

SES AI Corporation NYSE:SES

FQ1 2024 Earnings Call Transcripts

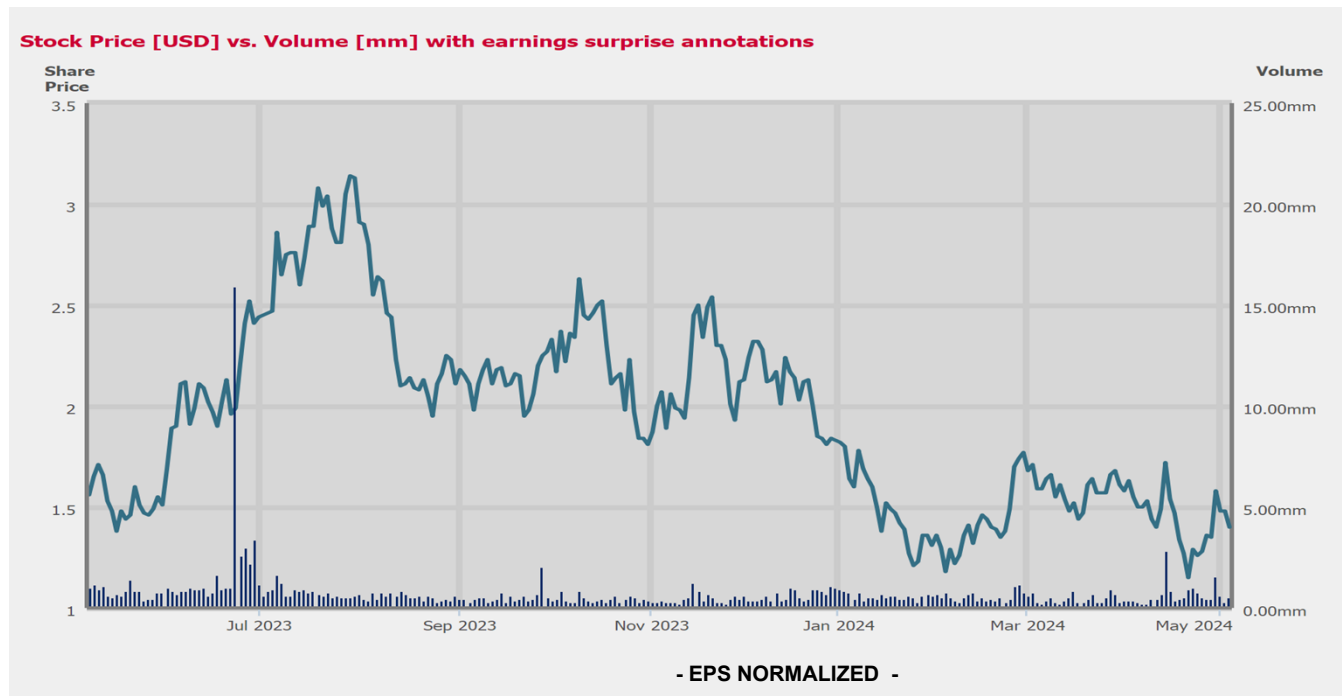
Friday, May 3, 2024 1:00 PM GMT

S&P Global Market Intelligence Estimates

| | -FQ1 2024- | | | -FQ2 2024- | -FY 2024- | -FY 2025- |
|-----------------------|------------|--------|----------|------------|-----------|-----------|
| | CONSENSUS | ACTUAL | SURPRISE | CONSENSUS | CONSENSUS | CONSENSUS |
| EPS Normalized | (0.05) | (0.05) | NM | (0.08) | (0.40) | NA |
| Revenue (mm) | NA | NA | NA | NA | NA | NA |

Currency: USD

Consensus as of May-03-2024 4:29 PM GMT



| | CONSENSUS | ACTUAL | SURPRISE |
|-----------------|-----------|--------|----------|
| FQ2 2023 | (0.07) | (0.04) | NM |
| FQ3 2023 | (0.07) | (0.04) | NM |
| FQ4 2023 | (0.12) | (0.03) | NM |
| FQ1 2024 | (0.05) | (0.05) | NM |

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Call Participants

EXECUTIVES

Jing Liu Nealis
Chief Financial Officer

Kyle Pilkington
Chief Legal Officer

Qichao Hu
Founder, Chairman & CEO

ANALYSTS

Mark Haywood Shooter
*William Blair & Company L.L.C.,
Research Division*

Shawn Michael Severson
Water Tower Research LLC

Presentation

Operator

Good morning all. I would like to welcome you all to the SES First Quarter 2024 Business and Financial Results Call. My name is Brika, and I will be your moderator for today's call. [Operator Instructions]

I would now like to pass the conference over to your host, Kyle Pilkington, Chief Executive Officer, to begin. So Kyle, please go ahead.

Kyle Pilkington *Chief Legal Officer*

Hello, everyone, and welcome to our conference call covering our first quarter 2024 results. Joining me today are Qichao Hu, Founder and Chief Executive Officer; and Jing Nealis, Chief Financial Officer. We issued our shareholder letter just after 4:00 p.m. yesterday, which provides a business update as well as our financial results. You'll find a press release a link to our shareholder letter in today's conference call webcast in the Investor Relations section of our website at ses.ai.

Before we get started, this is a reminder that the discussion today may contain forward-looking information or forward-looking statements within the meaning of applicable securities legislation. These statements are based on our predictions and expectations as of today. Such statements can involve certain risks, assumptions and uncertainties, which may cause our actual or future results and performance to be materially different from those expressed or implied in these statements. The risks and uncertainties that could cause our results to differ materially from our current expectations include, but are not limited to, those detailed in our latest earnings release and in our SEC filings. This morning, we will review our business as well as the results for the quarter. With that, I'll pass it over to Qichao.

Qichao Hu *Founder, Chairman & CEO*

Good morning, and thank you for joining us on our call. Our mission is to power a new era of electric transportation on land and in the air with lithium metal batteries. That new era became a lot more visible in the past few weeks as we reached 2 significant milestones that we believe no other lithium metal battery manufacturers has ever reached before. We're excited to talk about these achievements in more detail today as we believe the milestones reinforce our lead in the race to commercialize our lithium metal technology for both EV and UAN applications. I want our time this morning to center on how we got to this point and what it means for SCS AI going forward. We have talked about 4 pillars in the business that support our vision, and we have made significant advancements in each one this year.

Let's talk about our core focus, first, EV. We have an extremely differentiated high-density better technology platform that has been validated by JDA partners, such as Hyundai, Honda and GM. Our announcement last week that the JDA partnership with Hyundai is entering the next phase further validates our technology and capability to scale manufacturing to rapidly meet increased demand. This agreement represents 2 global first for SES AI and our industry. It is the first time a lithium metal better manufacturer is building a line within an automotive OEM facility. And it makes us the only lithium metal battery company to have 2 B-sample development JDAs underway. In the past few months, we have all seen coverage about how OEMs in the U.S. are scaling back their EV ambitions. However, Hyundai, already the second largest EV manufacturer in the United States is focusing on becoming a top 3 global EV maker by 2030.

They recently announced a \$50-plus billion investment to increase their EV lineup to 31 models and additional personnel for research and development of new EVs and batteries. Honda announced last week that they are making a \$15 billion investment in EV plants in Canada, reinforcing their commitment to very ambitious goals over the next decade. I can't emphasize enough the significance of moving into the next phase of our joint development contract with Hyundai and the confidence Hyundai has placed in SES AI's technology and capabilities. While Hyundai will fund the development of the dedicated Besam facility in their electrification research center in Ulan, South Korea, SES AI will be investing in building and operating one of the largest capacity lithium metal lines in the world within this new facility. We expect this line to be ready early in the fourth quarter of this year with our Avatar AI infrastructure ready several months thereafter.

The increased production allows for more training of our Avatar AI in addition to more testing. The testing will be conducting will be on the performance life cycle. We will test the cells to extreme -- to understand where they fail. This process is similar to what we are doing under our other D-Sample agreement. Operating the speed sample line in Hyundai Ulan facility will be good practice

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for what we plan to do with C-Sample and beyond, especially with the joint ventures we've mentioned in the past that we believe can help us support the large scale needed for startup production. Second, UAM. While EV is the core focus, we are very committed to Urban Air Mobility or UAM, it's an exciting application for our lithium metal batteries. It's the second pillar to our mission. UAM is an adjacent growth opportunity that requires little additional development beyond what we are already doing for EVs. And we believe it is a perfect fit for lithium metal.

When I say a little additional development, I mean that the D-sample cells we have delivered for EV are nearly equivalent to commercial production for UAM. With 2 B-sample agreements going, we can apply those learnings to UAM. UAM operates on a fleet model, where revenue per passenger per mile is the primary metric and weight is a primary concern. Lithium metals energy density means that aircraft can carry twice the number of passengers or double the amount of cargo or double the number of miles. This step change greatly improves UAM operators' profitability. As the first mover in this space, it also means we have an opportunity to make this market. We are already seeing strong demand from OEMs and have a growing number of sales sampling and supply agreements with top 5 OEMs. I would also note that our partner, Honda has been very aggressive and has demonstrated a commitment to UAM. We have already started work on converting our EV sample line in Korea to a UAM dedicated line, which we expect to complete in September.

Third, AI. To ensure practical safety across all our product lines, especially as we prepare for C-sample and commercial deployment, we have significantly expanded the use of Avatar AI to monitor battery health and predict incidents. Our lithium metal large-cell avatar AI prediction accuracy increased from just 60% in 2022 to 92% last year. Our target is 95% accuracy by year-end. Ultimately, we aim to achieve a near 100% safety guarantee for EV and UAM and pioneer the foundation for using AI for future road map electrolyte development. With Avatar AI, we are building more than just a battery company, we are laying out a super intelligent AI for electric transportation. Our new electric foundry is now fully operational, and we can test new ideas generated by both humans and AI much faster.

We are curating several large molecular databases and systematically screening them using both classical physics simulation and machine learning. The goal is to map the relevant small molecule universe. We're very excited to collaborate with several leading research groups on both computing power and machine learning tools. AI for science is a feature of material discovery, and SES AI integrates the world's leading machine learning scientists, battery domain experts and advanced chemical synthesis and sell testing facility. This gives us an ability to innovate and improve our products for EV and UAM at a pace that we believe is unprecedented in the industry. Fourth, sustainability. Lastly, we are integrating sustainability into our operations and innovation to enable supply chain efficiencies to accelerate production timelines and reduce costs. We recently announced that we will fund a new research initiative at Worcester Polytechnic Institute, WPI, to develop state-of-the-art recycling technology for lithium metal.

To date, recycling for lithium-ion batteries exist at an early stage, but recycling technology for lithium metal batteries has not yet been developed. Recycling lithium metal batteries can be critical in the reduction of the shortage of raw materials and environmental problems. Another initiative we are pursuing is working on dry electrodes that can reduce chemical solvent evaporation. We expect to announce a collaboration partner on this effort in the not-too-distant future. In a real-time example of integrating environmental efforts into our business, we recently announced SES Cares. This initiative partners with organizations that monitor forest fires and protect marine animals to power advanced drones with our lithium metal A and B sample cells and collect field data to train Avatar AI. We will have more details on this initiative and our much broader sustainability strategy will be post our first sustainability report at the end of May. 2024 goals.

We noted last quarter that 2024 will be a key year in the commercialization of lithium metal batteries, and we're very pleased with the execution so far on our annual goals. We have become the world's first lithium metal battery manufacturer to have 2 B-sample underway, and we expect to become the first to build online within an OEM facility. With Avatar AI, we expect to produce the highest number of calls this year with a higher number of associated quality checks than ever before. This increase in data will help to improve Avatar AI's accuracy. As we look to accelerate future electrolyte discoveries, we're also training and developing new AI models and testing new ideas generated by these models in our Electrolyte Foundry. I will now turn it over to Jing for a brief discussion of our financials.

Jing Liu Nealis
Chief Financial Officer

Thank you, Qichao Hu. Good afternoon, everyone. Today, I will cover our first quarter 2024 financial results and discuss our operating and capital budget for full year 2024. The -- in the first quarter, our GAAP operating expenses were \$21.3 million, which included \$4.8 million of stock-based compensation expense. Cash used in operations was \$9 million as we received \$11 million payment from our OEM partners. Capital expenditures were \$6.8 million. We ended the first quarter with \$319 million in liquidity.

Our strong balance sheet will support the company as we stay on track to achieve our commercialization milestones. For the full year 2024, our financial guidance is unchanged.

We continue to expect cash usage from operations to be in the range of \$90 million to \$100 million and capital expenditures in the range of \$20 million to \$30 million. We expect total cash usage for the year in the range of \$110 million to \$130 million. As we continue to achieve the milestones we laid out, deepen our long-standing partnership with our OEM partners and accelerate the speed of future electrolyte discovery, we are very focused on capital efficiency. Our priorities for 2024 are to attract top talent to support the strategic goals Qichao laid out earlier, build production capacity to deliver lean metal cells to our EV and UAN partners and advance the use of AI for battery performance prediction as well as electrolyte material discovery as we stay at the forefront of Fabry Material science innovation. With that, I will hand the call back to the operator to open up for questions.

Question and Answer

Operator

[Operator Instructions] We have the first question from Jed Dorsheimer from William Blair.

Mark Haywood Shooter

William Blair & Company L.L.C., Research Division

Hi, everyone. You have Mark Shooter on for Jed with Hyundai. I wanted to see if there was any differences between the partnership that you see because with Hyundai you're going to be in their facility, that's different with the other OEMs you're working with. So could you give us a little color on the compare and contrast those 2 relationships and any differences you might see between them?

Qichao Hu

Founder, Chairman & CEO

Yes, Mark. So the 2 are similar in terms of production capacity and then also the final specs -- and there are different in the following ways. One is the Hyundai is in their facility. So especially when it comes to installing Avatar AI. So you have to install that on their IT infrastructure that does create some complexity contracture. So this is one issue we're still trying to sort out. And this Avatar AI basically has to do with quality, with equipment, with all the data in every process, every step of the entire assembly. So this is probably the biggest difference that we have, the Avatar AI just on someone else's IT infrastructure. And then -- and also for this one, we do plan to build sales primarily for EV, but also Hyundai is interested in UAM. So we're also testing some higher power than the versions of these lithium metal cells for UAM applications, whereas the other one is all focused on EV applications.

Mark Haywood Shooter

William Blair & Company L.L.C., Research Division

Got it. Okay. And maybe one for Jing. Now that we're in someone else's facility, right, do you believe that, that helps any with the CapEx spending? I know Honda is going to be pitching in for a decent amount of that. So how does that affect the financials and business? And does this give you any more runway than you were previously expecting?

Jing Liu Nealis

Chief Financial Officer

Thanks, Mark. The CapEx and OpEx that we -- the guidance we have given out already taken that into consideration. So outputting in Hyundai facility definitely helps as the facility cost and everything will be on there this year and is fully built into our model.

Operator

[Operator Instructions] Your next question comes from Shawn Severson of Water Tower Research.

Shawn Michael Severson

Water Tower Research LLC

Qichao, I was wondering if you could step back and take a bigger picture question here, and it's regarding the adoption curve of lithium metal. So if we look at kind of what's going on in the industry, talking about overall EV slowing, but hybrids are doing well, for example. What I'm trying to understand, as you start to commercialize in this the adoption curve of lithium metal versus lithium ion and the relevancy of how important actual large growth in unit sales, let's say, are in the EV market. So I guess to summarize, are you really looking at an adoption curve that provides a great growth curve for you regardless of, let's say, a flattening out of the curve growth curve for EVs, Am I thinking about it the right way?

Qichao Hu

Founder, Chairman & CEO

Yes. I think if you look at EV today, it's probably fighting out a little bit for lithium-ion because lithium ion has saturated a lot in some markets, for example, in China, it's almost 30%. And then in some countries in Europe, it's also more than 20%. So lithium ion has saturated a lot. But then for lithium metal, it's still a huge market and then it's growing really fast. And then UAM, we actually think UAM will see adoption much sooner for lithium metal technologies because of the right way and also the enhanced safety with Avatar AI. So no, we don't see any flattening or anything in terms of demand and adoption for new technologies.

Shawn Michael Severson
Water Tower Research LLC

Right. So even in that flattening unit EV market, you would still see a pretty good pathway, let's say, through, of course, '24, but more importantly, 25% 26%, as I assume you would get on more platforms and more commercialization, you'd still be seeing a lot of unit growth because of lithium metal adoption, not necessarily the overall EV market.

Qichao Hu
Founder, Chairman & CEO

Yes, yes. I mean the overall EV market in some countries are at 20%, 30%. So it might be slowing down a little bit, but then for lithium metal, when you are less than 1%, like 0-point-something it's still incredibly fast.

Shawn Michael Severson
Water Tower Research LLC

Understood. And my next question is about your cash management. As you look into the year in 2024 and beyond, I'm trying to get an understanding of what you would see as optimal capital management in a sense that what you have to spend versus what are optional spend do you think if we look at cash conservation for 2024 and into 2025? I mean is it possible you could reduce that more if need be? Or how flexible are you on that cash budget and spend?

Qichao Hu
Founder, Chairman & CEO

Yes. I'll answer that first. So I think the 2 B-sample JDAs, right, those we've made commitments. So definitely, we want to install the lines, the sample lines. And then these are very helpful for us to make more sales and for us, more sales, meaning more data. So the 2 B-sample lines, we definitely plan to invest. And then for UAM, UAM, we plan to convert one of the older lines. So instead of buying and building an entirely new line for UAM, we're not doing that. We are actually converting an old A-sample line to build UAM to save costs. And also, a third area is actually in AI. I think AI, we definitely want to spend it. And then training these AI models caused a lot of compute power.

And this is a game that the only way to win is basically by having sufficient compute power. And so far, just in the preliminary train that we have done, we actually found some very, very interesting new molecules that can be used as electrolyte. And then once we have these new electrolytes, then the new materials can extend the cycle life and then reduce the overall cost of the cell. So I think we are committed to the B-sample spending and also probably accelerating AI spending because it's just such an exciting area. And then if we don't do it, I think other companies will do it. But then also in areas like building sales for UAM, then we do plan to save some costs by just converting the old A-sample lines, instead of buying a new line.

Operator

I would like to now turn it back to Kyle on for any time additional question.

Kyle Pilkington
Chief Legal Officer

Thank you. Yes, we did have a number of questions which were submitted in advance of the call and we'll go through a selection from those pre-submitted questions now. The first question is, has SES produced any B-sample using the existing lines, please elaborate.

Qichao Hu
Founder, Chairman & CEO

So we're still building cells using the A-sample lines, and then we are building the B-sample line. And the B-sample line is not ready yet, and we expect these B-sample lines to be ready towards the end of this year. And then we are improving the A-sample lines towards meeting the specs of the B-sample. So the goal is by the end of this B-sample JDA, the 2 B-sample JDAs then we will actually have the B-sample cells. But for now, we are improving the A-sample cells to meet the specs of the B-sample cells.

Kyle Pilkington
Chief Legal Officer

Okay. The next question is, can you share any progress on the new be sample line.

Qichao Hu

Founder, Chairman & CEO

Now the details because we do have confidentiality with the OEMs, but we are making very good product process in terms of design the lines, issuing the POs and also the vendors have already started building their lines. So we do expect both lines to be operational by end of this year.

Kyle Pilkington
Chief Legal Officer

Super. The next question is, do you have any update on the B-sample JDAs, in addition to the first recently signed.

Qichao Hu
Founder, Chairman & CEO

So we're focused on the 2 B-sample JDAs because we've made commitments. And in terms of getting a third or fourth additional B-sample JDAs, that's not really a focus for us because a lot of the work are similar. So we do want to make sure that we deliver to the 2 B-samples that we've already committed, and that's our top focus.

Kyle Pilkington
Chief Legal Officer

Okay. And then the last question we'll take from the pre-submitted questions is currently, how safe is SES' lithium metal cell. There as much energy further, you talk about AI being used to improve reliability and SES invested in explosion bunkers to evaluate issues. A skeptic might conclude that these unique and extended efforts are needed to make your cells safer, how safe are your cells today.

Qichao Hu
Founder, Chairman & CEO

Yes. Because lithium metal does have higher energy density than lithium ion, it does have a greater safety concern than lithium ion because it has higher energy density. That's just the fundamentals of a battery. When you have a better with higher energy density, you will have higher safety concerns. And historically, in the past, lithium metal did have some safety issues. This is why we are spending a lot of effort on Avatar AI. So all the cells that we built, all the good cells, bad cells, actually, sometimes we intentionally make the cell sale so that we have both positive signals and negative signals, and we use them to train Avatar AI.

So the goal of the Avatar AI is to try to ensure as close to 100% safety in the field as possible. On top of making the electrolyte safer through this -- as science effort and also making the cell design as safe as possible. But we know from a pure hardware perspective, no high-energy density cells can be 100% safe. That's why we need the software that's Avatar AI on top of this hardware to make sure the actual operation in the field can be as close to 100% as safe as possible. I think not just for lithium metal, but any high density batteries in any vehicle operations in the field must have Avatar AI.

Kyle Pilkington
Chief Legal Officer

Thanks, Qichao. I'll pass it back to the operator to see if there's any additional questions on the line.

Operator

[Operator Instructions] We now have a follow-up question from Jed Dorsheimer with William Blair.

Mark Haywood Shooter
William Blair & Company L.L.C., Research Division

It's Mark again. I just wanted to dial in a bit more on the AI. I was wondering what you're using for the training data. Is this -- and you're saying [indiscernible] being installed in the lines, especially the lithium metal line with the partner Hyundai. That had me thinking, is this -- are you looking at metrology of the lithium metal surface to try to predict yields or future current density hotspot issues? So does it help with yields? Or is this more of a -- or building cells or doing stictotometry and stressing the cells at certain out voltages and monitoring in that way. So is it still testing? Or is this kind of a yield thing as well?

Qichao Hu
Founder, Chairman & CEO

So it's actually 3 types of data. First is the cell design, so like the cathode loading, the annual fitness and then the electrolyte, basically, the design information of the cell. And the second is manufacturing data. So that includes, like you said, lithium surface, morphology, roughness, electrolyte stacking overhand misalignment, the electrical filling and pressure during heat ceiling. So all the parameters, all the data during the manufacturing process. And then third is testing. So that includes like the cyclic photometry, high temperature, low temperature, high pressure, low pressure during cycling the first cycle, the second cycle all the way until 500, 600 cycles until the cells [indiscernible]. And then all 3 types of data are used to train this model.

Mark Haywood Shooter

William Blair & Company L.L.C., Research Division

Got it. Okay. That's the whole way through. Very interesting. And do you plan on this having the -- as a part of the BMS for any potential electric vehicles that you're going to be in here? So is this -- will this be live monitoring on a go-forward as well inside the cars? Or is this more to get the data to build the safe cell? And then you get a stamp and you don't need to contact monitoring anymore.

Qichao Hu

Founder, Chairman & CEO

Yes. So this will be inside the BMS. And then -- so we are talking about constant live monitoring. And actually, we have been doing this for some drones. And then we are starting to put in some UAM applications. And also later in the B-sample, we definitely plan to put us in the DMS for the demo cars. So yes, the 3 types of data actually train different kinds of models for the Avatar AI. And then the last part, the testing definitely will be part of the BMS so that we can actually get the data and then use the data to train the model live. We won't be able to do -- so we can only do monitoring and then the model will send a recommendation to the driver in terms of what to do, but then you won't be able to actually control the battery.

Operator

Thank you. I can confirm we have no further questions. I'd like to conclude the call here. Thank you all for joining, and please enjoy the rest of your day. You may now disconnect your lines.

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