible methods, including, but not limited to, entry into joint ventures or other strategic arrangements, issuance of equity, equity-related or debt securities or through obtaining credit from financial institutions, as well as anticipated future revenue from product sales.

We believe that our cash on hand and marketable securities will be sufficient to meet our working capital and capital expenditure requirements for a period of at least 12 months from the date of this Report, and also sufficient to fund us to commercialization. However, additional funding may be required for a variety of reasons, including opportunities to build an integrated supply chain in the United States and delays in expected development of our Li-Metal battery cells. 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 and/or debt financing and, over time, our ability to generate positive cash flows from operations.

Summary of Cash Flows

The following table provides a summary of our cash flow data for the periods indicated:

(in thousands)	Year Ended December 31,	
	2023	2022
Cash (used in) provided by:		
Operating activities	\$ (56,412)	\$ (46,500)
Investing activities	32,719	(296,009)
Financing activities	3,275	289,927
Effect of exchange rate changes on cash	(552)	(526)
Net (decrease) increase in cash, cash equivalents and restricted cash	\$ (20,970)	\$ (53,108)

Operating Activities

Our cash flows used in operating activities to date have been primarily comprised of payroll, consumables and supplies related to research and development, expenditures and reimbursements related to our JDAs, and facilities expense and professional services for general and administrative activities. As we continue to ramp up hiring for research and development headcount to accelerate our engineering efforts, we expect our cash used in operating activities to increase significantly before we start to generate any material cash inflows from our operations.

Net cash used in operating activities of \$56.4 million for the year ended December 31, 2023 was primarily attributable to net loss of \$53.4 million, as adjusted for non-cash operating items such as stock-based compensation expense of \$20.6 million, accretion income from available-for-sale short-term investments of \$11.1 million, a gain on change in fair value of Sponsor Earn-Out liabilities of \$6.8 million, and depreciation and amortization expense of \$5.5 million. These non-cash operating items were combined with a \$11.1 million working capital outflow. The working capital outflow was driven primarily by a \$8.2 million increase in prepaids and other assets, a \$1.5 million increase in receivable from related party, a \$1.1 million increase in deferred tax assets, a \$0.1 million decrease in accrued expenses and a \$0.2 million increase in inventories, partially offset by a \$0.1 million increase in accounts payable. The increase in prepaids and other assets was primarily due to insurance costs to cover potential liabilities under our indemnification obligations to our directors and certain officers, license fees for software, advance payments for research agreements, and VAT taxes. The increase in receivable from related party was driven by activity from a JDA. The decrease in accrued expenses and other liabilities was primarily due to adjustments for fixed assets in accruals at period end, accrued income taxes payable, payroll related accruals and the accounting of certain postemployment benefits. The increase in inventories was driven by current purchases with limited consumption of materials. The increase in accounts payable was primarily due to an increase in accounts payable related to the purchase of property and equipment for the South Korea and Shanghai facilities offset by a decrease in vendor payables.

Net cash used in operating activities of \$46.5 million for the year ended December 31, 2022 was primarily attributable to net loss of \$51.0 million, as adjusted for a gain on change in fair value of Sponsor Earn-Out liabilities of \$25.4 million, stock-based compensation expense of \$22.8 million, depreciation and amortization expense of \$2.6 million and accretion income from available-for-sale short-term investments of \$2.4 million, partially offset by a \$6.4 million working capital inflow. The working capital inflow was driven by a \$6.8 million increase in accrued expenses and other liabilities and a \$5.5 million decrease in receivable from related party, partially offset by a \$4.0 million decrease in accounts payable and a \$1.6 million increase in prepaids and other assets. The increase in accrued expenses and other liabilities was primarily due to advanced payments received under the JDAs, accrued income taxes payable, payroll related accruals and the accounting of certain postemployment benefits. The decrease in receivable from related party was driven by activity from a JDA. The decrease in accounts payable was primarily due to the payment of transaction costs related to the Business Combination and PIPE Financing partially offset by an increase in accounts payable related to the purchase of property and equipment for the South Korea facility. The increase in prepaids and other assets was primarily due to insurance costs to cover potential liabilities under our indemnification obligations to our directors and certain officers.

Investing Activities

Net cash provided by investing activities was \$32.7 million for the year ended December 31, 2023, compared with net cash used in investing activities of \$296.0 million for the year ended December 31, 2022. Investing activities include purchases of investments, maturities of investments, and purchases of property, plant, and equipment. The change in net investments activities, combining purchases and maturities, as well as the change in capital spending are discussed below.

Purchases and Maturities of Investments – Net purchases of short-term investments were \$48.5 million for the year ended December 31, 2023, compared with net proceeds from maturities of short-term investments of \$281.4 million for the year ended December 31, 2022. The \$232.9 million decrease in net purchases was driven by the nature and time to maturity for the treasury securities included in our portfolio in the current year.

Capital Spending – Capital expenditures were \$15.8 million and \$14.7 million for the years ended December 31, 2023 and 2022, respectively. These expenditures primarily related to purchases of lab machinery and equipment, lab tools and instruments and leasehold improvements to our facilities in the United States, Shanghai and South Korea. We expect capital expenditures to significantly increase in 2024 compared with 2023 as we continue to invest in the build out of our manufacturing pre-production facilities and expand into new facilities.

Financing Activities

Net cash provided by financing activities of \$3.3 million for the year ended December 31, 2023 was primarily attributable to proceeds received from a government grant and proceeds from the exercise of stock options.

Net cash provided by financing activities of \$289.9 million for the year ended December 31, 2022 related to proceeds received from the Business Combination and PIPE Financing, net of transaction costs, and from a government grant.

Contractual Obligations and Commitments

The following table summarizes our material contractual obligations for cash expenditures as of December 31, 2023, and the periods in which these obligations are due:

	<u>Short Term</u>	<u>Long Term</u>	<u>Total</u>
Purchase obligations ⁽¹⁾	\$ 55,289	\$ 1,915	\$ 57,204
Operating lease obligations ⁽²⁾	3,574	13,490	17,064
Total	\$ 58,863	\$ 15,405	\$ 74,268

⁽¹⁾ Purchase obligations include commitments for the purchase of lab supplies and equipment as well as committed spend related to a JDA. These commitments are derived from purchase orders, supplier contracts and open orders based on projected demand information.

⁽²⁾ Operating lease obligations represent the fixed lease payments for the noncancelable lease term, fixed lease payments for optional renewal periods where the Company is reasonably certain the renewal option will be exercised, variable lease payments that depend on an underlying index or rate in effect at lease commencement, and future minimal lease payments for executed but not yet commenced lease agreements.

Off-Balance Sheet Arrangements

As of December 31, 2023, we had a letter of credit issued by a financial institution totaling \$0.6 million. The letter of credit relates to deposits the Company is required to maintain under one of its operating leases agreements. We have restricted cash that serves as collateral for this outstanding letter of credit that is included in other assets on our consolidated balance sheet. No amounts have been drawn under the letter of credit.

Recent Accounting Pronouncements

See “Note 2 – Summary of Significant Accounting Policies” of our accompanying consolidated financial statements included in this Annual Report on Form 10-K for more information about recent accounting pronouncements, the timing of their adoption, and their potential impact on our financial condition, results of operations and cash flows.

Critical Accounting Estimates and Judgments

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

We consider an accounting 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 financial statements. Our significant accounting policies are described in “Note 2 – Summary of Significant Accounting Policies” of our

accompanying consolidated financial statements included in this Annual Report on Form 10-K. We consider the following to be our critical accounting estimates.

Description	Judgments and Uncertainties	Effect if Results Differ From Assumptions
Stock-Based Compensation		
<p>We record stock-based compensation expense according to the provisions of ASC Topic 718 – Stock Compensation. ASC Topic 718 requires all share-based awards to employees, including grants of Restricted Stock Units (RSUs), Performance Stock Units (PSUs), Restricted Stock Awards (RSAs), and employee stock options, to be recognized in the financial statements based on their fair values.</p> <p>Prior to the Business Combination, the RSAs and stock option grant date fair value of Old SES common stock was historically determined by its board of directors with the assistance of management and an independent valuation.</p> <p>Post Business Combination, as our common stock is publicly traded, the fair value of RSU grants is based on the closing market price on the date grants are made. The fair value of PSU grants is determined through an independent valuation of the likelihood of the performance metrics being met within the terms of the award.</p>	<p>We determine the appropriate fair value model (Black-Scholes model for Options and RSAs, Monte Carlo simulation for PSUs) to be used for valuing share-based issuances and the amortization method for recording compensation cost, which can be impacted by the following assumptions:</p> <ul style="list-style-type: none"> • expected term • expected volatility • expected dividend yield • risk-free interest rate 	<p>If we were to change any of these judgments or estimates, it could cause a material increase or decrease in the amount of stock-based compensation expense reported.</p>
Earn-Out Restricted Shares		
<p>The Earn-Out Restricted Shares are accounted for as a single tranche equity award issued to employees subject to time and share price vesting hurdle. These Earn-Out Restricted Shares have a share price vesting hurdle and are also subject to forfeiture if a recipient’s service terminates prior to the vesting. Pursuant to ASC 718 – Stock Compensation, we recognize stock-based compensation based on the fair value determined as of Closing with the assistance of management and an independent valuation.</p>	<p>We determine the appropriate fair value model (Monte Carlo simulation) to be used for valuing share-based issuances and the amortization method for recording compensation cost, which can be impacted by the following assumptions:</p> <ul style="list-style-type: none"> • expected term • expected volatility • expected dividend yield • risk-free interest rate • probability of change of control 	<p>If we were to change any of these judgments or estimates, it could cause a material increase or decrease in the amount of stock-based compensation expense reported.</p>

Description	Judgments and Uncertainties	Effect if Results Differ From Assumptions
Sponsor Earn-Out Liabilities		
<p>Certain Sponsor Earn-Out Shares are accounted for as a derivative liability measured at fair value, with changes in fair value recorded in the consolidated statement of operations and comprehensive loss at each reporting period, because the earn-out events that determine the number of Sponsor Earn-Out Shares to be earned back by the Sponsor include events that are not solely indexed to the common stock of the Company.</p> <p>The fair value of our common stock, which is publicly traded, is used in determining the fair value of the derivative liability at each valuation date with the assistance of management and an independent valuation.</p>	<p>We determine the appropriate fair value model (Monte Carlo simulation) to be used for valuing the derivative liability to record the change in fair value in our consolidated statement of operations and comprehensive loss, which may be impacted by the following assumptions:</p> <ul style="list-style-type: none"> • expected volatility • risk free rate • expected term • probability of change of control 	<p>If we were to change any of these judgments or estimates, it could cause a material increase or decrease in the amount of earn out liability reported.</p>

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The Company is exposed to a variety of markets and other risks including the effects of change in interest rates and foreign currency translation and transaction risks.

Interest Rate Risk

The market interest risk in our financial instruments and our financial positions represents the potential loss arising from adverse changes in interest rates. As of December 31, 2023, we had cash and cash equivalents of \$85.7 million, primarily consisting of interest-bearing money market funds, and short-term investments of \$246.8 million, consisting of U.S treasury securities, respectively. A 100 basis point increase in the general level of U.S. interest rates relative to interest rates as of December 31, 2023 would decrease the fair value of our short-term investments by approximately \$1.2 million. This estimate is based on a sensitivity model that measures market value changes when changes in interest rates occur. Such a decrease in fair value would only be realized if we sold the investments prior to maturity.

Foreign Currency Risk

The functional currency of all our entities and all its subsidiaries is the U.S. dollar, except for our subsidiaries in China and South Korea, which has Chinese renminbi (RMB) and South Korean won (KRW), respectively, as its functional currency, reflecting its principal operating economic environment. We expect to be exposed to both currency transaction remeasurement and translation risk. Any fluctuations in exchange rates may adversely affect our financial position, results of operations and cash flows. However, the Company engages in a minimal number of transactions outside of the functional currency of the reporting unit, resulting in a negligible exposure to foreign currency risk. We have not hedged such exposure, although we may do so in the future.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders
SES AI Corporation

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of SES AI Corporation (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2023, the related consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders’ equity, and cash flows for the year ended December 31, 2023, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023, and the results of its operations and its cash flows for the year ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2023, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated February 27, 2024 expressed an adverse opinion.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Critical audit matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of Sponsor Earn-Out Liabilities

As described further in Notes 2 and 11 to the consolidated financial statements, the Company has issued Sponsor Earn-Out Shares that are accounted for as a derivative liability (the “Sponsor Earn-Out Liabilities”) measured at fair value, with changes in fair value recorded in the consolidated statement of operations and comprehensive loss each reporting period. The fair value of the Sponsor Earn-Out Liabilities is estimated using a Monte Carlo simulation model. The fair value of the Sponsor Earn-Out Liabilities was determined to be \$4,166,000 at December 31, 2023. The gain on change in fair value of Sponsor Earn-Out Liabilities was \$6,795,000 for the year ended December 31, 2023. We identified the assessment of the fair value of the Sponsor Earn-Out Liabilities as a critical audit matter.

The principal considerations for our determination that the valuation of the Sponsor Earn-Out Liabilities is a critical audit matter were (1) the high degree of subjective auditor judgment required due to the complex valuation model and volatility and expected term assumptions used in the determination of fair value; and (2) the specialized skills and knowledge required to evaluate the Company’s determination of the fair value of the Sponsor Earn-Out Liabilities.

Our audit procedures related to the valuation of the Sponsor Earn-Out Liabilities included the following, among others.

- We evaluated the peer group public companies used in the determination of volatility and the judgments and assumptions made by management in the determination of the expected term.
- With the assistance of our valuation specialists, we:
 - Evaluated the appropriateness of the Monte Carlo simulation model.
 - Performed independent calculations of volatility using peer group public companies' data and comparing to volatility assumptions utilized in management's estimate.
 - Performed an independent calculation of the fair value using management's assumptions and comparing to the fair value of the Sponsor Earn-Out Liabilities determined by the Company.

/s/ GRANT THORNTON LLP

We have served as the Company's auditor since 2023.

Boston, Massachusetts
February 27, 2024

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
SES AI Corporation:

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of SES AI Corporation (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2023, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). In our opinion, because of the effect of the material weaknesses described in the following paragraphs on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2023, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by COSO.

A material weakness is a deficiency, or combination of control deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company’s annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in management’s assessment.

The Company did not design and maintain sufficient user access and monitoring controls to ensure appropriate segregation of duties and adequately restrict access to a financial application. In addition, a management review control associated with the valuation of the sponsor earn-out liability did not operate effectively as it did not evaluate a key assumption used in the valuation at an appropriate level of precision.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended December 31, 2023. The material weaknesses identified above were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2023 consolidated financial statements, and this report does not affect our report dated February 27, 2024 which expressed an unqualified opinion on those financial statements.

Basis for opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Controls over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

A company’s internal control over financial reporting is a process designed 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. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Other information

We do not express an opinion or any other form of assurance on the remediation plans or related actions described in Management's Annual Report on Internal Controls Over Financial Reporting.

/s/ GRANT THORNTON LLP

Boston, Massachusetts

February 27, 2024

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
SES AI Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of SES AI Corporation and subsidiaries (the Company) as of December 31, 2022, the related consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We served as the Company's auditor from 2021 to 2023.

Boston, Massachusetts
March 16, 2023

SES AI Corporation
Consolidated Balance Sheets

(in thousands, except share and per share amounts)	December 31, 2023	December 31, 2022
Assets		
Current Assets		
Cash and cash equivalents	\$ 85,671	\$ 106,623
Short-term investments	246,775	283,460
Receivable from related party	3,911	2,383
Inventories	558	383
Prepaid expenses and other assets	11,712	3,792
Total current assets	348,627	396,641
Property and equipment, net	37,959	27,756
Intangible assets, net	1,345	1,473
Right-of-use assets, net	13,099	11,363
Deferred tax assets	1,057	—
Other assets, non-current	4,723	3,206
Total assets	<u>\$ 406,810</u>	<u>\$ 440,439</u>
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$ 4,830	\$ 6,187
Operating lease liabilities	2,404	1,899
Accrued expenses and other liabilities	13,121	11,271
Total current liabilities	20,355	19,357
Sponsor Earn-Out liabilities	4,166	10,961
Operating lease liabilities, non-current	11,316	10,165
Unearned government grant	9,270	6,657
Other liabilities, non-current	2,753	1,760
Total liabilities	47,860	48,900
Commitments and contingencies (Note 14)		
Stockholders' Equity		
Preferred stock, \$0.0001 par value; 20,000,000 shares authorized, none issued and outstanding as of December 31, 2023 and 2022, respectively	—	—
Common stock: Class A shares, \$0.0001 par value, 2,100,000,000 shares authorized; 310,266,922 and 305,833,589 shares issued and outstanding as of December 31, 2023 and December 31, 2022, respectively;		
Class B shares, \$0.0001 par value, 200,000,000 shares authorized; 43,881,251 shares issued and outstanding as of December 31, 2023 and December 31, 2022	35	35
Additional paid-in capital	559,214	538,041
Accumulated deficit	(198,686)	(145,286)
Accumulated other comprehensive loss	(1,613)	(1,251)
Total stockholders' equity	358,950	391,539
Total liabilities and stockholders' equity	<u>\$ 406,810</u>	<u>\$ 440,439</u>

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

SES AI Corporation
Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except share and per share amounts)	Years Ended December 31,		
	2023	2022	2021
Operating expenses:			
Research and development	\$ 30,675	\$ 27,967	\$ 15,514
General and administrative	47,483	51,606	16,492
Total operating expenses	78,158	79,573	32,006
Loss from operations	(78,158)	(79,573)	(32,006)
Other income (expense):			
Interest income	16,685	6,196	248
Gain on change in fair value of Sponsor Earn-Out liabilities	6,795	25,432	—
Miscellaneous income (expense), net	425	(1,793)	(312)
Gain on forgiveness of PPP note	—	—	840
Total other income, net	23,905	29,835	776
Loss before income taxes	(54,253)	(49,738)	(31,230)
Benefit (provision) from income taxes	853	(1,255)	(25)
Net loss	(53,400)	(50,993)	(31,255)
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustment	(937)	(1,373)	234
Unrealized gain (loss) on short-term investments	575	(245)	—
Total other comprehensive (loss) income, net of tax	(362)	(1,618)	234
Total comprehensive loss	\$ (53,762)	\$ (52,611)	\$ (31,021)
Net loss per share attributable to common stockholders:			
Basic and diluted	\$ (0.17)	\$ (0.18)	\$ (0.51)
Weighted-average shares outstanding:			
Basic and diluted	315,051,508	288,304,750	61,089,065

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

SES AI Corporation
Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity

(in thousands, except share and per share amounts)	Redeemable Convertible Preferred Stock		Class A and Class B Common Stock		Additional Paid-in-Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance – December 31, 2020	174,994,140	82,044	60,781,975	6	830	(63,038)	133	(62,069)
Issuance of Series D and Series D plus redeemable convertible preferred stock, net of issuance costs of \$608	38,966,146	187,897	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options	—	—	1,360,960	—	197	—	—	197
Stock-based compensation	—	—	—	—	4,571	—	—	4,571
Net loss	—	—	—	—	—	(31,255)	—	(31,255)
Foreign currency translation adjustments	—	—	—	—	—	—	234	234
Balance – December 31, 2021	<u>213,960,286</u>	<u>\$ 269,941</u>	<u>62,142,935</u>	<u>\$ 6</u>	<u>\$ 5,598</u>	<u>\$ (94,293)</u>	<u>\$ 367</u>	<u>\$ (88,322)</u>
Conversion of redeemable convertible preferred stock to common stock in connection with reverse recapitalization upon Business Combination	(213,960,286)	(269,941)	213,960,286	21	269,920	—	—	269,941
Business Combination and PIPE Financing, net of redemptions and transaction costs ⁽¹⁾	—	—	71,767,824	7	234,514	—	—	234,521
Post close adjustment of transaction costs related to Business Combination and PIPE Financing	—	—	—	—	4,905	—	—	4,905
Issuance of common stock upon exercise of stock options	—	—	2,089,351	1	329	—	—	330
Restricted stock units vested	—	—	185,944	—	—	—	—	—
Forfeitures of Restricted Stock Awards	—	—	(44,495)	—	—	—	—	—
Forfeitures of Earn-Out restricted shares	—	—	(387,005)	—	—	—	—	—
Stock-based compensation	—	—	—	—	22,775	—	—	22,775
Net loss	—	—	—	—	—	(50,993)	—	(50,993)
Foreign currency translation adjustments	—	—	—	—	—	—	(1,373)	(1,373)
Unrealized loss on short-term investments	—	—	—	—	—	—	(245)	(245)
Balance — December 31, 2022	<u>—</u>	<u>\$ —</u>	<u>349,714,840</u>	<u>\$ 35</u>	<u>\$ 538,041</u>	<u>\$ (145,286)</u>	<u>\$ (1,251)</u>	<u>\$ 391,539</u>
Issuance of common stock upon exercise of stock options	—	—	3,691,340	—	524	—	—	524
Restricted stock units vested	—	—	1,063,863	—	—	—	—	—
Forfeitures of Restricted Stock Awards	—	—	(10,824)	—	—	—	—	—
Forfeitures of Earn-Out restricted shares	—	—	(311,046)	—	—	—	—	—
Stock-based compensation	—	—	—	—	20,649	—	—	20,649
Net loss	—	—	—	—	—	(53,400)	—	(53,400)
Foreign currency translation adjustments	—	—	—	—	—	—	(937)	(937)
Unrealized gain on short-term investments	—	—	—	—	—	—	575	575
Balance — December 31, 2023	<u>—</u>	<u>\$ —</u>	<u>354,148,173</u>	<u>\$ 35</u>	<u>\$ 559,214</u>	<u>\$ (198,686)</u>	<u>\$ (1,613)</u>	<u>\$ 358,950</u>

⁽¹⁾ Includes issuance of 33,793,878 restricted shares of Class A common stock and 3,999,796 restricted shares of Class B common stock, subject to vesting.

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

SES AI Corporation
Consolidated Statements of Cash Flows

(in thousands)	Years Ended December 31,		
	2023	2022	2021
Cash Flows From Operating Activities			
Net loss	\$ (53,400)	\$ (50,993)	\$ (31,255)
Adjustments to reconcile net loss to net cash used in operating activities:			
Gain on change of fair value of Sponsor Earn-Out liabilities	(6,795)	(25,432)	—
Stock-based compensation	20,649	22,775	4,571
Depreciation and amortization	5,541	2,596	1,662
Accretion income from available-for-sale short-term investments	(11,050)	(2,350)	—
Other	(244)	490	95
Gain on forgiveness of PPP note	—	—	(840)
Changes in operating assets and liabilities:			
Receivable from related party	(1,528)	5,525	(7,910)
Inventories	(184)	(383)	—
Prepaid expenses and other assets	(8,170)	(1,586)	(1,666)
Deferred tax assets	(1,057)	—	—
Accounts payable	(62)	(3,975)	1,287
Accrued expenses and other liabilities	(112)	6,833	4,065
Net cash used in operating activities	(56,412)	(46,500)	(29,991)
Cash Flows From Investing Activities			
Purchases of property and equipment	(15,763)	(14,654)	(8,951)
Purchase of short-term investments	(281,518)	(411,355)	(150,810)
Proceeds from the maturities of short-term investments	330,000	130,000	163,101
Purchases of intangible assets	—	—	(26)
Net cash provided by (used in) investing activities	32,719	(296,009)	3,314
Cash Flows From Financing Activities			
Proceeds from Business Combination and PIPE Financing, net of issuance costs	—	282,940	—
Proceeds from government grant	2,751	6,657	—
Proceeds from stock option exercises	524	330	197
Proceeds from issuance of Series D and Series D plus redeemable convertible preferred stock, net of issuance costs	—	—	187,897
Payment of deferred offering costs	—	—	(3,334)
Net cash provided by financing activities	3,275	289,927	184,760
Effect of exchange rates on cash	(552)	(526)	233
Net (decrease) increase in cash, cash equivalents and restricted cash	(20,970)	(53,108)	158,316
Cash, cash equivalents and restricted cash at beginning of period (Note 5)	107,936	161,044	2,728
Cash, cash equivalents and restricted cash at end of period (Note 5)	\$ 86,966	\$ 107,936	\$ 161,044
Supplemental Cash and Non-Cash Information:			
Incomes taxes paid	\$ 222	\$ —	\$ —
Conversion of Redeemable Convertible Preferred Stock to shares of Class A common stock	\$ —	\$ (269,941)	\$ —
Release of accrued transaction costs related to Business Combination and PIPE Financing	\$ —	\$ 6,061	\$ —
Accounts payable and accrued expenses related to purchases of property and equipment	\$ 6,008	\$ 4,349	\$ 378
Lease liabilities arising from obtaining right-of-use assets	\$ 3,808	\$ 1,547	\$ —
Liabilities of Ivanhoe acquired in the Business Combination	\$ —	\$ (387)	\$ —
Deferred offering costs included in accounts payable and accrued expenses and other liabilities	\$ —	\$ —	\$ 2,377

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

SES AI Corporation
Notes to Consolidated Financial Statements

Note 1. Nature of Business

SES AI Corporation, and consolidated subsidiaries (together the “Company”) consists of SES AI Corporation (“SES”) and its wholly-owned subsidiary SES Holdings Pte. Ltd. (“SES Holdings” or “Old SES”), along with its wholly owned subsidiaries SolidEnergy Systems, LLC (“SES LLC”), SES (Shanghai) Co., Ltd. (“SES Shanghai”), SolidEnergy Systems Securities Corporation (“SES Securities”), Viking Power Systems Pte. Ltd. (“SES Viking”), SES AI Korea Co., Ltd. (“SES Korea”) and SES Energy Pte. Ltd. (“SES Energy”).

SES Holdings is a Singapore private company limited by shares formed in November 2018. SES LLC is a Delaware limited liability company formed in November 2018 as a result of the conversion from a corporation to a limited liability company by SolidEnergy Systems Corp, a Delaware corporation formed in April 2012. SES Shanghai was registered in Shanghai, China in August 2018. SES Securities was incorporated in December 2017 as a Massachusetts Security Corporation. SES Viking is a Singapore private company limited by shares and was formed in May 2019. SES Korea, formerly known as Massachusetts Solid Energy Co., Ltd., was registered in South Korea in November 2021. SES Energy is a Singapore private company and was incorporated in September 2022.

The Company is engaged in the development of high-performance, Lithium-Metal (“Li-Metal”) rechargeable battery technologies for electric vehicles (“EVs”), Urban Air Mobility (“UAM”) and other applications. The Company’s mission is to facilitate the widespread adoption of sustainable electric transportation, both on land and in air, by creating best-in-class, high energy density Li-Metal batteries centered around long-range performance and safety. The Company’s differentiated battery technology has been designed to combine the high energy density of Li-Metal with the cost-effective, large-scale manufacturability of conventional Lithium-ion (“Li-ion”) batteries which will help to promote the transition from the global dependence on fossil fuel-based automotive vehicles to clean and efficient EVs. The Company’s headquarter is located in Woburn, Massachusetts with research and development facilities located there, in Shanghai, China, and in Chungju, South Korea. Principal operations have not yet commenced as of December 31, 2023, and the Company has not derived revenue from its principal business activities.

Prior to the closing of the Business Combination (the “Closing”), Ivanhoe Capital Acquisition Corp. (“Ivanhoe”), a Cayman Islands exempted company, migrated out of the Cayman Islands and domesticated as a Delaware corporation (the “Domestication”) and changed its name to “SES AI Corporation.” On February 3, 2022 (the “Closing Date”), SES AI Corporation, formerly known as Ivanhoe, and Wormhole Amalgamation Sub Pte. Ltd., a Singapore private company limited by shares and a direct, wholly-owned subsidiary of Ivanhoe (“Amalgamation Sub”), consummated the previously announced Business Combination (the “Business Combination”) pursuant to which, among other things, Amalgamation Sub merged with and into Old SES, with Old SES surviving the Business Combination as a wholly-owned subsidiary of SES. See “Note 3 – Business Combination” for additional information.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements include the accounts of the Company and have been prepared on a going concern basis and in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) as determined by the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) and pursuant to the regulations of the U.S. Securities and Exchange Commission (“SEC”). The Company’s fiscal year ends on December 31.

Principles of Consolidation

The consolidated financial statements include the accounts of SES and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated upon consolidation.

Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make use of estimates and assumptions that affect the reported amount of assets and liabilities, the disclosure of commitments and contingencies, and the reported amounts of revenues, if any, and expenses. The Company bases its estimates on available historical experience and on various other factors that the Company believes are reasonable under the circumstances, the results of which form the basis for making judgments about the

carrying values of assets and liabilities that are not apparent from other sources. Changes in estimates are reflected in reported results for the period in which they become known. Actual results may differ from those estimates.

Significant estimates and assumptions include those related to the valuation of (i) certain equity awards, including common stock awards prior to the Business Combination, the Sponsor Earn-Out Shares, the Earn-Out Restricted Shares, and performance stock units, (ii) deferred tax assets and uncertain income tax positions, and (iii) the measurement of operating lease liabilities. On an ongoing basis, the Company evaluates these judgments and estimates for reasonableness.

Foreign Currency Translation

For the foreign subsidiaries of the Company, assets and liabilities are translated into U.S. dollars using exchange rates as of the balance sheet date, and income and expenses are translated using the average exchange rates in effect for the related month. The net effect of these translation adjustments is reported in accumulated other comprehensive (loss) income within total stockholders' equity on the consolidated balance sheets. Net realized and unrealized gains (losses) from foreign currency transactions are included in miscellaneous income (expense), net in the consolidated statement of operations and comprehensive loss and were \$0.3 million, \$0.1 million, and \$(0.2) million for the years ended years ended December 31, 2023, 2022 and 2021, respectively.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on hand and highly liquid investments that have original maturity periods of 90 days or less at the time of purchase that are readily convertible to known amounts of cash.

Restricted Cash

Restricted cash includes cash held in checking and money market funds as collateral to secure certain insurance policies and a letter of credit for corporate lease activity. The letter of credit is required to be maintained throughout the term of the lease. If the date of availability or disbursement is less than one year, restricted cash is reported within prepaid expenses and other current assets on the consolidated balance sheets. If the date of availability or disbursement is longer than one year and the balances are maintained under an agreement that legally restricts the use of such funds, restricted cash is reported within other assets on the consolidated balance sheets. As of December 31, 2023, no amount has been drawn under the letter of credit. As of December 31, 2023 and 2022, the Company had restricted cash balances of \$1.3 million, respectively.

Investments

The Company has investments in short-term marketable debt and marketable equity securities. Investments in marketable debt securities consist of U.S. treasury securities, are classified as available-for-sale at the time of purchase and reevaluate such classification at each balance sheet date. These available-for-sale marketable securities are recorded at fair value, with any unrealized gains and losses included as a component of accumulated other comprehensive (loss) income in total stockholders' equity on the consolidated balance sheets until realized or until a determination is made that an other-than-temporary decline in market value has occurred. The amortized cost of U.S. treasury securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion are reported within interest income in the consolidated statement of operations and comprehensive loss. Investments in marketable debt securities with a stated maturity date of less than one year are classified as short-term investments, while these with a stated maturity date of more than one year, and that are not expected to be used in current operations, are classified as long-term investments on the consolidated balance sheet, respectively. Investments in marketable equity securities are classified as short-term investments when the Company's intention is to sell within a year of purchase, otherwise they will be classified as long-term investments. Investments in marketable equity securities with a readily determinable fair value, not accounted for under the equity method, are recorded at fair value with changes to fair value reported within miscellaneous income (expense), net in the consolidated statements of operations and comprehensive loss.

Inventories

Inventories consist of raw materials and are stated at the lower of average cost or net realizable value.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash, cash equivalents, restricted cash and short-term investments. The Company seeks to mitigate its credit risk with respect to such concentrations by holding its deposits with

large, reputable, domestic financial institutions and investing in high credit rated shorter-term instruments. The account balances at these institutions may exceed Federal Deposit Insurance Corporation (“FDIC”) insurance coverage, and as a result, there may be a concentration of risk related to amounts invested in excess of FDIC insurance coverage. As of December 31, 2023 and 2022, the amount of cash, cash equivalents and restricted cash held by our subsidiaries in foreign bank accounts was \$11.1 million and \$21.0 million, respectively.

Fair Value Measurements

Fair value is defined as an exchange price 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. When determining the fair value measurements for assets and liabilities required or permitted to be either recorded or disclosed at fair value, the Company considers the principal or most advantageous market in which it would transact, and it also considers assumptions that market participants would use when pricing the asset or liability.

The Company maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. GAAP establishes a fair value hierarchy based on the level of independent, objective evidence surrounding the inputs used to measure fair value. A financial instrument’s categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The fair value hierarchy is as follows:

- Level 1 Observable inputs such as quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.
- Level 2 Inputs other than the quoted prices in active markets that are observable either directly or indirectly.
- Level 3 Unobservable inputs in which there are little or no market data and which require the Company to develop its own assumptions.

Certain of the Company's financial instruments, including cash and cash equivalents, accounts payable, accrued expenses and other current liabilities are carried at cost, which approximates their fair value because of their short-term nature. The following table presents information about the Company's financial assets and liabilities that are measured at fair value on a recurring basis:

(in thousands)	Level 1	Level 2	Level 3	Total
December 31, 2023				
Current assets				
Cash equivalents in money market funds (Note 5)	\$ 74,997	\$ —	\$ —	\$ 74,997
U.S. treasury securities	246,127	—	—	246,127
Equity securities ⁽¹⁾	648	—	—	648
Total current assets at fair value	\$ 321,772	\$ —	\$ —	\$ 321,772
Non-current assets				
Restricted cash in money market funds	\$ 614	\$ —	\$ —	\$ 614
Total non-current assets at fair value	\$ 614	\$ —	\$ —	\$ 614
Total assets at fair value	\$ 322,386	\$ —	\$ —	\$ 322,386
Non-current liabilities				
Sponsor Earn-Out liabilities	\$ —	\$ —	\$ 4,166	\$ 4,166
Total non-current liabilities at fair value	\$ —	\$ —	\$ 4,166	\$ 4,166
December 31, 2022				
Current assets				
Cash equivalents in money market funds (Note 5)	\$ 46,308	\$ —	\$ —	\$ 46,308
U.S. treasury securities	283,460	—	—	283,460
Total current assets at fair value	\$ 329,768	\$ —	\$ —	\$ 329,768
Non-current assets				
Restricted cash in money market funds	\$ 614	\$ —	\$ —	\$ 614
Total non-current assets at fair value	\$ 614	\$ —	\$ —	\$ 614
Total assets at fair value	\$ 330,382	\$ —	\$ —	\$ 330,382
Non-current liabilities				
Sponsor Earn-Out liabilities	\$ —	\$ —	\$ 10,961	\$ 10,961
Total non-current liabilities at fair value	\$ —	\$ —	\$ 10,961	\$ 10,961

⁽¹⁾ Fair value was determined using publicly quoted market prices obtained from third-party sources in their respective markets.

There were no transfers in or out of Level 3 measurements during the years ended December 31, 2023 and 2022.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation for property and equipment, other than construction in progress, is based upon the following useful lives using the straight-line method:

Laboratory machinery and equipment	5 – 10 years
Office and computer equipment	3 – 5 years
Furniture and fixtures	5 years
Leasehold improvements	Shorter of useful life of asset or lease term

The Company periodically assesses the useful lives of the assets to determine whether events or circumstances may indicate that a revision to the useful life is warranted. Maintenance and repairs that do not extend the life or improve the asset are expensed as incurred. Construction in progress is stated at cost, which includes the cost of construction and other direct costs attributable to placing the asset in service. Additionally, reimbursements received by the Company under its A-Sample joint development agreement (“JDA”) related to property and

equipment constructed and owned by the Company are recognized as a reduction of the cost of the related asset in the consolidated balance sheets as discussed in “Note 4 – Partnerships” below.

Intangible Assets

Intangible assets purchased are recorded at cost and stated at cost less accumulated amortization. Intangibles assets with finite useful lives are amortized based on the pattern in which the economic benefits of the assets are estimated to be consumed over the following estimated useful lives:

Intellectual property	15 years
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Amortization expense is included in general and administrative expenses in the consolidated statement of operations and comprehensive loss.

Impairment of Long-Lived Assets

The Company evaluates long-lived assets, including amortizable intangible assets and ROU assets, annually or whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If such events or circumstances arise, the Company will compare the carrying amount of the asset group comprising the long-lived assets to the estimated future undiscounted cash flows expected to be generated by the asset group. If the estimated aggregate undiscounted cash flows are less than the carrying amount of the asset group, an impairment charge is recorded as the amount by which the carrying amount of the asset group exceeds the fair value of the assets, as based on the expected discounted future cash flows attributable to those assets. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value less costs to sell. There were no impairments of long-lived assets during the years ended December 31, 2023, 2022 and 2021.

Deferred Offering Costs

Deferred offering costs consist of legal, accounting, and other costs incurred through the balance sheet date that are directly related to the Company becoming a publicly traded company are capitalized. Deferred offering costs were charged to stockholders’ equity upon the completion of the transaction.

Leases

The Company determines if an arrangement includes a lease at inception. Lease arrangements generally have lease and non-lease components, which the Company has elected to account for as a single lease component. At the lease commencement date, the Company recognizes an operating lease liability and an operating lease asset, which represents the right to use the underlying asset for the lease term (the “ROU asset”). The operating lease liability is equal to the present value of (1) fixed lease payments for the noncancelable lease term, (2) fixed lease payments for optional renewal periods where it is reasonably certain the renewal option will be exercised, and (3) variable lease payments that depend on an underlying index or rate in effect at lease commencement. Variable lease payments as the difference between underlying index and the actual index, or that do not depend on an underlying index or rate in effect at lease commencement, such as common area maintenance, insurance, and property tax, are recognized in operating expenses when incurred. The operating ROU asset is initially measured at cost, which primarily comprises the initial amount of the lease liability and lease payments made prior to lease commencement, less any lease incentives received.

As the Company’s leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at lease commencement in determining the present value of lease payments. The Company’s incremental borrowing rate estimates a secured rate that reflects the term of the lease, the nature of the underlying asset and the economic environment. The Company recognizes rent expense on a straight-line basis over the lease term, with any lease incentives amortized as a reduction of rent expense over the lease term. All ROU assets are periodically reviewed for impairment in accordance with standards that apply to long-lived assets. The Company excludes leases with an expected term of one year or less from recognition on the consolidated balance sheets. See “Note 12 – Leases” for additional information about the Company’s leases.

Government Grants

The Company occasionally receives government grants that provide financial assistance for certain eligible expenditures. Government grants are not recognized until there is reasonable assurance that the Company will comply with the conditions attached to it, and that the grant will be received. The Company records such grants either as a reduction of the related expense or as other income, depending on the nature of the grant, in the consolidated statement of operations and comprehensive loss or as a reduction of the cost of the related asset in the consolidated balance sheet. If a grant amount is received but not earned, then such amount is deferred and shown as a liability in the consolidated balance sheet. See “Note 10 – Government Grant” for additional information about government grants awarded to the Company.

Sponsor Earn-Out Liabilities

On February 2, 2022, in connection with the Domestication, 6,900,000 of Ivanhoe’s Class B ordinary shares held by Ivanhoe Capital Sponsor LLC (the “Sponsor”) converted into an equal number of shares of duly authorized, validly issued, fully paid and nonassessable Class B common stock, par value \$0.0001 per share (the “Class B common stock”), of the Company. At Closing, these 6,900,000 shares of Class B common stock converted into an equal number of shares of duly authorized, validly issued, fully paid and nonassessable Class A common stock, par value \$0.0001 per share (the “Class A common stock,” and together with the Class B common stock, “common stock”), of the Company (the “Sponsor Earn-Out Shares”). These Sponsor Earn-Out Shares are subject to certain transfer restrictions and forfeiture terms following the Closing, which will be released as follows:

- 20% are subject to transfer restrictions until the date that is 180 days after the Closing (“Tranche 1”);
- 20% are subject to transfer restrictions until SES’s closing stock price equals or exceeds \$12.00 for 20 out of 30 consecutive trading days following the date that is 150 days after the Closing (“Tranche 2”);
- 20% are subject to transfer restrictions until SES’s closing stock price equals or exceeds \$14.00 for 20 out of 30 consecutive trading days following the date that is 150 days after the Closing (“Tranche 3”);
- 20% are subject to transfer restrictions until SES’s closing stock price equals or exceeds \$16.00 for 20 out of 30 consecutive trading days following the date that is 150 days after the Closing (“Tranche 4”); and
- 20% are subject to transfer restrictions until SES’s closing stock price equals or exceeds \$18.00 for 20 out of 30 consecutive trading days following the date that is 150 days after the Closing (“Tranche 5”).

If there is a change in control of SES at a per share value of greater than \$18.00, then 100% of the Sponsor Earn-Out Shares will be released from these transfer restrictions; however if the per share value is less than \$18.00 upon a change in control, then the Sponsor Earn-Out Shares will be released pro rata based on the per share value of the change in control and the stock price thresholds for release specified above. Any Sponsor Earn-Out Shares not released will be forfeited and cancelled.

The Sponsor Earn-Out Shares in Tranche 1 are accounted for as equity instruments because they are legally owned by the Sponsor, cannot be forfeited and were subject only to transfer restrictions that lapsed 180 days after the Closing Date, which occurred on August 2, 2022, and as such meet the equity classification criteria in accordance with ASC 505, *Equity*. The Sponsor Earn-Out Shares under Tranche 2 through Tranche 5 are accounted for as a derivative liability measured at fair value, with changes in fair value reported within other expense, net on the consolidated statement of operations and comprehensive loss at each reporting period, because the earn-out triggering events that determine the number of Sponsor Earn-Out Shares to be earned back by the Sponsor include events that are not solely indexed to the shares of Class A common stock. As of December 31, 2023, the earn-out triggering events were not achieved for any of Tranche 2 through Tranche 5. See “Note 11 – Sponsor Earn-Out Liabilities” for further information on fair value.

Earn-Out Shares

In connection with the Business Combination, holders of Old SES common stock, redeemable convertible preferred stock, options and restricted shares received 29,999,947 earn-out shares of common stock, including (i) 23,691,182 shares of Class A common stock (the “Earn-Out Shares”) issued for the benefit of the former holders of Old SES common and redeemable convertible preferred stock; (ii) 2,308,969 shares of restricted Class A common stock (the “Earn-Out Restricted Shares”) issued to Old SES option holders and pre-Closing recipients of Old SES restricted shares; and (iii) 3,999,796 shares of Class B common stock (“Founder Earn-Out Shares”) issued to the CEO and certain entities affiliated with the CEO (the “SES Founder Group”).

The Earn-Out Shares and the Founder Earn-Out Shares (collectively, the “Escrowed Earn-Out Shares”) were placed into escrow at the Closing and shall vest on the date that the closing price of shares of Class A common stock is equal to or greater than \$18.00 (“Triggering Event”) during the period beginning on the date that is one year following the Closing and ending on the date that is five years following the Closing (the “Earn-Out Period”). If a Triggering Event has not occurred by the expiration of the Earn-Out Period, then the Escrowed Earn-Out Shares shall be cancelled, and holders of such shares shall have no right to receive such Escrowed Earn-Out Shares. The Earn-Out Restricted Shares are subject to vesting based on the same terms as the Escrowed Earn-Out Shares and are also subject to forfeiture if such recipient’s service with the Company terminates prior to vesting. Any such forfeited Earn-Out Restricted Shares shall be available for grant pursuant to the Company’s incentive plan. If, during the earn-out period of five years, there is a change in control transaction at a per share price of greater than or equal to \$18.00 per share, then all 29,999,947 earn-out shares will vest immediately prior to the consummation of such change in control, otherwise, all earn-out shares will be forfeited.

The Escrowed Earn-Out Shares to be released upon achievement of the vesting condition are classified as equity instruments and recorded at fair value in stockholders’ equity as vesting is indexed to the common stock of the Company. The Earn-Out Restricted Shares are accounted for as a single tranche equity award. See “Note 17 – Stock-Based Compensation” for further information on fair value of the Earn-Out Restricted Shares.

Common Stock Warrants

Prior to the Business Combination, Ivanhoe had issued 9,200,000 public warrants (“Public Warrants”) and 5,013,333 private placement warrants (“Private Warrants” and collectively with the Public Warrants, the “Warrants”) which were assumed by the Company at Closing. On February 1, 2022, prior to Closing, the Ivanhoe warrant holders approved certain amendments to the terms of the Warrants such that the Warrants met the derivative scope exception for contracts in the Company’s own stock and were recorded in stockholders’ equity. Prior to the amendment, the Warrants were accounted for as derivative liabilities measured at fair value, with changes in fair value recorded in the consolidated statement of operations and comprehensive loss at each reporting period. Each whole Warrant entitles the registered holder to purchase one share of Class A common stock at a price of \$11.50 per share. Pursuant to the Warrant agreement, a Warrant holder may exercise its Warrants only for a whole number of shares of Class A common stock. This means only a whole Warrant may be exercised at a given time by a warrant holder.

The amendments, among other things, include the following:

- amendments to the rights specific to the Private Warrants such that (a) the rights specific to Private Warrants are retained by the holder thereof regardless of such holder’s identity, (b) the Private Warrants are no longer subject to redemption by the Company when such warrants are trading at a price equal to or in excess of \$10.00 per share but less than \$18.00 per share and (c) the Private Warrants are no longer generally exercisable on a “cashless basis”;
- eliminates the Company’s ability to redeem any Public Warrants unless the Class A common stock is trading at a price equal to or in excess of \$18.00 per share; and
- removes certain language related to the treatment of Warrants in the event of a tender offer for the shares underlying such Warrants.

Subsequent to the Closing, the Company registered 14,213,280 shares of Class A common stock issuable upon the exercise of the Warrants.

Redeemable Convertible Preferred Stock

The Company records all shares of redeemable convertible preferred stock at their respective fair values less issuance costs on the dates of issuance. Upon closing of the Business Combination, the redeemable convertible preferred shares were cancelled and converted into shares of Class A common stock, as discussed in “Note 3 – Business Combination.”

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 (“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 and reportable segment, as the CODM reviews financial information presented on a consolidated basis for purposes of making operating decisions, allocating resources, and evaluating financial performance. See “Note 20 – Segment and Geographic Information” for additional information.

Research and Development Costs

Research and development costs with no alternative future use are expensed as incurred. Research and development costs are comprised of expenses incurred in performing research and development activities, including compensation and benefits for employees, materials and supplies, payments to consultants, patent related legal costs, facility costs, depreciation, and travel expenses. Additionally, payments received by the Company under its JDAs are recognized as a reduction to research and development expense in the consolidated statement of operations and comprehensive loss.

Stock-Based Compensation

The Company measures compensation expense for all stock-based awards made to employees, directors, and non-employees, based on estimated fair values as of the grant date and recognizes the compensation expense using the straight-line method over the requisite service period, which is generally the vesting period. The Company accounts for forfeitures when they occur. Changes in the assumptions can materially affect the fair value and ultimately how much stock-based compensation expense is recognized. The inputs used in valuation models to estimate the fair value of certain stock-based awards are subjective and generally require significant analysis and judgment to develop. See “Note 17 – Stock-Based Compensation” for additional information about stock-based awards.

Income Taxes

Income tax expense has been provided using the asset and liability method. Deferred tax assets and liabilities are determined based on the estimated future tax consequences attributable to differences between the financial statement carrying amounts and tax bases of existing assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Deferred tax expense or benefit is the result of changes in the deferred tax asset and liability. The Company provides a valuation allowance against net deferred tax assets if, based upon the available evidence, it is more likely than not that the deferred tax assets will not be realized. In evaluating the Company’s ability to recover deferred tax assets, the Company considers all available positive and negative evidence, including historical operating results, ongoing tax planning, and forecasts of future taxable income on a jurisdiction-by-jurisdiction basis.

The Company recognizes a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the Company’s consolidated financial statements from such positions are measured based on the largest benefit that has a greater than 50% likelihood of being realized. The Company recognizes interest and penalties associated with tax matters as part of the income tax provision and includes accrued interest and penalties with the related income tax liability within accrued expenses and other current liabilities on the consolidated balance sheets.

Other Comprehensive Income (Loss)

Other Comprehensive income (loss) includes changes in the balances of items that are reported directly as a separate component of stockholders’ equity on the consolidated balance sheets. The components of comprehensive loss are net loss, foreign currency translation adjustments and unrealized gains and losses from available-for-sale marketable debt securities. The Company does not provide for income taxes on foreign currency translation adjustments since it does not provide for taxes on the unremitted earnings of its foreign subsidiaries. The tax effects of unrealized gains and loss from available-for-sale marketable debt securities is recorded in deferred tax assets (liabilities) and fully offset by the valuation allowance. The changes in accumulated other comprehensive income (loss) are included in the Company’s consolidated statement of operations and comprehensive loss.

Net Income (Loss) Per Share

Upon recapitalization, net loss per share calculations for all periods prior to the Business Combination have been retrospectively restated to the equivalent number of shares by multiplying by 5.9328 (the “Exchange Ratio) established in the Business Combination, including the issuance of Class A common stock and Class B common stock to Old SES common stockholders. Under the two-class method, the net loss attributable to common stockholders was not allocated to the redeemable convertible preferred stock as the holders of its redeemable convertible preferred stock do not have a contractual obligation to share in the Company’s losses. As the liquidation and dividend rights of Class A common stock and Class B common stock are identical, the net loss attributable to common stockholders is allocated on a proportionate basis, and the resulting net loss per share is identical for Class A common stock and Class B common stock under the two-class method.

Basic net income or loss per share attributable to Class A common stock and Class B common stock stockholders is computed by dividing the net income or loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. The diluted net income or loss per share attributable to common stockholders is calculated by giving effect to all potentially dilutive common stock equivalents outstanding during the period.

Recently Adopted Accounting Pronouncements

In November 2023, the FASB issued ASU 2023-7, *Improvements to Reportable Segment Disclosures*, which requires disclosures of significant reportable segment expenses that are regularly provided to the Chief Operating Decision Maker (“CODM”) and included within each reported measure of a segment’s profit or loss. This ASU also requires disclosure of the title and position of the individual identified as the CODM and an explanation of how the CODM uses the reported measures of a segment’s profit or loss in assessing segment performance and deciding how to allocate resources. The ASU is effective for annual periods beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Adoption of the ASU should be applied retrospectively to all prior periods presented in the financial statements. Early adoption is also permitted. We are currently evaluating the provisions and impact this ASU will have when adopted for the year ended December 31, 2024 and anticipate it will likely result in inclusion of additional required disclosures in our consolidated financial statements.

In December 2023, the FASB issued ASU 2023-9, *Improvements to Income Tax Disclosures*, which requires disaggregated information about a reporting entity’s effective tax rate reconciliation as well as additional information on income taxes paid. The ASU is effective on a prospective basis for annual periods beginning after December 15, 2024. Early adoption is also permitted for annual financial statements that have not yet been issued or made available for issuance. We are currently evaluating the impact this ASU will have when adopted and anticipate this ASU will likely result in the required additional disclosures being included in our consolidated financial statements.

The Company has reviewed all other accounting pronouncements issued during the year ended December 31, 2023 and concluded they were either not applicable or not expected to have a material impact on the Company’s consolidated financial statements.

Note 3. Business Combination

On February 3, 2022, SES consummated the previously discussed business combination. The Business Combination was accounted for as a reverse recapitalization. Under this method of accounting, SES, formerly known as Ivanhoe, was treated as the “acquired” company for financial reporting purposes. Accordingly, the financial statements of the Company represent a continuation of the financial statements of Old SES with the Business Combination treated as the equivalent of Old SES issuing stock 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 Business Combination are those of Old SES. As a result, the consolidated financial statements included in this report reflect (i) the historical operating results of Old SES prior to the Business Combination; (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) SES’s equity structure for all periods presented as discussed below.

At Closing, the following occurred:

- Each share of Old SES common stock, excluding shares held by the SES Founder Group, and each redeemable convertible preferred share that was outstanding immediately prior to the Closing was cancelled and converted into a number of fully paid and nonassessable shares of Class A common stock equal to the Exchange Ratio, rounded down to the nearest whole number;
- Each share of Old SES common stock held by the SES Founder Group that was outstanding immediately prior to the Closing was cancelled and converted into a number of fully paid and nonassessable shares of Class B common stock equal to the Exchange Ratio, rounded down to the nearest whole number;
- Each Old SES restricted share that was granted and subject to restrictions (including vesting) immediately prior to the Closing was assumed by the Company and converted into a number of shares of restricted Class A common stock equal to the Exchange Ratio, rounded down to the nearest whole number, which remain subject to the same terms and conditions as were applicable prior to the Closing; and
- Each Old SES option that was outstanding immediately prior to the Closing, whether vested or unvested, was assumed by the Company and converted into an option to acquire Class A common stock with the same terms as were applicable prior to the Closing, except for the number of shares exercisable and the exercise price, each of which was adjusted using the Exchange Ratio, rounded down to the nearest whole number;

- Holders of Old SES common stock, redeemable convertible preferred stock, options and restricted shares received 29,999,947 earn-out shares of the Company's common stock.

Additionally, in connection with the Domestication on February 2, 2022, 6,900,000 shares of Ivanhoe's Class B ordinary shares held by the Sponsor converted, on a one-for-one basis, into shares of Class B common stock and at Closing converted into an equal number of Class A common stock.

In connection with the Business Combination, the Company received \$326.1 million in gross proceeds, including a contribution of \$51.6 million of cash held in Ivanhoe's trust account net of redemption of Ivanhoe Class A common stock held by Ivanhoe's public stockholders and a \$274.5 million private investment in public equity (the "PIPE Financing") at \$10.00 per share of Class A common stock, prior to the payment of transaction costs and other amounts. The Company incurred \$46.3 million of transaction costs, consisting of underwriting, legal, and other professional fees, of which \$41.6 million was recorded to additional paid-in capital as a reduction of proceeds and the remaining \$4.7 million was expensed immediately. Of the total amount of transaction costs incurred, \$13.0 million was unpaid, which was included in accrued expenses as of the Closing Date. Subsequent to the Closing, \$4.9 million of net transaction costs recorded to additional paid-in capital was released and adjusted.

The following table reconciles the elements of the Business Combination to the consolidated statement of cash flows and the consolidated statements of redeemable convertible preferred stock and stockholders' equity as of the date of closing:

	(in thousands)
Cash - Ivanhoe's trust and cash, net of redemptions	\$ 51,590
Cash - PIPE Financing	274,500
Less: Non-Transaction costs relating to Ivanhoe in conjunction with Closing	(13,149)
Less: Transaction costs and advisory fees paid	(26,972)
Net proceeds from Business Combination and PIPE Financing at Closing	285,969
Less: Transaction costs paid post Closing	(3,029)
Financing cash inflow from Business Combination and PIPE Financing	282,940
Add: Transaction costs expensed relating to liabilities assumed upon the Business Combination	4,649
Less: Transactions costs paid on or before December 31, 2021	(3,334)
Less: Sponsor Earn-Out liability	(36,393)
Less: Liabilities assumed from Ivanhoe	(387)
Less: Accrued transaction costs	(12,954)
Net contributions from Business Combination and PIPE Financing	\$ 234,521

The number of shares of common stock issued immediately following the consummation of the Business Combination:

	Number of Shares
Ivanhoe Class A common stock, outstanding prior to Business Combination	27,600,000
Less: Redemption of Ivanhoe Class A common stock	(22,455,850)
Ivanhoe Class A common stock, net of redemptions	5,144,150
Ivanhoe Class B ordinary shares, converted to Class A common stock upon Closing	6,900,000
Total Ivanhoe Class A Common Stock	12,044,150
PIPE Investors — Class A common stock	27,450,000
Old SES common and redeemable convertible preferred shares (other than SES Founder Group) converted to Class A common stock	236,221,766
SES Founder Group shares of common stock converted to shares of Class B common stock	39,881,455
Old SES Restricted Shares converted to restricted shares of Class A common stock	2,273,727
Founder Earn-Out Shares (Class B common stock)	3,999,796
Earn-Out Shares (Class A common stock)	23,691,182
Earn-Out Restricted Shares (Class A common stock)	2,308,969
Total	347,871,045
Less: Shares of Old SES outstanding prior to Business Combination and PIPE Financing	(276,103,221)
Business Combination and PIPE Financing Shares	71,767,824

Note 4. Partnerships

In December 2020, the Company established a partnership with Hyundai Motor Company (“Hyundai”) when it entered into a joint development agreement (“JDA”) to jointly research and develop (“R&D”) Li-Metal battery technology, which concluded in November 2023. Further, in May 2021, the Company executed another JDA with Hyundai to jointly develop an A-Sample Li-Metal battery effective August 31, 2021, which has an initial term of three years.

In February 2021, the Company established a partnership with GM Global Technology Operations LLC (“GM Technology”), an affiliate of GM Ventures LLC (“GM Ventures”), and General Motors Holdings LLC (“GM Holdings”) (collectively, “General Motors” or “GM”) when it entered into a JDA to jointly R&D an A-Sample Li-Metal battery cell and build-out a prototype manufacturing line for GM Technology. The JDA has an initial term of three years.

In December 2021, the Company established a partnership with Honda Motor Company, Ltd. (“Honda”) when it entered into a JDA to jointly R&D an A-Sample Li-Metal battery cell, which has an initial term of one and half years.

In November 2023, the Company entered into a B-Sample JDA with one of our OEM partners which includes technical milestones and timeline for delivery of B-Sample cells. The JDA has an initial term of two and half years.

Under the terms of certain JDAs, the Company will fund research and development activities and capital expenditures related to the buildout of pilot manufacturing lines and the JDA partner will be required to refund such expenses to the Company, regardless of the results of the R&D activities. The following table summarizes credits to research and development recorded in accordance to the terms of the JDA agreements:

(in thousands)	Year Ended December 31,		
	2023	2022	2021
Research and development (related party)	\$ 10,594	\$ 8,758	\$ 13,972
Research and development	12,471	5,431	2,004
Total credits to research and development	\$ 23,065	\$ 14,189	\$ 15,976

Additionally, the Company recorded \$9.9 million as a credit to property and equipment in the consolidated balance sheets for the year ended December 31, 2022, which represents reimbursements received from related party for property and equipment constructed and purchased by the Company. No credits to fixed assets were recorded in the year ended December 31, 2023 or the year ended December 31, 2021.

As of December 31, 2023 and 2022, there were \$3.9 million and \$2.4 million, respectively, outstanding as a receivable from related party as disclosed in the consolidated balance sheets. As of December 31, 2023, there was a non-related party receivable of \$5.1 million outstanding compared to no amount outstanding as of December 31, 2022. As of December 31, 2023, there was no deferred income for non-related party JDAs compared to the \$4.2 million recorded as deferred income as of December 31, 2022. Amounts for non-related party receivables and deferred income are recorded within prepaid expenses and other current assets and accrued expenses and other current liabilities, respectively, in the consolidated balance sheets.

Note 5. Cash and Cash Equivalents

The following table presents information about the Company’s cash, cash equivalents, and restricted cash:

(in thousands)	December 31, 2023	December 31, 2022
Cash	\$ 10,674	\$ 60,315
Money market funds	74,997	46,308
Total cash and cash equivalents	85,671	106,623
Restricted cash included in other assets	1,295	1,313
Total cash, cash equivalents, and restricted cash shown in the consolidated statements of cash flows	\$ 86,966	\$ 107,936

Note 6. Short-Term Investments

The following table provides amortized costs, gross unrealized gains and losses, and fair values for the Company's investments in available-for-sale U.S. treasury securities as of December 31, 2023 and December 31, 2022, which had maturity dates that range from 1 month to 10 months and 1 month to 11 months, respectively. Fair value was determined using market prices obtained from third-party sources. The Company had no investments as of December 31, 2021. Realized gains or losses were insignificant for the years ended December 31, 2023, 2022 and 2021.

<u>December 31, 2023</u> (in thousands)	Amortized Cost	Gross		Fair Value
		Unrealized Gains	Unrealized Losses	
Short-term U.S. treasury securities	\$ 245,797	\$ 337	\$ (7)	\$ 246,127
Total	<u>\$ 245,797</u>	<u>\$ 337</u>	<u>\$ (7)</u>	<u>\$ 246,127</u>

<u>December 31, 2022</u> (in thousands)	Amortized Cost	Gross		Fair Value
		Unrealized Gains	Unrealized Losses	
Short-term U.S. treasury securities	\$ 283,705	\$ 2	\$ (247)	\$ 283,460
Total	<u>\$ 283,705</u>	<u>\$ 2</u>	<u>\$ (247)</u>	<u>\$ 283,460</u>

The Company has \$0.6 million marketable equity securities as of December 31, 2023, with an initial cost of \$0.5 million. Total unrealized gain/loss of \$0.1 million is recorded under miscellaneous income (expense), net in the consolidated statement of operations and comprehensive loss. The Company did not have any marketable equity securities as of December 31, 2022.

Note 7. Property and Equipment, Net

Property and equipment, net consisted of the following:

(in thousands)	As of December 31,	
	2023	2022
Laboratory machinery and equipment	\$ 21,762	\$ 18,133
Office and computer equipment	1,169	358
Leasehold improvements	18,228	11,443
Construction in progress	9,773	5,422
Total property and equipment	50,932	35,356
Less: accumulated depreciation	(12,973)	(7,600)
Property and equipment, net	<u>\$ 37,959</u>	<u>\$ 27,756</u>

Depreciation expense was \$5.4 million, \$2.5 million, and \$1.5 million for the years ended December 31, 2023, 2022 and 2021, respectively. Construction in progress primarily consists of leasehold improvement projects associated with the Company's Shanghai pilot facility and a new lab facility in Woburn, MA.

Note 8. Intangible Assets, Net

Intangible assets, net consisted of the following:

(in thousands)	As of December 31,	
	2023	2022
Intellectual property	\$ 1,918	\$ 1,918
Less: accumulated amortization	(573)	(445)
Intangible assets, net	<u>\$ 1,345</u>	<u>\$ 1,473</u>

Amortization expense was \$0.1 million for each of the years ended December 31, 2023, 2022 and 2021, respectively. Amortization expense associated with the intangible assets included on the Company's consolidated balance sheet as of December 31, 2023 is expected to be as follows:

Years Ending December 31,	(in thousands)	
2024	\$	128
2025		128
2026		128
2027		128
2028		128
Thereafter		705
Total	\$	1,345

Note 9. Accrued Expenses and Other Current Liabilities

The components of accrued expenses and other current liabilities consisted of the following:

(in thousands)	December 31, 2023	December 31, 2022
Employee compensation and related costs	\$ 7,022	\$ 3,115
Construction in process	3,182	229
Income taxes payable	288	1,422
Professional and consulting services	1,273	1,566
Deferred income received under joint development agreements	—	4,189
Other	1,356	750
Accrued expenses and other current liabilities	\$ 13,121	\$ 11,271

Note 10. Government Grant

In December 2022, the Company was awarded a grant (the "Grant") from certain government agencies. The incentives received under the Grant, which is in the form of cash, can be used for facilities related expenses and the purchase of property and equipment. The Company is required to adhere to the following conditions attached to the incentives, which include purchase of a government grant guarantee insurance policy, required minimum investments into specified spending categories and the creation of a minimum amount of permanent full-time jobs in a certain geographical location over the next five years, with the option to extend to 10 years by remaining in a certain geographical location. If determined that we were ineligible to receive the Grant, we could be required to pay the Grant in its entirety with interest. The Company has yet to fulfill the required minimum investment, and the compliance with this condition will continue to be monitored over the remaining grant period.

During the year ended December 31, 2023, the Company received cash grants of 3.6 billion Korean won, or \$2.8 million after translation, which is the remaining balance of the awarded grant. The Company has received, but not yet earned 12 billion Korean won and 8.4 billion Korean won, as of December 31, 2023 and December 31, 2022, respectively. These balances are equivalent to \$9.3 million and \$6.7 million, after translation, as of December 31, 2023 and December 31, 2022, respectively, which is disclosed as a noncurrent liability in the consolidated balance sheet.

Note 11. Sponsor Earn-Out Liabilities

The Sponsor Earn-Out shares in Tranche 2 through Tranche 5 have been measured at their estimated fair value using a Monte Carlo simulation valuation model. Inherent in the valuation model are assumptions related to expected stock price volatility, risk-free interest rate, expected life, and dividend yield. The key inputs used in the Monte Carlo simulation model for the Sponsor Earn-Out liabilities at their measurement dates were as follows:

	December 31, 2023	December 31, 2022
Expected term (in years)	3.1	4.1
Risk free rate	4.04%	4.09%
Expected volatility	91.0%	85.0%
Expected dividends	0%	0%
Stock price	\$ 1.83	\$ 3.15

The stock price is based on the closing price of the Company's Class A common stock as of the valuation date and simulated through the end of the earn-out period following Geometric Brownian Motion. The Company estimates the volatility of its common stock by using a weighted average of historical volatilities of SES's shares and warrants and select peer companies' common stock that matches the expected term of the awards (range of the weighted average of volatility is 83.8% - 96.2% and 85.0% - 101.4% for the years ended December 31, 2023 and 2022, respectively). The expected term is derived from the probability weighted model, considering the number of inputs, including the probability of a change in control. The risk-free interest rate is based on the yield curve for zero-coupon U.S. Treasury notes with maturities corresponding to the expected term of the awards. The dividend rate is based on the historical rate, which the Company anticipates remaining at zero.

The following table provides a reconciliation of the beginning and ending balances for the Sponsor Earn-Out liabilities:

	(in thousands)	
Balance as of December 31, 2021	\$	—
Additions during the period		36,393
Change in fair value		(25,432)
Balance as of December 31, 2022		10,961
Change in fair value		(6,795)
Balance as of December 31, 2023	\$	4,166

Note 12. Leases

The Company's operating leases consist primarily of leases for office and plant spaces. Certain of the Company's operating leases include escalating rental payments, some of which include the option to extend the lease term for up to 5 years, and some include options to terminate the lease at certain times within the lease term. The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

The Company's total operating lease cost was \$2.9 million for the year ended December 31, 2023. For the years ended December 31, 2022 and 2021 total rental expense was \$2.5 million and \$1.8 million, respectively. Cash paid for amounts included in the measurement of lease liabilities was \$2.9 million and \$2.4 million for the years ended December 31, 2023 and 2022.

The following table summarizes the future minimum undiscounted lease payments under existing operating leases as of December 31, 2023:

Years Ending December 31,	(in thousands)	
2024	\$	3,574
2025		3,652
2026		2,986
2027		2,096
2028		1,680
Thereafter		3,076
Total future minimum lease payments		17,064
Less: imputed interest		(3,344)
Total future minimum lease payments	\$	13,720

As of December 31, 2023 and 2022, the weighted average remaining lease term for operating leases was 5.6 years and 6.3 years, respectively, and the weighted average discount rate used to determine the operating lease liability was 7.4% and 6.2%, respectively.

Woburn Lease

In August 2016, the Company entered into an operating lease agreement to lease an office space in Woburn, Massachusetts with the original lease term expiring in August 2021. The lease agreement has one five-year renewal option and has variable lease payment that depends on the CPI index and is measured annually. In May 2020, the Company extended the term of the lease by 5 years through August 2026. In February and March 2021, the Company amended the lease agreement increasing the leased space. In December 2021, the Company further amended the lease agreement reducing the leased space. The amendment includes an obligation to pay monthly relinquishment charges (equal to the total rental obligation for the duration of the lease term), only if the new tenant does not pay monthly rental amount and lessor has provided a notice to collect the relinquishment charges from the Company. As of December 31, 2023, the Company assessed the probability of any liability to be incurred for relinquishment charges as remote. Total future minimum lease payments under this lease are \$6.8 million.

In October 2022, the Company entered into an amendment to the operating lease agreement for its Woburn facility to add additional space and is accounted for as a separate lease (Addition Lease). Pursuant to the amendment, the landlord has agreed to construct an addition to the existing facility for such additional space, which commenced in June 2023 and expires at the same time as the original lease. The Addition Lease also contains a variable lease payment that depends on the CPI Index and is measured annually. The additional space consists of approximately 5,000 square feet and the total undiscounted future minimum lease payments for the addition through the expected 8-year term will be approximately \$1.5 million.

Electrolyte Foundry Lease

In June 2023, the Company entered into an operating lease agreement to lease a lab space in Woburn, Massachusetts with the original lease term expiring five years after the delivery date upon completion of the build-out. The lease agreement has renewal terms that can extend the lease term by providing application for renewal at least six months before the expiry and has variable lease payment that depends on the CPI index and is measured annually. In January 2024, the Company started using the lab space. Total future minimum lease payments under this lease are \$2.8 million.

Shanghai Lease

In September 2018, the Company entered into an operating lease agreement to lease a manufacturing space in Shanghai, China with the original lease term expiring in August 2023. In September 2021, the Company amended the lease agreement. The amendment increased the amount of leased space and extended the term of the lease by three years through August 2026. Total future minimum lease payments under this lease are \$3.9 million. The lease agreement has renewal terms that can extend the lease term by providing application for renewal at least 90 days before the expiry and provides for annual cost of living increases of up to 3%.

South Korea Leases

In November 2022, the Company entered into an operating lease agreement with a lease commencement date of July 2022 to lease a manufacturing building in the Chungju, South Korea industrial complex with the original lease term expiring in September 2024. The lease agreement has renewal terms that can extend the lease term by our providing application for renewal at least 30 days before the expiry and provides for annual cost of living increases in rent. Total future minimum lease payments under this lease are \$1.5 million.

In February 2023, the Company entered into an operating lease agreement with a commencement date of February 1, 2023 to lease a second manufacturing space in the Chungju, South Korea industrial complex with the original lease term expiring in December 2024. The lease agreement has renewal terms that can extend the lease term by our providing application for renewal at least 30 days before the expiry and provides for annual cost of living increases in rent. Total future minimum lease payments under this lease are \$0.7 million.

Note 13. Note Payable

In April 2020, the Company applied for and received a loan in the amount of \$0.8 million under the Paycheck Protection Program (the "PPP"), established and pursuant to the Coronavirus Aid, Relief, and Economic Security Act and administered by the Small Business Administration (the "PPP Note"). In February 2021, the principal and interest were forgiven for the PPP Note, for which the Company recorded a gain on forgiveness of PPP Note of \$0.8 million in its consolidated statement of operations and comprehensive loss.

Note 14. Commitments and Contingencies

Commitments

Under the terms of one of the JDAs entered into in 2021, the Company is committed to undertake certain research and development activities to the benefit of both itself and its OEM Partners which involves expenditures related to engineering efforts and purchases of related equipment. The JDA has an agreed-upon value of up to \$50 million, of which the Company has spent \$5.9 million as of December 31, 2023.

Legal Contingencies

From time-to-time, the Company may be subject to claims arising in the ordinary course of business or become involved in litigation or other legal proceedings. While the outcome of such claims or other proceedings cannot be predicted with certainty, the Company's management expects that any such liabilities, to the extent not provided for by insurance or otherwise, would not have a material effect on the Company's financial condition, results of operations or cash flows.

Indemnifications

The Company enters into indemnification provisions under agreements with other companies in the ordinary course of business, including, but not limited to, partnerships, landlords, vendors, and contractors. Pursuant to these arrangements, the Company agrees to indemnify, defend, and hold harmless the indemnified party for certain losses suffered or incurred by the indemnified party as a result of the Company's activities. The maximum potential amount of future payments the Company could be required to make under these agreements is not determinable. The Company has never incurred costs to defend lawsuits or settle claims related to these indemnification provisions. In addition, the Company indemnifies its officers, directors, and certain key employees against claims made with respect to matters that arise while they are serving in their respective capacities as such, subject to certain limitations set forth under applicable law, and applicable indemnification agreements. The Company maintains insurance, including commercial general liability insurance, product liability insurance, and directors and officers insurance to offset certain potential liabilities under these indemnification provisions. To date, there have been no claims under these indemnification provisions.

Note 15. Redeemable Convertible Preferred Stock

The Company had the following redeemable convertible preferred stock issued and outstanding as of December 31, 2021. Upon closing of the Business Combination, all outstanding redeemable convertible preferred stock were converted into shares of the Company's common

stock in an amount determined by application of the Exchange Ratio, as discussed further in “Note 3 – Business Combination,” and as a result, the following share and per share amounts have been retroactively converted.

(in thousands, except share and per share amounts) Series	Issue Price per share	Shares Authorized	Shares Issued and Outstanding	Liquidation Amount	Carrying Amount
Series A	\$ 0.1406	32,011,403	32,011,403	\$ 4,500	\$ 4,413
Series B	\$ 0.3795	30,305,065	30,305,065	11,500	11,362
Series C	\$ 0.4829	75,874,600	75,874,600	36,643	36,324
Series C plus	\$ 0.8151	36,803,072	36,803,072	30,000	29,945
Series D	\$ 4.7939	28,891,766	28,891,766	138,505	138,257
Series D plus	\$ 4.9631	10,074,380	10,074,380	50,000	49,640
Total		<u>213,960,286</u>	<u>213,960,286</u>	<u>\$ 271,148</u>	<u>\$ 269,941</u>

In April 2021, the Company entered into a stock purchase agreement whereby certain investors agreed to purchase \$138.5 million in Series D redeemable convertible preferred stock, \$0.000001 par value per share. Upon closing of the financing transaction in April 2021, the investors purchased 28,891,766 shares of Series D redeemable convertible preferred stock. In May 2021, the Company entered into a stock purchase agreement whereby an investor agreed to purchase \$50.0 million in Series D plus redeemable convertible preferred stock, \$0.000001 par value per share. Upon closing of the financing transaction in May 2021, the investor purchased 10,074,380 shares of Series D plus redeemable convertible preferred stock.

Conversion

Shares of redeemable convertible preferred stock were converted into common stock at the holders’ option at any time after the date of issuance of such share or automatically (i) immediately prior to the closing of a firm commitment underwritten public offering of the Company’s common stock at a price per share at least 2 times the Series D and Series D plus issuance price and with gross proceeds to the Company of at least \$100 million, net of underwriting commission and discounts or (ii) upon the vote or receipt by the Company of a written request for such conversion from the holders of the 66% of the redeemable convertible preferred stock then outstanding, voting as a single class and on an as-converted basis. Each share of the Series A, Series B, Series C, Series C plus, Series D and Series D plus redeemable convertible preferred stock was converted into the number of shares of common stock at the then effective conversion ratio. The initial conversion price per share for the Series A, Series B, Series C, Series C plus, Series D and Series D plus redeemable convertible preferred stock was subject to anti-dilution adjustments, if any.

Note 16. Stockholders’ Equity

On February 4, 2022, the Class A common stock and Warrants began trading on the New York Stock Exchange under the ticker symbols “SES” and “SES WS,” respectively.

Class A and Class B Common Stock

Pursuant to the Company’s certificate of incorporation, the Company is authorized to issue 2,100,000,000 shares of Class A common stock, par value \$0.0001 per share and 200,000,000 shares of Class B common stock, par value \$0.0001 per share. Class A common stock and Class B common stock are referred to as common stock throughout the notes to these financial statements, unless otherwise noted.

The rights of holders of Class A common stock and Class B common stock are identical, except with respect to voting. The holder of each share of Class A common stock is entitled to one vote, while the holder of each share of Class B common stock is entitled to ten votes. Each share of Class B common stock is convertible on a one-for-one basis into a share of Class A common stock at the holder’s option or otherwise automatically upon the occurrence of certain events, namely: (i) each share of Class B common stock that is transferred by SES Founder Group, or certain permitted transferee holders (“Qualified Holders”), will convert into a share of Class A common stock; (ii) all outstanding shares of Class B common stock will convert into shares of Class A common stock if the SES Founder Group or Qualified Holders collectively cease to beneficially own at least 20 percent of the number of shares of Class B common stock (as such number of shares is equitably adjusted in respect of any reclassification, stock dividend, subdivision, combination or recapitalization of the Class B common stock) collectively held by the SES Founder Group and Qualified Holders of Class B common stock as of the time the Business Combination took effect; or (iii) all outstanding shares of Class B common stock will convert into shares of Class A common stock upon the date specified by the affirmative vote of the holders of at least two-thirds of the then-outstanding shares of Class B common stock, voting as a separate class. Each outstanding share of Class B common stock is entitled to ten votes per share and each outstanding share of Class A common stock is entitled to one vote per share.

As of December 31, 2023, the Company had 310,266,922 and 43,881,251 shares of Class A common stock and Class B common stock issued and outstanding, respectively and as of December 31, 2022 had 305,833,589 and 43,881,251 shares of Class A common stock and Class B common stock issued and outstanding, respectively. For accounting purposes, only shares that are fully vested or that are not subject to repurchase are considered issued and outstanding.

Below is a reconciliation of shares of common stock issued and outstanding:

	<u>December 31, 2023</u>	<u>December 31, 2022</u>
Total shares of common stock legally issued and outstanding	354,148,173	349,714,840
Less: Shares subject to future vesting:		
Escrowed Earn-Out Shares	(27,690,978)	(27,690,978)
Sponsor Earn-Out Shares	(5,520,000)	(5,520,000)
Earn-Out Restricted Shares	(1,619,998)	(1,931,044)
RSA's	(649,567)	(1,270,726)
Total shares issued and outstanding	<u>318,667,630</u>	<u>313,302,092</u>

Preferred Stock

Pursuant to the Company's certificate of incorporation, the Company is authorized to issue 20,000,000 shares of preferred stock having a par value of \$0.0001 per share. The Company's board of directors has the authority to issue preferred stock and to determine the rights, preferences, privileges, and restrictions, including voting rights of such preferred stock. As of December 31, 2023 and 2022, no shares of the Company's preferred stock were issued and outstanding.

Dividends

Common stock is entitled to dividends when and if declared by the Company's board of directors, subject to the rights of all classes of stock outstanding having priority rights to dividends. The Company has not paid any cash dividends on common stock to date. The Company may retain future earnings, if any, for the further development and expansion of its business and has no current plans to pay cash dividends for the foreseeable future.

Common Stock Warrants

Prior to the Business Combination, Ivanhoe issued 9,200,000 Public Warrants and 5,013,333 Private Warrants and prior to the Closing, Ivanhoe amended the terms of the Warrants, as discussed in "Note 2 – Summary of Significant Accounting Policies," which resulted in the Warrants being classified as a component of stockholders' equity. There is an effective registration statement and prospectus relating to the shares issuable upon exercise of the Warrants.

Public Warrants

Public Warrants have an exercise price of \$11.50 and the Company may, in its sole discretion, reduce the exercise price of the Public Warrants to induce early exercise, provided that adequate notice is provided to warrant holders pursuant to the terms of the Warrant Agreement. The exercise price and number of shares of Class A common stock issuable upon exercise of the Warrants may also be adjusted in certain circumstances including in the event of a share dividend, recapitalization, reorganization, merger or consolidation. In no event is the Company required to net cash settle the Public Warrants.

The Public Warrants became exercisable 30 days following the Business Combination and expire at the earliest of five years following the Business Combination, liquidation of the Company, or the date of redemption elected at our option provided that the value of the Class A common stock exceeds \$18.00 per share.

Under certain circumstances, the Company may elect to redeem the Public Warrants at a redemption price of \$0.01 per Public Warrant at any time during the term of the Warrant in which the Class A common stock share trading price has been at least \$18.00 per share for 20 trading days within the 30 trading-day period. If the Company elects to redeem the Warrants, it must notify the Public Warrant holders in advance, who would then have at least 30 days from the date of notification to exercise their respective Warrants. If any such Warrants are not exercised within that 30-day period, they will be redeemed pursuant to this provision.

As of December 31, 2023 and 2022, the Company had outstanding Public Warrants to purchase 9,199,947 shares of Class A common stock.

Private Warrants

The Private Warrants have similar terms to the Public Warrants, except that the Private Warrants are not redeemable. As of December 31, 2023 and 2022, the Company had outstanding Private Warrants to purchase 5,013,333 shares of Class A common stock.

The Company has the following shares of common stock available for future issuance on an as-if converted basis:

	December 31, 2023	December 31, 2022
Shares reserved for issuance under the SES AI Corporation 2021 Plan	34,965,909	32,738,052
Common stock options outstanding	13,619,793	18,308,233
Public Warrants	9,199,947	9,199,947
Private Warrants	5,013,333	5,013,333
RSUs	6,359,474	2,807,660
PSUs	3,364,810	2,116,942
Total common stock available for future issuance	72,523,266	70,184,167

Note 17. Stock-Based Compensation

Equity Award Plan

Old SES established its initial share incentive plan in 2013 (the “2013 Plan”), which was subsequently replaced with a new share incentive plan in 2018 (the “2018 Plan”). Under the terms of the 2013 Plan and 2018 Plan, certain number of shares were reserved for the issuance of incentive stock options (“ISOs”) and non-statutory stock options (“NSOs”) to employees, officers, directors, consultants and advisors. On March 30, 2021, the Company amended the 2018 Plan with the SES Holdings Pte. Ltd. 2021 Share Incentive Plan (the “2021 Plan”) and increased the total shares reserved for future issuance by 486,975 shares. Upon approval of the 2021 Plan, any shares that, as of the date of stockholder approval, were reserved but not issued pursuant to any awards granted under the Company’s 2018 Plan were rolled into the 2021 Plan. In addition, any shares issued pursuant to or subject to stock options or similar awards granted under the 2018 Plan that expired or otherwise terminated without having been exercised in full or that were forfeited or repurchased by the Company, rolled into the 2021 Plan. The 2021 Plan provided for the discretionary grant of ISOs, NSOs, and Restricted Share Awards (“RSAs”).

In connection with the Business Combination, the 2021 Plan was terminated and the remaining unallocated share reserve was cancelled, and no new awards will be granted under the 2021 Plan. At Closing, a total of 20,748,976 ISOs and NSOs and 2,273,727 RSAs (as converted, due to retroactive application of reverse recapitalization) outstanding under the 2021 Plan were assumed by the Company under the SES AI Corporation 2021 Plan (defined below).

SES AI Corporation 2021 Plan

In connection with the Business Combination, the Company adopted the SES AI Corporation 2021 Incentive Award Plan (the “SES 2021 Plan”) under which 36,862,002 shares of Class A common stock were initially reserved for issuance of ISOs, NSOs, stock appreciation rights (“SARs”), RSAs, restricted stock units (“RSUs”), performance compensation awards (“PSUs”), other stock-based and cash-based awards, and dividend equivalents. In addition, and subject to certain limitations, any shares issued pursuant to or subject to awards granted under the 2021 Plan that expired or otherwise terminated without having been exercised in full or that were forfeited or repurchased by the Company, rolled into the SES 2021 Plan. The SES 2021 Plan allows for the maximum number of shares issuable to automatically increase on January 1st of each year for a period of ten years commencing on January 1, 2022 and ending on (and including) January 1, 2031, in an amount equal to two percent of the total number of shares of stock outstanding on December 31st of the preceding year. As of December 31, 2023, 34,965,909 shares remain available for future issuance under the SES 2021 Plan.

Stock-Based Compensation Expense

Compensation expense related to stock-based awards was recorded as follows:

(in thousands)	Years Ended December 31,		
	2023	2022	2021
Research and development	\$ 3,796	\$ 6,630	\$ 344
General and administrative	16,853	16,145	4,227
Total	\$ 20,649	\$ 22,775	\$ 4,571

The following table summarizes share-based compensation expense by award type:

(in thousands)	Years Ended December 31,		
	2023	2022	2021
Earn-Out Restricted Shares	\$ 2,689	\$ 7,890	\$ —
RSUs	9,644	7,136	—
PSUs	4,781	3,786	—
RSAs	3,133	3,510	1,540
Stock options	402	453	3,031
Total	\$ 20,649	\$ 22,775	\$ 4,571

Restricted Stock Units

RSUs granted under the SES 2021 Plan vest in equal annual installments over a three-year period and have only service vesting conditions. The fair value of RSUs is estimated based on the closing price of the Company's Class A common stock at the date of grant and is amortized to expense on a straight-line basis over the vesting period. RSU activity is as follows:

	Number of Shares	Weighted Average Fair Value
Outstanding at December 31, 2021	—	\$ —
Granted	3,438,233	\$ 8.41
Vested	(185,944)	\$ 4.27
Forfeited and canceled	(444,629)	\$ 8.93
Outstanding at December 31, 2022	2,807,660	\$ 8.61
Granted	5,365,427	\$ 2.25
Vested	(1,063,863)	\$ 8.41
Forfeited and canceled	(749,750)	\$ 4.95
Outstanding at December 31, 2023	6,359,474	\$ 3.71

The total fair value of RSUs vested was \$8.9 million and \$0.8 million for the years ended December 31, 2023 and 2022, respectively. No RSUs were granted or vested in the year ended December 31, 2021.

As of December 31, 2023, there was \$16.5 million of unrecognized compensation cost related to RSUs, which is expected to be recognized over a weighted-average period of 1.2 years.

Restricted Stock Awards

RSAs granted under the 2021 Plan and assumed under the SES 2021 Plan generally vest 1/4th upon completion of one year of service and 1/48th per month thereafter and have only service vesting conditions. The fair value of RSAs is estimated based on the closing price of the Company's Class A common stock at the date of grant and is amortized to expense on a straight-line basis over the vesting period. RSA activity is as follows:

	Number of Shares	Weighted Average Fair Value
Outstanding at December 31, 2021	2,261,862	\$ 5.12
Granted	11,865	\$ 5.30
Vested	(958,506)	\$ 5.16
Forfeited and canceled	(44,495)	\$ 5.30
Outstanding at December 31, 2022	1,270,726	\$ 5.09
Granted	—	\$ —
Vested	(610,335)	\$ 5.14
Forfeited and canceled	(10,824)	\$ 5.13
Outstanding at December 31, 2023	649,567	\$ 5.05

The total fair value of RSAs vested was \$3.1 million and \$4.9 million for the years ended December 31, 2023 and 2022. No RSAs vested during the year ended December 31, 2021.

As of December 31, 2023, there was \$3.2 million of unrecognized compensation cost related to RSAs, which is expected to be recognized over a weighted-average period of 0.8 years.

Performance Stock Units

PSUs granted under the SES 2021 Plan generally vest over a three-year period and have both service and market vesting conditions. PSUs are measured at their estimated fair value using a Monte Carlo simulation valuation model with the effect of the market condition reflected in the grant date fair value of the award. The fair value of PSU awards is amortized to expense on a straight-line basis over the requisite service period, irrespective of whether the market vesting condition is satisfied, which is generally two to three years. The key inputs used in the Monte Carlo simulation model for PSUs granted during the years ended December 31, 2023 and 2022 at their measurement date were as follows:

	<u>2023</u>	<u>2022</u>
Expected term (in years)	5.0	5.0
Risk free rate	3.57%	2.79%
Expected volatility	80.0%	75.7%
Expected dividends	0%	0%
Stock price	\$ 2.25	\$ 9.10

The stock price is based on the closing price of the Company's Class A common stock as of the valuation date and simulated through the end of the earn-out period following Geometric Brownian Motion. The Company estimates the volatility of its common stock by using a weighted average of historical volatilities of SES's shares and select peer companies' common stock that matches the expected term of the awards. The expected term is derived from the vesting period. The risk-free interest rate is based on the yield curve for zero-coupon U.S. Treasury notes with maturities corresponding to the expected term of the awards. The dividend rate is based on the historical rate, which the Company anticipates remaining at zero.

PSU activity is as follows:

	<u>Number of Shares</u>	<u>Weighted Average Fair Value</u>
Outstanding at December 31, 2021	—	\$ —
Granted	2,340,405	\$ 5.89
Vested	—	\$ —
Forfeited and canceled	(223,463)	\$ 5.09
Outstanding at December 31, 2022	2,116,942	\$ 5.98
Granted	1,631,800	\$ 0.58
Vested	—	\$ —
Forfeited and canceled	(383,932)	\$ 3.86
Outstanding at December 31, 2023	3,364,810	\$ 3.60

There were no PSUs granted or vested in the year ended December 31, 2021.

As of December 31, 2023, there was \$3.6 million of unrecognized compensation cost related to PSUs, which is expected to be recognized over a weighted-average period of 1.5 years.

Earn-Out Restricted Shares

The Earn-Out Restricted Shares granted in connection with the Business Combination have a contractual term of five years and have both service and market vesting conditions. The Earn-Out Restricted Shares have been measured at their estimated fair value using a Monte Carlo simulation valuation model with the effect of the market condition reflected in the grant date fair value of the award. The aggregate grant date fair value of the Earn-Out Restricted Shares is \$15.0 million and is amortized to expense on a straight-line basis over the requisite service period, irrespective of whether the market vesting condition is satisfied, which is 1.45 years. The key inputs used in the Monte Carlo simulation model for the Earn-Out Restricted Shares at their measurement dates were as follows:

	<u>February 3, 2022 (Closing Date)</u>
Contractual term (in years)	5.0

Risk-free rate	1.63%
Expected volatility	81.0%
Expected dividends	0%
Stock price	\$ 7.68

The stock price is based on the closing price of the Company's Class A common stock as of the valuation date and simulated through the end of the earn-out period following Geometric Brownian Motion. The Company estimates the volatility of its common stock by using select peer companies' common stock that matches the contractual term of the awards. The risk-free interest rate is based on the yield curve for zero-coupon U.S. Treasury notes with maturities corresponding to the contractual term of the restricted shares. The dividend rate is based on the historical rate, which the Company anticipates remaining at zero.

Earn-Out Restricted Shares activity is as follows:

	Number of Shares	Weighted Average Fair Value
Outstanding at December 31, 2021	—	\$ —
Granted	2,308,969	\$ 6.50
Vested	—	\$ —
Forfeited and canceled	(377,925)	\$ 6.37
Outstanding at December 31, 2022	1,931,044	\$ 6.53
Granted/vested	—	\$ —
Forfeited and canceled	(311,046)	\$ 6.53
Outstanding at December 31, 2023	1,619,998	\$ 6.53

During the year ended December 31, 2023, the Earn-Out Restricted Shares met the requisite service period and the related expense was fully amortized.

Stock Options

Options granted under the 2021 Plan and assumed under the SES 2021 Plan vest 1/4th upon completion of one year of service and 1/48th per month thereafter, however in certain instances options have been granted with immediate vesting. Options under the Plan generally expire 10 years from the date of grant and have only service vesting conditions. Stock option activity is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Outstanding at December 31, 2021	20,750,755	\$ 0.17	8.5	\$ 106.5
Granted	—	\$ —		
Exercised	(2,089,351)	\$ 0.14		\$ 10.8
Forfeited and canceled	(353,171)	\$ 0.26		
Outstanding at December 31, 2022	18,308,233	\$ 0.17	7.6	\$ 54.6
Granted	—	\$ —		
Exercised	(3,691,340)	\$ 0.14		\$ 7.0
Forfeited and canceled	(997,100)	\$ 0.18		
Outstanding at December 31, 2023	13,619,793	\$ 0.17	6.8	\$ 22.7
Vested, December 31, 2023	9,828,750	\$ 0.17	6.6	\$ 16.4
Vested or expected to vest, December 31, 2023	13,619,793	\$ 0.17	6.8	\$ 22.7

No income tax benefit was recognized for stock options exercised as the Company does not anticipate realizing any such benefit in the near future. The fair value of stock options vested for the years ended December 31, 2023 and 2022 were \$16.4 million and \$29.3 million, respectively.

The Company uses the Black-Scholes pricing model to determine the fair value of options granted. The calculation of the fair value of stock options is affected by the stock price on the grant date, the expected volatility of the Company's stock over the expected term of the award, the expected life of the award, the risk-free interest rate and the dividend yield. As there were no options granted in 2023 and 2022, the

assumptions used in the Black-Scholes pricing model for options granted during 2021, along with the weighted-average grant-date fair value, were as follows:

	<u>Year Ended December 31,</u>	
	<u>2021</u>	
Expected term of options (in years)	5.6 – 6.1	
Risk-free interest rate	0.6% to 1.1%	
Expected volatility	68.0% to 69.9%	
Expected dividends	0%	
Weighted-average grant date fair value per option	\$	0.12

As of December 31, 2023, there was \$0.4 million of unrecognized compensation cost related to stock options, which is expected to be recognized over a weighted-average period of 1.1 years.

Note 18. Income Taxes

As discussed in “Note 1 – Nature of Business,” SES Holdings Pte. Ltd. is a Singapore private limited company and was formed in November 2018. As a result of the reorganization the Company undertook in 2018, SES Holdings Pte. Ltd. is also treated as a U.S. taxpayer for U.S. Federal income tax purposes in accordance with Internal Revenue Code Section 7874. SES Holdings Pte. Ltd. is the parent of the U.S. Federal consolidated income tax group.

The U.S. and foreign components of loss before income taxes were as follows:

(in thousands)	<u>Years Ended December 31,</u>		
	<u>2023</u>	<u>2022</u>	<u>2021</u>
U.S.	\$ (15,314)	\$ (35,543)	\$ (4,508)
Foreign	(38,939)	(14,195)	(26,722)
Loss before income taxes	\$ (54,253)	\$ (49,738)	\$ (31,230)

Income tax expense consists of the following:

(in thousands)	<u>Years Ended December 31,</u>		
	<u>2023</u>	<u>2022</u>	<u>2021</u>
Current:			
Federal	\$ —	\$ —	\$ —
State	89	55	—
Foreign	115	1,200	25
Total current expense	<u>204</u>	<u>1,255</u>	<u>25</u>
Deferred:			
Federal	—	—	—
State	—	—	—
Foreign	(1,057)	—	—
Total deferred expense	<u>(1,057)</u>	<u>—</u>	<u>—</u>
Income tax (benefit) expense	\$ (853)	\$ 1,255	\$ 25

Reconciliations of the federal statutory income tax rate to the Company’s effective income tax rate are as follows:

	<u>Years Ended December 31,</u>		
	<u>2023</u>	<u>2022</u>	<u>2021</u>
Tax provision (benefit) at U.S. statutory rate	21.0%	21.0%	21.0%
State income taxes, net of federal benefit	(0.2)%	—	—
Foreign tax	0.9%	(0.8)%	(0.1)%
Foreign income taxed at non US rates	(0.1)%	—	—
Other permanent items	(0.1)%	(0.1)%	0.5%
Section 162(m)	(4.4)%	(3.8)%	—

Stock-based compensation	(0.8)%	4.1%	(1.1)%
Research and development tax credits	2.7%	2.4%	2.0%
Unrecognized tax benefits	(0.8)%	(0.6)%	(0.6)%
GILTI	(0.3)%	—	—
Change in valuation allowance	(18.3)%	(33.3)%	(22.0)%
Change in Sponsor Earn-Out liabilities	2.6%	10.7%	—
Transaction costs	0.0%	(1.5)%	—
Others	(0.6)%	(0.6)%	0.2%
Effective tax rate	1.6%	(2.5)%	(0.1)%

The Company files federal, state and foreign tax returns, which are subject to examination by the relevant tax authorities. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and regulations and require significant judgment. The statute of limitations for assessment by the Internal Revenue Service (“IRS”), and state tax authorities remains open for all tax years ended after 2012. To the extent the Company has tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the IRS or state tax authorities to the extent utilized in a future period.

The components of the net deferred tax asset at the end of each year are as follows:

(in thousands)	As of December 31,	
	2023	2022
Deferred tax assets:		
Net operating losses	\$ 30,453	\$ 25,338
Section 174	12,146	6,389
Lease liabilities	3,980	3,803
Research and development tax credits	3,720	2,358
Stock-based compensation	3,349	2,869
Accruals and reserves	1,499	1,251
Fixed assets	321	131
Other	120	241
Total deferred tax assets	55,588	42,380
Deferred tax liabilities:		
ROU assets	(3,801)	(3,572)
Total deferred tax liabilities	(3,801)	(3,572)
Net deferred tax asset before valuation allowance	51,787	38,808
Valuation allowance	(50,730)	(38,808)
Net deferred tax asset	\$ 1,057	\$ —

The difference between the provision for income taxes and the income tax determined by applying the statutory federal income tax rate of 21% was due primarily to the research and development credit and change in valuation allowance. The Company maintains full valuation allowance against its U.S. and Viking Power System Pte. Ltd., net deferred tax assets as it believes these deferred tax assets were not realizable on a more likely than not basis as of December 31, 2023. The Company's valuation allowance balance increased by \$11.9 million and \$17.3 million for the years ended December 31, 2023 and 2022, respectively.

A full valuation allowance was established for SES AI Korea Co., Ltd since the fiscal year 2021. However, SES Korea operates under a cost-plus model in adherence to transfer pricing (TP) regulations, ensuring its profitability in accordance with U.S. GAAP. Upon reevaluation of the subsidiary's consistent profitability and other favorable indicators, it is determined that a valuation allowance was no longer warranted. In the fiscal year 2023, the Company released the Korean valuation allowance.

As of December 31, 2023, the Company has Federal net operating loss (“NOLs”) carryforward of approximately \$124.7 million, of which \$9.3 million is for pre-2018 and \$115.4 million is post 2017. The pre-2018 Federal NOLs carryforwards will begin to expire in 2033. The post-2017 Federal NOLs will carryforward indefinitely but can only offset 80% of annual taxable income. The Company also has Massachusetts NOLs carryforwards of approximately \$74.9 million, which begins to expire in 2033.

As of December 31, 2022, the Company had Federal NOLs carryforward of approximately \$104.4 million, of which \$9.3 million was for pre-2018 and \$95.1 million was post 2017. The pre-2018 Federal NOLs carryforwards will begin to expire in 2033. The post-2017 Federal NOLs will carryforward indefinitely but can only offset 80% of annual taxable income. The Company also had Massachusetts NOLs carryforwards of approximately \$61.2 million, which begins to expire in 2033.

As of December 31, 2023 and 2022, the Company had federal research credit carryforwards of approximately \$3.8 million and \$2.4 million, respectively, which begins to expire in 2033, and Massachusetts research credit carryforwards of approximately \$1.9 million and \$1.2 million, respectively, which begins to expire in 2030.

The utilization of the Company’s NOLs and R&D credits and carryforwards may be subject to a limitation due to the “change in ownership provisions” under Section 382 of the Internal Revenue Code. An “ownership change” is generally defined as a greater than 50 percent change (by value) in its equity ownership over a three-year period. The annual limitation may result in the expiration of the NOL carryforwards before their utilization. Through December 31, 2018, the Company had completed several financings since its inception and performed the related analysis which concluded that changes in ownership had occurred, as defined by Sections 382 and 383 of the Internal Revenue Code. The annual limitation to apply to the pre-2018 net operating losses and research credits is \$0.5 million. To the extent that the Company raises additional equity financing or other changes in the ownership interest of significant stockholders occurs, additional tax attributes may become subject to an annual limitation. This could further limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. Based on analysis performed, the Company would not lose any material tax attribute due to Section 382 since 2018. During 2023, management does not believe there were significant ownership changes that would trigger a Section 382 limitation.

The Company records unrecognized tax benefits in accordance with ASC 740-10, *Income Taxes*. ASC 740-10 which prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of uncertain tax positions taken or expected to be taken in the Company’s income tax return and also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition.

As of December 31, 2023 and 2022, the total amount of unrecognized tax benefits was \$5.5 million and \$4.6 million respectively, of which \$5.2 million would affect 2023 income tax expense, if recognized, without considering any valuation allowance. The Company does not expect the unrecognized tax benefits to change significantly over the next 12 months.

The Company includes interest and penalties related to unrecognized tax benefits within the benefit from (provision for) income taxes. As of the years ended December 31, 2023 and 2022 the total amount of gross interest accrued in each year was less than \$0.1 million, respectively.

A reconciliation of the beginning and ending balances of unrecognized tax benefits is as follows:

(in thousands)	As of December 31,	
	2023	2022
Beginning of the year	\$ 4,573	\$ 4,179
Increase – current year positions	618	511
Increase – prior year positions	311	—
Decrease – prior year positions	—	(117)
End of the year	\$ 5,502	\$ 4,573

The Company is subject to income taxes in the U.S. federal, state, and various foreign jurisdictions. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and regulations and require significant judgment to apply. The Company’s tax years remain open for examination within the U.S. and foreign authorities for all years, until such time as the NOLs are initially utilized. The Company’s tax years remain open for examination by foreign authorities beginning with the tax year ended December 31, 2018.

Beginning in 2022, the 2017 Tax Cuts and Jobs Act amended Section 174 to eliminate current-year deductibility of research and experimentation (R&E) expenditures and software development costs (collectively, R&E expenditures) and instead require taxpayers to charge their R&E expenditures to a capital account amortized over five years (15 years for expenditures attributable R&E activity performed outside the United States). The Company generated a deferred tax asset for capitalized R&E expenditures for the year ended December 31, 2023 which was fully offset with a valuation allowance.

Note 19. Net Income (Loss) Per Share

Basic net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding for the period. Diluted net loss per share is computed by dividing net loss, as adjusted for changes in fair value recognized in earnings from equity contracts classified as liabilities, by the weighted average number of common shares outstanding and, when dilutive, common share equivalents from outstanding stock options and restricted stock units (using the treasury-stock method). The weighted-average number of common shares used in the computation of basic and diluted net income per share were as follows:

(in thousands, except share and per share amounts)	Years Ended December 31,		
	2023	2022	2021
Numerator:			
Net loss attributable to common stockholders - basic and diluted	\$ (53,400)	\$ (50,993)	\$ (31,255)
Denominator:			
Weighted average shares of common stock outstanding - basic and diluted	315,051,508	288,304,750	61,089,065
Net loss per share attributable to common stockholders - basic and diluted	\$ (0.17)	\$ (0.18)	\$ (0.51)

The number of common stock equivalents excluded from the computation of diluted net loss per share because either the effect would have been anti-dilutive, or the performance criteria related to such shares and awards had not been met, were as follows:

	Years Ended December 31,		
	2023	2022	2021
Escrowed Earn-Out Shares	27,690,978	27,690,978	—
Options to purchase common stock	13,619,793	18,308,233	20,750,755
Public Warrants	9,199,947	9,199,947	—
Sponsor Earn-Out Shares	5,520,000	5,520,000	—
Private Warrants	5,013,333	5,013,333	—
Unvested RSUs	6,359,474	2,807,660	—
Unvested PSUs	3,364,810	2,116,942	—
Earn-Out Restricted Shares	1,619,998	1,931,044	—
Unvested RSAs	649,567	1,270,726	2,261,862
Redeemable convertible preferred stock	—	—	213,960,286
Total	73,037,900	73,858,863	236,972,903

Note 20. Segment and Geographic Information

The Company operates as one reportable segment as described in Note 2 to the consolidated financial statements.

The Company's long-lived assets consist primarily of property and equipment and intangible assets and are attributed to the geographic location in which they are located. Long-lived assets by geographical area were as follows:

(in thousands)	As of December 31,	
	2023	2022
Property and equipment, net:		
China	\$ 19,167	\$ 16,956
United States	13,927	3,414
South Korea	4,865	7,386
Total property and equipment, net	37,959	27,756
Intangible assets, net:		
Singapore	1,345	1,473
Total long-lived assets	\$ 39,304	\$ 29,229

Note 21. Defined Contribution Plan

Beginning January 1, 2023, the Company offers a defined contribution retirement savings plan under Section 401(k) of the Internal Revenue Code. This plan covers employees who meet minimum age and service requirements and allows participants to defer a portion of their

annual compensation on a pre-tax basis. The Company contributed \$0.5 million to the defined contribution retirement savings plan for the year ended December 31, 2023.

Note 22. Related-Party Transactions

As of December 31, 2023 and 2022, pursuant to the Director Nomination Agreement, General Motors Company and its affiliates (“GM”) were considered related parties due to their board representation and the board member’s employment position at GM, which remained in effect as long as GM continues to hold more than 5% of the fully diluted outstanding equity securities of SES as per the agreement. See “Note 4 – Partnerships” for more details about our partnership with GM.

Item 9. Changes in and Disagreements With Accountants On Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our chief executive officer (“CEO”) and chief financial officer (“CFO”), we conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2023, as such term is defined in Rules 13a-15(e) and 15d-15(e) under Securities Exchange Act of 1934, as amended (the “Exchange Act”). Disclosure controls and procedures include, without limitation, controls and procedures designed to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow for timely decisions regarding required disclosure. Based on this evaluation, our principal executive officer and principal financial officer have concluded that as of December 31, 2023, our disclosure controls and procedures were not effective due to material weaknesses in our internal control over financial reporting, as discussed in more detail below.

Management’s Report on Internal Controls Over Financial Reporting

As required by SEC rules and regulations implementing Section 404 of the Sarbanes-Oxley Act of 2002 (“SOX”), our management is responsible for establishing and maintaining adequate internal control over financial reporting, as this term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. GAAP. Our internal control over financial reporting includes those policies and procedures that:

- (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of our company,
- (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors, and
- (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect errors or misstatements in our financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree or compliance with the policies or procedures may deteriorate.

Management with participation of the CEO and CFO under the oversight of the Audit Committee of our Board of Directors evaluated the effectiveness of our internal control over financial reporting as of December 31, 2023 using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) in Internal Control – Integrated Framework (2013).

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 or interim financial statements will not be prevented or detected on a timely basis.

Based on the evaluation described above, management determined that our internal control over financial reporting was not effective as of December 31, 2023, because of material weaknesses. Specifically, the Company did not design and maintain sufficient user access and monitoring controls to ensure appropriate segregation of duties and adequately restrict access to a financial application. As a result, automated and manual business process controls that are dependent on the affected IT general controls were also deemed ineffective, as they could have been adversely affected due to their reliance on information and configurations from the affected IT system. In addition, a management review control associated with the valuation of the sponsor earn-out liabilities did not operate effectively as it did not evaluate a key assumption used in the valuation at an appropriate level of precision.

If not remediated, or if we identify further material weaknesses in our internal control, our failure to establish and maintain effective disclosure controls and procedures and internal control over financial reporting could result in material misstatements in our consolidated financial statements or a failure to meet our reporting and financial obligations.

The material weaknesses did not result in any material misstatements to our consolidated financial statements or disclosures in any of the years ended December 31, 2023, 2022 or 2021.

Our independent registered public accounting firm, Grant Thornton LLP, who audited the consolidated financial statements included in this annual report, has expressed an adverse opinion on the effectiveness of our internal control over financial reporting as of December 31, 2023, which appears in Item 8 Financial Statements and Supplementary Data of this 2023 Form 10-K.

Remediation Plan

We are taking the following actions to remediate the material weaknesses described in this Item 9A and to enhance our overall control environment. We are committed to ensuring that our internal control over financial reporting is effective.

- We are developing a detailed remediation plan, with appropriate executive sponsorship, to specifically address the material weaknesses.
- We have hired, and will continue to hire, additional professionally qualified accountants who have the appropriate level of expertise in the areas of accounting, financial reporting, and IT general controls.
- We are taking steps to enhance the design of existing control activities related to IT environment and implement additional process-level control activities and ensure they are operating effectively.
- We have and will continue to restrict access to the financial application to ensure appropriate segregation of duties.
- We will design updated processes and controls around change management monitoring to ensure that all changes have sufficient documentation and are reviewed by an authorized person.
- We will maintain sufficient and appropriate review documentation for the assessment of all key assumptions related to the valuation of sponsor earn out liabilities.

We intend to complete the remediation process as promptly as possible. We may discover additional material weaknesses that require additional time and resources to remediate, and we may decide to take additional measures to address the material weaknesses or modify the remediation steps described above. Until these weaknesses are remediated, we plan to continue to perform additional analyses and other procedures to ensure that our consolidated financial statements are prepared in accordance with GAAP.

Remediation of Previously Reported Material Weaknesses

As previously reported in Part II, Item 9A, 'Controls and Procedures' of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the Securities and Exchange Commission on March 16, 2023, in connection with our assessment of the effectiveness of internal control over financial reporting as of December 31, 2022, we identified material weaknesses related to insufficient complement of resources, ineffective risk assessment process and ineffective information and communication activities which resulted in ineffective process-level controls in a majority of financial reporting processes.

In response to the material weaknesses, the Company developed and implemented a remediation plan. We hired additional qualified resources, trained those resources and engaged a nationally recognized accounting firm to review the design of high-risk processes. We enhanced our risk assessment process and designed controls to mitigate the risk of material misstatements at an increased level of precision. We implemented new tools and applications to ensure timely compliance with the internal control requirements. Based on those

remediation actions, management has concluded that the material weaknesses previously reported have been remediated as of December 31, 2023. As noted above, we have reported material weaknesses in 2023.

Changes in Internal Control over Financial Reporting

As described above, we have taken and continue to take steps to remediate material weaknesses in our internal control over financial reporting described in “Remediation Plan” and “Remediation of Previously Reported Material Weaknesses.” Other than in connection with the remediation process described above, no change in our internal control over financial reporting occurred during the most recent fiscal quarter that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

Rule 10b5-1 Trading Arrangements

During the quarter ended December 31, 2023, no director or Section 16 officer adopted or terminated any Rule 10b5-1 trading arrangements or non-Rule 10b5-1 trading arrangements as defined in Item 408 of Regulation S-K.

Item 9C. Disclosure Regarding Foreign Jurisdictions That Prevent Inspections

Not applicable.

PART III – OTHER INFORMATION

Item 10. Directors, Executive Offices and Corporate Governance

The information required by this Item will be set forth in our definitive proxy statement for our 2024 Annual Meeting of Stockholders (the “Proxy Statement”) and is incorporated herein by reference.

Item 11. Executive Compensation

The information required by this Item will be set forth in the Proxy Statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item will be set forth in the Proxy Statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item will be set forth in the Proxy Statement is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information required by this Item will be set forth in the Proxy Statement is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(1) *Financial Statements and Schedules* – the required information is set forth in “Part 2, Item 8 – Financial Statements and Supplementary Data” in this Annual Report.

(2) *Exhibits* – the exhibits listed below are filed as part of this Annual Report or incorporated herein by reference to the location indicated.

<u>Exhibit No.</u>	<u>Description</u>
2.1†	Business Combination Agreement, dated as of July 12, 2021, among Ivanhoe Capital Acquisition Corp., Wormhole Merger Sub Pte. Ltd. and SES Holdings Pte. Ltd., as amended by Amendment No. 1 thereto, dated September 20, 2021 (incorporated by reference to Exhibit 2.1 to the Company’s Registration Statement on Form S-4/A (File No. 333-258691), filed with the Securities and Exchange Commission on January 5, 2022).
2.2†	Amendment No. 1 to Business Combination Agreement, dated as of September 20, 2021, among Ivanhoe Capital Acquisition Corp., Wormhole Merger Sub Pte. Ltd. and SES Holdings Pte. Ltd. (incorporated by reference to Exhibit 2.1 to the Company’s Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on September 21, 2021).
3.1	Certificate of Incorporation of SES AI Corporation (incorporated by reference to Exhibit 3.1 to the Company’s Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
3.2	Bylaws of SES AI Corporation (incorporated by reference to Exhibit 3.2 to the Company’s Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
4.1	Amended and Restated Warrant Agreement, dated as of February 3, 2022, by and between the Company and Continental Stock Transfer & Company, as warrant agent (incorporated by reference to Exhibit 4.1 to the Company’s Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
4.2*	Description of Securities (incorporated by reference to Exhibit 4.2 to the Company’s Annual Report on Form 10-K (File No. 001-39845), filed with the Securities and Exchange Commission on March 31, 2022).

Exhibit No.	Description
10.1	Amended and Restated Registration Rights Agreement, dated February 3, 2022, by and among SES AI Corporation, the Sponsor and certain other holders of SES AI Corporation (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.2#	Form of Director and Executive Officer Indemnification Agreement (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.3#	SES AI Corporation 2021 Incentive Award Plan (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.4#	SES Holdings Pte. Ltd. 2021 Share Incentive Plan (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.5#	Employment Agreement, dated as of March 19, 2021, by and between Dr. Qichao Hu and SES Holdings Pte. Ltd. (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.6#	Employment Agreement, dated as of February 16, 2021, by and between Jing Nealis and SES Holdings Pte. Ltd. (incorporated by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.7#	Employment Agreement, dated as of July 1, 2018, by and between Dr. Hong Gan and SolidEnergy Systems Corporation (incorporated by reference to Exhibit 10.10 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.8#	Employment Agreement, dated as of March 3, 2023, by and between Daniel (Gang) Li and SolidEnergy Systems LLC (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-39845), filed with the Securities and Exchange Commission on May 9, 2023).
10.9#*	Employment Agreement, dated as of March 2, 2022, by and between Kyle Pilkington and SolidEnergy Systems, LLC
10.10#†	Advisory Agreement, dated as of June 26, 2022, by and between Joanne Ban and SES AI Corporation (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-39845), filed with the Securities and Exchange Commission on May 9, 2023).
10.11#*	Separation Letter, dated as of January 24, 2024, by and between Rohit Makharia and SES Holdings Pte Ltd.
10.12	Director Nomination Agreement dated as of July 12, 2021, by and among Ivanhoe Capital Acquisition Corp., SES Holdings Pte. Ltd. and General Motors Ventures LLC (incorporated by reference to Exhibit 10.11 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.13	Board Observation Agreement, dated as of July 12, 2021, by and among Ivanhoe Capital Acquisition Corp., SES Holdings Pte. Ltd. and Hyundai Motor Company (incorporated by reference to Exhibit 10.12 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.14	Letter Agreement, dated January 6, 2021, by and among Ivanhoe, its executive officers and directors and Ivanhoe Capital Sponsor LLC (incorporated by reference to Exhibit 10.13 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).

Exhibit No.	Description
10.15	IPO Letter Agreement Amendment, dated as of July 12, 2021, by Ivanhoe Capital Sponsor LLC and the officers and directors of Ivanhoe Capital Acquisition Corp. (incorporated by reference to Exhibit 10.14 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.16	English Translation of Shanghai Lease Agreement, dated as of August 28, 2018 (incorporated by reference to Exhibit 10.15 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.17	English Translation of Amendment to Shanghai Lease Agreement, dated as of August 28, 2021 (incorporated by reference to Exhibit 10.16 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.18	English Translation of Amendment to Shanghai Lease Agreement, dated as of September 20, 2022 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-39845), filed with the Securities and Exchange Commission on November 14, 2022).
10.19	Commercial Lease Agreement, dated as of March 30, 2016, by and between SolidEnergy Systems Corp. and Cummings Properties, LLC (incorporated by reference to Exhibit 10.17 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.20	Amendment No. 1 to Commercial Lease Agreement, dated as of January 10, 2020 (incorporated by reference to Exhibit 10.18 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.21	Amendment No. 2 to Commercial Lease Agreement, dated as of February 19, 2020 (incorporated by reference to Exhibit 10.19 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.22	Amendment No. 3 to Commercial Lease Agreement, dated as of March 26, 2021 (incorporated by reference to Exhibit 10.20 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.23	Amendment No. 4 to Commercial Lease Agreement, dated as of December 30, 2021 (incorporated by reference to Exhibit 10.21 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.24*	Amendment No. 5 to Commercial Lease Agreement, dated as of October 21, 2022 (incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K (file No. 001-39845) filed with the Securities and Exchange Commission on March 16, 2023).
10.25#	Form of Restricted Share Award Grant (incorporated by reference to Exhibit 10.22 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.26#	Form of Share Option Award Grant (incorporated by reference to Exhibit 10.23 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.27#	Form of Non-Disclosure and Non-Competition Agreement (incorporated by reference to Exhibit 10.24 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.28#	Form of Restricted Stock Unit Award Grant Notice pursuant to the SES AI Corporation 2021 Incentive Award Plan for restricted stock unit awards to employees, consultants and advisors (incorporated by reference to Exhibit 10.5 to the

Exhibit No.	Description
	Company's Quarterly Report on Form 10-Q (File No. 001-39845), filed with the Securities and Exchange Commission on May 13, 2022).
10.29#	Form of Restricted Stock Unit Award Grant Notice pursuant to the SES AI Corporation 2021 Incentive Award Plan for restricted stock unit awards to non-employee directors (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q (File No. 001-39845), filed with the Securities and Exchange Commission on May 13, 2022).
10.30#	Form of Performance Stock Unit Award Grant Notice pursuant to the SES AI Corporation 2021 Incentive Award Plan for performance vesting restricted stock unit awards to employees and consultants (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q (File No. 001-39845), filed with the Securities and Exchange Commission on May 13, 2022).
10.31#	Form of Restricted Share Award Grant pursuant to the SES Holdings Pte. Ltd. 2021 Share Incentive Plan (incorporated by reference to Exhibit 10.22 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.32#	Form of Share Option Award Grant pursuant to the SES Holdings Pte. Ltd. 2021 Share Incentive Plan (incorporated by reference to Exhibit 10.23 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on February 8, 2022).
10.33	Form of Subscription Agreement for Institutional Investors (incorporated by reference to Exhibit 10.13 to the Company's Registration Statement on Form S-4/A (File No. 333-258691), filed with the Securities and Exchange Commission on January 5, 2022).
10.34	Form of Subscription Agreement for Individual Investors (incorporated by reference to Exhibit 10.14 to the Company's Registration Statement on Form S-4/A (File No. 333-258691), filed with the Securities and Exchange Commission on January 5, 2022).
16.1	Letter from Withum Smith+Brown, PC (incorporated by reference to Exhibit 16.1 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on April 18, 2022).
16.2	Letter from KPMG LLP (incorporated by reference to Exhibit 16.1 to the Company's Current Report on Form 8-K (File No. 001-39845), filed with the Securities and Exchange Commission on June 16, 2023).
21.1*	List of Subsidiaries.
23.1*	Consent of Independent Registered Public Accounting Firm (Grant Thornton LLP).
23.2*	Consent of Independent Registered Public Accounting Firm (KPMG LLP).
24.1	Power of Attorney (included on the signature page to this Annual Report).
31.1*	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief 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 Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
97.1*	Policy for the Recovery of Erroneously Awarded Compensation.

Exhibit No.	Description
101.INS*	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its 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 (formatted in Inline XBRL and contained in Exhibit 101).

* Filed herewith.

† Certain schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K.

Indicates management contract or compensatory plan or arrangement.

** Furnished herewith.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 27, 2024

SES AI CORPORATION

By: /s/ Qichao Hu

Name: Qichao Hu

Title: Chief Executive Officer
(Principal Executive Officer)

By: /s/ Jing Nealis

Name: Jing Nealis

Title: Chief Financial Officer
(Principal Financial Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kyle Pilkington and Jing Nealis, and each or any one of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the United States Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Qichao Hu</u> Qichao Hu	Chief Executive Officer and Chairman (Principal Executive Officer)	February 27, 2024
<u>/s/ Jing Nealis</u> Jing Nealis	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 27, 2024
<u>/s/ Jang Wook Choi</u> Jang Wook Choi	Director	February 27, 2024
<u>/s/ Anirvan Coomer</u> Anirvan Coomer	Director	February 27, 2024
<u>/s/ Brian Krzanich</u> Brian Krzanich	Director	February 27, 2024
<u>/s/ Eric Luo</u> Eric Luo	Director	February 27, 2024
<u>/s/ Jiong Ma</u> Jiong Ma	Director	February 27, 2024
<u>/s/ Michael Noonan</u> Michael Noonan	Director	February 27, 2024

Board of Directors

Dr. Qichao Hu

Founder, Chief Executive Officer, and Chairman
SES AI

Dr. Jang Wook Choi

Professor of Chemical and Biological Engineering,
Seoul National University

Anirvan Coomer

Managing Director, GM Ventures

Brian Krzanich

Former CEO of Intel Corp. and CDK Global Inc.

Eric Luo

Chairman and Chief Executive Officer,
GCL System Integration Limited,
GCL New Energy USA

Dr. Jiong Ma

Founder and Chief Executive Officer,
Chavant Capital Acquisition Corp.

Michael Noonan

Chief Executive Officer, Swave Photonics

Executive Officers

Dr. Qichao Hu

Chief Executive Officer

Jing Nealis

Chief Financial Officer

Dr. Hong Gan

Chief Science Officer

Daniel Li

Chief Manufacturing Officer

Kyle Pilkington

Chief Legal Officer

