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Earnings Call

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Call Participants

EXECUTIVES

Eric Goldstein
Vice President of Investor Relations

Jing Liu Nealis
Chief Financial Officer

Qichao Hu
Founder, Chairman & CEO

ANALYSTS

Unknown Analyst

Presentation

Operator

Good afternoon, all. I would like to welcome you all to the SES AI Corporation Second Quarter Earnings Call. My name is Rica, and I will be the moderator operating today's conference call. [Operator Instructions]

And I would now like to hand you over to your host, Eric Goldstein, VP of Investor Relations. Sir, please go ahead when you are ready.

Eric Goldstein
Vice President of Investor Relations

Thank you, operator. Hello, everyone, and welcome to our conference call covering our second quarter 2023 results and financial guidance for 2023. 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 p.m. today, which provides a business update as well as our financial results. You'll find a press release with a link to our shareholder letter and 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 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 afternoon, we will review our business as well as results for the quarter.

With that, I'll pass it over to Qichao.

Qichao Hu
Founder, Chairman & CEO

Thanks, Eric. As everyone, I'm sure, is aware by now, in 2021, we became the world's first company to enter automotive A-sample with lithium metal batteries. And we did so with 3 OEMs, GM, Honda and Hyundai. Earlier this year, we laid out the goal to transition to B-sample, and I'm happy to report we are making really exciting progress.

We continue to push forward with high-energy densities at a wide range of temperature and power requirements enabled by our unique lithium metal battery technology and Avatar system. Although we have a ways to go before full commercialization, we're getting closer to making the leap from automotive A-sample to being the first supplier of lithium batteries in the automotive B-sample stage.

Furthermore, while we are doubling down on our progress with our automotive customers, we see another unique opportunity in Urban Air Mobility, UAM. That, I will discuss later in this call.

In the EV market, we need to solve two major hurdles to position us to transition to automotive B-sample. The first is manufacturability. We're not talking about small cell lab-scale manufacturing. We're talking about 100 mPOWER sales in pilot scale manufacturing facilities for real automotive A- and B-sample qualifications.

This year, we expect to transition from producing about 1,000 total 100-mPOWER lithium metal cells in 2022 to about 1,000 100-mPOWER lithium metal cells per month per line. Importantly, our cells are high quality and will continue to be tested both in-house and by our OEM customers.

Now that we're more than halfway into 2023, we have lines in both Shanghai and South Korea making about 500 large 100-mPOWER lithium metal cells per month with one shift. By adding a second shift, we are confident that we will achieve over 1,000 cells per month per line.

In addition to building the cells, we're also adding testing bunkers. We built 1 test bunker earlier this year. We expect to finish our second testing bunker before September and plan to add a few more bunkers in our facility so we can test as many cells as we can build.

Providing a safe place to test a large quantity of our lithium metal cells is critical. This will allow us to accelerate our development process and test our cells under a massive universe of conditions so they are better prepared for real-world usage. These large 100-mPOWER lithium metal cells have been either tested directly by our customers or tested in-house and the data shared with our customers.

Our second hurdle was B-sample line preparation. We announced Line 4 earlier this year, which will be dedicated to B-sample EV cells for one of our customers. We have completed the equipment process design and evaluation with our customer and have commenced a bidding process with a few vendors. We expect this line to be ready in Q1 of 2024. Line 4 will have more than 1,400 quality checkpoints compared to only 300 quality checkpoints in the first 3 A-sample lines and will be fully compatible with our Avatar system.

We don't need to wait for Line 4 to be complete to start the actual B-sample phase since we expect that our current A-sample lines will soon be capable of producing nearly 1,000 lithium metal cells per month per line. We will use the A-sample lines in the early phase of B-sample and we'll move to Line 4 for the later part of B-sample after it's fully operational.

Our world-leading energy density and power enabled by our lithium metal battery technology makes SES batteries a great fit not just for automotive applications, but also for Urban Air Mobility and drones. As such, in addition to Line 4, we're also preparing to build a new Line 5 which will be dedicated to B-sample for Urban Air mobility or UAM cells for another one of our OEM customers.

We will leverage the equipment and process design from Line 4 and customize for UAM cells. Both Line 4 and Line 5 will have our latest quality control system with more than 1,400 quality checkpoints and be fully compatible with Avatar, allowing full traceability of our cells.

We are super excited about both Line 4 and Line 5. Line 4 will be our first B-sample line for EV. Line 5 will supply cells for UAM and other drone applications that need lightweight and high-capacity lithium metal cells. In terms of performance, lithium metal is a perfect fit for UAM and drone applications because of its lightweight and high discharge power density.

To review, we now have 3 A-sample lines operational. We expect to increase throughput from 1,000 100-mPOWER lithium metal cells per year last year to nearly 1,000 large 100-mPOWER lithium-metal cells per month per line by end of this year. And we're preparing 2 B-sample lines, one dedicated for EVs with one OEM customer, that's Line 4, and another dedicated for UAM with another OEM customer, that's Line 5. Both Line 4 and 5 are expected to start producing at least 1,000 high-quality, large 100-mPOWER lithium metal cells per month per line once operational, both fully compatible with Avatar and with full quality traceability.

We expect to have all 5 lines, each producing at least 1,000 high-quality 100-mPOWER lithium metal cells per month per line. We believe that this will accelerate our B-sample development and qualification with our existing 3 OEM customers and open up additional standpoint capacity for a new pipeline of OEMs in both EVs and UAMs at the B-sample stage.

In addition to preparation or B-sample, we're also investing heavily in fundamental R&D to accelerate our material discovery. For a novel battery technology like lithium metal, it fundamentally comes down to material, especially our core competence which is the electrolyte.

I am proud to announce that we will be building a new electrolyte foundry near our headquarters in Boston. It will focus on novel electrolyte molecule discovery and synthetic pathway development. This novel material discovery platform will allow us to continue to improve our key performance and safety

metrics by accelerating design to data time frame for new electrolyte solvent and salt molecules and formulations.

We are aggressively hiring top electrolyte scientists and chemists and AI/machine learning scientists to develop totally new molecules and synthesis techniques. Not only we are discovering new materials and new techniques, but we're also discovering new techniques to discover new techniques.

With all these exciting developments, we need more talent. We recently added an SVP of Quality, Mr. Kojima Atsushi who has more than 30 years in quality management from Sanyo/Panasonic and GS Yuasa in nickel cadmium and lithium-ion batteries. He is managing our group level engineering and manufacturing quality to ensure our 5 large cell lines, 3 A-sample and 2 B-sample, incorporate the most rigorous quality system and are compatible with Avatar.

Since lithium metal is new, and this is the first time anyone has taken lithium metal to A- and B-samples, we intentionally use more rigorous quality management than even the most rigorous lithium-ion lines. Under our new SVP of Quality, our yield actually decreased initially because the standards we're employing are much more stringent, and thus, we are discovering issues at a much deeper level. And that's a good thing. We want to systematically build a solid quality foundation, especially in B-sample. It's extremely important for our future.

In summary, earlier this year, we established a milestone to transition to B-sample. Not only are we confident that we will achieve that, but we also expect to go beyond. We are expanding into UAM and drone applications which, in addition to EVs, are ideal market for our unique high-energy density and power density lithium metal battery.

Not only do UAM and drones represent early commercialization opportunities for us, but we also believe that lithium metal will enable UAM the same way that lithium-ion enabled portable electronics back in the 1990s. We're also expanding into novel techniques for material and process discovery using AI/machine learning.

We are at an exciting intersection between sustainability, electric transportation and AI and machine learning. We seek the world's best material scientists, chemists, cell engineers and AI/machine learning scientists to join us.

What started out as simply developing a novel battery has become much more, including enabling Urban Air Mobility and building a super intelligent system in both battery manufacturing and material discovery.

With that, I will hand the call over to Jing.

Jing Liu Nealis
Chief Financial Officer

Thank you, Qichao. Good afternoon, everyone. Today, I will cover our second quarter financial results and discuss our operating and capital budgets for full year 2023.

In the second quarter, our operating expenses were $19.3 million, up slightly from the same period last year. Stock-based compensation expense was $7.3 million in the quarter.

We reported research and development expenses of $6.4 million, a reduction of approximately $0.8 million from the same period last year. This reduction primarily resulted from a higher recovery of our research and development expenses from our OEM customers, partially offset by an increase in personnel costs, mainly attributable to headcount growth as well as higher spending for lab consumables, material consumption and related expenses in support of our ongoing battery cell development efforts.

Our gross R&D spend in the second quarter was $14.7 million, which was partially offset by $8.3 million billed to our OEM customers, which are treated as counter R&D expenses.

Our G&A expenses were $12.9 million an increase of $1 million from the same period last year. This increase primarily resulted from higher personnel costs, mainly attributable to our growth in headcount

as well as higher professional fees and audit-related fees to support our operations as a public company. These increases were partially offset by a decline in insurance expenses.

Year-to-date, cash used in operations was $30.9 million. CapEx so far this year has been $7.8 million, primarily reflecting payment for equipment and facilities. Capital expenditures are expected to accelerate in the second half of the year as we finish the vendor selection process for Line 4 and Line 5 and formalized purchase orders.

Looking at liquidity. Our balance sheet remains very strong. We ended the second quarter with combined cash, cash equivalents and marketable securities of $357 million. We continue to believe our liquidity is sufficient to get us to commercialization.

At this time, our financial guidance for 2023 is unchanged. We are still guiding for an expected cash usage from operations in the range of $80 million to $100 million and for CapEx in the range of $50 million to $70 million. In total, we expect cash usage for the year in the range of $130 million to $170 million. We are currently trending toward the lower end of this range.

Halfway through the year, we have made a lot of progress. As Qichao indicated, we are preparing for the transition to B-sample, and we'll be making investments in more advanced equipment for Line 4. In addition, we anticipate expanding into the UAM market with Line 5, providing another exciting growth opportunities for the company.

We appreciate the excellent support from our shareholders, employees and OEM customers. With that, I will hand the call back to Eric.

Eric Goldstein
Vice President of Investor Relations
Thanks, Jing. Rica, let's open the lines for questions.

Question and Answer

Operator

[Operator Instructions] We have the first question from [Sean Everson] of [Watchtower Research].

Unknown Analyst

Qichao, is there any difference in the battery itself and the technology between the drones and the unmanned aircraft and what you would be using for passenger vehicles?

Qichao Hu
Founder, Chairman & CEO

Yes, Sean. Yes, there are. And then one is the cell dimension. And that's why we have the 2 separate lines, Line 4 for EV and then Line 5 for UAMs. And then -- so the cell dimension is the key difference. And then we don't want to go back and forth and then change the dies because that will ruin the quality. And then another is, for the UAM, the focus on energy density is a lot more than the EV and then focus on cycle life is relatively less. So primarily, cell dimension and also just the cell design in terms of the final performance and energy density balance.

Unknown Analyst

So it's able to leverage all the same materials technology and chemistry effectively, it's just sort of how you're packaging these and, as you said, dimension?

Qichao Hu
Founder, Chairman & CEO

Yes, yes. So the materials -- the platform is definitely the same, also the quality management systems. We spent a lot of time improving our quality management and then all the latest quality management that we're going to implement in Line 4, we will implement in Line 5, absolutely.

Unknown Analyst

And it was really interesting to hear about the AI and kind of materials development facility in Boston. And I'm curious, more from a bigger picture strategic standpoint, do you envision this becoming kind of where you may be inventing new molecules and coming up with new chemistries and licensing them and selling them? Or are these things that -- is it going to be primarily focused on developing new battery technologies for you?

I'm just trying to understand how it fits in strategically with you because seems like a very exciting opportunity, but how will this drive revenue for you, I guess, is what it comes down to.

Qichao Hu
Founder, Chairman & CEO

Yes. It's more the latter. It's this internal tool that we're going to use to develop better materials. And then no one else has this. And then it's a really exciting area. And then Boston being the center for a lot of life science, drug discovery and AI and machine learning, computer science talent, both at the university and also at the industry level, it's a really good place to invest. That's why we decided to open this center.

So it's more of an internal R&D capability that will allow us to keep innovating. We expect to get to C-sample in '25, and then -- so that's the first generation, and after that, the second gen, the third gen. And then each time, we want to be able to keep improving. So and then want to use our human scientists as well as this AI platform.

Unknown Analyst

If I could just ask one more question on that. As you -- are you taking effectively all of the data and experience that you have, right, that you've compiled to date and then you're taking that and using that as a base and then layering AI over it to look at different scenarios? I'm just wondering how it integrates because, obviously, you already have a massive base of knowledge and know-how and technology and you're getting more from the field, right, in terms of performance and things like that. So I'm trying to understand the integration of the existing information and knowledge base you have and how this fits in and works going forward?

Qichao Hu
Founder, Chairman & CEO

Absolutely. So all the internal data will be an input to those. And then also, we want to have the machine to develop a new and also different understanding from the one that we humans have. And then this new understanding, we will use to search for new materials and then beyond the constraints that human scientists have.

Operator

[Operator Instructions] I can confirm we've had no further questions registered.

As no further question has been registered, I'd like to hand it back to the management team for any final remarks.

Eric Goldstein
Vice President of Investor Relations

Yes. Okay. Thanks, Rica. We could end the call right here .

Operator
Thank you. The call has now completed. You may now disconnect your lines and have a lovely day.