Wolfspeed, Inc., Q3 2023 Earnings Call, Apr 26, 2023 (EditedCopy)

TEXT version of Transcript

Corporate Participants

* Gregg A. Lowe

Wolfspeed, Inc. - President, CEO & Director

* Neill P. Reynolds

Wolfspeed, Inc. - Executive VP & CFO

* Tyler D. Gronbach

Wolfspeed, Inc. - Vice President of Investor Relations

Conference Call Participants

* Blake Edward Friedman

BofA Securities, Research Division - Research Analyst

* Brian K. Lee

Goldman Sachs Group, Inc., Research Division - VP & Senior Clean Energy Analyst

* Colin William Rusch

Oppenheimer & Co. Inc., Research Division - MD & Senior Analyst

* Edward Francis Snyder

Charter Equity Research - Managing Director and Principal Analyst

* Gary Wade Mobley

Wells Fargo Securities, LLC, Research Division - Senior Analyst

* Jonathan Dorsheimer

William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst

* Matthew D. Ramsay

TD Cowen, Research Division - MD & Senior Research Analyst

* Pierre C. Ferragu

New Street Research LLP - Global Team Head of Technology Infrastructure

* Samik Chatterjee

JPMorgan Chase & Co, Research Division - Analyst

Presentation

Operator [1]

Good evening, and thank you for standing by, and welcome to the Wolfspeed, Inc. Third Quarter Fiscal Year 2023 Earnings Call. [Operator Instructions] Please note, today's call is being recorded.

I would now like to hand the conference over to your first speaker today, Tyler Gronbach, Vice President of External Affairs. Sir, 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 2023 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 2023.

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.

[Operator Instructions] 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. Thank you for joining us today to discuss our latest financial results.

Now before we dive into the details, I want to take a moment to express our gratitude to President Biden, Secretary Raimondo, Governor Cooper and all of those who joined us at our Durham headquarters last month. As an American company, we share the administration's goal of driving U.S. innovation and manufacturing. At Wolfspeed, we are a testament to the power of long-range investments in complex technology. With silicon carbide being rapidly adopted across various industries, our company's mission aligns with the energy efficiency goals of governments across the world, and we are proud to be making a significant impact.

In the last several years, we've gone from being a global leader in silicon carbide materials production to building a vertically integrated semiconductor powerhouse, that started with the expansion of our power devices capacity in the Durham fab and then turning a field of mud in Upstate New York into the world's first 200-millimeter silicon carbide device factory. I'm proud to share that we shipped our first product from the Mohawk Valley fab in the third quarter. While it's a relatively small number of devices shipped to an industrial off-board charging customer, it's an important proof point that we are now producing product on 200-millimeter substrates. We have a meaningful head start in executing our strategy, and the learnings from ramping the new fab will be important as we continue to expand capacity to better support the industry transition from silicon to silicon carbide.

Our focus on vertical integration positions Wolfspeed for a multi-decade growth opportunity. Customer demand is robust as we secured \$1.7 billion of design-ins in Q3. This total reflects a new quarterly record for nonautomotive design-ins, which included a heat pump application and an EV off-board charger. Our cumulative total for design-in secured since fiscal 2020 now totals approximately \$18 billion. Demand is there, and we are continuing to lead the expansion of the silicon carbide market.

My primary focus is on expanding our capacity, especially ramping materials production as it relates to wafer supply to feed Mohawk Valley. For most of our history, our growth was driven by supplying the market with silicon carbide wafers. Now we have a best-in-class fab and we need more materials to feed it.

Producing more silicon carbide epi wafers out of our Durham facility will be the governor of our -- on our Mohawk Valley ramp in the short term, and our longer-term outlook is supported by the ramp of the JP. Neill and I are leaning in directly to support capacity expansion efforts. We've realigned the team with operations leaders now reporting directly to myself and Neill. Missy Stigall is overseeing devices and our wafer fabs, while Adam Milton will lead the materials production for the company. We believe this will provide greater visibility into the ramp of substrates as well as our device footprint expansions.

Our strategic vision and expectations for silicon carbide expansion have not changed. Wolfspeed has a deep moat in the industry with a decades-long runway. But the journey requires focus, persistence and patience. We'll continue to make long-range investments in this complex technology, expanding our capacity footprint with purpose-built facilities for both materials and devices. We believe this is validated by customer demand and increasing investments in silicon carbide across the industry. The world needs more silicon carbide, and Wolfspeed will continue to lead the pack.

Now I'll turn it over to Neill, who will provide an overview of our financial results and an outlook for the fourth quarter of fiscal 2023 and fiscal 2024. Neill?

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

Thank you, Gregg, and good afternoon, everyone. During the fiscal third quarter of 2023, we generated revenue of about \$229 million at the high end of our guidance range, which represents a 6% sequential increase when compared to the \$216 million in the fiscal second quarter of 2023 and growth of approximately 22% year-over-year with power device products growing more than 50% year-over-year. We recognized our initial revenue from our Mohawk Valley fab in the third quarter and continue to expect low single-digit millions of revenue in the fourth quarter with a greater ramp in fiscal 2024. I'll go into more specifics in a few moments, but going forward, we will continue to explore ways to show the underlying economics coming out of Mohawk Valley and its relative margin impacts. As a reminder, Mohawk Valley will dramatically change the dynamics of the business as its scale, automation and wafer size advantages will lower our overall die cost by greater than 50%.

We also saw strong revenue growth from our merchant 150-millimeter silicon carbide substrates as we solved many of the production challenges we had on the taller boules, albeit at higher-than-expected costs. This results in a onetime inventory drain, and we expect revenue levels to return to more steady state run rate levels in fiscal Q4 and beyond.

Additionally, from a power device perspective, as I mentioned last quarter, we now believe that we have achieved full capacity in our Durham wafer fab and almost all future top line growth in power devices will come directly from the Mohawk Valley fab. Looking at RF products, we continue to see weaker demand but within range of our prior estimates.

Moving down the income statement. Non-GAAP gross margin in the third quarter was 32.3% compared to 33.6% last quarter and 36.3% in the prior year period, representing a 400 basis point decline year-over-year. Consistent with our outlook, gross margin was impacted by lower yields and higher costs on our taller 150-millimeter boules. In addition, gross margin was impacted by a heavier mix of high-volume automotive customers running on the smaller 150-millimeter wafers in our Durham fab. As a result of these items, we generated adjusted loss per share of \$0.13 in the fiscal third quarter compared to a loss of \$0.11 a quarter ago and a loss of \$0.12 in the same period last year as revenue growth was offset by lower gross margins and higher investments in OpEx.

Before I discuss our guidance, I will provide a quick overview of our balance sheet position. We ended the quarter with approximately \$2.25 billion of cash and liquidity on our balance sheet to support our growth plans. DSO was 53 days, while inventory days on hand was 162 days. Free cash flow during the quarter was negative \$245 million, comprised of negative \$11 million of operating cash flow and \$234 million of net capital expenditures. We now anticipate net CapEx for fiscal 2023 to be approximately \$775 million, down from our previously announced \$1 billion, primarily due to the timing of facility spend related to the 200-millimeter substrate expansion.

During the quarter, we incurred start-up costs primarily related to the Mohawk Valley fab brand, totaling approximately \$45 million. Moving forward, we expect overall start-up and underutilization costs for

Mohawk Valley to start winding down as we ramp the fab. This included a non-GAAP adjustment for these start-up costs in the reconciliation table in our earnings release.

In terms of our capital needs, we continue to evaluate multiple avenues of additional funding, including upfront customer payments or investments, debt instruments and government funding in the United States and Europe. While we cannot comment on the timing or certainty of any government funding, we believe we have made great progress in this regard. In addition, we believe we need to secure approximately \$1 billion of additional nongovernment financing between now and the end of the calendar year to support an approximate \$2 billion of CapEx in fiscal 2024. The majority of this investment will be for 200-millimeter substrate facility construction and tool capacity both at JP and Tyler City and our Durham campus in North Carolina, with the intention of leveraging this investment to ramp the Mohawk Valley fab as fast as possible.

While we are currently investing a modest amount of design work for the German Saarland fab, we don't expect to see significant facility construction-related CapEx until calendar year 2024 while we await final incentive notification from European authorities. However, we have made good progress on this front and, as of now, expect final notification later this calendar year. We also remind you that our CapEx investments can be highly variable depending on the timing of facility construction, tool lead times, supply chain challenges and other items.

As we look forward to the fourth quarter of fiscal 2023 and beyond, we recognize that, especially recently, there has been variability in our financial performance compared to our forecasted growth trajectory. While predominantly related to the challenges of the timing of the ramp of Mohawk Valley and our 200-millimeter materials production, we recognize the need to help you all assess near-term expectations. As a result, in addition to giving our fourth quarter outlook, I will take a moment to help frame our thinking about fiscal year 2024.

Starting with the fourth quarter of 2023, we are targeting revenue in the range of \$212 million to \$232 million. Our revenue guidance reflects low single-digit revenue from Mohawk Valley, as previously communicated. As I mentioned before, we are essentially capped in Durham from a power device capacity perspective. And going forward, much of the incremental revenue we will generate will be from Mohawk Valley. In addition, as previously mentioned, we will see lower materials revenue related to the onetime inventory drain in 3Q as we improved output on our taller 150-millimeter boules that will not repeat in 4Q.

Our Q4 non-GAAP gross margin is expected to be in the range of 29% to 31% as we continue to work through the cost recovery on the taller 150-millimeter boules, and we shipped our Durham fab mix to higher-volume automotive customers that were initially slated to be produced in Mohawk Valley. We expect non-GAAP operating expenses to be between \$105 million and \$106 million for the fourth quarter of fiscal 2023. We expect Q4 non-GAAP operating loss to be between \$34 million and \$43 million and nonoperating net gain to be approximately \$5 million.

We believe we will realize approximately \$8 million to \$10 million of non-GAAP tax benefit as a result and expect Q4 non-GAAP net loss to be between \$21 million and \$29 million or a loss of \$0.17 per diluted share to \$0.23 per diluted share. Our non-GAAP EPS target excludes acquired intangibles amortization, noncash stock-based compensation, project transformation and transaction costs, factory start-up and utilization costs and other items as outlined in our press release today. As always, our Q4 targets are based on several factors that affect them very greatly, including supply chain dynamics, overall demand, product mix, factory productivity and the competitive environment.

Turning to fiscal 2024. Given that our growth will be governed by how quickly we ramp 200-millimeter substrate capacity and, in turn, the Mohawk Valley fab, we will target fiscal 2024 revenue between \$1 billion to \$1.1 billion. This outlook assumes we achieve 20% capacity utilization at Mohawk Valley by the fourth quarter of fiscal 2024, while our epi materials product line revenues remain closer to current levels as we focus our efforts and resources on ramping 200-millimeter substrates in Mohawk Valley.

Additionally, as a result of the ramp time line and continued focus on customer time lines, as I mentioned earlier, we plan to run more auto-related products at a smaller 150-millimeter diameter in the Durham fab for the foreseeable future to support our customers, which will flatten the gross margin trajectory for the next several quarters until Mohawk Valley reaches critical mass. As we are in the early stages of these critical EV ramps, it is important to support our customer ramp schedules, but it will likely keep gross margin in your

current levels as the Mohawk Valley ramps to higher output levels. That said, as we reached 20% utilization at Mohawk Valley, we would expect the trajectory for gross margin to improve, because the unit economics are significantly more favorable than Durham.

With that, let me pass it back to Gregg for his closing remarks.

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

Thanks, Neill. We recognize there is work to be done against executing on our strategic vision and capacity expansion plans. That said, we are confident that we are on the right path. As Neill discussed, we are adjusting our fiscal 2024 revenue forecast to better reflect the current trajectory for the ramp of the Mohawk Valley fab.

We continue to win business at a solid rate. And a large part of that is due to our investments in capacity and our device quality. As we further our capabilities in vertical integration and continue to innovate, we expect to continue to capture share in our power device product line for automotive as well as industrial and energy applications as the supply of silicon carbide devices continues to expand.

At Wolfspeed, we have an extremely wide moat in an unbelievably attractive industry with decades-long opportunity. We believe we have the best talent, the technology advantage based on our 30-plus years of silicon carbide expertise, and cost advantages as we ramp our 200-millimeter production and design-ins with premier automotive OEMs, Tier 1s and industrial customers. We are the leader in silicon carbide technology and are hyper-focused on expanding our footprint to maintain that lead and are focused on executing our strategy as I know we can.

And now I'd like to turn it over to the operator for any questions you might have.

Question And Answer

Operator [1]

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

Jonathan Dorsheimer, William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst [2]

First question, Gregg and/or Neill. I was wondering, a couple of quarters ago, you sort of flagged the yield issue within 6-inch in terms of the taller boules and now you're kind of calling out the 200-millimeter capacity, so I was wondering if you could help us better understand some of the limitations. Can you clarify if this is a furnace issue, if this is a sort of a bull height or wafer thickness? Or sort of maybe give a little bit more color of what's going on.

And then as part of this question, when you were CRE, I think if memory serves, you went through a similar type of transition with 4-inch to 6-inch. And I'm wondering if you could maybe update on the time lines that you saw sort of thickness, bull height, et cetera, because that would seem like that's an important lever here as a function of -- until you get Siler City up and running. And then I have a follow-up.

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

Okay. Thanks a lot for the question, Jed. Let me frame it this way. First off, we're running wafers right now, 200-millimeter wafers, in the Mohawk Valley. As I mentioned in the prepared remarks, we shipped our first product to an industrial customer, and we're going to ship a couple of million dollars' worth of product this quarter. Our cycle times, our yield, our throughput, initial reliability, all of that out of Mohawk Valley is looking really good. The quality of our crystals and the quality of our substrates as well as the yield in producing those substrates in our materials factory in Durham is also at/or above where we have targeted at this point.

What we're really talking about here is a challenge of scaling, and scaling the materials operation to feed Mohawk Valley. And basically there are 2 things that are basically slowing that down, so to speak. One is

some infrastructure delays that we had things like switchgear and things like that as we expanded in our Building 10 facility in Durham, so basically, supply chain issues with electrical infrastructure here. That's been resolved, and we're now expanding inside a Building 10. And the second is a more methodical approach to growing the capacity, I think that's a prudent point for us to take at this point.

So basically, quality of bulls, quality of crystals, crystal height, number of wafers per bull, all of that kind of stuff in line, material flowing through the factory, doing really well, just simply a delay from an infrastructure perspective and a more methodical ramp.

Jonathan Dorsheimer, William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst [4]

Got it. That's helpful. And then on my second question. It begs the -- I know that -- when you looked at Mohawk Valley, you made a strategic decision to kind of go to 8 versus 6 for all the benefits that you cited in terms of moving to 8. But there were certain customers targeted for Mohawk Valley, and now I know you're talking about moving those to Durham. Could you maybe elaborate on what that means in terms of customer qualification time lines and what this means for that business? Or any of those -- do those customers now think differently in terms of -- obviously, it's a different capacity or are you able to port that over? I would doubt that you can qualify in Durham and then that becomes qualified in Mohawk Valley.

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

Jed, what I would say is, there is a very leaning forward/aggressive approach from our customers in terms of trying to hurry up the qualification of product out of the Mohawk Valley. They see it very, very clearly. The substantial amount of increased capacity out of Mohawk Valley is very much worth leaning forward in terms of taking material from Mohawk Valley. We have customers that have signed up for risk starts in Mohawk Valley ahead of qualification and so forth.

And I think typically, when a -- you're right, when you go through a wafer fab transition, there's typically a sort of dragging the customer along, if you will, as you bring them to the new facility. That is not the case here because the demand for the product is so substantially high that they're really -- look, everyone is kind of lining up and raising their hand to try to get into Mohawk Valley faster. So no change on that at all, Jed.

Operator [6]

Next question comes from Brian Lee of Goldman Sachs.

Brian K. Lee, Goldman Sachs Group, Inc., Research Division - VP & Senior Clean Energy Analyst [7]

I guess the first one just on all this additional granularity and the updates on Mohawk Valley, I appreciate that. But with the target to kind of get to 20% utilization by end of fiscal '24, can you kind of talk about where you'd be targeting or happy with gross margin performance across the business by that point in time? Are we talking about 4 handle when you're at 20% utilization in Mohawk or back to the high 30s? And then just the broader implications of this pushout in Mohawk, the more methodical ramp on -- you do have fiscal '26 and '27 outstanding financial targets in the model, wondering what the implications are for those? And then I had a follow-up.

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [8]

Brian, it's Neill. So yes, so I appreciate the question. So just looking at the kind of -- the staging of gross margin as we move forward, so for 3Q kind of landed within the range. But as you look forward, with some of the delays we're seeing in Mohawk Valley, and as I mentioned earlier, we're just going to run some more of the higher volume automotive customers through Durham to try and support those ramps. We always kind of thought that kind of the '23, '24 time frame, we would see some of these automotive ramps start to come online, and that's exactly kind of what we're seeing. So we've really got to support our customers through this period as we start to get the fab ramped up.

But what that's going to do is, that's going to flatten out margin for the next couple of quarters until we start to see Mohawk Valley start to ramp up. So you kind of think of margin as kind of flattish for the next couple

of quarters. And then as Mohawk Valley starts to see utilization improvement, we'll start to reap the benefits of the margin, the cost structure that you get out of Mohawk Valley as you start to get closer to that 20% utilization mark. So I've said it before, kind of all roads point to Mohawk Valley, both for revenue and margin, I think that's exactly the case here.

Brian K. Lee, Goldman Sachs Group, Inc., Research Division - VP & Senior Clean Energy Analyst [9]

Okay. I guess, and then just any thoughts on bigger picture fiscal '26 and '27, given the change to the viewpoint for '24? And I guess, when do you -- maybe just to cut to the chase, when do you think you can get back to some of your prior gross margin targets? I think you had been talking about like 45% in '24. Is there a chance we see the 40% margin level at all in fiscal '24 at the end of the year, exiting the year?

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [10]

So as you look at -- as it gets to the back half of '24, you can think of some of those targets pushing out. Think about ['25] -- as you start to turn the corner on some of those things, you get north of 20% utilization in Mohawk Valley. But we're not going to do is get like a full guidance update as you think about the long-term model. And the reason for that is, as you get through '24, we start seeing Mohawk Valley start to -- get to a trajectory where we get supply coming from Siler City for 200-millimeter to feed Mohawk Valley. There's a pretty good likelihood we will be able to accelerate out beyond that time frame.

So I wouldn't necessarily take the '24 kind of numbers being somewhat lower than we talked about previously as a reflection on the total plan. I think just a different trajectory, particularly as you get outside of '24, you start seeing some of the Siler City materials come on. You start seeing Mohawk Valley out in that '25, '26 time frame, really be fed and start to see some of the utilization rates pick up. So I think we'll start to see an acceleration outside of '24. I don't see that inside of '24.

Brian K. Lee, Goldman Sachs Group, Inc., Research Division - VP & Senior Clean Energy Analyst [11]

Okay. Excellent. I'll take the rest off-line.

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

Thank you.

Operator [13]

Your next question comes from Gary Mobley of Wells Fargo.

Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [14]

I wanted to revisit something Gregg addressed earlier, and that is the revision to fiscal year '24 revenue. So back in October on Halloween at your Analyst Day, I think the projection was \$1.6 billion in revenue in fiscal year '24, and we've walked that down, I think, for the past few quarters. And at that October Analyst Day, I don't think there was really anticipation of having much contribution from Siler City to support that fiscal year '24 revenue. So I'm just curious where we've seen that 35% reduction in revenue forecast. Is it all just because you're having a hard time ramping specifically in Durham 200-millimeter and now it's a pure contingent on Siler City?

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [15]

Thanks, Gary. And I think it's not so much about Siler City, it's about the timing of the ramp of what we call Building 10. This is where -- on our Durham campus. So bringing up 200-millimeter on the Durham campus back in October was supporting the plan we talked about then. So this is really about the timing of bringing that facility up. So I think it's really 2 things. One is the kind of delay some of the items Gregg talked about earlier around facilities bring up. But the second piece is, I think, really about bringing up a more methodical pace. So you got -- I think you got a little bit of a delay and then I think the curve will take on bringing that up will be very methodical with.

Obviously, we've seen the challenges in bringing up silicon carbide capacity. As we've talked about many times, it's difficult material to work with, and we'll bring it on in a way that we think is in a thoughtful, methodical way to ensure that we bring up that capacity in a reasonable manner.

Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [16]

Okay. And as my follow-up, I wanted to ask about your design-in conversion rate, Gregg, I think you mentioned \$18 billion of cumulative design-ins, \$1.7 billion for the quarter. Does this slower-than-expected ramp in 200-millimeter substrates and related to that, Mohawk Valley, does that reduce the outlook for the conversion rate on these design-ins? And maybe if you can just give us a general sense of how that conversion rate has been trending?

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

Well, the conversion rate is actually, [we've seen] very, very positive. So over the first 3 quarters of this year, we've actually converted \$1.7 billion of design-ins to design wins. So that conversion rate is actually quite good. And so I don't think it slows that down in it at all. In fact, the conversion rate that we've seen over the last couple of years has been substantially stronger than we anticipated or I've seen before. And I think it's a reflection of the demand for the product from a customer's perspective, the demand is pulling in and steepening.

From an electric vehicle perspective, there was an article out a couple of weeks ago that suggests that by 2032, greater than 60% -- and I think they actually said 62% of vehicles in the United States would be electric. And that's substantially faster than anyone anticipated.

You heard us getting designed into heat pumps and to other applications. We actually had a record quarter this year on design-ins for nonautomotive with nearly \$700 million of design-ins just for automotive. So I think the design-in rate continues to be very, very strong. In fact, our design-ins for first 3 quarters of this year are greater than all of last year, and all of last fiscal year was a record and the design-in conversion is happening faster. That obviously puts a lot of stress on customers looking for more product.

And universally, they point to Mohawk Valley. They see a light at the end of the tunnel. They see us running wafers in there right now. They saw that we shipped product out of that facility to a customer. We're going to have a couple of million dollars' worth of revenue out of that facility right now. So while they like more product sooner, they also note that we've invested several billion dollars in the world's largest silicon carbide fab. So there's sort of the proverbial light under the tunnel.

Operator [18]

We now have Matt Ramsay of TD Cowen.

Matthew D. Ramsay, TD Cowen, Research Division - MD & Senior Research Analyst [19]

Gregg, I wanted to kind of backtrack the clock 6 months or so, you guys had the Analyst Day back at Halloween and revised some of the fiscal '24 targets and added the fiscal '27 model at that point. And I guess I'm trying to understand some of the variables around 200-millimeter output to feed Mohawk Valley that were considered then, and I think the bull heightening issue on 150 was already sort of known publicly at that point, and I would imagine you guys had risk-adjusted the 200-millimeter ramp for that. So maybe you could just walk us through, I guess, the chain of events since then that's now allowing Durham on 200-millimeter to ramp more slowly on materials and just what those variables were over the last 6 months and the model was adjusted the last time.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [20]

Thank you. It's very straightforward. Number one is some supply chain issues that we had with infrastructure-type things for the expansion of Building 10. And again, this is switchgear, basic electrical infrastructure, where lead times on the product and capability to get it all in and get it all turned on was just longer than we had anticipated. And in fact, it's lengthened during the time that we were actually in between that October time frame and the beginning part of the year. So it was just -- that's pretty straightforward. The

amount of time it took us to actually get those infrastructure pieces of equipment in and turned on and give certificate of occupancy was longer than we anticipated.

And then the second thing is that we've made a decision to be more methodical and ramp the product in a more methodical way as opposed to just going from sort of [0 to 60] real, real quick, taking it a step at a time. This is a very, very tricky technology. We have great output in terms of quality from the crystal growers right now. We have quite a few crystal growers now turned on in that Building 10 facility. The quality of the crystals, it's really good. The yield that we're getting is really good.

The taller boules challenge that you had referenced on 150-millimeter was actually, in some respects, good to have that problem on 150-millimeter, because we've already kind of designed around that for 200-millimeter, and the team is already working and has already -- essentially solved that problem at 200. And so it's just -- we've just made a decision to -- that things are going really good and to try to go -- to just amp it up too quickly is probably just not prudent. So it's a combination of those 2 things that are driving that.

Matthew D. Ramsay, TD Cowen, Research Division - MD & Senior Research Analyst [21]

Got it. I guess as my follow-up question, it sounds like with the 200-millimeter limitations on how quickly Mohawk Valley will ramp, and you guys have been very clear for a while that the Durham device fab was sort of tapped out in terms of capacity, but it sounds like now prioritizing some of the automotive customers that were going to be served out of Mohawk Valley and pulling some of those devices back to 150 and serving them out of Durham, I guess my question is, if that facility was going to be full before on devices, what happens to the customers that were depending on that capacity that is now going to sort of be backfilled on the automotive side. There were -- if it was going to be full the whole time, presumably, you had customers for all those devices. What's happening there, and what's sort of the ramifications of the non-auto business over the next couple of years from those decisions?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [22]

Yes. Thanks a lot. So essentially, what's happening -- we're not sort of pulling back to Durham. We currently are -- we are shipping product in automotive out of our Durham facility. And the idea would be that we were transitioning it to the New York or Mohawk Valley fab, and that transition is just happening slower is what that is. So it isn't a pulling back to or what have you.

And then essentially, on the nonautomotive customers, we've already shipped our first product out of Mohawk Valley to a nonautomotive customer. We have several of them that are ramping -- and excuse me, that's out of Mohawk Valley, and we have several of them that are ramping out of that. So basically, it's going to create a situation where we've got a supply-and-demand situation that's going to be tight. We're working with customers. Neill and I had personally a meeting with the customer last night talking about this.

So we're working with customers. But again, they see a light at the end of the tunnel. They see that we've got this giant fab coming online and they're working with us to prioritize getting their products out of that fab in New York.

Operator [23]

We now have Samik Chatterjee from JPMorgan.

Samik Chatterjee, JPMorgan Chase & Co, Research Division - Analyst [24]

I guess just to start on the delays here in ramp of Mohawk, I think what you're talking about is more of a 6-month delay relative to earlier sort of your own expectations. And I just I'm wondering with the more methodical approach you're taking to ramping, the materials capacity, as we think about sort of the flow-through of this into the future years, does this sort of mean there's a 6-month delay to all the sort of ramp projections that you had? Or does the more methodical approach really drive a greater delay? Or do you sort of pass the S curve at some point where you say, okay, this is the inflection point, we can catch up to some of our earlier targets because we are now more confident about not having to go slow in terms of this ramp. And I have a follow-up.

Yes, sure. I think it's very much a second one. I think we're seeing a delay now in terms of bringing this on. We want to do it methodically for the exact purpose you just mentioned. So when we get to a certain level of volumes, both in materials and through the fab from a utilization perspective, we'll have the right level of confidence to ramp it faster as time goes on. So I wouldn't say this is a onetime pushout of everything, but I think this is a [thoughtful] approach to making sure we can underpin the capability of our factories. Remember, we're doing something for the first time in many places, our first 200-millimeter silicon carbide fab and ramping 200-millimeter volume all at the same time.

So now what we want to do is just make sure we get that right. And once we get that to certain levels of volume, as Gregg said, we feel good about the fab and we'll adapt from a capability perspective, we feel good about the crystals and the yields and everything else we're seeing from that perspective. So once we have enough volume under our belt, I think we'll be able to accelerate that faster kind of later in the time frame of that kind of outlook.

Samik Chatterjee, JPMorgan Chase & Co, Research Division - Analyst [26]

Okay. Got it. And just as a follow-up, I think the cash burn in the quarter itself was higher than the last couple of quarters with now sort of forecast for next year being similar gross margin and probably OpEx does go up into that time frame. How should we think about cash burn next year, any sort of guidance on that?

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [27]

Yes. So overall, look, right now, we have \$2.25 billion on the balance sheet. As I talked about in the prepared remarks, we're looking to fund another \$1 billion this year, and we've got \$2 billion CapEx plan next year. So I think we'll be in pretty good shape. It probably pushes out the operating cash flow capability out by maybe that same type of time frame until we can accelerate. But I don't see that as moving the needle substantially versus what I just talked about. So I think about it as \$2.25 billion on the balance sheet, with a \$2 billion CapEx plan next year, and we've raised some money between now and the end of the year, and I think we're right on schedule from a funding perspective. And then I think the operating cash flow will get pushed out a bit. But I don't see that being a significant factor in terms of building out what we're trying to do. I think that just keeps us on schedule.

Operator [28]

We now have Edward Snyder of Charter Equity Research.

Edward Francis Snyder, Charter Equity Research - Managing Director and Principal Analyst [29]

Neill, you kind of warned about the delicate process of getting new material fab up and running last quarter, I think, even if it's just across the street from the existing fab, I guess, we shouldn't be surprised by this. But if you're having that kind of a problem with the 200-millimeter expansion in Building 10, why will we see a similar fab greater issues with the massive expansion you're playing for Siler City, which is not across the street from the existing fab? But I know approximately it doesn't have that much to do with it. But from all that you said and all that JP had told us, et cetera, this is obviously very slight changes and a number of different metrics can cause big deviations in what you're actually putting out in terms of wafers. So why shouldn't we expect Siler City to see similar delays? And I have a follow-up.

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [30]

Thanks, Ed. And let's just back up a little bit. So what we're seeing here is the major delay we're seeing is not really related to the crystal grow technology or the 200-millimeter technology really at all. That was really related to electrical infrastructure and building out the facility. That's really what's causing the first stage of the play. After that, it's really about bringing on this thing, like we said methodically, but again, the crystals, the quality, the yields and everything else, all look very, very solid from the first production out of that facility and we anticipate that going forward.

So I think once we prove out kind of Building 10, I think we'll be in good shape to transport that over to Siler City over in time. But I think what we're talking about here is, thinking that same type of methodical approach, we'll ramp this up, and we'll do the same thing as we move over to Siler City. We'll bring that also in the same fashion for the exact reason you mentioned. It is a tricky technology, and you want to make sure, we're watching it very, very closely with the right team overseeing it. And I think that's what the plan we're laying out is designed to do.

Edward Francis Snyder, Charter Equity Research - Managing Director and Principal Analyst [31]

And then we talked at length last quarter about the capacity issues at both RTP and Durham, and it sounds like none of that has changed. I now want to revisit the previous question. I mean you're running -- is it fair to assume that the \$100 million a quarter is about the limit for Durham, plus or minus a bit, I'm assuming that's still a valid estimate. And if it is, and you're now ramping more automotive there, it's necessarily the case that you're shipping less to nonautomotive customers or am I reading that wrong? And if that's the case, is that going to lead to share loss? Is it -- I mean because a lot of industrial customers have a much surer design cycle time so they would be able to maybe go someplace else and redesign the product versus automotive is much longer tail.

So I'm just trying to get my head around the dynamics of occurring at Durham and power devices because you just don't have the capacity anymore to even address the customers you were last quarter.

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

Yes. Thanks, Ed. So one of the key things we're obviously doing is staying very, very close to all of our customers. In fact, we just had 60, I think, industrial customers at the Mohawk Valley last quarter, I believe, taking a look at where we're at in terms of that perspective. And what I would say is, of course, they want more now. But when they look out at the landscape of what's coming down the pipe in terms of capacity, all the eyes keep coming back to the world's largest 200-millimeter silicon carbide fab that is turning on as we speak. We shipped initial product out of it last quarter. We'll do a couple of million dollars this quarter. We're going to get to 20% utilization out of that fab in the end of fiscal '24, which will have pretty significant output.

So if we didn't have anything as close to turning on as Mohawk Valley, I think it would be a much bigger issue. But quite frankly, I think when they look around the world and scout for alternatives, I don't think they see anything quite like what we're doing in Mohawk Valley. So the customers are sticking with us. And the best testament of that is we just delivered \$1.7 billion worth of design-ins in the quarter and over the year -- over the first 3 quarters of this year, \$700 million of that has transitioned to -- actually \$1.7 billion has transitioned to a design win.

And finally, I would say, Ed, this quarter was a record quarter for nonautomotive design-ins. So we're not happy that we're not shipping everything that they're looking for. But I think at the same time, we're also very proud that we -- 4 years ago, we made a decision to build a factory and it's coming online now because the -- have we not done that, we'd have nothing to show them.

Edward Francis Snyder, Charter Equity Research - Managing Director and Principal Analyst [33]

So it sounds like really basically, it's growing plains in an industry that's very tight on capacity all the way around.

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

That's right.

Operator [35]

We now have Colin Rusch of Oppenheimer.

Colin William Rusch, Oppenheimer & Co. Inc., Research Division - MD & Senior Analyst [36]

Just given the dynamic you're just talking about here around tightness is supply and scale, can you talk about how mature the conversations are with incremental customers that may help support some of the CapEx here? Obviously, you guys have had some success with that. But how robust are those conversations at this point?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [37]

I would say, quite robust. We've had a lot of discussions. We've had a lot of wins where customers have put upfront money to help us with our capital needs and the expansion needs, and they see a huge benefit from that. So those are pretty good conversations. They continue to this day. And I think it's something that's probably going to continue for the foreseeable future.

Colin William Rusch, Oppenheimer & Co. Inc., Research Division - MD & Senior Analyst [38]

Okay. And then just turning to OpEx, as you guys look to optimize cash here over the next, call it, 6 to 8 quarters, can you talk a little bit about what you're going to need to spend to support the work that you're doing both with customers and with multiple facilities ramping here and how we should think about that OpEx spend growing? .

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [39]

Yes. Good question. I'm glad you touched on that. Because I think as you think about the expansion activity that we have going on and bringing on this focus on -- especially on the 200-millimeter wafer on Mohawk Valley, et cetera, we have expanded our R&D cost. You saw that reflected in the quarter. We're really investing more in our -- both our products and in ramping Mohawk Valley as fast as we can. So what you're seeing right now are a lot of charge-outs from the fabs on kind of new products. We're going to see -- expect this to pick up again as we move into next quarter and even the next couple of quarters.

As you get into Q1, we'll see kind of our kind of annual merit increases and those types of things, so we'll see kind of a larger step-up as you get into the Q1 quarter and then start to accrete again kind of as we have been as you go out to the end of '24. So that's the way I think about the OpEx as you're thinking about both Q4 and you start to work into '24.

Operator [40]

We now have Vivek Arya of Bank of America.

Blake Edward Friedman, BofA Securities, Research Division - Research Analyst [41]

This is Blake on for Vivek. Just wanted to drill down more into the fiscal '24 guidance because I believe in the past, you guys have given a rough breakout between device and material sales in your long-term target and with the new FY '24 target. Curious if you can break that out again between devices and materials?

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [42]

Yes. So I think what we said is -- power devices are supplied today out of the Durham fab, and that's going to run about [\$100 million] a quarter. That's what it's been capped at that. We saw the RF numbers kind of come down. They've been more or less in line with those expectations, and we'll see the materials business be somewhat muted as we focus on the 200-millimeter wafer. So you can kind of look at this kind of starting point here. We guided last quarter at \$220 million, you add a couple of millions from Mohawk Valley, \$222 million in Q4, and all growth after that will come from Mohawk Valley. So we can kind of get an idea of what the trajectory is and really it's power device growth from here out through the end of '24 is what's represented in those numbers.

Blake Edward Friedman, BofA Securities, Research Division - Research Analyst [43]

Great. Helpful. And then just as a follow-up from a CapEx perspective, I know -- I believe you said it kind of came in under expectations for this year, but just moving forward, kind of at lower revenue levels at this point, I just want to confirm that the plans you laid out at your Analyst Day are still roughly in line with what you're thinking.

Yes. I don't think there's any change to the total build-out or cost of build out or anything like that versus what we talked about. I think we're seeing a little bit slower spend on some of the facilities and structures that we're seeing from a CapEx perspective, particularly on the Siler City project. But I think of that more as timing. We'll see about, like I said in the prepared remarks, about \$2 billion of CapEx in '24. It could be variable depending on a number of things. But the vast majority of that is focused on bringing on 200-millimeter materials substrate capacity to support Mohawk Valley. So that's really where our focus is both from an execution perspective and from an investment perspective, to bring that type of capacity online, again, with the intention of ramping Mohawk Valley as fast as possible.

Operator [45]

And the final question on the line comes from Pierre Ferragu from New Street.

Pierre C. Ferragu, New Street Research LLP - Global Team Head of Technology Infrastructure [46]

So it's going to be the last question. And I'm sorry, I'm going to ask again about like the delay and things like that. But what I wanted to do is really to make sure I understand it at a high level. What I'm understanding is that roughly at the end of this fiscal year, so in a year from now, in June 2024, you'll be about 20% behind schedule compared to what your previous guidance was [meeting]. And it's just because it's taking you maybe about 20% longer to get started in ramping materials production. And I think in the numerous questions we heard about that, you qualified that as being like maybe running 3 or 6 months behind plan.

So I just wanted to make sure at a high level, that's the way we should understand it. Everything is going fine. The yields are fine. Things are just like walking through all what you have to do to run this production capacity is just running 3 to 6 months behind schedule. Is that the right way to think about it?

Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [47]

Yes. Thanks for the question. Yes, I think that's the right way. The goal is to get the utilization of the fab to 20% by the end of 2024, and that's what's baked into the model. And I kind of consider that kind of a risk-adjusted plan because it's got a lot of different moving pieces right now, and we'll have to work through any bumpiness. But I think that accounts for that as we look at that. And as it relates to the 3 to 6 months behind, or whatever you want to call it, I think that's true. I think initially, we had planned kind of in the back half of fiscal year 2023, we would ramp the fab, and we're all we kind out in the June quarter with roughly \$2 million of revenue. So it's probably a little bit -- probably further than that.

Another piece of it is a slope of the ramp, right? We're going to be more methodical in terms of how we bring it up. So I think it's really about -- so if you think about the overall financial impact, that's why it becomes more dramatic than that and maybe pushes out a bit further. But again, it's really this time frame because once you get to that 20% utilization point, and we bring up that level of capacity, we believe as you get out beyond '24, to '25 and '26, it can accelerate again because we'll just have more capability under our belt. It won't be in those early days of building this type of capacity after the first time.

Pierre C. Ferragu, New Street Research LLP - Global Team Head of Technology Infrastructure [48]

Okay. Excellent. And I have a much broader question. I hope it's all right to ask that for you -- to ask that today. You know that in March, Tesla talked about a new architecture for like their low-cost models that would make silicon carbide and silicon, and there has been an interesting debate in the industry and the investment community that -- that's a negative because it's not 100% silicon carbide, so it's not great for silicon carbide. And the other you being, wow, if Tesla is innovating and creating like a way to make silicon carbide even more affordable by mixing it with silicon, it probably expands the addressable market. So I'm sure you've been looking at that. You've had a lot of conversation on that. And so I'd like to hear your perspective on the matter -- this like innovation communicated by Tesla, do you see that as expanding the opportunity in the addressable market or potentially as a risk of like limiting the scope of silicon carbide?

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [49]

Yes. Thanks for the question. Essentially, what we understand this situation is they're focusing on an entry-level car that has a pretty significantly lower power point. When we look at the market for silicon carbide, we take an assumption that there's going to be a certain penetration of electric vehicles in the market and a certain penetration of silicon carbide in the electric vehicle market. And obviously, as we look at entry-level cars, historically, we would say there would be no silicon carbide going into that. So we view this as incrementally expanding the TAM for silicon carbide because it takes silicon carbide down to a level where we weren't anticipating it, being at this entry level, I think they mentioned \$20,000 or \$25,000 type vehicle. So this is a plus.

It's more silicon carbide going into lower power applications. And we have obviously spent a ton of time talking to our customers that are building vehicles that are more midrange in terms of cost perspective. And their view is silicon carbide all the way. So no change from our customers that have been and are designing silicon carbide for sort of the midrange of vehicles. But we view this as a positive. This is silicon carbide now being used in an entry-level vehicle, which is incrementally positive to our assumption.

Operator [50]

I'd like to hand it back to Gregg for any final remarks.

Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [51]

Well, thanks a lot, everybody, for participating in today's call, and we look forward to chatting with you next quarter. Thank you.

Operator [52]

Thank you all for joining. This does conclude today's call. You may now disconnect your lines, and have a lovely day.