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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

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BofA Securities, Research Division - Research Analyst

\* Colin William Rusch

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

\* Edward Francis Snyder

Charter Equity Research - Managing Director

\* Harsh V. Kumar

Piper Sandler & Co., Research Division - MD & Senior Research Analyst

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## Presentation

## Operator [1]

Thank you for joining the Wolfspeed Q4 fiscal 2023 Results Call. I'd now like to turn the call over to Tyler Gronbach, VP of External Affairs of Wolfspeed.

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

Thank you, operator, and good afternoon, everyone. Welcome to Wolfspeed's Fourth Quarter Fiscal 2023 Conference Call. Today, Wolfspeed's CEO, Gregg Lowe; and Wolfspeed's CFO, Neil Reynolds, will report on the results for the fourth quarter and full year of fiscal year 2023. Please note that we will be presenting non-GAAP financial results during today's call, which we believe provides useful information to our investors. 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'll turn the call over to Gregg.

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

Thanks, Tyler, and good afternoon, everyone. As we close out fiscal 2023, we look back, having made significant strides across all areas of our business. Our Mohawk Valley Fab, which is the world's largest fully automated 200-millimeter silicon carbide fab began shipping product and contributing revenue. Last October, we outlined our plans to construct the world's largest state-of-the-art greenfield silicon carbide footprint. Since then, we've secured \$5 billion of the capital necessary to achieve these goals, allowing us to finish out the fit out of Mohawk Valley, expand our materials capacity at Durham, and break ground on the world's largest 200-millimeter silicon carbide materials facility, the JP and Siler City, North Carolina.

Finally, we have made great strides in diversifying our device customer base across the automotive, industrial and energy sectors with flagship agreements with key OEMs and Tier 1s, including Jaguar and Land Rover, Mercedes, BorgWarner and Zeta. We are also continuing to see growth in the traditional industrial and Energy segment as customers make the transition to silicon carbide. We are seeing many opportunities in solar and energy systems, motor drives, UPS, heat pumps, air conditioning and many more. The growth in these segments is primarily driven by the need for higher energy efficiency.

In addition, emerging industrial applications such as e-mobility, electric vertical take-off and landing aircraft are also integrating Wolfspeed silicon carbide within their initial designs to reduce system weight and improve range. From a materials perspective, we were very pleased to secure a long-term wafer supply agreement with Renesas Electronics Corporation, widely recognized as a leader in automotive semiconductor devices. Renesas also understands the importance of having access to silicon carbide technology and have signed a 10-year wafer supply agreement with Wolfspeed. The agreement includes a \$2 billion customer deposit, which is 1 of the largest deposits I have ever seen in my 30-plus years in semiconductors. This will secure a capacity corridor as they began to ramp silicon carbide device production beginning in 2025.

While this agreement is also expected to provide a significant revenue stream over the next decade, it has an even greater significance for the power semiconductor landscape. Securing this key customer was possible because of our forward-thinking investments in material capacity at the Durham campus and with the construction of the JP. We will be uniquely positioned to drive the industry transition from 150-millimeter to 200-millimeter silicon carbide wafers, which will help address some of the supply/demand mismatch, which currently exists today and potentially open up new markets for silicon carbide applications in the industrial and energy sectors.

From a materials perspective, construction at the JP is well underway. Fully built out, the JP will add 10x more capacity compared to our current operations in Durham, significantly increasing the world's total supply of silicon carbide materials. The building foundation is in place, and we've now started construction on the

shell of the building. We remain on track to begin producing wafers at the site in the second half of calendar 2024.

As far as our more immediate strategy to increase 200-millimeter materials production at Building 10 on our Durham campus, we have now installed more than 75% of the crystal growers in that facility. They are currently growing crystals, and we've been very pleased with the yields thus far. As it relates to Mohawk Valley and our device business, we have continued our ramp-up efforts and recorded approximately \$1 million in device revenue out of the fab in fiscal Q4. Silicon carbide is a complex technology that's very difficult to master, and I'm proud of how our team has worked tirelessly to get this ramping device production in a brand-new, highly automated fab. We still have some work to do at Mohawk Valley as we scale device production and expect a modest increase in device revenues in the first half of fiscal 2024 with a steeper increase in revenue beginning in the second half of 2024.

From a device perspective, we are seeing continued strength across our end markets, and we secured approximately \$1.6 billion in design-ins for fiscal Q4. For fiscal 2023, design-ins totaled approximately \$8.3 billion. And the cumulative total now stands in excess of \$19 billion secured in the last 4 years. Our customer wins to date give us the confidence in the growth of our addressable market and our ability to capture meaningful share of the device market between now and the end of the decade. More than anything, we're proud of our role in building greater awareness for silicon carbide. At the same time, the world is realizing the importance of the global semiconductor industry. The secular trends that are driving the adoption of silicon carbide have started to receive widespread public recognition as a truly game-changing technology in the power semiconductor space.

I'll now turn it over to Neil, who'll provide an overview of our financial results and outlook. Neil?

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

Thank you, Gregg, and good afternoon, everyone. Before I discuss the details of our fourth quarter results and outlook for fiscal Q1, I would like to take a moment to outline a couple of changes we are making to the presentation of our financial results. Over the last several years, we have presented preproduction costs primarily at Mohawk Valley as factory start-up costs, which totaled \$160.2 million in fiscal year 2023 and we have reported these costs as part of other operating expense on the income statement.

At each earnings call, we have given an update and outlook for these costs and excluded startup costs from our non-GAAP results. Going forward, we will not exclude these costs from our non-GAAP results and forecast, but we'll identify them in our commentary and in the footnotes to our financial statements and filings. As we transition Mohawk Valley from preproduction to an active production facility in the first quarter of fiscal 2024, these costs will be categorized as underutilization costs and will be part of cost of goods sold. We will no longer exclude startup or underutilization costs from our non-GAAP results. This does not change our long-term outlook for free cash flow generation and corporate non-GAAP gross margins greater than 50%, as we believe that our 200-millimeter silicon carbide technology at scale will provide capacity and cost competitiveness to achieve these profitability levels.

As you recall, for the fourth quarter, we were targeting revenue in the range of \$212 million to \$232 million; non-GAAP gross margin in the range of 29% to 31% and a non-GAAP net loss between \$21 million and \$29 million or a loss of \$0.17 per diluted share to \$0.23 per diluted share. Against that guidance, our fourth quarter revenue was \$235.8 million non-GAAP gross margins of 29% and a loss of \$0.42 per diluted share, which included \$39.5 million of start-up costs or \$0.26 per share primarily related to Mohawk Valley and includes early phase start-up costs related to our materials expansion, primarily for the JP materials facility in Siler City, North Carolina.

In our fiscal Q1 2024 outlook issued in our press release earlier today, we estimate OpEx to be approximately \$120 million, which includes about \$8 million of start-up costs related to our materials expansion efforts. Going forward and in our earnings release today and the Form 10-K we will file later this week, start-up costs will now be shown as a separate line item on our quarterly income statement. I will go further into the quarter-over-quarter operating expense changes in a moment.

In fiscal Q1, as Mohawk Valley continues to ramp production, we expect gross margin at the midpoint of the range to be approximately 14%, which includes about \$37 million of underutilization costs, representing

approximately negative 16% or 1,600 basis points of gross margin. We are making these changes in our presentation to align with the Securities and Exchange Commission, which has clarified its guidance related to non-GAAP measures for public companies. I also want to mention 1 last change moving forward. As you will see in our 10-K when we file up later this week, we have included a breakout of our revenue by each of our 3 product lines, Power products, RF products and materials products. In future quarters, you will see this breakout in our earnings release and Form 10-Qs as well.

Now let me provide more details of the fourth quarter results. As I mentioned above, we closed the year on a strong note, generating revenue of \$235.8 million in the fiscal fourth quarter of 2023, which represents a 3% sequential increase when compared to the previous quarter and growth of approximately 3% year-over-year. This outperformance compared to our guidance is primarily due to favorable timing related to product shipments out of our Durham production facilities. While we will see some variation in our production out of Durham, as I said last quarter, incremental contribution from Mohawk Valley is the primary governor of future revenue growth. As Gregg mentioned, we recognized \$1 million in revenue from Mohawk Valley, while we are still aligned on previous expectations that we will reach 20% utilization out of Mohawk Valley by the end of fiscal 2024, it is important to note that it will be the second half of the calendar year 2024 before we see \$100 million of quarterly revenue from the fab that the 20% utilization would represent. This accounts for the time between fab starts and shipments to our customers.

Moving down the income statement. Non-GAAP gross margin in fourth quarter was 29% compared to 32.3% last quarter and 36.5% in the prior year period, representing a 330 basis point decrease compared to last quarter. Gross margin was impacted by higher costs and heavier automotive mix for customers that were initially slated to be produced out of Mohawk Valley. As we shift to higher levels of production out of Mohawk Valley, we anticipate future improvements in gross margin. We generated adjusted loss per share of \$0.42 in the last -- in the fiscal fourth quarter compared to a loss of \$0.40 last quarter and a loss of \$0.21 in the same period last year.

As I mentioned above, loss per share in the current period was impacted by \$39.5 million of start-up costs related primarily to Mohawk Valley or \$0.26 per share. Before moving to the full year results, I will provide a quick update on our financing initiatives. Less than a year ago, we laid out a \$6.5 billion capital expansion plan and its associated financing strategy. We said we would execute a flexible, low dilution financing plan that would be balanced across 4 pillars, including public, private, customer and government funding. Since that update, we have raised low dilution capital across all 4 of those pillars, securing approximately \$5 billion in the last 9 months and have now fortified our balance sheet to build out the leading silicon carbide manufacturing footprint in the industry.

Moving forward, we will continue to evaluate all avenues as it relates to our capital structure, and remain nimble on future financing as opportunities present themselves. However, securing financing is not our primary objective at this time.

Moving on to full year results for fiscal 2023, revenue was \$922 million, representing a 24% increase when compared to fiscal 2022 due to the strength in both materials and power product lines. Non-GAAP net loss was negative \$180.7 million or negative \$1.45 per diluted share. Non-GAAP net loss excludes \$149.2 million of adjustments net of tax or \$1.20 per diluted share.

Touching on our balance sheet. We ended the quarter with approximately \$3 billion of cash and liquidity on hand to support our growth plans. DSO was 47 days, while inventory days on hand was 172 days.

Free cash flow during the quarter was negative \$455 million, comprised of negative \$52 million of operating cash flow and \$403 million of capital expenditures.

Moving to our first quarter outlook. We are targeting revenue in the range of \$220 million to \$240 million. As we said last quarter, Power device revenue capacity from our Durham fab is forecasted to be approximately \$100 million per quarter and that is subject to some variability, positive or negative, which we benefited from positively in the fourth quarter. This does not change our view on the factory's revenue-generating capability. And in fiscal Q1 and beyond, it will continue to forecast power device revenue capacity out of Durham at approximately \$100 million per quarter. While this will be a modest headwind as we transition from fiscal Q4 2023 to fiscal Q1 2024, it continues to be in line with our forecast. As we've said in

the past, the main driver of future revenue growth for power devices will be the incremental revenue contribution from Mohawk Valley.

We are also expecting gross margin in the range of 10% to 18% with a midpoint of 14%. At the midpoint, this includes approximately \$37 million or negative 1,600 basis points of underutilization costs as we ramp up revenue at Mohawk Valley. We expect underlying gross margin performance, excluding underutilization, to improve modestly in the quarter as we continue to serve more automotive customer mix out of the Durham fab. We are also targeting non-GAAP operating expenses of approximately \$120 million for the first quarter of fiscal 2024 and which is inclusive of \$8 million of start-up costs related to our materials expansion, primarily related to the JP materials facility in Siler City, North Carolina. Excluding start-up costs, OpEx increases quarter-over-quarter are driven by higher employee-related expenses as we move into the new fiscal year.

We expect Q1 net nonoperating expense of approximately \$22 million, which includes the impacts from \$55 million of interest expense, inclusive of the recently completed Apollo term loan and interest charges in connection with our Renesas customer reservation deposit. We expect nonoperating expense to increase as the year progresses as we earn less interest income on our short-term investments as we use that cash to invest in our facilities expansion. We expect Q1 non-GAAP net loss to be between \$94 million and \$75 million. As always, our Q1 targets are based on several factors that affect them significantly, including supply chain dynamics, overall demand, product mix, factory productivity and the competitive environment.

Lastly, we expect capital expenditures to be approximately \$2 billion for fiscal 2024 and continue to expect fiscal year 2024 revenue to be in the range of \$1 billion to \$1.1 billion. With that, I'll pass it back to Gregg.

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

Thanks, Neil. The adoption of silicon carbide is driving the need for more capacity, and we are seeing continuous upward pressure on the demand for both devices and materials. The EV revolution continues to be the driving force of adoption with recent developments further bolstering the EV landscape. Just recently, a consortium of OEMs, including BMW, General Motors, Honda, Hyundai and Mercedes announced their intention to create a new high-power charging network with at least 30,000 chargers in North America to meet the growing demand to charge electric vehicles. The explosive growth in EV production is just to start as the world continues to embrace more energy-efficient technology. As we close out this year and turn to fiscal 2024, we are better positioned strategically, financially and operationally. Wolfspeed wins this generational opportunity because we are vertically integrated, investing in purpose-built facilities and focused on doing so with 200-millimeter silicon carbide substrates. This is validated by Apollo, a global investment firm that saw an opportunity to assist us with our capital requirements and Renesas, who made a decisive commitment to next-generation silicon carbide technology and intends to do so at 200 millimeter.

In closing, I'd like to thank all of our stakeholders for your continued support, and I'm excited for what's ahead. I'll now turn it over to the operator, and we'll take any questions you may have.

#### **Question And Answer**

##### **Operator [1]**

[Operator Instructions] Our first question is from Harsh Kumar with Piper Sandler.

#### **Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [2]**

Greg, I've got 1 for you. It's pretty clear that your future growth of the company lies with Mohawk Valley, so maybe you could talk about what you want to see happen in that fab to ramp that facility, you did \$1 million. I think you were pretty clear in the call, you did \$1 million last quarter, but you're talking about a \$100 million achievement in the second half of 2024. Would that be towards the beginning of second half or towards the end of -- in other words, are we talking March? Or are we talking the June quarter for you to get to \$100 million? And then more importantly, what do you need to see at the fab to get to that kind of a number?

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

Yes. Thanks a lot, Harsh. A couple of things. So first off, in ramping that fab, we obviously have to ramp the materials flowing into that fab. I'll give you a brief update on that. The 200-millimeter crystal growth operation and Building 10 is well on its way in producing excellent quality material, which is translating into very nice -- excellent defect density wafers. Epi, a 200-millimeter is also excellent, and we are ramping that as we speak. And now we're obviously shipping products from the Mohawk Valley fab.

We have 3 products that are currently fully qualified in 200-millimeter for at Mohawk Valley Fab and we have 8 additional products that now pass all reliability testing and are working through the final end of some qualification for that. So that's all in really great shape.

Now as we ramp this up, obviously, the \$1 million of revenue in fab is capable of \$2 billion is kind of early innings of ramping. As we ramp the fab, we'll be dialing in the processes and dialing in the equipment, which will take our yields up to entitlement yield. And as we ramp the fab, that will absolutely may happen. So what I would say is the fact that we're ramping a new 200-millimeter crystal. The fact that the crystal quality is excellent and the quality of defectivity on the wafer is excellent. Combine that with EPIs and really good shape from a process standpoint. And we've got a fab that has 3 qualified devices this early and 8 that have passed reliability gives me great confidence that we're going to be -- that it's fab is going to deliver in the entire supply chain that's going to deliver everything that we expected out of this. In terms of the ramp of the production and the expectation for the amount of revenue. Our expectation is that we'll be at 20% utilization by the June quarter. and I'll let Neil translate that into what you can expect out of revenue.

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

Yes. And just remember, Harsh, as you think about utilization, that's the time frame from the time you actually load the fab -- wafers into the fab from a utilization perspective until you freeze the wafers, put them to the back end and finally shipping to the customer. So somewhat of a delay you'd expect from the time to achieve utilization level. So as we get the 20% towards the end of the year, you wouldn't expect to see the revenue translation of that, as we get a 20% utilization, say, by the June quarter, we wouldn't expect a revenue translation of EPI, the equivalent of \$100 million to be sometime after that sometime in the second half of calendar '24. So first half of calendar fiscal '25 as you think about that time frame. So the sort of timing of the revenue and of the Fab is we did about \$1 million or so last quarter. We'll see a bit of a tick up here in Q1, a modest pickup, I think, again, in 2Q and then a steeper ramp as you get to the back half of the fiscal year into the March and June quarter, and then we should be on our way from there.

#### **Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [5]**

Wonderful guys. Very helpful. And then for my follow-up, so there were customers that were expecting to get product off of Mohawk Valley by now. I know that was part of the original plan. So I guess my question to you is how are you managing those expectations for those customers? And how important is that commitment to the customer for you guys? And more importantly, how are you balancing that such supply-demand gain in the near term as you ramp Mohawk valley?

#### **Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [6]**

Yes. Thanks for that question. Yes. Obviously, near term, it creates an impact with the delay of the ramp of Mohawk Valley. We're doing a couple of things. So first off, you're seeing more automotive shipping out of term. So obviously, we shifted that mix to term. We're obviously engaging with customers and being transparent as to what the expectations are, and we realigned those expectations to be in concert with how we expect to ramp the Mohawk Valley. We're engaged with them on an ongoing basis and in some cases, that's weekly. In some cases, that's nearly daily because there's a lot of communication going back and forth. Many of them have come to Mohawk Valley and they remain very encouraged about the scale of production that we've got coming online. They obviously love it to come online faster. But they really can't see this level of capacity coming online anywhere else. And then you combine that with what we've got going on and what we've been able to execute in Building 10 and what we've got going on with the JP. We've had several customers out of that, and it's just an enormous site and the fact that we're not going vertical and we're intending to be producing product in there around this time next year, actually a little bit earlier than that this time next year, as we see some encouraging -- encouragement toward the -- that capacity is actually coming.

#### **Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [7]**



And then also to add to that, Harsh, I think customers have taken notice that we've done a very good job, just on the financing element here and creating -- giving ourselves the ability to fund a very significant capacity expansion. So when they look forward and see what the opportunity is based on the manufacturing footprint that we're building out and we're funded to build out gives them something to look forward to in terms of our capability to deliver parts out into the future.

#### **Operator [8]**

Our next question is from Jed Dorsheimer with William Blair.

#### **Jonathan Dorsheimer, William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst [9]**

For my first question, I guess, I don't know if Neil or Gregg, you want to address this, but the change in accounting [ bags ], why now? You've spent the past year defending the underutilization in the first quarter that you're out of the gate, you're changing that. So what caused that change and was this driven by your auditors seeing something in the business? Or maybe some color around that would be helpful. And I do have a follow-up.

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

Yes. Sure, Jed. So I think first of all, this is a presentation change only. This doesn't change our business plan or our long-term outlook. We're driving greater than 50% gross margin. It's presentation change in terms of how we want to talk about the financials on a quarterly basis. So a couple of things drove that in terms from a timing perspective. I think as I said in the prepared remarks, we updated our presentation of our results really just to adhere to updated guidance from the SEC. Also, if you think about Mohawk Valley is now transitioning from a preproduction facility to a full production facility, utilization of the fab will start to play a much bigger role in our margin trajectory going forward. So putting those pieces together along with the fact that we're moving into a new fiscal year, just made this kind of the right time to make that transition.

#### **Jonathan Dorsheimer, William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst [11]**

So just to be clear, though, was this your decision to change the presentation? Or I guess I'm going to be getting asked these questions. What drove this? Was it SEC that you couldn't do the underutilization? That's what I'm getting at.

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

Yes. So we -- there's updated guidance from the SEC. We've had correspondence with them. And then upon completion of that, we've decided to make the update to the presentations.

#### **Jonathan Dorsheimer, William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst [13]**

Got it. And then I guess just a follow-up. And there are a bunch of different numbers. So forgive me -- if you can help stitch this together for me. I heard, and if it's true, congratulations that 75% of the growers in Building 10 are operational. Is that correct? And the reason I'm asking that is -- could you help me better understand the sequential guide down in revenues while you're producing more materials to load Mohawk Valley? How should I think about that and then the 6 months pushout in the 20% utilization.

#### **Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [14]**

So from a 20% utilization perspective, I think we're in line with what we thought we would get to 20% by the end of the fiscal year. So I think that's all in line. As we bring out the...

#### **Jonathan Dorsheimer, William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst [15]**

Sorry, I thought you said calendar year on the call. So it is fiscal year '24 for the 20%?

## **Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [16]**

Fiscal -- yes. Yes. So no change to the outlook in terms of the timing of bringing the fab up online up to 20%. So we anticipate getting to 20% utilization by the end of this fiscal year. We continue to see good positive momentum in crystal growth during the Durham campus out of Building 10. We're turning on additional crystal growers. We're seeing positive signs from the yield and the output that we're seeing from that. So that's in pretty good shape. So now it's a matter of bringing the capacity from a substrate perspective up to the fab and beginning the process of bringing up the yields to entitlement, as Gregg mentioned, treating the tools and tuning things in. And that's really what we're working on right now is bringing that fab to capacity. What that means from revenue perspective is we'll see a bit of a tick up towards the wanted revenue. We'll see, again, some pickup in Q2. But as we drive those wafers through the path, we also see a more dramatic pickup in the revenue to get to the back half of the year -- fiscal year.

## **Jonathan Dorsheimer, William Blair & Company L.L.C., Research Division - Group Head of New Energy and Sustainability Vertical & Equity Research Analyst [17]**

So Neil, if that's picking up, though, what's dropping off?

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

So Jed, there's 2 pieces here. So from a Q1 perspective, we saw better performance out of the Durham campus, both I think in power devices out of Durham and materials as well. It was just better performance in the quarter. So what we'll do is we'll forecast that back to the mean, so to speak. So Durham will have some good quarters of good performance. There will be plus or minus. We saw a positive performance last quarter that would be a bit of a headwind as we move into Q1. So that will come back to kind of a mean. But that's what we've always kind of forecast and how we looked at Durham, we went to older campus, an older facility. There's going to be some variation there. It requires maintenance from time to time.

So we'll forecast turn just kind of back to what we've always kind of historically talked about like \$100 million or so order for power devices. And we were ahead of that last quarter. And this quarter, we'll just kind of forecast back to that kind of normal mean. In the meantime then, if you look out to the future, any substantial growth from a revenue perspective really comes from the Mohawk Valley.

## **Operator [19]**

Our next question is from Brian Lee with Goldman Sachs.

## **Unknown Analyst [20]**

This is [ Grace ] on for Brian. I guess my first question, maybe this is more for you, Neil. Just trying to understand the cadence of the start-up and underutilization costs moving through 2024 as you continue to ramp Mohawk Valley and build out Siler City fab. When can we see those costs coming down? And how quickly can they ever go to 0?

## **Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [21]**

Yes, they'll eventually go to 0. Once you get the utilization up to north of, say, 70% or so, you'll see that the [indiscernible]. That's kind of the marker we give so to speak. But I think it is important that I unpack maybe the gross margins a bit to kind of explain these different pieces. So if you look at the midpoint of what we just guided with these presentation changes, gross margin is going to be at about 14% at the midpoint. As I said in the prepared remarks, that's about negative 16 points of impact from underutilization, which represents about \$37 million of impact. So, as you look forward, gross margin expansion is going to be driven really by 2 things. First, as we start driving higher levels of utilization in the fab and a 20% utilization as you look out to the end of the fiscal year, we'll see that \$37 million of underutilization and get down to the low 30s just as we drive more revenue through the business. So that will be a significant positive. So based on the new presentation, utilization will actually be the largest impact on gross margin as we start to move forward.

Now there's a second piece to that as well. Underlying performance, excluding utilization, should improve modestly as well. So as you drive more of the business through Mohawk Valley, we'll start to see the benefits



of those 200-millimeter substrates. And we'll start to see that margin expand as well. So overall, we expect -- as you take a look at both of these areas or these 2 areas, we would expect to get the new presentation basis to the low to mid- 20s from a gross margin perspective as you look at the new P&L up in to the end of the fiscal year.

#### **Unknown Analyst [22]**

Great. That's super helpful. And my second question, just a follow-up to the previous question on the ramp of the Mohawk Valley fab. Now you got like all these financing overhang out the way. Is there any ability to pull forward the Mohawk Valley ramp? Why or why not?

#### **Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [23]**

Look, I think from a Mohawk Valley perspective, if we look across our business, we have a couple of focuses right now. And really what that is, is drive Mohawk Valley to 20% utilization and build out the JP and I think -- if you look across our business today, and you look at the, our employees and our resources. That is our -- those are our 2 main focuses. And we're bringing everything we can to the table everyday to be focused on that and drive that as fast as we can. And that's what you see here in the outlook today.

#### **Operator [24]**

Our next question is from Edward Snyder with Charity (sic) [ Charter ] Equity Research.

#### **Edward Francis Snyder, Charter Equity Research - Managing Director [25]**

Charity Equity Research, give it away.

Guys, Neil, I want to come back to Jed's question here, and I'm kind of confused to be frank. We spent most of last year with all the operational problems talking about the ramp of Mohawk Valley and how your targets were for yields and margins and how you would pro forma out those numbers so we get a good glimpse of -- if it was living up to expectations or not. And it sounds like based on your answer, what Jed said, you were not forced to make this decision by SEC. Correct me if I'm wrong. Did the SEC tell you you had to do this? And If they didn't tell you to do this, why in the very first quarter, we do this, would you now mix it up so that your public report looks just terrible, right? I mean -- and I get to your -- I mean printing in the document, but to be frank, as we've talked about before, 4 quarters in a row of significant disappointments to what expectations have been, have not treated your stock very well, and it doesn't look like it's going to go well tomorrow for you yet. So I'm very curious why would you do this out the gate if it had any discretion and sticking to what you said you would do, just to make it easier to digest what's going on with all these different moving pieces. So maybe you can, first of all, tell me, were you forced to make this decision by SEC?

#### **Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [26]**

First of all, Ed, I think this is a presentation change, we're going to give you the same math and the details that we've given before. So we will be putting non-GAAP presentation, and we'll get the same underutilization start-up cost disclosures as we've always given before. So there's really no change from that perspective.

Secondly, it's our job as a company to comply with SEC guidelines. We had correspondence with the SEC around how to deal with the changes in the accounting and made the decision that we would, based on the updated guidance, that change in the presentation was appropriate.

#### **Edward Francis Snyder, Charter Equity Research - Managing Director [27]**

Will you then in your press release include another set of numbers other than just calling it out and saying without these charges rolled into our COGS, this is what you would have had for both COGS, I mean we can't calculate it obviously, but the stock is going to react to what people see when they look at the press release, and it's going to take a lot of leg work on your part and analyst parts to explain all the different moving parts now that it's not included in the press release. I know it sounds trivial, but as you're going to see

the model, it's not going to be, especially after all these quarters of problems that we have to do this. So other than just calling it out and saying, hey, this is the charges that were rolled into COGS. Are you going to call out this would have been EPS if we didn't have those charges?

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [28]**

Ed, we're disclosing what the impact is on gross margin, and the underlying components and the way that we presented it today, we will do it in the future, we'll be in compliance with the way that is in alignment with the SEC guidelines.

**Edward Francis Snyder, Charter Equity Research - Managing Director [29]**

Okay. And then maybe a question for Gregg. You mentioned that Building 10 is looking good. You've got 75% of it in. I know there's a relatively long delay from the time you put powder in your growth machines to getting revenue out of Mohawk Valley, which is what Building 10 is feeding. But you seem to focus on EPI. I know last quarter, the bottleneck was EPI for 200 millimeters. Is that a no longer a problem? Is that not the bottleneck in Durham? (sic) [ Building 10 ] Is it just growth? Maybe you can just give us -- I'm sorry, in Building 10. Can you just maybe give us a little bit more clarity on how the material side of the business is ramping out the door to Mohawk.

**Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [30]**

I would say both with the Building 10 crystal growth operation is in excellent shape right now. The quality of the crystals is great, and that's translating into very good defect density at the wafer level. Probably is EPI is also very good, and we're ramping that capacity. I would say it's a dramatic bottleneck right now. There are some pinch points, but that's expanding as well. And then we flow materials to Mohawk Valley and on to the fab and then it goes through [ test eye and expected packaging ] and so forth. So pretty -- I would say the as we ramp this fab, there's going to be different pinch points. But I would say right now, there's not a dramatic capacity shortage right now as we ramp towards 20% utilization.

**Edward Francis Snyder, Charter Equity Research - Managing Director [31]**

Great. Okay. So it sounds like the chain is moving along as it should have versus some of the stuff we had in the past? And then Neil real quick. I mean, you had a taller bull problem several quarters ago. And you built a lot of material where the COGS was higher because your yields were lower, and that's working through your revenue line now. Or correct me if I'm wrong, is it already through there? And if it isn't through there, how much of an impact to gross margins was the bull problem in the quarter?

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [32]**

I think from a longer bull perspective of yield, that's mostly behind us, I think we were -- we kind of worked through that during the fourth quarter. So as we move to 1Q, we're seeing more consistent performance from a materials perspective on our 50-millimeter platform. We anticipate to see kind of sustained solid performance from there going forward.

**Edward Francis Snyder, Charter Equity Research - Managing Director [33]**

So you weren't passing any high-cost inventory through revenue this -- in the June quarter.....

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [34]**

It was some in the Q4 quarter, and I think that's behind us now as moving to 1Q.

**Edward Francis Snyder, Charter Equity Research - Managing Director [35]**

Okay. And does that provide any relief? I mean, apples-to-apples, if nothing else changed. I'm just curious how much of an impact it had in the fourth quarter? Do you know ?

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [36]**

Well, if you look at fourth quarter, we were down several points of margin going from 3Q into 4Q. And that was really related to 2 things to call. I would call the quarter somewhat transitional. Really based on 2 pieces. One was working through the yield challenges we got into longer gold. And again, I think we've seen good solid performance from that. The teams done a good job there and we worked through that during Q4. And the other piece with the transition to more automotive output for customers that were originally slated for Mohawk Valley and we're going to feed those out of Durham. So we made that -- started to make that transition as well. So I think what you're seeing in Q4 is kind of a transitional period. We've kind of hit the bottom in terms of managing through those things. And I think from a Durham perspective, we anticipate seeing sustained performance going forward. I think that's reflected in the pickup in gross margin versus Q4 going into Q1 on an underlying basis ex utilization.

**Edward Francis Snyder, Charter Equity Research - Managing Director [37]**

Okay. Okay. And so -- sorry, but it's a confusing quarter, -- so it's safe to say then, as you move into Mohawk Valley and you build more product out of that, you don't have the problems with the 150-millimeter automotive stuff out of Durham. So that improves gross margins. But the 200-millimeter bull -- I'm sorry, the thicker bull problems that had plagued the June quarter or the March quarter are pretty much wound out by the time you get into September and December?

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [38]**

Correct. So we should -- as we -- what we talked about previously is behind us. And as we get more utilization and benefit from 200-millimeter wafers in Mohawk Valley, we'll see more revenue, and we'll see improved margin, we'll see better margin improvement as we look through here.

**Operator [39]**

Our next question is with Vivek Arya with Bank of America.

**Blake Edward Friedman, BofA Securities, Research Division - Research Analyst [40]**

This is Blake Friedman on for Vivek. First, I just wanted to clarify an answer to previous question. Just exiting this year, did you say that the gross margins would be somewhere in the mid-20s. I just want to make sure I heard that right, and it wasn't for the full year.

And then secondly as well, that 50% target that you mentioned that remains unchanged. If I look at the last Analyst Day, I believe you had a 50% to 54% gross margin target in fiscal '27. Is that still the time frame you're working at? Or is that 50% target more aspirational longer term?

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [41]**

I think as you bring the facilities to capacity, you'll be well ahead of any underutilization challenges, obviously, because the facility will be utilized. So over time, it will dissipate. So I think the way you want to think about the timing of the gross margin is as you work into [ '20 ] '24 and 2025, there'll be a bit of an overhang from underutilization. As we start to bring the factories up, we'll start to see that come down somewhat. And then we'll see a faster ramp up in '26 and then to '27 as you start to utilize the factors more and get better substrate capacity both out of the Durham campus and other side of the city and we'll see a trajectory that brings that back up to that level of north of 50% and to get after that '26 and '27 time frame.

**Blake Edward Friedman, BofA Securities, Research Division - Research Analyst [42]**

Great. Helpful. And then just as my follow-up, just kind of thinking from a capacity perspective. I know there's kind of a lot more of a focus of several vendors entering the market with their own internal capacity. There's a growing ecosystem in China as well. So I guess from a supply perspective, both from maybe a material standpoint and a device standpoint, maybe just the growing entrance into the market when from a supply perspective, it starts to become a lot more of a concern.

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

Yes. Maybe I'll take that. Obviously, the silicon carbide market growth is explicit right now. And many of the forecasts are that it's going to have 40%, 50% compounded annual growth rate for quite some time. So that's obviously attracting a lot of new players. We've been at this for a long time. And what I would tell you is that a silicon carbide is a tricky technology, it's very difficult to master. We do have many of our material customers -- have plans to have their own materials capability and they've got different time frames for that. One of them, I think, is expecting to be fully internal by the end of this calendar year. Another wants to be, I think, 40% internal, 60% external over a long period of time. And we have all of that modeled into our plans in terms of revenue. So it's kind of fully expected that there would be more materials capability coming online, and we've got that baked into our plans.

#### **Operator [44]**

Our next question is from Colin Rusch with Oppenheimer.

#### **Colin William Rusch, Oppenheimer & Co. Inc., Research Division - MD & Senior Analyst [45]**

Could you talk a little bit about the magnitude of the OpEx growth that you're expecting through the balance of the year and kind of the key areas of focus for that spend?

#### **Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [46]**

So from an OpEx perspective, excluding the start-up expenses that we'll see, that came right in line with where we expected in Q4. So we'll continue to invest in R&D and anything really that helps us drive Mohawk Valley up to the 20% utilization exiting the year. So that continues to be a major focus for us. We both see, as we get into Q1, we'll see some employee-related expenses as well underlying. And then on top of that, we'll see some of the start-up costs. I think in the prepared remarks, you mentioned about \$8 million from -- primarily related to the JP in Siler City in Q1. So as you look out at the end of the year, we'll see that probably that \$8 million double probably by the time we get to the end of the year. So we'll see some modest pickup in the non start-up pipe expense as we get out of it.

#### **Colin William Rusch, Oppenheimer & Co. Inc., Research Division - MD & Senior Analyst [47]**

And then on the customer side, given this massive agreement that you've signed. Are you starting to see any real change in behavior from some of the other customers in terms of wanting to make sure they have access to supply? Is that dynamic changing? Are folks more willing to put deposits on the table for long-dated contracts. What's the sensibility around all of those dynamics right now?

#### **Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [48]**

Yes. I would say that, that remains a key priority for customers. We've got probably the most important transition that's happened in the auto industry in the last 100 years, which is the demise of the internal combustion engine being replaced by electric vehicles and all the OEMs are very interested in making sure that they're lined up with folks that are installing capacity, building capacity, spending money on CapEx, et cetera. So there's a lot of activity on that. And then I guess you can point to the Renesas deal. This, from my perspective, it's the largest customer deposit either we're seeing \$2 billion for a capacity corridor is quite a commitment. And I think it shows from a Renesas perspective that silicon carbide is an important technology, and it's one that they have really strong access to. So we've got a great partnership. It's a 10-year deal. It's the August supply agreement we've done. And so I would say, yes, there still remains a high level of interest in these sort of upfront capacity [ reservation funds]

#### **Operator [49]**

Our next question is from Joshua Buchalter with TD Cowen.

#### **Joshua Louis Buchalter, TD Cowen, Research Division - Vice President [50]**

I wanted to follow up on a couple of previous ones. So if you're running -- first of all, I think you mentioned the Durham Building 10 is 75% of the furnaces are installed. I guess [indiscernible] installed mean running. And it sounds like you're pretty close to being able to support or having the furnaces installed to support 20%

utilization at Mohawk Valley, but you're not expecting to get there until the June quarter of 2024. Is this sort of the normal cadence of time from furnaces turning on to devices out of Mohawk Valley that we should be expecting going forward?

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

Yes. Basically, yes, Joshua, is the answer to that. And I would point to a couple of different things. We are ramping the production of 200-millimeter crystals. We're ramping the production of turning those into wafers [indiscernible] in process, the FD process and then feeding that all into a brand-new fab. So all of that is kind of coming online. And the fact that we can go from \$1 million worth of revenue to 20% utilized and basically a year is actually pretty good I think.

**Joshua Louis Buchalter, TD Cowen, Research Division - Vice President [52]**

Got it. And then I also want to follow up on some previous comments. Any more details you can give? I guess given on the volatility of 150-millimeter device output at Durham, given how constrained silicon carbide is. I would have expected it to be smooth and just run at full utilization and capacity to generate that \$100 million of revenue pretty smoothly going forward? I guess I'm just surprised by the intra-quarter moves coming out of that site. And I guess should we expect it to remain volatile from here or sort of stay in the \$100 million range.

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [53]**

Yes. I wouldn't call it volatile. I think it's -- as we said, I think, pretty clearly for the last couple of quarters that Durham inside from a power device perspective will be \$100 million plus or minus 5% or 7%, I think, is probably pretty reasonable. It's an older fab. We've got different mixes running through the factory right now. And I think that's what kind of in line with what we had projected previously. So I think just from a good forecasting perspective, I think you're going to see about that level going forward. And then as you think about revenue trajectory for the power device business and generating revenue above that and a meaningful lag would come from Mohawk Valley.

**Operator [54]**

Our next question is from Matthew Prisco with Evercore.

**Matthew Patrick Prisco, Evercore ISI Institutional Equities, Research Division - Associate [55]**

To kick off just on Mohawk Valley, as we look past the 20% utilization rate with Siler City starting to ramp rise to hit 20%. How are you thinking of that cadence? How quickly will you turn -- ramp up that utilization rate at Mohawk Valley? And when do you expect to hit that 30%, 40% level?

**Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [56]**

We are in construction right now on the JP in Siler City, it's going vertical right now. So the shell is kind of going up and the expectation is that in the June quarter, we would begin -- June quarter of next year. We would begin producing 200-millimeter crystals out of that facility. And that lines up pretty nicely with the increase that we would want at that time coming out of Mohawk Valley. Yes, coming from the Mohawk Valley.

Additionally, we have other projects going on here locally in North Carolina that are working on getting more capacity out of our current footprint. And those come in 2 kind of flavors. One is R&D where we've got projects that will get more wafers per crystal run. So obviously, higher throughput for the existing facility. And the second is expansion into a couple of nearby sites and one in Dallas area that are going to help us with expansion. And another way of describing that is giving us a little bit of cushion on the ramp of the JP. So getting a little bit more capability out of our existing and our local facilities.

**Matthew Patrick Prisco, Evercore ISI Institutional Equities, Research Division - Associate [57]**



Interesting. And then I guess, as you think about that ramp, obviously, some delays going on at Durham, what gives you the confidence that that Siler City will be able to ramp on time. Is it just taking a learning here and applying a director that because it's a new fab, maybe a little new process, it's continuing on?

**Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [58]**

So there's a lot of work to be done, and that's for sure. But we are right now tracking to the schedule that I just talked about. We have demonstrated that we can increase our capacity and create 200-millimeter crystal growth machines and are producing them in high quality. So we've already demonstrated that we could sit out a new facility, which is so-called Building 10 here in our campus here. The JP and Siler City, not that far away. So we'll be using the same team to ramp that facility. So I think we've done it once and doing it again, we'll be I would say something we've already learned from.

**Matthew Patrick Prisco, Evercore ISI Institutional Equities, Research Division - Associate [59]**

Got you. And then just quickly on the material side, few changes recently with the Renesas deal competitor announcement? And given your delays that you've seen for now having used more internally. How are you thinking about the material targets that you provided at your last Analyst Day? Are those still right ballpark to think about from a revenue and share perspective? Or have things kind of changed in from your eyes?

**Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [60]**

Well, the 1 thing -- first off, no, we wouldn't be changing the target. So -- but I would say, in between then and now, we've obviously signed up a very big supply agreement with Renesas. And that is now part of our plan. And I would say, as I said in my prepared remarks, the demand right now for silicon carbide, both devices and materials is very, very high.

**Operator [61]**

Our next question is from Natalia Winkler with Jefferies.

**Natalia Sukhotina Winkler, Jefferies LLC, Research Division - Equity Associate [62]**

I wanted to follow up on the Siler City ramp. Could you guys please remind us how large is that JP-related CapEx? What's the kind of the timeline for the entire ramp? And how should we think about any potential depreciation headwind from the JP ramp?

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [63]**

Yes. So from an investment perspective, we've talked about \$2 billion of CapEx this year, let's say, the vast majority of that is related to the build-out at JP. We also have some tools we're putting into Mohawk Valley. We have some materials expansion and back-end semiconductor equipment we're putting in. So I think the vast majority of that would be done here in 2024, which then indicates that to get into 2025, we should be able to start ramping that facility. As you think about the kind of fixed costs or start-up costs, we talked about \$8 million related to that this quarter, it should double by the end of the fiscal year to about \$16 million in Q4 and then you should see some additional increases in '25. But if you bring that on to [ 2020 ] capacity levels, similar to what we just saw in Mohawk Valley that will transition to cost of sales and just be part of our cost of sales moving forward as we transition that factory to production in 2025.

**Natalia Sukhotina Winkler, Jefferies LLC, Research Division - Equity Associate [64]**

Understood. And then for my follow-up, I wanted to ask on the RF business. Could you guys provide some sort of color what you're seeing there and maybe what your expectations are for the next few quarters?

**Neill P. Reynolds, Wolfspeed, Inc. - Executive VP & CFO [65]**

Yes. So from RF perspective, I think the overall kind of environment has been somewhat weak in line with our expectations. We see that kind of flattish year for the first half of the fiscal year with maybe a modest pickup in the back half of the year.



**Operator [66]**

I'd now like to turn the call back over to Mr. Lowe for some final thoughts.

**Gregg A. Lowe, Wolfspeed, Inc. - President, CEO & Director [67]**

Just a couple of final thoughts before we wrap up. We are producing high-quality 200-millimeter substrate that the Durham campus that are yielding well. [indiscernible] Mohawk Valley, which is open for business, generating revenue and beginning to scale. Construction at the JP, our new 200-millimeter materials factory is underway and will pave the way for a substantial increase in supply as demand continues to grow at unprecedented levels. And that is demonstrated by the \$8.3 billion of design ins that we were awarded in fiscal 2023. Finally, we secured \$5 billion of funding in the last 9 months, to ensure we are well positioned to support this multi-decade growth opportunity. We appreciate your continued support and look forward to speaking with you next quarter.

**Operator [68]**

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