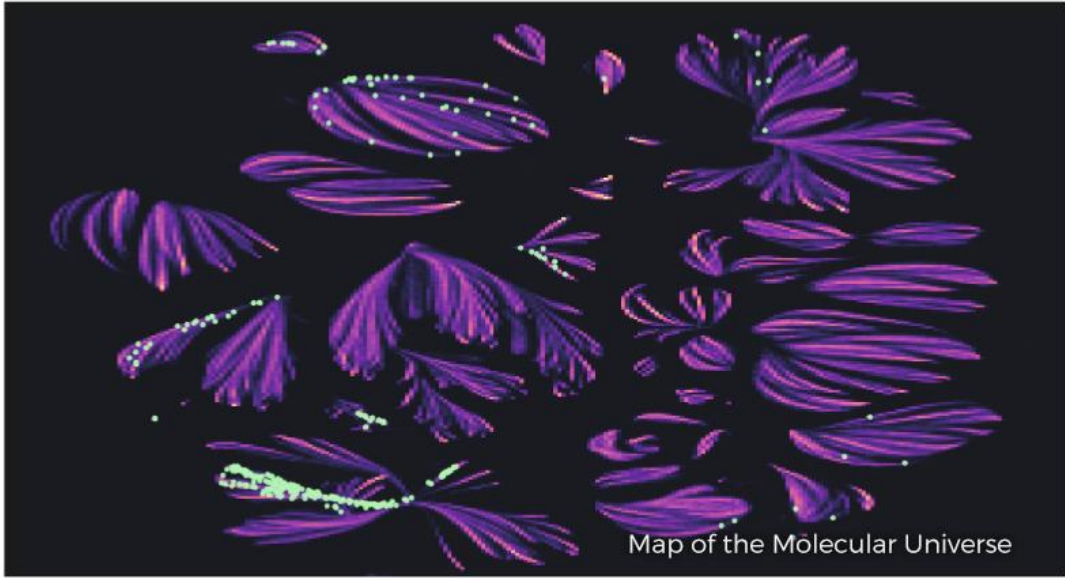
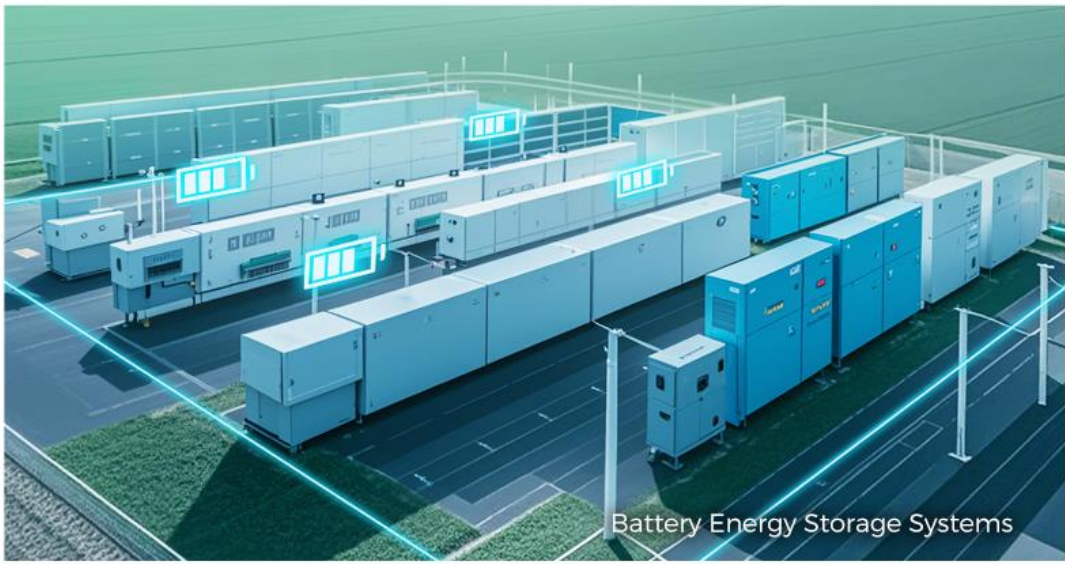
AI-Enhanced 2170 Cylindrical Cells


Map of the Molecular Universe


Battery Energy Storage Systems

Letter to Our Shareholders

Q4 2024

Dear Shareholders,

We are excited to present an update on a new era for SES AI as we reap the benefits of our All in on AI strategy, deepen existing EV relationships, advance to the next stage of our evolution to a revenue-generating company, and share our plans for additional revenue streams with new market expansion in drones/robotics and battery energy storage systems (BESS).

As you may have seen, we have made several key announcements in recent weeks, including SES AI reporting revenue for the first time in the fourth quarter. This marks a defining moment as we leave the pre-revenue stage behind and are focused on driving continued growth. With this milestone behind us, we are poised to accelerate our commercialization efforts and expand revenue in 2025 and beyond.

1. Securing $10M in Contracts for AI-Enhanced EV Battery Development

First, I would like to address the highlights in our EV space. Since the fourth quarter, we successfully signed contracts totaling up to $10 million to develop AI-enhanced Li-Metal and Li-ion batteries for EVs with two leading automotive OEM partners. These contracts solidify our relationships with our OEM partners and underscore the value they place in applying AI for battery material innovation, particularly the enhanced electrolyte solutions that benefit both Li-Metal and Li-ion batteries.

2. AI-Enhanced 2170 Better Meets Power Demands for Robotics, Drones, and UAM

Second, I would like to address the important work we have accomplished in UAM, drones and robotics. In January, at CES 2025, we proudly unveiled our AI-enhanced 2170 cylindrical cell for humanoid robotics. Earlier in 2024, we also secured a major purchase order with Data Blanket for drones used in forest fire management and SoftBank for HAPS communication satellites. This marks a game-changing development in multiple areas:

1. The AI-enhanced 2170 cells are the first to utilize an electrolyte discovered through SES AI's Molecular Universe initiative, which explores the entire universe of small molecules (10^{11} molecules) to identify those suitable for battery electrolytes.

2. Our research has revealed striking similarities between Li-Metal and high-silicon Li-ion cells in terms of electrolyte-anode interphases. This breakthrough in Li-Metal electrolyte development also offers solutions to key high silicon Li-ion challenges such as swelling and cycle life. We are now advancing in both Li-Metal and high-silicon Li-ion technologies.

3. The 2170 cell, an industry standard format, is commercially available on a large scale. The electrolyte discovered via the Molecular Universe effort is a direct drop-in replacement, enabling us to adopt a capital-efficient model through contract manufacturing while delivering high-energy and high-power density cells for a range of applications, including humanoid robotics, drones, EVs, power tools, and more.

3. Advancing BESS with Avatar Solutions: AI for Safety and Manufacturing

Third, SES AI is taking strategic steps to expand into the rapidly growing Battery Energy Storage Systems (BESS) sector. In line with this expansion, we announced in January that SES AI signed an MOU with AISPEX. This collaboration targets up to $45 million for the provision of up to 100 MWh of advanced BESS solutions. These solutions will incorporate our Avatar (AI for Manufacturing and Safety), with the first deployment set to occur at a crypto mining site in Texas.

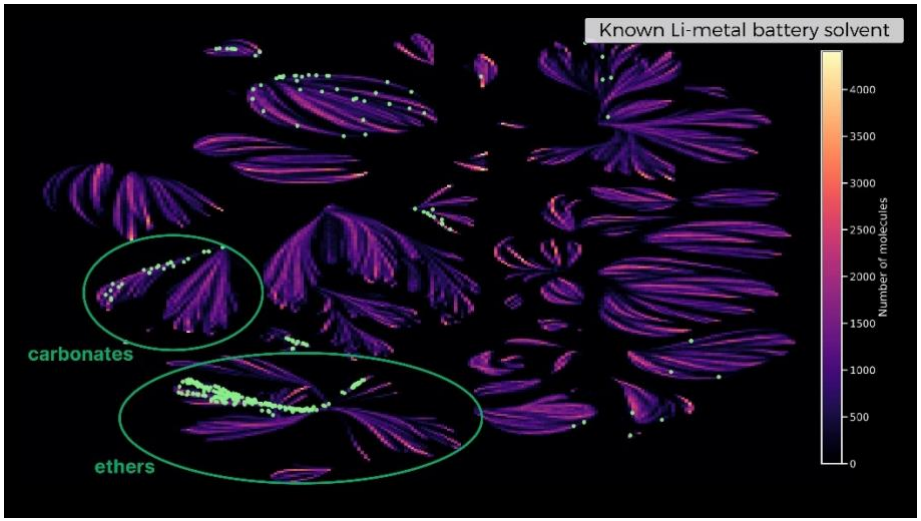
This partnership with AISPEX, the first of its kind, opens exciting opportunities for future collaborations with additional partners. We expect that this MOU with AISPEX will represent a major portion of our projected revenue for 2025.

Our two focus areas power our commercial success

- **Upstream material discovery: Molecular Universe (AI for Science)**
- **Downstream battery safety: Avatar (AI for Manufacturing + Safety)**

Molecular Universe

Our collaboration with NVIDIA on GPU-accelerated computation chemistry software helped accelerate our Molecular Universe effort to map the entire 10^{11} universe of small molecules. An effort that would have taken more than 8,000 years to just a few months. We have now what we think is the world's largest single molecule density function theory database, and we are also mapping solution and interphase levels. These unique proprietary synthetic data help train our AI model that will accelerate electrolyte discovery, as we have seen for Li-Metal and high silicon Li-ion, and even LFP cells for BESS and other chemistries.

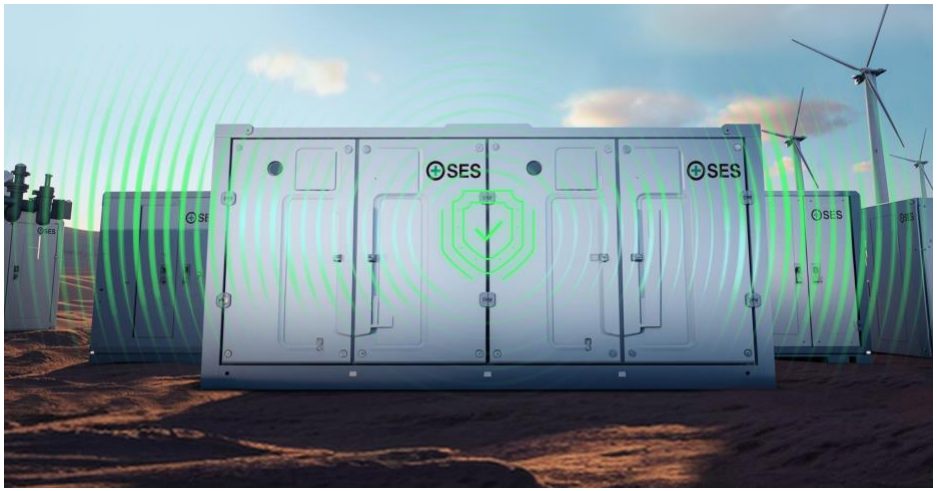


Map of the Molecular Universe

Molecules are clustered based on structural similarities. Concentrations of molecules suitable for Li-Metal (green dots) are observed in both popular clusters (carbonates and ethers) and less popular ones. This treasure map helps identify which less-explored territories are more likely to bear fruit, accelerates electrolyte discovery for Li-Metal, high silicon Li-ion, and other chemistries, and powers revenue generation.

Avatar

In Avatar, we have developed a new foundation model to monitor battery health and predict incidents before they happen. This AI-based model works in conjunction with conventional physics-based battery management system BMS, but is agnostic to chemistry, form factor, and mission profile, and currently has been pre-trained on manufacturing and cycling data across a variety of cell chemistries including NCM and LFP cathode and high silicon, graphite and lithium metal anode, and form factors including pouch, prismatic and cylindrical, and mission profiles including BESS, EV, drones, and robots.



Battery safety: Avatar (AI for Manufacturing + Safety) for BESS

Financial Updates

For the fourth quarter ended December 31, 2024:

- Revenue Milestone: We reported Q4 2024 revenue of $2.0 million, marking the beginning of our evolution into a commercialized and revenue-generating business. This revenue was primarily driven by contracts with our automotive OEM partners to develop AI-enhanced Li-Metal and Li-ion batteries for EV applications, and initial delivery of our Li-Metal cells to our customers like SoftBank for HAPS and Data Blanket for drone applications. Importantly, this revenue comes with a 63% gross margin, demonstrating the strong value proposition of our technology and All-in on AI strategy.
- Operating Expenses: GAAP operating expenses were $30.4 million for the quarter, primarily driven by research and development initiatives and general administrative costs.
- Cash Flow: We utilized $12.3 million in cash for operations and invested $0.2 million in capital expenditures during the quarter.
- Liquidity: We concluded the quarter with a strong liquidity position of $262.5 million, ensuring our ability to fund ongoing and future projects.

For the full-year 2024:

- Cash Usage: We achieved a total cash usage in operations and capital expenditures of $78.3 million, below the low end of our previous guidance of $80.0 million to $95.0 million. This includes operational cash usage of $66.1 million and capital expenditures of $12.2 million.

2025 Guidance & Financial Outlook

As we look ahead, SES AI is well-positioned for continued growth and disciplined investment in 2025. The greater visibility we now have on revenue has allowed us to provide some guidance for 2025. As you know, this will be the first time that we are providing this outlook. Therefore, we are being conservative in our expectations and focusing on the full year outlook rather than any particular quarterly cadence of revenue or expenses. We intend to update this outlook during the year as needed.

- Revenue Outlook: We anticipate 2025 revenue between $15 million and $25 million, reflecting growth from our expanding partnerships and commercialization efforts. We expect to generate revenue from development of AI-enhanced Li-Metal and Li-ion batteries for EV applications, delivery of battery cells to UAM, drones and robotics customers, and delivery of integrated battery energy storage systems with our Avatar AI for Safety software.
- Planned Spending: We forecast total cash usage in operations and capex to be between $70 million and $80 million, prioritizing R&D advancements, commercialization, and strategic market expansion with a capital-light business model.
- Cash Management: Our strong liquidity position extends our runway and continues to support our long-term vision, with a focus on financial discipline and strategic investments. With our capex-light business model, we now expect to maintain adequate liquidity into the second half of 2028. We see tremendous organic and inorganic growth opportunities ahead of us. We are well capitalized to capture these opportunities in a disciplined fashion, particularly with additional funds from our projected revenue growth and/or potential capital markets activity further enhancing our liquidity.

2024 was a transformative year for SES AI. Achieving our first revenue milestone with positive gross margin is a pivotal moment that signals our evolution from an R&D-focused company to a revenue-generating business. With high-margin revenue, growing partnerships, and disciplined financial management, we are excited about the opportunities ahead.

Outlook

SES AI has seen some exciting advancements during the last quarter of 2024 and into 2025, especially as we achieved revenue for the first time in our history.

“All in on AI is not only critical, but is the future.”

We see great things continuing forward. Let me close with a few highlights:

- The shift in our business model: Originally, we envisioned capex-heavy plans to manufacture cells for EVs and UAM at scale and then offset some of the required costs through JVs. Now our business model focuses heavily on selling our AI models and core battery materials, and contract manufacturing and selling of cells using our electrolyte.

- A focus on hiring AI scientists, sales, and marketing teams to pursue greater expansion of revenue opportunities in 2025-2027.

- Continued evolution from a pre-revenue, EV-focused battery technology company levered to one battery chemistry to a company that can leverage its prior work along with its AI technology and AI-enabled electrolytes to generate revenue in a capex-light model much earlier than anticipated and with an ability to tap two new, adjacent verticals: BESS and drones/robotics.

Qichao Hu
Founder, CEO and Chairman

Jing Nealis
Chief Financial Officer

SES AI Corporation
Condensed Consolidated Balance Sheets
(Unaudited)

(in thousands, except share and per share amounts)	December 31, 2024	December 31, 2023
Assets		
Current Assets		
Cash and cash equivalents	$ 128,796	$ 85,671
Short-term investments	133,748	246,775
Accounts receivable	950	—
Receivable from related party	—	3,911
Inventories	212	558
Prepaid expenses and other assets	13,198	11,712
Total current assets	276,904	348,627
Property and equipment, net	38,165	37,959
Intangible assets, net	1,217	1,345
Right-of-use assets, net	9,927	13,099
Deferred tax assets	1,335	1,057
Other assets, non-current	2,237	4,723
Total assets	$ 329,785	$ 406,810
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	$ 1,901	$ 4,830
Operating lease liabilities	2,585	2,404
Accrued expenses and other liabilities	18,329	13,121
Total current liabilities	22,815	20,355
Sponsor Earn-Out liabilities	9,472	4,166
Operating lease liabilities, non-current	7,977	11,316
Unearned government grant	8,606	9,270
Other liabilities, non-current	2,605	2,753
Total liabilities	51,475	47,860
Stockholders' Equity		
Common stock: Class A shares, $0.0001 par value, 2,100,000,000 shares authorized; 317,676,034 and 310,266,922 shares issued and outstanding as of December 31, 2024 and December 31, 2023, respectively; Class B shares, $0.0001 par value, 200,000,000 shares authorized; 43,881,251 shares issued and outstanding as of December 31, 2024 and December 31, 2023	36	35
Additional paid-in capital	579,378	559,214
Accumulated deficit	(298,871)	(198,686)
Accumulated other comprehensive loss	(2,233)	(1,613)
Total stockholders' equity	278,310	358,950
Total liabilities and stockholders' equity	$ 329,785	$ 406,810

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

(in thousands, except share and per share amounts)	Three Months Ended December 31,		Years Ended December 31,	
	2024	2023	2024	2023
Revenue	$ 2,040	$ —	$ 2,040	$ —
Cost of revenues	752	—	752	—
Gross profit	1,288	—	1,288	—
Operating expenses:				
Research and development	$ 20,881	$ 7,367	$ 72,141	$ 30,675
General and administrative	9,540	10,551	38,395	47,483
Total operating expenses	30,421	17,918	110,536	78,158
Loss from operations	(29,133)	(17,918)	(109,248)	(78,158)
Other income (expense):				
Interest income	3,214	4,219	15,036	16,685
(Loss) gain on change in fair value of Sponsor Earn-Out liabilities	(8,593)	1,383	(5,306)	6,795
Miscellaneous (expense) income, net	(276)	32	(479)	425
Total other income, net	(5,655)	5,634	9,251	23,905
Loss before income taxes	(34,788)	(12,284)	(99,997)	(54,253)
Benefit (provision) from income taxes	243	1,531	(188)	853
Net loss	(34,545)	(10,753)	(100,185)	(53,400)
Other comprehensive (loss) income, net of tax:				
Foreign currency translation adjustment	(635)	582	(456)	(937)
Unrealized (loss) gain on short-term investments	(251)	587	(164)	575
Total other comprehensive (loss) income, net of tax	(886)	1,169	(620)	(362)
Total comprehensive loss	$ (35,431)	$ (9,584)	$ (100,805)	$ (53,762)
Net loss per share attributable to common stockholders:				
Basic and diluted	$ (0.11)	$ (0.03)	$ (0.31)	$ (0.17)
Weighted-average common shares outstanding:				
Basic and diluted	325,595,367	316,537,274	321,824,143	315,051,508

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

(in thousands)	Years Ended December 31, 2024	2023
Cash Flows From Operating Activities		
Net loss	$ (100,185)	$ (53,400)
Adjustments to reconcile net loss to net cash used in operating activities:		
Loss (gain) on change of fair value of Sponsor Earn-Out liabilities	5,306	(6,795)
Stock-based compensation	19,935	20,649
Depreciation and amortization	8,308	5,541
Accretion income from available-for-sale short-term investments	(7,215)	(11,050)
Loss on sale of fixed assets	701	—
Other	(1,323)	(244)
Changes in operating assets and liabilities:		
Receivable from related party	3,911	(1,528)
Accounts receivable	(950)	—
Inventories	330	(184)
Prepaid expenses and other assets	(2,198)	(8,170)
Right of use assets	2,941	(1,871)
Deferred tax assets	(278)	(1,057)
Accounts payable	(72)	(62)
Lease liabilities	(2,915)	1,801
Accrued expenses and other liabilities	7,618	(42)
Net cash used in operating activities	(66,086)	(56,412)
Cash Flows From Investing Activities		
Purchases of property and equipment	(12,206)	(15,763)
Purchase of short-term investments	(215,102)	(281,518)
Proceeds from the maturities of short-term investments	335,500	330,000
Net cash provided by investing activities	108,192	32,719
Cash Flows From Financing Activities		
Proceeds from government grant	—	2,751
Proceeds from stock option exercises	1,010	524
Net cash provided by financing activities	1,010	3,275
Effect of exchange rates on cash	(687)	(552)
Net increase (decrease) in cash, cash equivalents and restricted cash	42,429	(20,970)
Cash, cash equivalents, and restricted cash at beginning of period	86,966	107,936
Cash, cash equivalents, and restricted cash at end of period	$ 129,395	$ 86,966
Supplemental Non-Cash Information:		
Accounts payable and accrued expenses related to purchases of property and equipment	$ 1,497	$ 3,808
Incomes taxes paid	$ 286	$ 222
Lease liabilities arising from obtaining right-of-use assets	$ 12	$ 6,008

Forward-Looking Statements

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

You should not place undue reliance on these forward-looking statements. Should one or more of a number of known and unknown risks and uncertainties materialize, or should any of SES AI’s assumptions prove incorrect, our actual results or performance may be materially different from those expressed or implied by these forward-looking statements. Some factors that could cause actual results to differ include, but are not limited to the following risks: risks related to the development and commercialization of SES AI’s battery technology and the timing and achievement of expected business milestones; risks relating to the uncertainty of achieving and maintaining profitability; risks relating to the uncertainty of meeting future capital requirements; the ability of SES to integrate its products into electric vehicles (“EVs”) and Urban Air Mobility (“UAM"), drones, robotics and other applications; the risk that delays in the pre-manufacturing development of SES AI’s battery cells could adversely affect SES AI’s business and prospects; the market for air mobility, and for use of Li-Metal technology in air mobility applications, is still emerging and may not achieve the growth potential we expect; the risk that the market for SES AI’s AI-based services is still emerging, and its AI programs may not achieve the growth potential SES AI expects; risks relating to the development of the UAM market and demand for batteries from the UAM industry; potential supply chain difficulties; the ability of SES AI to engage target original equipment manufacturers (“OEMs”) customers successfully and integrate SES AI’s products into EVs manufactured by OEM customers; the ability to obtain raw materials, components or equipment through new or existing supply relationships; risks resulting from SES AI’s joint development agreements and other strategic alliances and investments; our use of artificial intelligence and machine learning may result in legal and regulatory risk; product liability and other potential litigation, regulation and legal compliance; SES AI’s ability to attract, train and retain highly skilled employees and key personnel; developments in alternative technology or other fossil fuel alternatives; risks related to SES AI’s intellectual property; business, regulatory, political, operational, financial and economic risks related to SES AI’s business operations outside the United States; the volatility of SES AI’s common stock and value of SES AI’s public warrants; and the other risks described in “Part I, Item 1A. Risk Factors” in our annual report on Form 10-K for the fiscal year ended December 31, 2023 filed with the Securities and Exchange Commission (“SEC”) on February 27, 2024 and other documents filed from time to time with the SEC. There may be additional risks that SES AI presently knows and/or believes are immaterial that could also cause actual results to differ from those contained in the forward-looking statements. In addition, forward-looking statements reflect SES AI’s expectations, plans or forecasts of future events and views only as of the date of this press release. SES AI anticipates that subsequent events and developments will cause its assessments to change. However, while SES AI may elect to update these forward-looking statements at some point in the future, SES AI specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing SES AI’s assessments as of any date subsequent to the date of this letter.