SES AI Corporation 3Q22 Earnings Conference Call Thursday, 10 November 2022

Operator:

Good afternoon. Thank you for attending today's SES AI Corp Third Quarter '22 earnings Conference Call. My name is Daniel, and I will be your moderator for today's call. All lines will be muted during the presentation portion of the call, with an opportunity for questions and answers at the end. If you would like to ask a question, please press star followed by one on your telephone keypad. I would like to pass the conference over to our host, Eric Goldstein, Vice President of Investor Relations. Eric, please proceed.

Eric Goldstein:

Thank you, operator. Hello everyone, and welcome to our conference call covering our third quarter 2022 results and outlook for the year. 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 PM 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, the discussion today may contain forward-looking information or forward-looking statements within the meaning of applicable security of 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 details 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 the call over to Qichao.

Qichao Hu:

Thanks, Eric. Good afternoon everyone, and thanks for joining our third quarter conference call. As the leader in lithium-metal battery cell development, our organization continues to evolve and innovate in order to meet all the challenges that come with manufacturing large format cells. During the third quarter, we achieved several important milestones. First, our SES Korea pilot facility was completed, and a cell assembly line was ready to use in September, only eight months after breaking ground on this greenfield facility in January. Since opening, SES, Korea has already been able to produce about 100 of our large Apollo-based 50 and 100 amp-hour cells.

Second, our Shanghai Giga facility was fully operational in Q3, and since January has produced about a thousand Apollo-based 50 and a 100 amp-hour cells. Both SES Korea and Shanghai Giga have much higher capacity, approximately several thousand cells per month. However, we intentionally slowed down their lines in order to focus on quality, and to identify and address manufacturing issues. We plan to increase volume when our manufacturing process becomes more robust. We have shared 50 amp-hour cell data with all of our OEM JDA partners, and have shipped 50 amp-hour cells to some partners. Going forward, we plan to shift cells to all of our partners, including GM, Hyundai, and Honda. We also expect to share data from our 100 amp-hour cells and will begin shipping them to our JDA partners early in 2023.

Importantly, the 50 amp-hour cells produce at Shanghai Giga have received UN 38.3 certification, which means they have been deemed safe for transport by an approved independent testing lab. Additionally, our Shanghai line received IATF 16949 quality certification, which means it is on track to meeting the process quality requirements for the automotive market. We expect to receive the same certifications for our 100 amp-hour cells produced in Shanghai and SES Korea. Customer interest in these large format cells remains strong. In addition to the three OEM JDAs that we have formerly announced, we have also shared cell data with several other EV and eVTOL OEMs around the world.

We believe that we are the leader in lithium-metal battery development, and have built more small and large format lithium-metal cells than anyone else. However, developing and building large 50 and 100 amp-hour cells have been incredibly difficult, and candidly much harder than we expected. We have encountered complex problems including poor press density of white format lithium-metal foils, powder arising from using lasers to cut our anodes that can lead to cells shorting, optimizing pressure distribution over a larger area, and developing accurate health monitoring algorithms for large cells without any data initially, just to name a few. Importantly, as a result of these problems which have led to numerous large capacity cell failures, we have gained a lot of incredibly valuable data that we are now using to train our health monitoring algorithm, Avatar. For example, our ability to predict failures in large 50 and 100 amp-hour cells has increased from 0% to approximately 60% in the past few months. By comparison, our ability to predict failures in smaller 4 amp-hour cells is now more than 99%, after four years of data training.

In addition, these issues have forced us to make several key changes in our vendor partnerships and manufacturing process, that are now yielding significant improvements in cell performance, quality, and yield. Our shareholder letter contains a table that summarizes the performances of our 4 amp-hour cells, first published last year and recently updated, 50 amp-hour cells, entirely new data, and 100 amp-hour cells, still ongoing. On cell engineering and manufacturing, while there is still a gap between the performance of our smaller 4 amp-hour cells and the larger 50 power cells, we are making great progress in bridging this gap. We remain confident that the larger cells, both 50 and later 100 amp-hour cells, will match the performance of the smaller 4 amp-hour cells.

On new material chemistry, we are making exciting progress in developing new electrolyzed coatings and anode materials that will improve the performance of all cells. Stay tuned as we plan to publish more detailed 50 amp-hour cell data this month, and expect to show performance improvements leading up to our expected transition from A-samples to B-samples. As a result of our real world experiences with large lithium-metal cells, we have started to take a fresh look at our supply chain, and have the elected to take certain operations in health to improve performance and quality. Our lithium-metal supply chain has a lot of overlap with the lithium ion supply chain. Having a comprehensive supply chain is critical for us to develop a cell system that meets OEM requirements, and to scale our volumes and reduce cost. This is not only important for getting to B samples, but also for pilot scale development. Improving our internal capability for R&D in every component, and having control over every step in the process now allows us to quickly troubleshoot, identify, and optimize.

Initially, we only focused on our electrolyte anode in the cell. We simply purchased the cathode, the tin foil, and separator, and the ability to investigate and optimize, besides the simple quality analysis summary from our vendors. Now, for all cell materials, we make it in-house, or we partner with our vendors and have them develop new materials to our specifications, which has improved the performance and quality of our cells. A cell is really a living and breathing

system, especially a large 100 amp-hour lithium-metal cell. If you don't have full access and control of the entire supply chain, every little detailed step, you just will not succeed at meeting the full-blown specs from OEMs for A-samples, or get to the D sample stage.

In late September, I had the privilege of meeting the South Korean President at the South Korea North America Investors Roundtable in New York. I committed to advancing research and development for lithium-metal batteries in South Korea. SES was the only North American battery company to participate in the event, where South Korea announced a total of $1.15 billion of planned investments for batteries, semiconductors, and other industries. South Korea is the world leader in EV batteries, and plays a key role in the global upstream supply chain. This is why we are investing in the development of SES Korea. We're proud to have been recognized by the government of South Korea for our innovation in lithium-metal battery technology, and our commitment to supporting the future of the electric vehicle, and urban air mobility ecosystem.

The Recent Inflation Reduction Act of IRA offers very attractive tax credits and incentives for battery manufacturing and supply chain buildout in North America. We are actively discussing with our partners to see how we can leverage our learning from the global supply chain, to establish a robust North American EV battery supply chain. We are very excited about the potential here. Earlier this year, we set three milestones we hope to attain by mid-2023. These are incredibly challenging, but we are making good progress on all three. One, deliver and optimize A-sample batteries for our three JDA partners. Two, begin to transition from A-sample batteries to B-sample batteries, and third, continue to establish supply chains for key materials.

Finally, we try to hold our Second Annual Battery World in December, and hope everyone will be able to join us. Topics of Battery World will include data and performance of our large format cells, AI-based battery health monitoring developments, and further thoughts on our supply chain initiatives. I'll now turn over to Jing Nealis, our Chief Financial Officer to review our third quarter results in Outlook.

Jing Nealis:

Thank you, Qichao. Good afternoon, everyone. Today I will cover our third quarter financial results, and discuss our operating and capital budgets for full-year 2022. In the third quarter, our operating expenses was 21.7 million, increase of 11 million from the same period last year. Staff-based compensation expense was 7.2 million in the quarter. We reported research and development expenses of 8.4 million, increase of 4.7 million from the same period last year. This increase reflects higher personnel costs due to increased head count to support battery style development, increase in software development cost related to our advanced AI software and battery management system, and an increase in lab consumables and material supplies. Our growth R&D spend in the third quarter was 11.5 million, which was offset by 3.1 million reimbursable from our JDA partners, which was treated as contra R&D expenses. Our GNA expenses were 13.3 million, increase of 6.3 million from the same period last year, similar to the second quarter. This increase was primarily driven by higher personnel costs to support our operations as a public company, higher insurance costs, increase in professional fees and all [inaudible 00:12:26], and increase in travel-related expenses.

We incurred a noncash loss of 4.9 million at the end of the quarter associated with change in fair value of our sponsor earnout ability. As we have previously outlined, certain trenches of our sponsor earnout shares are accounted for as

a derivative liability, measured at fair value based on the price of our common stocks at the end of quarter. For full-year 2022, we now expect cash used in operations to be in the range of 55 to 60 million, a reduction from the previously provided range of 70 to 80 million. This reflects a combination of some initial conservatism on our part, and lower spending materials at our pilot line manufacturing. As Qichao highlighted, we're emphasizing quality over quantity. Despite the lower level of spending, we remain focused on improving manufacturing processes, cell performance and quality, developing new materials and training our machine learning models, all are important for us to achieve our goals.

CapEx in the third quarter was 600,000, in line with our expectations entering the quarter. We now expect 2022 capital expenditure to be between 20 to 25 million, found from our previous guidance of 25 million to 35 million. We believe most of the reduction in our forecasted 2022 CapEx spend will be pushed into 2023. Looking at liquidity, our balance sheets remain strong. We ended the third quarter of 2022 with cash and cash equivalent of 395 million, which we continue to believe is sufficient funding to get us to commercialization. Our third quarter and year-to-date cash usage defined as net cash used in operating activities, and capital expenditures was approximately 10.3 million, and 48.5 million respectively. For full-year 2022, we now expect our total use of cash to range between 75 million and 85 million, down from our prior guidance of total use of cash between 95 million, and 115 million. We expect to end the year with North of 350 million of cash. With that, I will hand the call back to Eric.

Eric Goldstein:

Thanks, Jing. We will begin today's Q and A with some questions for you and for Qichao I'll start with Qichao. Qichao, we are starting to provide some data on our large cells, from the table we released in our shareholder letter today, can you give us your perspective on what these numbers mean, and can you talk about what has surprised you positively and negatively?

Qichao Hu:

Thanks, Eric. So we introduced the first 100 amp-hour cell this time last year, at the 2021 Battery World, and then this year, in the past one year we built these large 50 and 100 amp-hour cells. The fact that we built these cells, and then now we are publishing these data is significant, because no one else in the world has demonstrated these large lithium-metal cells, and not only we've demonstrated the ability to build these cells, we also, in the shareholder letter, we published this table that has room temperature, and the density over different power density, also cycle life, and safety. The safety test data are actually from third party, nail penetration, thermal overcharge, and external short-circuit. So we published all this data, and then it was a lot of work to design, build, and then get these cells to these stage, and we literally went through the tunnel of hell to get to where we are today. So that's really exciting, and I think we are far ahead of other companies pursuing lithium-metal because of where we are and what we have demonstrated.

Also, this confirms our initial approach and focus on hybrid lithium-metal. So designing this very high-energy density lithium-metal cell by using a very mature lithium ion manufacturing process, leverage the benefit of the high-energy density of lithium-metal with the mature scalability of the lithium ion manufacturing. So that, to us, is a huge milestone, and then this give us confidence to continue push forward, and then get to B-sample. In terms of what

really surprised me positively, I mean, positively is the fact that we actually solved a lot of these problems. What surprised me negatively, just how hard it was. We thought, "Okay, we had the small cell, the 4 amp-hour cell last year, and then so to go from 4 to a 50, and a 100, we'll just make it larger." I think we definitely underestimated the challenge in the material chemistry, the processing. I think what surprised me negatively, just how hard it was to build these cells, and then get the large cells, the performance of large cells to match the performance of the smaller cells.

Eric Goldstein:

Great. Okay, the next question for Qichao, so we've talked a lot about the supply chain, and I guess, we get a lot of questions, "Why is SES focusing on the supply chain?" Some people might say it's too early for us to be thinking about the supply chain when we are only in the A-sample development stage.

Qichao Hu:

Yeah, and that's a really good point. Typically, supply chain, when you are in C-sample, and SOP and beyond, supply chain is about cost and quality, and you are absolutely right, for us in A-sample, those are not the top concerns now. For A-sample, supply chain is about degrees of freedom, and then how many degrees of freedom we have to improve the performance, and then meet the OEM targets. Our job, our goal for A-sample is to deliver a cell, which is a system that matches the OEM requirements, and then all the problems that we encountered, we really need more and more degrees of freedom to solve the problems. For example, in the past, before 2015, the only thing that we controlled was the electrolytes, and then since then, gradually we started controlling salt, the solvent, separator coating, cathode, cathode coating processing, and then recently anode, even lithium foil itself, and then lithium-metal cell design, cell engineering, equipment, manufacturing equipment, testing equipment, and then the environment, the temperature, the pressure, the charge and discharge rate, how we test these cells.

We just found if we limit ourselves in terms of the number of degrees of freedom that we have to optimize the entire system, we will never meet the OEM targets. But the fact that in the past, we added more components, and we started controlling more aspect of this entire system, both the material and the manufacturing process, and then now we have a lot more degrees of freedom, and we are really able to improve the performance. For example, the data that we showed for the 50 amp-hour cells, if we only controlled electrolyte or cathode, or just separate coating, there's no way we can meet the performance targets. So supply chain for us in A-sample is about degrees of freedom, and then controlling every component, every material, and every step of the entire process so that we can deliver a system, a cell that meets the OEM, the full-blown OEM specs.

Eric Goldstein:

Great, thank you. Next question, and then we'll open it up, it's just for Jing, "Our cash burn has been much less than expected in '22, how much of that would you say is purely just a timing issue?"

Jing Nealis:

Thanks, Eric. So we wanted to be prudent with our cash, and invest it efficiently to make meaningful impact on our lithium-metal cell development, to move forward from A-sample to B-sample in the timeline we expected. As we

highlighted during the call, we'll focus on quality over quantity until we overcome the challenges in the short-term. So CapEx, sorry, so OpEx will grow as we increase production volume at our pilot facilities when our manufacturing process becomes more robust. CapEx is more of a matter of timing, but having said that, with lower level of spending, we are making great progress on all of the aspects of our business, and we remain pretty confident that we have sufficient funding to get us to commercialization.

Eric Goldstein:

Okay, great. Thank you. Daniel, we're now ready to take Q and A. You can please open the lines for questions.

Operator:

Certainly. If you would like to ask a question, please press star followed by one on your telephone keypad. If for any reason you would like to remove that question, please press star followed by two. Again, to ask a question, please press star one. As a reminder, if you are using a speaker phone, please remember to pick up your handset before asking a question. Also, we would like to ask that you limit yourself to one question and one follow up question. We will pause here briefly as questions are registered. The first question comes from Gabe Daoud of Cowen, please proceed.

Gabe Daoud:

Thanks, and good afternoon everybody, thanks for all the prepared remarks, and the questions. I guess, maybe, Qichao, just starting with some of the manufacturing issues that you laid out in your prepared remarks in the letter. One of them was just optimizing pressure distribution over a larger area. I guess, it's a bit self-explanatory, as you scale from 4 to 50, to a 100 amp-hour cells, I guess you'd kind of have to use more applied pressure, but can you, maybe just discuss a little bit more some of the issues there?

Qichao Hu:

Yeah. So in terms of pressure, the total amount of pressure that we apply for the larger cell is around the same as the pressure we apply to the smaller cell, in terms of the value of the cell ... the value of the pressure. But then, because the area is larger, and then in the past, we have a lot of issues with the electrodes, especially the anode, such a large size anode, we were struggling with making the anode uniform, and then separators, and then also filling the cell with electrolyte, and then also soaking that in the uniform way. There was a lot of work to optimize the cell assembly process, the formation process, and then also the pressure that you apply to the cell during formation, during testing.

In the beginning, even though we controlled the value of the pressure, the distribution of the pressure was far from uniform, and then through lots of imagings and customization, then we could find out exactly why it was not uniform, and how not uniform it was. We actually have a dedicated team just focusing on the design of the pressure check the team just on the pressure check. Then we tied that to the formation process, to the cell assembly, and then that really improved the pressure distribution, the uniformity quite a lot.

Other manufacturing challenges, I will say a lot of the manufacturing challenges are due to this large anode, this wide format lithium-metal anode, because no one is really making this at scale. Then we partner with a vendor to get some lithium foil at this width, but then we had to actually apply this onto copper, and then to puncture it out using laser, because we couldn't find a steel die that size that could stay sharp and straight for that size. So we cut anode with laser, but then the laser would actually melt lithium, and then create a lot of copper powder, and then a lot of those got trapped in the cell, in the manufacturing process, so those would also create issues. Since then, we've optimized and improved the line a few times, we've really solved the challenge of the anode punching. I think these are probably the two main challenges that we had, and I think we've made a lot of progress solving those.

Gabe Daoud:

No, that's great. Thanks, Qichao, that's really helpful. Maybe as a follow up, I'll maybe ask just on the policy side. You noted the two big initiatives, I guess, that one in South Korea, and then obviously the Inflation Reduction Act in the US. Could you talk about, maybe the South Korea award, the 1.15 billion of planned investments for batteries, et cetera. Have you disclosed what, maybe SES, what the award has been for you guys? Then on the IRA, just any thoughts there on timeline, and if you're in discussions with your JDA partners on maybe accelerating starting up, or at least planning to start a giga factory here in the US given all the incentives. Thanks guys.

Qichao Hu:

Yeah. So for South Korea, it is really focused on equipment and manufacturing line, and we signed the lease this January. Back in January, it was just really a piece of land in the mountains, and then this September, nine months later we build a facility, the line went in, the 50 amp-hour line actually became ready to use in eight months. So for us, the South Korea facility is really focused on equipment development, cell manufacturing equipment development, optimization, as well as cell assembly process optimization and development.

Then on the IRA, yes, we have already started working with our partners, not just the OEM partners, but also [inaudible 00:29:27] companies, salt producers, even all the way up to refining, and discuss our plans to put capability in North America from the film refining to [inaudible 00:29:43] to produce this lithium anode, and also other key materials like salt, and this high-concentration electrolyte. We are more focused on the materials for now, and then down the road we also plan to add lithium-metal cells once we successfully enter into B-sample.

Gabe Daoud:

Great. Thanks, Qichao.

Qichao Hu:

Thank you.

Operator:

Thank you. The next question comes from Shawn Severson of Water Tower Research. Please proceed. Shawn, your line is now open, you may proceed with your question.

Eric Goldstein:

Daniel, why don't we move on to the next question, and maybe Shawn will hop back in line.

Operator:

Certainly. The next question comes from Winnie Dong of Deutsche Bank, please proceed.

Winnie Dong:

Hi, thank you very much. I wanted to dig in a little bit more on the changes to the vendor partnership, and the manufacturing process that you're alluding to in the shareholder letter, in terms of yielding significant improvement in the cell performance quality. I was wondering if you can dig more into that, in terms of what kind of changes are being implemented.

Qichao Hu:

Yeah, yeah, yeah, sure, sure, that's a very good question. So, in the past we would just buy, for example, the salt, we will buy the separator base film, we will buy the cathode, we will buy lithium foil from the vendor, and then we will build a cell, in terms ... and then all we have from the vendors are just some basic quality assurance summary from the materials. But then we realized that's far from enough, the salt, we have to control the [inaudible 00:31:59], the separator, we actually have to customize it, potentially replacing one of the existing coatings with our coating cathode. We have to optimize it, the cathode coating, the slurry, the mixing process, all that, we really have to control that, if we can't control that, then the final cell will have issues, and we don't know if the issues from the final cell comes from our electrolyte or the cathode material, or the coding process, or the separator. We just don't know where the issues come from because we don't have control of the entire process, even the anode.

We thought the anode, this pure lithium foil, what can you do there? But actually it turned out a lot of the foil, especially for such a wide width, the density is not as dense as narrow width lithium foil, and then when you apply this onto copper foil, we have a lot of challenges. So, in terms of changing this partnership with the suppliers, we go from just a simple supplier relationship, we pay them to buy a fixed product. We actually, now some of the materials, the cathode, the separator coating, the solvent, we make all that in-house, so we know exactly what we put inside. One, is to ensure batch-to-batch quality, but also one day maybe we decided to add a different material, we decided to make a different solvent, we decided to add a different coating, so we can change all these things, even lithium itself. The batch-to-batch quality was so poor from the vendors.

We first improved the quality, and then we actually started adding our own materials, our own process, our own design to lithium, so now we make a lot of these things in-house. Also, a lot of the changes that we make to the materials and the process are trade secret, so we do a lot of that in-house. So having control over all these components and the process, and then that really allows us to develop new materials, and then improve the performance of the cell much

faster, than if we just waited and rely on vendors to supply us these materials. Because the cell is not really a bunch of Lego pieces putting together, and then each Lego is very established, and then you can have the vendors make that, the final spec of the cell is still not finalized.

The spec of each process, and the spec of each material is not finalized, so we really have to get into all these process and materials even for R&D, even for A-sample development, and that's what we started doing in this past year. We really had no choice when we started doing this, and then now the improvement at a cell level, especially these large cell level, is quite impressive. Also, the manufacturing equipment, we actually started making changes to the equipment, to the process, so all this just ... Again, it's about how many degrees of freedom you have, and then how much control you have over this entire system, the more you have, the easier just to actually meet the final specs.

Winnie Dong:

Got it. That's very, very helpful. Thank you so much. So, with this kind of changes that you're alluding to, is that more critical for B-sample and C-sample delivery, or does that impact possibly the A-sample delivery, but your [inaudible 00:36:30] target to achieve that by midyear next year?

Qichao Hu:

So for now we are in A-sample, and then having this control allows us to improve the performance. For example, cycle life under slow charge or fast charge, or different charge rate. If you just buy lithium foil, if you just buy separator with existing coating, maybe you got 300, 400. But if you can make that material in-house, one, you can improve the batch-to-batch consistency, second is, you can actually put your own coating, your own material on top, then you can improve the cycle life by a 100, 200 cycles. For now, all these initiatives are aimed at improving performance, so we meet the full-blown A-sample specs. Then once we actually meet the performance then later in B-sample, C-sample, then these initiatives will become about improving the quality, the consistency, and eventually lowering the cost. But in A-sample, these initiatives are really aimed at improving performance, and broaden our scope of development.

Winnie Dong:

Got it. That's very helpful. If I may, I have a couple more follow-ups, if that's okay? I was wondering if you can also comment on sharing data with some of the other EV companies that are not JDA partners yet. What kind of feedback have you gotten from them? Then, if you can just comment on possibly the interest level.

Qichao Hu:

Yeah. We have a few OEMs in the pipeline that are interested in casting our cells, of course our main focus is on the three OEMs that we have JDAs with. We produce these cells in our Shanghai line, and then we have these standard tests, energy density, cycle life, safety tests, and then we put them in the package. We publish the assembly table in the shareholder letter, and then in the coming weeks we expect to publish more detailed data, the plot for each one.

We show that to all the potential OEMs, and we keep them in the pipeline because now we don't really want to have more A-sample JDAs, because we are already busy enough with the three. Then we want to focus on solving the core

problems, the material problems, the manufacturing, engineering problems, and then once we can solve these problems, then the three A-sample JDAs will move forward to B-sample. Then all the OEMs that we currently have in the pipeline, they can go straight to B-sample, so we will have multiple B-samples. Now a lot of these EV companies are very excited, we keep them in the pipeline so we can focus on delivering for the three OEMs in A-samples, and also really just to have our focus on solving these core technical problems.

Winnie Dong:

Got it. Thank you. Then a more financial related question. On the reduction in the OpEx guidance, is that mainly R&D or SG&A cut in terms of impact? Then I was wondering if you can comment on in terms of the reduction in CapEx, is that more of a push of capital purchase or what's being deferred to make next year? Thanks.

Jing Nealis:

Sure. So on the OpEx side, the reduction is, one, we are being prudent with our cash so we wanted to spend it only on key initiative, and things that are very important for us to move from A-sample to B-sample. Number two, as we mentioned, that currently our focus is to solving the challenges that we have, and focus on quality not quantity. So the material spending to make large 50 and 100 amp-hour cells has reduced comparing to before, because we initially had higher budget to make more cells, but now that we focus on quality so we just make enough for us, and our OEM partners for testing, and then put our resources all onto solving the challenges that Qichao mentioned. So that's pretty much the main drivers of the OpEx reduction.

For CapEx, it's more of a timing, it's a little bit related that we have our Shanghai pilot line operational, and we have our Korean line also operational, serving three OEM partners, and our own development making cells that we need in order to do that. So some of those CapEx spending will incur in 2023. So that's more of a push out in timing.

Winnie Dong:

Got it. Thank you so much for taking my questions, I appreciate it.

Operator:

Thank you. The next question comes from Shawn Severson of Walter Tower Research. Please proceed.

Shawn Severson:

Great, thank you. Can you hear me this time, guys?

Operator:

Yeah. Hey, Shawn, we can hear you.

Shawn Severson:

Great. Sorry, I had a ... Can you hear me this time? Hello?

Operator:

Yeah, we can hear you. Shawn, we can hear you.

Shawn Severson:

I'm sorry, I had a Bluetooth. I'm sorry. I had a Bluetooth failure, I apologize there. My question, Qichao, is around looking at additional opportunities inside that manufacturing and supply chain. There's two parts to it. I'm trying to understand what else there is that you can really target. I mean, are you in the third inning, fifth inning of this? Do you see a lot of things in front of you that you still have room to optimize? Then secondly, are all of these changes scalable? Obviously, I know you manufacture to look at commercial viability, but these things you're doing internally, is there anything we need to think about in terms of how they would be able to scale at higher volume?

Qichao Hu:

On the first question, in terms of additional opportunities, so our focus is on the cell, the final lithium-metal cell, the final system. Then we've developed new [inaudible 00:43:49] line, new solvent coating anode, and then each of this, maybe there are opportunities to provide us, to sell the material to other lithium-metal makers, maybe there are opportunities, but we are really focused on the cell at this point, because that's everything we do, A-sample to B-sample, so delivering this final cell, the final system that needs the specs.

Then, in terms of the second question, scale up, very good question. So, a lot of the new materials, the salt, the solvent, the coating, and the anode itself, currently we started making a lot of these materials in-house, and then between our Boston team, Korea team, so Korea team mostly on the cathode, the manufacturing equipment, and the cell, and the Shanghai team mostly on the electrolytes solvent, anode. So between all three teams, I think we have the best combination of new concepts, new ideas, and also the industrial perspective, that industrial capability to take this last scale, and then quickly develop a process equipment around it.

Then the members of our cell and material scale up teams come from, currently large lithium-ion industries, and also lithium-ion material industries, so we have that perspective. When we do a scale up, we really make sure that we don't do anything that cannot be scaled up. I'm less concerned about that, of course, we will have more issues to solve when we are at A-sample stage, and then later B-sample, C-sample stage because the scales are so different. But fundamentally, these processes that we use for making all these new materials are very scalable.

Shawn Severson:

My second question is, you're talking about non-JDA partners, and really talking with additional OEMs, and going straight to B-samples, what's your sense of the timeframe on this from the evaluation side? Is this something that, because the data's there, you've already gone through this, is there sort of an accelerated cycle relative to what you would normally expect in this? Or is it still, you know, expect it to be long runways to reach those types of agreements?

Qichao Hu:

First of all, our focus is on the three OEMs that we have JDAs with, because we promised them and we really have to deliver, so that's what we focus on. Then, during this development, and different OEMs have different requirements, but the core is actually quite similar, so as we focus on the three OEM A- sample JDAs, we are improving our core capability, materials, cell, engineering capabilities, software. We are improving our core capability, so when we discuss with OEMs in the pipeline we don't need to start where we were, say two years ago, we just show them the latest data that we have. The timeline for new OEMs in the pipeline is definitely a lot more accelerated compared to the three core OEMs that we have A-sample JDAs with. It's just because we've improved our core capability so much, why should we start, say two years ago? We'll just start where we are today, but again, the current focus is on the three OEMs that we have A-sample JDAs with.

Shawn Severson:

Great. Thank you.

Operator:

Thank you. There are currently no additional questions registered at this time, so I will pass the conference back over to the management team for closing remarks.

Eric Goldstein:

We'd just like to thank everybody-

Yup, go ahead.

Qichao Hu:

So I think this past year just was really difficult, and then we went through the tunnel of hell, but I think it's a tunnel of hell that every battery company, every EV company has to go through. We have so many problems, and we're still in that tunnel of hell, but we also learn so much, and we made so much progress so that makes us feel quite good. Please stay tuned, and then we do expect to publish more data and more progress in the coming months.

Operator:

That concludes the conference call. Thank you for your participation. You may now disconnect your lines.