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TEXT version of Transcript

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* Neill P. Reynolds

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* Craig Edward Irwin

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Presentation

Operator [1]

Good evening. Thank you for standing by, and welcome to the Wolfspeed, Inc. Third Quarter Fiscal Year 2022 Earnings Call. [Operator Instructions] Please note, today's call is being recorded. I would like to now hand the conference over to your first speaker today, Tyler Gronbach, Vice President of Investor Relations. Please go ahead.

Tyler D. Gronbach, Wolfspeed, Inc. - Vice President of Investor Relations [2]

Thank you, operator, and good afternoon, everyone. Welcome to Wolfspeed's Third Quarter Fiscal 2022 Conference Call. Today, Wolfspeed's CEO, Gregg Lowe; and Wolfspeed's CFO, Neill Reynolds, will report on the results for the third quarter of fiscal year 2022.

Please note that we will be presenting non-GAAP financial results during today's call, which is consistent with how management measures Wolfspeed's results internally. Non-GAAP results are not in accordance with GAAP and may not be comparable to non-GAAP information provided by other companies. Non-GAAP information should be considered a supplement to and not a substitute for financial statements prepared in accordance with GAAP. A reconciliation to the most directly comparable GAAP measures is in our press release and posted in the Investor Relations section of our website, along with a historical summary of other key metrics.

Today's discussion includes forward-looking statements about our business outlook, and we may make other forward-looking statements during the call. Such forward-looking statements are subject to numerous risks and uncertainties. Our press release today and the SEC filings noted in the release mention important factors that could cause actual results to differ materially, including risks related to the impact of the COVID-19 pandemic.

[Operator Instructions] If you have any additional questions, please feel free to contact us after the call.

And now I'd like to turn the call over to Gregg.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [3]

Thanks, Tyler, and good afternoon, everyone. I hope you and your families are safe and healthy. I'm pleased to report that during the third quarter, we continued to execute on our strategy, delivering strong results and non-GAAP diluted earnings per share despite some macroeconomic disruptions. Last month was an eventful one for the company as we cut the ribbon and opened Mohawk Valley, our fully automated 200-millimeter silicon carbide semiconductor wafer fab. Currently, we are running initial lots and will then transition to product and customer qualification, followed by production shipments. It's an exciting time for us as well as our customers as they can see a huge influx of capacity coming online, enabling them to transition their products from silicon to the more efficient silicon carbide chips. We're delighted to have had Lucid Motors join us for the ribbon-cutting, demonstrating their innovative Lucid Air and highlighting the advantage that they see using silicon carbide technology in their cars.

We also had the opportunity to host some key partners at Mohawk Valley, including Aero Electronics' leadership and some of their key customers. The feedback was very positive, and they are quite impressed with the scale of the facility. Aside from key partners and customers, top policymakers have also come to the site to see firsthand how the new fab will help drive the auto industry's transition from internal combustion engines to electrified powertrains and support innovative power management solutions for the industrial and energy industries. This includes Senate Majority Leader Chuck Schumer, who recently came to our Mohawk Valley fab to showcase what is possible when we invest in American technology jobs in critical sectors of the economy. We were also honored to have New York Governor Kathy Hochul join us last week at the ribbon-cutting. Governor Hochul was our keynote speaker and highlighted the Mohawk Valley's rich legacy of manufacturing and strong work ethic, which she believes will be a key contributor to creating the new silicon carbide valley.

The opening of Mohawk Valley is an important strategic milestone for Wolfspeed and extends our competitive position as a global leader in silicon carbide devices. These exciting developments are made possible by our deep bench of semiconductor leadership and our dedicated team members. I'm very proud of the work we've done so far, and I'm excited to share our progress as we continue to execute on the growing and diversified opportunity ahead of us. We remain committed to our strategy and achieving our long-term growth objectives, and our strong results this quarter are proof of our team's ability to capitalize on this momentum.

With that, I'll turn it over to Neill, who will provide an overview of our financial results for the third quarter and an outlook for the fourth quarter of fiscal 2022. Neill?

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [4]

Thank you, Gregg, and good afternoon, everyone. We delivered strong results during the third quarter as we continue to see increased demand for our silicon carbide solutions.

Starting with our top line performance. Revenue for the quarter came in slightly below the midpoint of our guidance at $188 million, representing an increase of 8.6% sequentially and 37% year-over-year. We delivered our seventh consecutive quarter of sequential revenue growth. While these are strong results, our top line was impacted by COVID-19 quarantine protocols in China, which resulted in partial shutdowns at some of our packaging subcontractors and delays in some of our shipping channels. Absent these shutdowns, we would have met or exceeded the top end of our guidance range for the quarter. We are continuously monitoring the ever-changing COVID environment as we remain focused on timely delivery of products to our customers.

Demand for our power device solutions continues to be strong as evidenced by revenue growth of approximately 87% over the prior year. As Gregg mentioned, our progress at Mohawk Valley is a meaningful step towards increasing power device capacity, and we remain focused on bringing more device capacity online.

For RF devices, we're seeing positive momentum in the communications infrastructure and aerospace and defense markets. From a materials perspective, demand for our 150-millimeter silicon carbide substrate is strengthening as we see increasing demand from our customers, which resulted in strong year-over-year and sequential growth. And we continue to add capacity to serve this strengthening demand.

Turning now to our bottom line performance. Our non-GAAP net loss was $14.3 million or $0.12 per diluted share, at the top end of our guidance range. Our third quarter non-GAAP earnings exclude $52.2 million of expense net of tax or $0.42 per diluted share for noncash stock-based compensation, acquired intangibles amortization, accretion on our convertible notes, project transformation transaction costs, factory optimization start-up costs and other items outlined in today's earnings release.

Third quarter non-GAAP gross margin was 36.3% compared to 35.4% last quarter. Gross margin was slightly above the midpoint of our guidance range as lower-than-expected device revenue due to the China shutdowns drove modest improvements in our product mix. Non-GAAP operating expenses for Q3 were $88.6 million, and our non-GAAP tax rate was 25%. The increase in our operating expenses was largely due to investments in our device businesses and 200-millimeter silicon carbide substrate platform.

For the third quarter, days sales outstanding was 49 days, and inventory days on hand was 159 days. Cash generated from operations was negative $28 million and capital expenditures were $103 million, resulting in free cash flow of negative $131 million. We currently have approximately $1.3 billion of cash and liquidity on hand to support our plans. Additionally, we completed a successful convertible debt offering with the issuance of $750 million convertible senior notes at the end of January. This offering allows us to fund the expansion of materials capacity in Durham campus, an additional fab and back-end capacity to support the steepening demand for silicon carbide solutions we've mentioned previously.

We will continue to be opportunistic from a capital market standpoint to ensure we have flexibility to continue to support our long-term growth path. During the quarter, we incurred start-up costs primarily related to Mohawk Valley totaling approximately $21 million. As we've discussed previously, we originally expected a total of $80 million of start-up costs in fiscal 2022, with the majority of these costs incurred in the second half of the fiscal year as we continue to ramp the fab. At this time, we believe start-up costs will be at approximately the $75 million level by the end of the fiscal year. We provided a non-GAAP adjustment for the start-up costs as well as a reconciliation table in our earnings release.

As Gregg mentioned earlier, we are running initial lots to the fab with plans to qualify customers and eventually ramp revenue. With the official opening of Mohawk Valley at the end of April, we'll improve our ability to meet the steepening demand curve for silicon carbide devices, which will only improve as we continue to ramp production capacity. We are now anticipating net capital expenditures of approximately $550 million this fiscal year versus the previously communicated $475 million. This change is related to the timing of reimbursements from New York State for the Mohawk Valley fab. We now anticipate receiving these reimbursements in the first half of fiscal 2023, and this does not represent a significant change in our fiscal 2022 gross CapEx spend outlook. The construction of this fab is not only a great accomplishment for Wolfspeed, but also has created north of 250 jobs to date for the people of Upstate New York and is attracting future talent from the surrounding universities through our partnerships with SUNY School System and others.

Moving to our outlook for the fourth quarter of fiscal 2022. We are targeting revenue in the range of $200 million to $215 million. We expect revenue growth to be driven by our power business as we continue to increase capacity across the supply chain. Our Q4 non-GAAP gross margin is expected to be in the range of 35.3% to 37.3%. As a reminder, the key to our gross margin transition from the mid-30s to 50% in 2024 is largely based on 3 elements which we have outlined previously: optimizing Durham, transitioning from 150-millimeter to 200-millimeter wafers and driving revenue through Mohawk Valley. We continue to be on track with all 3 of these elements as evidenced by our progress this quarter.

We are also targeting non-GAAP operating expenses of approximately $91 million for the fourth quarter of fiscal year 2022. As we discussed last quarter, we anticipate operating expenses will continue to slowly increase over time due to increased head count in R&D and sales and marketing, but expect this to become a smaller percentage of revenue as we near the middle of the decade. We target Q4 non-GAAP operating loss to be between $20 million and $11 million and nonoperating net loss to be approximately $1.5 million. We expect our non-GAAP tax amount to be a benefit of approximately $4 million. We are targeting Q4 non-GAAP net loss to be between $16 million to $9 million or a loss of $0.13 to $0.07 per diluted share. Our non-GAAP EPS target excludes acquired intangibles amortization, noncash stock-based compensation, project transformation and transaction costs, factory optimization restructuring and start-up costs and other items. Our Q4 targets are based on several factors that could vary greatly, including the situation with COVID-19, overall demand, product mix, factory productivity and the competitive environment.

With that, I will now turn the discussion back to Gregg.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [5]

Thanks, Neill. The ribbon-cutting at our Mohawk Valley fab marks an important milestone for Wolfspeed as we evolve from the leader in silicon carbide technology to a global semiconductor powerhouse. Our investment in a world-class facility positions Wolfspeed to benefit from the secular growth opportunity created by the electrification of the automobile, the improvements in efficiency for industrial end markets and the transition from silicon to silicon carbide across both. This transition to silicon carbide devices is happening faster than we anticipated. In fact, our device opportunity pipeline continues to grow and is now well north of $25 billion and is comprised of approximately 9,000 different projects. More importantly, our sales team continues to do a phenomenal job converting these opportunities into design-ins across a wide range of applications.

Our third quarter design-ins were approximately $1.6 billion, matching our record-setting total from last quarter. Year-to-date design-ins are at $3.8 billion, a 100% increase from the $1.9 billion we recorded in the same period of fiscal 2021. This is a remarkable accomplishment by our sales team. Wolfspeed continues to win business with key partners, though you won't always see them in a press release or hear about them on an earnings call. And this is one of the many reasons why I'm pleased to talk about our new partnership with Lucid Motors, which I mentioned at the top of the call.

Range is a critical success factor for electric cars and played a key role for Lucid Motors as they chose Wolfspeed silicon carbide devices for their Lucid Air. The Lucid Air is able to reach an estimated EPA range of 520 miles, which is the longest range for an electric car on the market today.

The Lucid Air provides another strong example of our ability we convert opportunities in the pipeline. We have secured approximately $8.7 billion of design-ins over the last 3 years, representing a long tail for future revenue. This puts ever-increasing upward pressure on our long-term revenue outlook that we shared with you back at our Investor Day just last year. The progress we've made at the Mohawk Valley fab, paired with another record-setting design-in total for the quarter, demonstrates how Wolfspeed is expanding its market-leading position and driving the transition to silicon carbide devices in the automotive and industrial end markets.

Given this, a top priority going forward is increasing capacity for both materials and devices. Now we'll certainly leverage our existing footprint as much as we can, this includes ongoing expansion of our materials footprint in Durham to maximize material growth while also producing as many devices as we can out of our current fabs in North Carolina and pulling forward some of our fit-out time lines for the Mohawk Valley fab.

Wolfspeed will very likely need to add more materials production as well as consider the construction of another wafer fab. At this point in time, I can't tell you precisely when and where, but it will certainly be sooner than we anticipated back at our Investor Day. Additionally, as we continue to grow, we continue to have the right people in place to help us manage that. I'd like to highlight the tireless efforts of Adam Milton, our Vice President of Operations at Mohawk Valley. Adam is a testament to the strength of our Wolfspeed culture as he started with Wolfspeed upon graduating from college and now runs day-to-day operations at the Mohawk Valley fab. Thank you, Adam, and the entire Mohawk Valley team for everything you've done.

As we continue to make progress on our strategy, we are supported by developments in the broader market. This has been -- there has been heightened conversations throughout the semiconductor industry on the projected growth of the market, with some anticipating the industry to grow to $1 trillion by the end of the decade, with an increasing portion of which will be compound semiconductors or silicon carbide. This is supported by the recent increase in EV offerings in the automotive market, with players including GM and Honda announcing investments in EV technology. Our technology plays a significant role in the automotive EV market, and we will continue to capitalize on this growth as the automotive market moves towards a more efficient future.

The momentum in the marketplace continues, and we will continue to better position ourselves for success. We continue to make significant investments in our capacity, our talent and product offerings to maintain our industry-leading position. I'm confident in our path forward and the significant progress we've made so far. We will continue to execute on our strategy to create a global semiconductor powerhouse here at Wolfspeed. And with that, we'll turn it over to the operator, and we can then begin our Q&A session.

Question And Answer

Operator [1]

[Operator Instructions] The first question today is from the line of Gary Mobley with Wells Fargo Securities.

Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [2]

I wanted to double-click on your comments about customer qualification for products coming out of Mohawk Valley. Perhaps if you can give us a little more details on the time line there, when the qualifications may begin, when qualifications may be fully accomplished in the different end markets, automotive specifically.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [3]

Sure. Thanks a lot, Gary. So as I mentioned in the prepared remarks, we've begun running wafers in the factory. The initial -- hitting some of the initial machines, and we'll be going full flow then after that. The products that we're ramping -- well, the products that we're -- that are in the fab right now are actual real products for customers. So as we transition from this initial flow to our own internal qualification, the customers then will get those products and they'll do their own internal qualifications themselves.

So that's kind of the process. That takes typically a couple of quarters to get through all of that. But I would tell you that our -- a couple of things. One is, recall, we had a pilot line in Albany. So our confidence in the ability to ramp this factory is actually quite high because we've already run product on 200-millimeter wafers through the pilot line. So I think we'll have normal tweaks that we have to do in the factory, but we're not anticipating any big problem as we run full flow material and qualify that material as well.

The second thing that I would say is customers see this fab as a huge benefit to them from a capacity perspective. So typically, there would be -- you're kind of pulling your customer along the way in terms of trying to have them run their qualifications. I think it's going to be the opposite. Customers are asking us for position inside of Mohawk Valley. And that's why I mentioned that the product that we're actually running through the fab right now is a real product that as we then qualify that product, the customers then would, probably in a more expedited fashion, run their own qualification.

And then finally, I think I mentioned it on the last call, but we actually have orders for a product out of Mohawk Valley as we speak. So I think customers are really hoping we can ramp this factory up very, very quickly.

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [4]

And Gary, this is Neill. Yes, just as it translates into kind of the revenue trajectory that we've talked about previously, really no change. So I think we'll start to see revenues start to more substantially come out of the fab as we get into the back half of fiscal '23, so kind of think of that March and June quarter next year kind of as we've talked about previously. And then I think on track for supporting the $1.5 billion plan as we get out to 2024. So all that translates into kind of a trajectory that we talked about previously.

Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [5]

Great. And I had a multipart question as it relates to gross margins. I realize there's a big range in gross margins between the different products and power devices are gross margin-dilutive currently. But -- and specifically to the devices coming out of the Durham facility currently, what sort of trends are you seeing there on the gross margin improvement? And then specific to Mohawk Valley, when would you expect depreciation to start to factor into the P&L?

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [6]

Well, first of all, as we said previously, right now, the cost structure in Durham at 150-millimeter is lower than what you're seeing in Durham versus what we would expect as we start going on 200-millimeter running out of Mohawk Valley. So as we start to grow the revenue and we expect to continue to do that out of Durham here for the next couple of quarters, that puts a little bit of a mix pressure on us from a cost standpoint.

As we transition into Mohawk Valley, we will start to see some depreciation pickup, Gary, as we kind of alluded to. If you look at the P&L now, we've seen roughly $30 million or so a quarter depreciation. And then when we qualify products, as Gregg was talking about, we'll start to see that start to step up as we ship revenue. So early in the start of a fab, naturally, you're going to start to see some depreciation come on just by the nature of it. In our nature, in our position, that depreciation is going to be lower than you would otherwise expect. You have to remember, with the reimbursements that we're getting from New York State as it relates to Mohawk Valley, that's going to help from a depreciation standpoint. So I think the depreciation levels for product coming out of Mohawk Valley will be roughly 30% lower than we would have anticipated previously just because we'll apply some of those reimbursements to those things moving forward. That's kind of how we kind of look at it.

This is obviously something we watch closely and it's contemplated in our plans. And at the end of the day, we see more depreciation coming online, kind of as you alluded to, or representative of capacity coming online. And for us, that's a good thing because with a pretty large increase in the design-ins, we've got very good visibility to fill the fab up as we start to move forward. And we feel really good about that. And that's just a good thing for us and for our customers.

Operator [7]

The next question is from the line of Jed Dorsheimer with Canaccord.

Jonathan Edward Dorsheimer, Canaccord Genuity Corp., Research Division - MD & Analyst [8]

So first question, Gregg, and I guess my dog is trying to chime in. So apologies for that. But I guess first question, Gregg, if we look at the past year or so, you've been consistently kind of besting the top end. And I recognize COVID and the impact of shipping from Malaysia and China and the subcons. I guess the question that I have, though, is we also saw for the first time a flat design-in quarter-to-quarter. So I was wondering if you might be able to provide a bit more color on the cadence of design-in to design win as well as whether or not how we should read through sort of that linkage there, if there is any at all? And then I have a follow-up question.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [9]

Thanks a lot, Jed. So let me just make sure it's crystal clear. The flat design-in the last quarter is a record-to-record. So we're pretty happy with that design-in. And year-to-date, we're 100% higher than we were year-to-date in '21. So we're feeling really, really good about that. Design-ins can go up and down on a quarterly basis. Sometimes, it's just the customer decision comes out 3 days after the end of the quarter. And by the way, it's a pretty rigorous process in terms of calling something a design-in. It's not just a phone call we get from somebody, it's actual document that states that we've won the business. And so it's generally gone through a pretty rigorous state.

The other thing that's kind of interesting, though, Jed, is over the last 3 years, our total amount of design-ins is $8.7 billion over that 3-year period. And a little north of 40% of those design-ins have moved into what we call a design win. And what that is, there's a very clear specification. That means the customer has actually ordered product, represented at least 20% of their first year's anticipated volume. And what that really means, Jed, is that they've ordered product for their initial production ramps. And so when you think about 45% of those customers over the last 3 -- 45% of those opportunities over the last 3 years that are designed in have now moved into initial production ramp, that's actually quite astounding from my perspective. And I think that's what's driving this upward pressure in the steepening ramp that we're having right now.

Jonathan Edward Dorsheimer, Canaccord Genuity Corp., Research Division - MD & Analyst [10]

Got it. That's helpful. I mean it does beg the question, and maybe this is for you or Neill, on the CapEx side of things. I mean, I know you alluded, but just doing that math out, it does seem like if Mohawk's $1.5 billion at full capacity or roughly speaking, you're going to need more soon.

And then as sort of a second part of that CapEx question there, I guess, Neill, if we look at the increase of CapEx for this year, when we were last up there, we saw that the temporary wall was coming down to open up that ballroom. And I know Adam spoke clearly about acceleration of tools. And so while you're not running first silicon yet, I'm just curious, how much of the increase of CapEx, if any, is a function of that acceleration of your ramp there?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [11]

Yes, I'll start and then Neill can give you a little bit more detail. So obviously, in the prepared remarks, we talked about the fact that we would need to be -- we anticipate that we'll be needing to expand our materials operation further than what we're doing right now. And just to kind of base that on materials, we have 1 factory here on campus. We have a second factory that we're expanding on here on campus. And that's happening as we speak.

What we're talking about is a third factory for materials. So -- and we're pretty deep in the thought of how and where and when and so forth. We're not ready to announce that yet, but we're pretty deep down that path. And then in terms of the wafer fab, Neill will get into a little bit more detail, but you're exactly right, the fit out of the factory and the removing of temporary walls and things like that, it's all accelerating versus our previous plan. But we also anticipate that we would be needing another wafer fab sooner than we originally had anticipated. And there's sort of 2 sides to that coin. One is the demand is just simply coming in stronger and our win rate is stronger than we would have originally anticipated. And the second thing is it's just kind of the realization that this next fab is probably going to take longer to build than the original fab, which is all the supply chain issues and the tool lead times and all of that kind of stuff. So it's a combination of that. Maybe I'll let Neill give a little bit more color.

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [12]

Yes. So if you think about the CapEx, one is we mentioned that the CapEx for this year was a bit higher. That's really just related to a timing issue related to reimbursements related to Mohawk Valley this year. So there's reimbursements from New York we anticipated getting in fiscal 2022, kind of the June quarter, and then we'll probably see it in the first quarter or first half of '23. So that's the difference there. However, I will say, when you think about the capacity investments that Gregg is alluding to here, he mentioned some at the prepared remarks in response to your question here, Jed. I think if you look out into 2023, we will likely spend as much or more CapEx as we did this year, and that's really geared at increasing the capacity levels. We just wanted to give kind of an early kind of look at that.

I don't know if it will make a big difference in '23 or even '24. You talked about fitting out the back half of Mohawk Valley. I think that's part of the plan here, to facilitize that and to build it out faster, but we are certainly looking to address that upward pressure that we shared with all of you since we gave you those numbers at Investor Day. So I think you can think about the additional capital being spent really to address materials, Mohawk Valley fab as well as the back end.

As you think about beyond that, getting beyond that, getting to a new fab, I think that's a little bit of a different discussion. I think we're thinking about that. We're evaluating that right now. But I think we'll wait until we get a better view on that going forward to give you kind of an update on what that total picture would look like, probably sometime later in this calendar year, and that's what we're kind of looking at right now.

Operator [13]

The next question is from the line of Samik Chatterjee with JPMorgan.

Joseph Lima Cardoso, JPMorgan Chase & Co, Research Division - Analyst [14]

This is Joe Cardoso on for Samik Chatterjee. So first, can you disclose what percentage of the $1.6 billion design-ins were auto-related? And then as it relates to those auto design-ins awarded this quarter, how should investors think about those -- how those begin to materialize into revenue for Wolfspeed? Specifically, are the auto design-ins being awarded now largely related to revenue beyond fiscal '26? Or can we still expect some of the design-ins this quarter and in future quarters to contribute to revenue in fiscal '26? Or have we kind of hit a point here where most of the design-ins will be for periods beyond the fiscal '26 window?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [15]

Yes. Thanks for the question. I believe our automotive, it was around 70% of the design-ins. So yes, it was around 70% of the design-ins this quarter were for automotive. And in terms of the ramp, typically, automotive customers, when they go from design-in to production, can be anywhere from 4 to 5 years is kind of typical. In electric vehicles, it tends to be a little bit shorter, just simply because of the supply chain of all the various different parts that goes into an electric vehicle is substantially simpler than it is than for an internal combustion engine car.

And then it also depends a little bit on whether it's an established vehicle manufacturer or more of a pure-play electric company -- car company. They have different time lines as well. So it kind of depends. I would say that the design-ins that we hit for the $1.6 billion and the 70% of which were automotive may see some amount of revenue in '26. The substantial portion of the revenue would be beyond '26. But definitely, some of them -- in fact, I know some of them are targeting for inside of '26 for their ramp of production. Some of them are -- some of the car companies are actually inside of that window as we speak.

Joseph Lima Cardoso, JPMorgan Chase & Co, Research Division - Analyst [16]

Got it. And then just quick clarification. You guys mentioned obviously the $10 million or roughly $10 million -- or $10 million revenue headwind this quarter related to the lockdowns in China. Can you just update us on the situation where that stands today and whether you're baking any of that headwind from the disruption in the fourth quarter guide? I mean it doesn't seem like it. I think earlier in the last quarter you guided exiting out a $200 million run rate. So you guys seem on target there. So just curious if there's any lingering disruption from the China lockdowns in your guide.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [17]

Yes, I'll start and then turn it over to Neill. First off, our team did a phenomenal job of trying to minimize the impact. And this was an entire city of 25 million people was -- were locked down. So it was a bit chaotic there towards the end of the quarter. And yes, absent that, we would have been at or above the top end of our range. So it's very, very simple. This was just simply a supply issue associated with the lockdowns in China. The demand remained super strong. So no issue from that perspective.

I would also tell you that our team has done a really phenomenal job of getting a strategy in place for a more robust supply chain that would not be so dependent on these lockdowns there. So I'm feeling like the teams did a really good job of trying to avoid these things or minimize the impact of these things in the future. The situation in China remains quite fluid, I guess, with Beijing now heading into lockdown. And what all that means, I guess, is a little bit up in the air. But maybe I'll have Neill then talk a little bit about what's baked into the quarterly projection.

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [18]

Yes, yes. And as Gregg said, the demand continues to be very strong. The China constrained situation is very much a supply issue. And we're starting to see that demand pick up, and we're starting to see it clear up a little bit. If you look at the guide at the midpoint, that's 10% revenue growth year-over-year, inside of that represents power device revenue increase of well over 100%.

Now thinking about the impact from the kind of China shutdowns in 3Q, you want to think about maybe a high single digits kind of million dollar level of what the impact was. Some of this was related to actual shutdown. So operators or employees were not able to get into factories and actually run product. And some of it was related to just logistics and shipping challenges and getting things through the supply chain. And we surely saw that in late March, and I'd say early April. What this has translated to, I'd say, into 4Q is I think there are still some attendance challenges. I think they've improved. We are seeing some shipping and logistics challenges still, and I think that's really the bigger challenge as we get through the rest of the final quarter here.

And I think you want to think about Q4 as probably a similar impact, some of that high single-digit millions impact that we had to the forecast, similar to what we had in 3Q. It will probably take the rest of the quarter for us to kind of sort through that and understand what the kind of true revenue trajectory is coming out of the quarter as we kind of get into 1Q and kind of get into that September quarter. But right now, demand remains strong. We'll manage through this China situation. And we'll see how much of that we can catch up on. It's difficult to say only because a lot of it was because capacity was just never run, maybe possibly from some of the transitory items as it relates to shipments and logistics and that sort of thing. So we'll have to wait and see.

Operator [19]

The next question is from the line of Craig Irwin with ROTH Capital Partners.

Craig Edward Irwin, ROTH Capital Partners, LLC, Research Division - MD & Senior Research Analyst [20]

So I wanted to start off by asking a question about the pipeline. So you said $25 billion across 9,000 opportunities. Can you confirm for us that this is, with existing products, existing 1.2, 1.7 kV, I guess, 650-volt MOSFETs, not products that are on the road map that I understand. I understand the military have 10 kV MOSFETs. I know this. You've talked about 6,500-volt MOSFETs for utility equipment and some of the industrial applications that could be a really, really good fit there. But can you maybe talk about what this pipeline represents as far as existing versus anticipated products and the diversification of the portfolio over the next couple of years? Should we expect a move towards much higher voltages available commercially for adoption in customer products?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [21]

Thanks, Craig, for the question. The pipeline has a pretty strong bent towards automotive, as we spoke earlier about. And most of those voltage ranges are the 900-volt products or 1,200-volt products, maybe a little bit higher than that. And then there's a range of different resistance requirements across those different products. So it's mostly in that kind of voltage range. We definitely have customers that are looking at grid-type applications or substantially higher voltage-type applications where we've got products and products in our road map for those type applications as well.

And I think as the -- as you know, Craig, as the voltage goes up, the advantage of silicon carbide over silicon also goes up. So I would anticipate that we'd see more and more customers in those higher-voltage applications. I don't think automotive customers are going to get to 10,000 volts. But certainly, the industrial applications, grid applications and things like that, we'd certainly do that.

Craig Edward Irwin, ROTH Capital Partners, LLC, Research Division - MD & Senior Research Analyst [22]

Understood, understood. So my second question kind of touches on your disclosure of the additional silicon carbide -- crystal growth facility that you're expecting to put in place. We have been hearing from some of your largest customers that they could take substantially more wafers if you were able to deliver them. One specifically talked about 20% to 25% as far as sort of actually able to deliver. That seems to suggest to me that there's heavy allocation going on and quite probably a favorable pricing environment for the next round of negotiations for contract extensions. Do you expect the market to stay really tight? Is this something that's accommodative for pricing on wafers for Cree over the next number of quarters?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [23]

Well, thanks, Craig, for the question. And I would say, across the board, the demand for silicon carbide is growing at a rate faster than we originally anticipated. And I think there's many different things that are driving that. I think the efficiency gains that customers get using silicon carbide is now clear. I think the customers who look at it from a system viewpoint realized that paying a little bit more for silicon carbide chips allows them to have a substantially less cost for their system. And that, I think, is a very, very strong viewpoint.

And then I think there's an additional element that's been happening. And that is the silicon industry has been in a bit of a disarray with supply and demand for the last, geez, 2 years, I think. And so customers are trying to figure out what to do about that. And they're trying to, as you can imagine, secure their supply chain.

So what's happening is they're taking this opportunity as they look to redesign their systems to secure the supply chain to reevaluate whether they want to stick with silicon or move to silicon carbide. And more and more of them are just saying, "Well, I can't get the silicon chips, so I'm moving to silicon carbide." So that -- all of that, Craig, is driving demand higher than we originally anticipated. And that's across wafers and it's across devices. So that's why we're pulling in the fit-out of our Mohawk Valley facility. And that's why, if you drive on campus here today, you'll see a bunch of trucks and a bunch of construction going on in what we call Building 10. So this is the building across the street from where we are right now. And we are taking office space and basketball -- previous indoor basketball courts and tracks and things like that and turning them into crystal growth and materials operations. So that expansion is going according to plan.

Neill has said a couple of times on previous calls that we've got unfulfilled demand exceeding our supply to the tune of around $100 million. And so it's -- we're working real hard to grow the capacity as fast as we can. And then from a materials perspective, as I mentioned in the prepared remarks and in even one of the questions, we're also looking at a third site. So we have 2 buildings here on campus, and we're looking at a third building to further expand our materials operation, just simply because the demand is just outstripping the supply. And we see that happening for the foreseeable future.

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [24]

Yes. From a materials perspective, we've actually grown, I think, pretty substantially if you look both over quarters and if you look year-over-year as you go to the midpoint guide here. So we're adding capacity, growing the materials revenue, I would say, pretty handily here right now. And we're adding capacity to try and go close some of that opportunity that Gregg mentioned.

Operator [25]

The next question is from the line of Edward Snyder with Charter Equity Research.

Jack Egan, Charter Equity Research - Associate Analyst [26]

This is Jack Egan on for Ed. I had one and a follow-up. My first is on your outlook for modules versus discrete power devices. So I mean, a few years ago, the silicon carbide device market was pretty small, only a few hundred million dollars. And most of that was discrete Schottky diodes and MOSFETs. But now it seems like demand for modules is growing. So I'm just kind of curious on your stance there. Because in the past, you've talked about Wolfspeed focusing a bit more on the high-end, high-performance segment of the device market, which would maybe suggest a greater emphasis on modules. So how will the mix towards modules trend for both the broader silicon carbide market and then Wolfspeed in particular? And then I have a follow-up.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [27]

I think -- thanks, Jack, for the question. I think it's pretty clear that both modules and device markets are going to grow pretty substantially over the foreseeable future. What percentage are we going to participate in modules versus devices? A little hard to say, but I would say both are going to grow pretty substantially.

With the announcement that we did with -- most recently with Lucid, it's actually a module that we're supplying to them. And so that's obviously a very substantial growth opportunity for us as they ramp their own production and -- but we don't have -- we haven't taken a position that we're only going to do devices or we're only going to do modules or what have you. I think this market is expanding at an extremely rapid rate. And I think it's too early to decide to only go after one aspect of it. So we have a module business that we do with customers. We have device business we do with customers. Some of the customers are interested in doing their own modules, and we're pretty flexible in terms of working with them on that.

Jack Egan, Charter Equity Research - Associate Analyst [28]

Great. That's helpful. And then from your Analyst Day, about 90% of the customers that you gained last year were through distribution. And given how tight the supply of power semiconductors is just across the board, have you seen an uptick in customers coming directly to Wolfspeed to secure future capacity? I mean I know most automotive customers probably already come straight to Wolfspeed and don't go through Arrow or a distributor, but how should we expect the mix of direct and distribution for nonautomotive customers to change over the next year or 2?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [29]

I think, for the broader market, we're going to remain very focused on the partnership we have with Arrow. They have done a phenomenal job of working with supply chain-type challenges, but more importantly, designing us in and getting us designed in with the customer base. They have the world's largest footprint from a sales perspective and an application engineering perspective. They brought I think it was something like 25-ish, 30 customers up to Mohawk Valley 2 months ago, I guess it was, and brought them through the facility. And all of these customers were the broad-based customers. It wasn't -- we didn't have any car manufacturers in that kit. So I think, for the broader market, we remain very focused on expanding our partnership together with Arrow, and that has been fantastic.

In terms of the big customers and the automotive customers, there certainly is a dramatic change that's happened with the car manufacturers over the last 2 years. They've been hit quite hard with the supply issues with silicon. And so what they've learned from that is they need to have direct relationships with the semiconductor players. And in an electric car, the majority of content that goes into an electric car from a semiconductor perspective is in the inverter, which is largely silicon carbide-based. And so we have and I personally have a lot of direct contact with very senior executives from many of the car manufacturers around the world, and they're very interested in our CapEx plan, our expansion plans, our manufacturing plans and so forth.

Some of them want to have direct contracts with us. That is what we announced with General Motors back in October of last year. Some just want to have relationships, but it's -- they've definitely learned from this past 2 years that having a connection with key players in the semiconductor industry, and I think especially in the compound semiconductor industry and silicon carbide, is going to be a real key thing for them going forward.

Operator [30]

The next question is from the line of Pierre Ferragu with New Street Research.

Pierre C. Ferragu, New Street Research LLP - Global Team Head of Technology Infrastructure [31]

Can you hear me fine?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [32]

Yes, we can, Pierre. Hello.

Pierre C. Ferragu, New Street Research LLP - Global Team Head of Technology Infrastructure [33]

Sorry. So I'd like to ask you, so now that the Mohawk Valley fab is up and running, that's the first 200-millimeter fab in the world for silicon carbide, I was wondering how you see the 200-millimeter ecosystem developing globally. So question I have in mind are around in your substrate business, in your wafer business, do you see interest from your clients into your 200-millimeter product? Do you see them asking like wafers to start working on them? And do you have a sense for when you would see other players getting into that form factor?

And then in particular, if you could comment on the recent move -- the recent announcement of Soitec in France who have announced the building of a fab to produce smart SiC wafers. And I was wondering if that's like a project in which you're involved or you're involved through your clients, if you have any perspective on how it's going to affect the overall ecosystem.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [34]

Yes. So Pierre, thanks for the question. I'll start by saying this industry is growing at an extremely fast rate right now. And whenever you have something like that, it always attracts attention and new ideas and so forth. So answering kind of the second question first. We are always looking at different technologies and different possibilities in terms of driving the cost of silicon carbide down. We've got 35 years of experience doing that, and we feel very comfortable with the path that we're taking right now. I'm sure there's going to be a lot of different ideas that are coming in and some of them are going to pan out, some of them are not. But we're really pleased with the path we're taking right now and feel like it's going in the right direction.

And I think, quite frankly, the best compliment that we can get on that is customers are choosing us. So it's $1.6 billion of design-ins this quarter, matching our previous record. So it seems to be coming back to us through what customers are doing in terms of awarding us business, that the path we're on is a good one.

In terms of 200-millimeter, we've got a whole lot of giddyup to do to ramp our own factory. So there's a lot of work going on inside of that. This is the world's first 200-millimeter wafer fab, and we're building the entire ecosystem as we -- right now to be able to support that. In terms of interest from our long-term supply agreement customers, I think across the industry there would be -- there's a lot of interest, certainly, to do that. But right now, we're just focused on trying to drive the cost down of the 200-millimeter substrates and get that ecosystem fine. And after we're done with that, we'll kind of know what the best path forward is.

Operator [35]

The next question is from the line of Ambrish Srivastava.

Ambrish Srivastava, BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst [36]

Neill and Gregg, I just wanted to make sure I got the commentary around the CapEx right. I thought, Neill, you said that fiscal '23 CapEx will be higher than fiscal '22.

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [37]

2023 will be going to be at or above what we spend in fiscal '22, and that's a change and that's to address some of the higher demand that we're seeing.

Ambrish Srivastava, BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst [38]

Right. So that is not inclusive of any additional investments that you would need to make for the second wafer fab?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [39]

That's correct.

Ambrish Srivastava, BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst [40]

Okay, okay. And then, Gregg, if you think about the second wafer fab, is the size, capacity -- and I get the timing that you're not ready to reveal all the details, but how should investors think about the outlay for that in terms of whether the CapEx would be similar in size to what you have undertaken or are spending for the Mohawk Valley?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [41]

The -- so we'll be able to give you a lot more color on that, I think, before the end of this calendar year. We're in pretty deep discussions in terms of where and when and how and so forth. But what I would tell you is this, I would anticipate that the second -- the fab that we just put in place, the Mohawk Valley fab, is the world's largest silicon carbide fab. When we build the next fab, Mohawk Valley will be the world's second largest wafer fab. So the wafer fab that we would be building would be bigger than what we have for -- in Mohawk Valley, and that's just based on the demand we see coming online.

Ambrish Srivastava, BMO Capital Markets Equity Research - MD of Semiconductor Research & Senior Research Analyst [42]

Great. And I'm just going back to something that we have seen occur in the semi industry with the investments 10-plus years ago when ASML was able to get all the investments from the small group of companies. Are you having any discussions with your customers? Because that's a pretty large risk that Wolfspeed is taking. Are you having any conversations with customers, big customers who are willing to step up and underwrite part of that investment?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [43]

Yes. And in fact, we offer customers an assurance of supply program, the Wolfspeed Assurance of Supply Program. That does include -- and same thing with our long-term agreements. That generally includes an upfront deposit that is kind of proportional to the amount of commitment that we're willing to -- that they would like us to do from a capacity perspective. So there is some of that baked into that. And I think that's a big part of it.

I think there's also something that's going to be -- that's widely acknowledged right now is that the governments around the world are very interested in semiconductor fabs in their regions of the world. The U.S. has the CHIPS Act. European has the European Chips Act. There's different countries around the world that are also enticing folks. So I think I would anticipate that there would also be some pretty substantial government support for this next fab that we would be putting in place.

And recall the fab in New York came with $500 million worth of support from the state of New York, who have been absolutely terrific to deal with, by the way. You would think about the fact that we built this fab, we started building the fab 2 years ago, and we took it from a field of mud to a clean-room environment running wafers in 2 years during a pandemic. Couldn't have been done without the very strong support of the State of New York and the various different agencies that were helping us out there. They did a terrific job. But I think government support is also going to be a piece of this equation, if you will. And I think it's going to be -- I think that's going to be a very strong part of it.

Operator [44]

That's all the time we have for questions today. I would like to pass the call back over to Gregg Lowe for concluding remarks.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [45]

Well, thanks, everybody, for taking the time to visit with us today, and we look forward to chatting with you next quarter. Thank you.

Operator [46]

That concludes today's conference call. You may now disconnect your lines.