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# Advanced Energy Industries, Inc. (AEIS)

Q4 2023 Earnings Call

## CORPORATE PARTICIPANTS

### Y. Edwin Mok

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### Stephen Douglas Kelley

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

### Paul R. Oldham

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

## OTHER PARTICIPANTS

### Joe Quatrochi

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### Krish Sankar

*Analyst, TD Cowen*

### Steve Barger

*Analyst, KeyBanc Capital Markets, Inc.*

### Mehdi Hosseini

*Analyst, Susquehanna International Group*

### Scott Graham

*Analyst, Seaport Global Securities LLC*

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## MANAGEMENT DISCUSSION SECTION

**Operator:** Greetings. Welcome to Advanced Energy's Fourth Quarter 2023 Earnings Call. At this time, all participants are in listen-only mode. A question-and-answer session will follow the formal presentation. [Operator Instructions] Please note, this conference is being recorded.

At this time, I'll turn the conference over to Edwin Mok, Vice President of Strategic Marketing and Investor Relations. Mr. Mok, you may now begin.

### Y. Edwin Mok

*Vice President-Strategic Marketing & Investor Relations, Advanced Energy Industries, Inc.*

Thank you, operator. Good afternoon, everyone. Welcome to Advanced Energy Fourth Quarter 2023 Earnings Conference Call. With me today are Steve Kelley, our President and CEO; and Paul Oldham, our Executive Vice President and CFO. You can find our earnings press release and presentation on our website at [ir.advancedenergy.com](http://ir.advancedenergy.com).

Let me remind you that today's call contains forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially and are not guarantees of future performance. Information concerning these risks can be found in our SEC filings. All forward-looking statements are based on management's estimates as of today, February 6, 2024, and the company assumes no obligation to update them. Any targets beyond the current quarter presented today should not be interpreted as guidance.

On today's call, our financial results are presented on a non-GAAP financial basis unless otherwise specified. Excluded from our non-GAAP results are stock compensation, amortization, acquisition-related costs, facility expansion and related costs, restructuring and impairment charges, unrealized foreign exchange gains or losses and onetime tax benefit. Detailed reconciliation between GAAP and non-GAAP measures can be found in today's press release.

With that, let me pass the call to our President and CEO, Steve Kelley.

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## Stephen Douglas Kelley

President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.

Thanks, Edwin. And to those on the line, thanks for joining the call. Fourth quarter revenue of \$405 million met our guidance, while earnings per share of \$1.24 surpassed our guidance. We delivered record cash flow of \$85 million in the fourth quarter. Over the full year, we delivered record cash flow of \$213 million by maintaining good profitability and reducing inventory. For the full year, we benefited from diversified end market exposure. Even though our semiconductor revenue was down about 20% in 2023, revenue in our other markets stayed flat.

In total, our revenue declined roughly 10% in 2023, a significant improvement over our performance in previous semiconductor downturns. In the semiconductor market, we enjoyed record sales of high-voltage products in 2023. We also achieved record revenue in our service business due to a growing installed base of subsystems in a broader portfolio of services. In our other markets, we achieved record yearly revenue in the Industrial/Medical space and successfully ramped a major hyperscale product to high volume.

Across the company, we launched 20 new platform products in 2023. Many of these platforms are viewed by our customers as game-changers. In semiconductor, we launched eVerest and eVoS for etch and deposition applications. In the Industrial/Medical space, we recently launched NeoPower, our new flagship configurable power platform. We're working closely with our customers to adapt and customize our platform products to meet the specific requirements of high-value application.

We achieved a record number of design wins in the semiconductor, Industrial and Medical markets in 2023. Exciting new products, a motivated sales team and enhanced go-to-market strategies enabled these wins, which are a critical leading indicator of future growth. On the manufacturing front, we took advantage of softer loading to accelerate our factory optimization plan.

We're executing a multiyear plan to consolidate all of our manufacturing into large factories in Southeast Asia and Mexico. Ultimately, we expect this consolidation to improve our manufacturing efficiency and execution, and it's a key part of our effort to move gross margins above 40% in 2025 as markets recover. In the fourth quarter, we completed the closure of two small factories. These closures were in addition to the Shenzhen factory we closed earlier in the year.

Now, I'll provide some color on each of our end markets. Fourth quarter semiconductor revenue increased 3% sequentially to \$191 million, a bit better than expected. In the fourth quarter, shipments of eVerest and eVoS beta units increased sharply, and we are maintaining that strong pace in the current quarter. Customers are eager to evaluate these new technologies, which offer significant yield and throughput advantages for advanced process nodes. Also in the fourth quarter, we delivered an upgraded higher flow version of our MAXstream remote plasma source product.

In the Industrial/Medical market, fourth quarter revenue decreased 6% sequentially to \$109 million. Production ramps of new design wins partially offset macro headwinds. We continued to grow our industrial design win pipeline in the fourth quarter, securing wins in robotics, test and measurement, mil/aero and in indoor farming applications. In the Medical market, we won multiple designs in surgical and diagnostic applications.

During the quarter, we launched our next-generation NeoPower family of configurable power supply. Addressing the need for higher power in a smaller form factor, NeoPower offers best-in-class power density to our Industrial and Medical customers. Investments in the channel and our digital platform are helping to broaden our customer base and are expected to drive future market share gains in the Industrial/Medical space. We are doing a better job communicating our value proposition to customers across all of our markets. When customers buy from AE, they get access to leadership technology, quick-turn customization capabilities, a world-class manufacturing footprint, and long-term service and support.

Moving on to our Data Center Computing and Telecom and Networking markets. Fourth quarter revenue from Data Center Computing customers totaled \$63 million, down 8% sequentially. Softness in the enterprise market was partially offset by the volume ramp of our sole-sourced hyperscale product. Telecom and Networking revenue was \$42 million, up slightly from last quarter on strong year-end telecom shipments.

Looking forward, we see broad-based market weakness in the first half of 2024, followed by second half improvement and further strengthening in 2025. Softening demand in the trailing-edge part of the Semiconductor market, sluggish demand in the Industrial/Medical market, and ongoing weakness in the enterprise computing market are all contributing to a sequentially lower first quarter. Despite these short-term market headwinds, our strategic focus remains unchanged. We will continue to invest in proprietary products and technology, and we will accelerate improvements in our operational efficiency.

Our focus areas for 2024 include, first, maintaining the momentum we built the new product launches and design wins. New products and technologies are at the heart of our plan to grow revenue and share in the coming years. Second, we will continue to broaden our customer base and expand our presence at existing customers. Our new website is the centerpiece of this effort. Since the site went live six months ago, our web traffic and engagement levels have more than doubled. Later this quarter, we will add e-commerce to the website, making it even easier for customers to quickly evaluate our products. Third, we will continue to improve our operational efficiency and optimize our factory footprint. In addition, we will continue to control costs as we did in 2023.

Finally, we have a strong balance sheet and will continue to look for inorganic growth opportunities that make strategic and financial sense. Looking beyond 2024, I remain very confident in our plan to accelerate revenue and earnings growth as markets recover. We are focused on high value markets with a great team of innovative scientists and engineers supported by a highly focused sales, marketing and operations teams.

Paul will now provide more detailed financial information.

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## Paul R. Oldham

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

Thank you, Steve, and good afternoon, everyone. In the fourth quarter, we delivered revenue of \$405 million at the midpoint of our guidance in a tightening environment. Good execution throughout the organization resulted in Q4 earnings of \$1.24 per share at the higher end of our guidance range. In addition, we delivered record operating cash flow of \$85 million and exited 2023 with cash in excess of \$1 billion. As we projected, our backlog returned to a normalized level of \$407 million. Given shorter lead times and the transition of many of our

customers back to utilizing hub or JIT bins rather than direct orders, we expect our backlog to remain around one quarter of revenue going forward.

Now, let me go over our financial results in more detail. Revenue in the Semiconductor market was \$191 million, up 3% sequentially. Product revenue increased quarter-over-quarter to meet end-of-year customer requirements, partially offset by lower service revenue on low fab utilization. Sales into the Industrial and Medical market were \$109 million, down 6% sequentially. As we began to see in Q3, increasing macroeconomic weakness impacted overall demand in Q4, partially offset by revenue from design wins we secured in prior quarters. Data Center Computing revenue was \$63 million, down 8% sequentially. Our business in this market can be lumpy and we continued to benefit from the ramp of the large hyperscale win we reported in Q3, partially offsetting further weakness in the enterprise server market.

Telecom and Networking revenue was \$42 million, up 2% sequentially due to end-of-year shipments to our telecom customers. Fourth quarter gross margin was 35.7%, down 40 basis points sequentially, mainly on less favorable revenue mix. Premiums paid for critical materials approached normalized levels exiting the quarter. Based on the timing of costs flowing through inventory, we continue to expect to see the full benefit to gross margin in the next quarter or so.

Operating expenses were \$95 million, down 2.5% from last quarter and below our plan. Actions we took enabled us to reduce spending while continuing to invest in critical programs. This marks the fourth consecutive quarter that we reduced operating expenses in an inflationary environment. Operating margin for the quarter was 12.3%, down slightly from last quarter on lower revenue. Depreciation for the quarter was \$10 million and our adjusted EBITDA was \$59 million. Non-GAAP other income was \$5.2 million on higher interest income.

For Q1, we expect our non-GAAP other income to be approximately \$4 million to \$5 million. During the fourth quarter, we recognized \$18.1 million in restructuring expenses and impairment charges. This charge reflects actions we are taking over the next several quarters to optimize our factories and ongoing adjustments to our operating cost structure. We believe these actions form the foundation of aligning our infrastructure to achieve our 40% gross margin target.

On a GAAP basis, this quarter we recorded a tax benefit of \$21.7 million, largely due to a gain of \$25.6 million. The gain resulted from the release of a valuation allowance based on tax strategies we implemented to fully utilize previously trapped NOLs. This will also result in a net cash benefit over time. On a non-GAAP basis, our tax rate for the quarter was 14.7%. For 2024, we expect our GAAP and non-GAAP tax rate to be approximately 16%. As a result, fourth quarter non-GAAP EPS was \$1.24.

Turning now to the balance sheet. Total cash increased by \$59 million to over \$1 billion with net cash of \$129 million. In the fourth quarter, we delivered record cash flow from continuing operations of \$85 million, mainly due to lower inventory of non-critical parts, partially offset by investments in strategic inventories of long lead time critical components.

In total, inventory came down \$28 million or 9 days to 116 days, and inventory turns improved to just over 3 times. DSO increased to 63 days from 59 days, largely due to timing of revenue and DPO increased a day to 49 days. As a result, net working capital decreased sequentially from 136 to 130 days. During the quarter, we invested \$14 million in CapEx and made debt principal payments of \$5 million and paid \$3.8 million in dividends.

Before I move on to guidance, let me briefly review our full year results. In 2023, we delivered revenue of \$1.66 billion, down 10% year-over-year. Semiconductor revenue declined 20% on the market cycle, but we outperformed many of our semi subsystem peers through the diversity of our portfolio.

Non-semiconductor revenue in aggregate was flat year-over-year, with record revenues in the Industrial and Medical and Telecom and Networking markets offsetting market headwinds in Data Center Computing.

During the year, we saw improvement in material costs and we accelerated actions to optimize our manufacturing footprint and improve efficiency. As a result, despite lower volume, our 2023 non-GAAP gross margin only declined by 90 basis points year-over-year to 36.1%. In addition, we reduced our operating expense base with our year end exit rate down 6% from Q4 of 2022 in a highly inflationary environment.

Overall, 2023 non-GAAP earnings were \$4.88 per share, and adjusted EBITDA was \$245 million. For the full year, cash flow from continuing operations was a record \$213 million.

We invested \$61 million or 3.7 percent of revenue in CapEx, and we expect CapEx to continue to run at approximately 4% of sales as we execute our plan to optimize our footprint and scale the company in preparation for growth in 2025.

Turning now to our guidance. While our first quarter outlook reflects further market weakness, we are seeing some early signs suggesting market conditions will improve as the year progresses.

In Semiconductor, we expect revenues in Q1 to be down high single digits on slower trailing edge demand, with revenues improving in the second half, driven by investment in leading edge logic and incremental memory spending.

We expect Industrial and Medical revenues in the first quarter to decline mid-teens sequentially, as customers and distributors are very cautious in the near-term. However, we expect improved market conditions and revenues from new opportunities to drive sequential growth later in the year.

We expect Data Center Computing revenues to be down mid-20% sequentially, as digestion of large programs we ramped in the second half of 2023 and ongoing weakness in the enterprise market impact revenues in the first half. However, we expect new wins and investments in AI applications to support some market recovery towards the second half of the year.

Lastly, we continue to expect our Telecom and Networking revenue to normalize to roughly \$30 million a quarter within the next quarter or two. As a result of these dynamics, we expect first quarter revenue to be approximately \$350 million plus or minus \$15 million.

We expect Q1 gross margin to be approximately 35%, mainly due to lower volume, partially offset by better mix and actions we are taking to improve our gross margin.

We expect operating expenses to be flat to up slightly from Q4 levels, with spending on R&D and other critical programs partially offset by other reductions. As a result, we expect Q1 non-GAAP earnings per share to be \$0.70 plus or minus \$0.20.

Looking forward, we expect second half revenues to be higher than first half and our Q4 exit rate to return to over \$400 million per quarter. Based on actions, we are taking to accelerate optimization of our factory footprint,

improve manufacturing efficiency and increase our mix of sole-sourced products, we expect gross margins to exit the year 250 basis points to 300 basis points higher than our Q1 guidance.

We believe this puts us on track to achieve our gross margin goal of greater than 40% at revenue levels in the mid \$400 million range per quarter better than our previous model. Before I open it up for questions, I want to summarize some key takeaways. 2023 provided a solid proof point of our diversification strategy.

Despite two of our markets going through cyclical downturns, we reported record revenues in our other two markets and in several product lines. Our long-term investments from new products to channel strategy, are yielding tangible results, and our focus in the Industrial and Medical market has driven strong design wins and revenue growth in the market.

On the financial side, while we are not satisfied with our gross margin results in this challenging environment, we have a clear plan to increase gross margins and to drive earnings growth. In the meantime, we were successful in controlling our costs and delivering record operating cash flow.

Finally, our strong balance sheet gives us flexibility to pursue strategic acquisitions, while maintaining multiple options to create shareholder value.

Looking forward, we expect demand to increase in the second half of this year and further strengthen into 2025. We are improving our operational efficiency and anticipate gross margins to increase on historical revenue levels, positioning us to reach our gross margin goal of over 40% and to deliver higher earnings than our prior peak as markets recover in 2025.

With that, we'll take your questions. Operator?



## QUESTION AND ANSWER SECTION

**Operator:** Thank you. At this time, we'll be conducting a question-and-answer session. [Operator Instructions] Thank you. And our first question will be from the line of Joe Quatrochi with Wells Fargo. Please proceed with your questions.

**Joe Quatrochi**

*Analyst, Wells Fargo Securities LLC*

Q

Yeah, thanks for taking the questions. Maybe start from on the Semi side, I'm just wondering if you can maybe help us out and understand. I think last quarter you were talking about your customers planning for a flat 2024. Is that still kind of the thought process there?

And then just secondly, on the Semi business, can you remind us just how to think about the mix exposure between foundry logic and memory? And are you able to at least match the market growth rate just given kind of your mix relative to the market growth expectations this year?

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Yeah, Joe. This is Steve. Thanks for the questions. With regards to your first question, our customers still are telling us that they think that 2024 is roughly the same as 2023. The other thing they're telling us is that the second half will be better than the first half. So, essentially what we're looking at in Semiconductor is a Q1 low point and a gradual recovery over the course of the year.

We are very well-positioned for the node transitions that are going to transpire starting the second half of this year. So, we're very confident in our ability to grow that business second half of 2024 into 2025.

As far as our exposure to foundry logic and memory, we don't have precise numbers on that. We feel we're a little bit more exposed to foundry logic. But I think as we look at the future memory processes, we're also well-positioned there. So, I think over time we should benefit from both the node transitions in memory as well as the ones in foundry logic.

**Joe Quatrochi**

*Analyst, Wells Fargo Securities LLC*

Q

Thanks for that. And then just on the Industrial and Medical side, can you help us understand, the change in demand or what is primarily weaker than last quarter. I think last quarter you highlighted a couple of different sub markets, but maybe just some help in terms of, where you're seeing the incremental weakness from just because it's such a diverse business or market for you.

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Yeah, the Industrial and Medical market is an interesting one for us. We put a lot of resources there and a lot of emphasis there over the past two years. What happened was, in 2023, we set all kind of records. We set a record revenue performance in I&M. And we also saw that our design win funnel increased by just under 50%. So, we're very well-positioned going into this year.



I think when I take a look at that market, you're right, it's thousands of customers, hundreds of sub-applications. And the Industrial and Medical market was actually the last market where supply caught up with demand. That happened largely in the second half of last year for Advanced Energy and is still going on at some of our competitors.

And so what our customers are dealing with is some inventory rebalancing and they're also dealing with compressed lead times. Lead times, not too long ago in this business were 26 to 50 weeks and now they're about 8 to 12 weeks. So, that creates a bit of an air pocket.

What we think is that air pocket will last for the first six months of 2024, as the customers do their inventory rebalancing and adjusting to new lead times. But we think it returns to normal in the second half of this year, and that's what we have in our plan.

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**Joe Quatrochi**

*Analyst, Wells Fargo Securities LLC*

Q

Thank you.

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**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Thanks, Joe.

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**Operator:** Thank you. Our next question is from the line of Krish Sankar with TD Cowen. Please proceed with your question.

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**Krish Sankar**

*Analyst, TD Cowen*

Q

Yeah, hi. Thanks for taking my question. I have two of them. First one, Steve, on the last point you made in terms of your customers on the Semi side doing inventory rebalancing, shorter lead time, do you think that your customers' revenue have to recover first before you see your Semi revenues recover or do you think it could be in tandem or do you think you could lead the recovery?

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**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Yeah, Krish, just to clarify my comments on the inventory rebalancing and the short lead times, those apply to the Industrial and Medical market. So, I was answering Joe's second set of questions essentially.

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**Krish Sankar**

*Analyst, TD Cowen*

Q

Oh, got you. What do you think of it on the Semi side?

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**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

On the Semi side, I think all of our customers are saying pretty much the same thing, right, where they've seen some drop in trailing edge demand, still relatively strong in China, but starting to taper a little bit outside of China. And from a memory standpoint, there's an expectation that they'll see some recovery in DRAM around mid-year and in NAND towards the end of this year.

In leading edge logic, I think there's a lot of excitement right now about some node transitions that are on the way. So, I think with a little pickup in smartphone demand, continued demand in AI in other computing areas, I think that leading edge should pick up as well in the second half.

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**Krish Sankar***Analyst, TD Cowen*

Q

Got it. And then a follow-up for Paul. Paul, I think you mentioned, March quarter gross margins should be about 35%. I'm just curious, hypothetically speaking, if your June quarter revenue, volume and product mix is similar to March at \$350 million, and now that you have the benefit of the premium pricing going away and some of the factory closures, how much would gross margins be in June quarter if the revenue and product mix was similar to March?

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**Paul R. Oldham***Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

Yeah, I think if you held everything else equal, we ought to see modest improvement from the March quarter to the June quarter. I think as you move further into the year, though, we start to also get improvement from the continued factory transitions and other things that we're working on.

I think the important point here is we continue to feel that, as revenues move back up and get roughly, say, flat to the Q4 levels of around \$400 million. We feel pretty confident towards the end of the year that that should yield gross margins that are 250 basis points to 300 basis points higher than we had in Q1.

And that's the combination of the last bit of materials rolling out, factory improvements and efficiency coming in, volume recovery just back to where we've been running, not actually anywhere near previous peak levels or high levels. And so as revenues just get back to where we were, we think that's a meaningful improvement in gross margins.

Now, as you look into next year, because of the things that we'll be doing. We've done already with the factory closures. We'll be doing with other factory efficiencies this year, we think that we can get gross margins to around 40% on revenues in the mid \$400 million range. And that's better than what we've been modeling up to now, where we thought we'd need to get to the mid to high \$400 million range.

So, we think there is a lot of upside in the company for gross margins. Obviously, the biggest factor impacting us now is just the revenue levels. In fact, things we've done, we think are actually protecting gross margins at 35%, which is only down 70 basis points on the drop in volume we've seen. So, we think this forms the foundation for gross margin acceleration as revenues recover from this point.

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**Krish Sankar***Analyst, TD Cowen*

Q

Got it. Thanks a lot, Paul. Thanks, Steve.

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**Operator:** Our next question is from the line of Steve Barger with KeyBanc Capital Markets. Please proceed with your questions.

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**Steve Barger***Analyst, KeyBanc Capital Markets, Inc.*

Q

Thanks. Steve, most industrial companies we cover are saying what you just did, which is weak first half, return to normal in back half. But can you talk more about why you think that, just where that confidence comes from and do you expect I&M can show positive growth for the year in 2024?

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Yeah. So, basically, Steve, I think I&M is always going to be inherently more difficult given the number of customers we're dealing with and number of different submarkets. And so we look to a couple of things. One key indicator for us is distribution. So, we sell about 45% of our I&M products through distributors.

And we took a look at the data and few things kind of stand out. One is the resales. So, resales at our top five distributors around the world have grown every quarter since Q2 of 2022. So, we basically exited 2023 at a very high resale rate. It also shows that we have gained power subsystem share at all of our major distributors over the past year in and our top three distributors AE is now number one in the category of power subsystems.

So, I think, those are all positive indicators that show we have some momentum in this market and that our design wins are having some impact on our revenue already.

I think the second thing that gives me confidence is that if you take a look at the Industrial and Medical market, we were still chasing parts through the first half of last year, so there is still a fair amount of delinquencies. We closed out those delinquencies in the second half of last year. And so what's happening is the customers have different levels of inventory because there are a lot of different parts in the systems that they built.

And so they're working through the inventory and doing the inventory rebalancing. The other big change our customers are dealing with is lead times. And again, the lead times have contracted significantly and that creates a bit of an air pocket. So that's why I made the statement that we believe second half we're back to normal from a demand standpoint.

**Steve Barger**

*Analyst, KeyBanc Capital Markets, Inc.*

Q

And as you think through all that, do you think that I&M can show positive growth for the year versus 2023?

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

We're not sure. We haven't gone through that model yet, but I hope so.

**Steve Barger**

*Analyst, KeyBanc Capital Markets, Inc.*

Q

And one quick one for Paul, but thank you. Decremental margin in the back half averaged high 30% range. Is that how we should be thinking about 1Q and 2Q if revenue is down or can you do better than that?

**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

I think when you look at going from Q4 to Q1, we feel pretty good about holding margins at the 35% range. We think that's going to be a floor. If revenue does tick down again, which we don't anticipate, then I think that's probably a reasonable range for decremental margins, maybe a little bit less because we'll still have some improvement in material cost and we continue to reduce our manufacturing footprint as we go. I think the

important thing, though, as margins start to recover or revenue start to recover is that the incremental margins on the upside ought to be well north of 40% and in some quarters could be well over 50% as we get the benefit of these various factors coming together. So we're actually pretty excited as we've continued to work this that we believe we've been able to reduce the revenue point at which we can get to 40% gross margin to this mid-\$400 million range per quarter. And look, if we're able to do that and we get to mid-\$400 million, our peak earnings, our earnings on that level will be substantially higher than our prior peak and that's not even getting back to peak revenue levels. So, we've done a lot of good work. I think we're getting the foundation in place on gross margin. Obviously, the environment in the last year and a half has been challenging with parts that's abated where we're now in a bit of a market soft point, but the underlying setup for gross margin we feel is very good as we go forward.

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**Steve Barger**

*Analyst, KeyBanc Capital Markets, Inc.*

Q

Appreciate that color. But just to level set, I think you earlier said that, that you might exit the year at a \$400 million run rate. And so what you're talking about, I mean, that would be the earliest that you're running at an incremental most likely, right?

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**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

Yeah. I think over the course of the year, we'd see some pickup in volume and that would lead to some incremental. But you're right, our projections at this point was that we would expect revenues to recover back to the \$400 million level exiting this year. And at that level, we ought to be able to deliver gross margins, 250 basis points to 300 basis points higher than Q1. So that would put you in the 37.5% to 38% range on roughly \$400 million. And just to calibrate that with Q4, that would be a 200-plus basis point improvement off of the Q4 levels at the same revenue level. I think that's what we're talking about as we see fundamental ability to improve gross margins and lower the revenue levels that it takes to deliver those gross margins.

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**Steve Barger**

*Analyst, KeyBanc Capital Markets, Inc.*

Q

Great detail. Thanks.

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**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

You bet.

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**Operator:** Our next question is from the line of Mehdi Hosseini with SIG. Please proceed with your questions.

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**Mehdi Hosseini**

*Analyst, Susquehanna International Group*

Q

Yes. Thanks for taking my question. A couple of follow-ups from my end for Steve and Paul. Just going back to your commentary how this year is looking to be more weighted towards the second half, that's well understood the beauty of the law of small numbers, but how should I think about second half of this year 2024 compared to second half of 2023, and I have a couple of other follow-ups.

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**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

Yeah, I think what we said is we're seeing early signs of improvement or that suggests there'll be improvement across most of our markets. So we do anticipate things picking up as we go through the year. And our best view is that we believe we can get back to revenues at \$400 million or higher exiting the year, which would be Q4. I think that's the best visibility that we have at this point.

**Mehdi Hosseini**

*Analyst, Susquehanna International Group*

Q

Sure. And I guess we got the March quarter guide. We got a feel for June flat to up. We got the December at \$400 million plus. We just need more color on September quarter is what I was trying to figure out.

**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

Well, there's not that many numbers in between there, Mehdi. So, I don't think we have perfect visibility to what the pattern will be during the year. Look, semi continues to bounce around the bottom. This is a little bit lower than Q1 than Q4, but we think that's going to improve. I think there's early signs of data center improving that can be lumpy, that could come sooner and it could come in a bump, right. I think Industrial/Medical will be more paced, as Steve said earlier, and telecom is going to sort of glide path down a little bit. So, it's hard to say exactly how the quarters will play out. I think the near-term we have pretty good visibility. And as we look out towards the end of the year, we see enough factors that give us confidence to get back to the \$400 million or higher, but it's a little hard to project each quarter.

**Mehdi Hosseini**

*Analyst, Susquehanna International Group*

Q

That's fair, and I appreciate all the details. One follow up here, and I think it will be very helpful if you could give us some thoughts around ASP. Obviously, two years ago, industry was faced with insufficient supply and there was a significant price increase for all the semiconductor components. And I believe some of that price increase was passed on to the end customer. As we go through this inventory correction and the weaker end market demand, how are you positioning the company for pricing leverage, especially in this core semi-cap? Could your customers wait to last minute to get any kind of concession? And I'm just wondering how we should think about it.

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Yeah. So let me just kind of retrace our steps over the past couple of years during the supply chain crisis. Many of our customers chose to pay premiums. So, it wasn't a price increase per se, but we would go out on the third-party market to find these scarce chips, and then they would pay the premium that we had to pay for those particular ICs or MOSFETs. And so, I think, as Paul explained during his presentation, most of those premiums have gone away. We have some other customers who preferred price increases. In those cases, we're working with them. You know, the first step is to get the price decreases from our IC suppliers and MOSFET suppliers. And quite frankly, that's been a bit of a challenge. So we're working hard to move our IC and MOSFET costs down but they went up a lot faster and they're coming down.

**Mehdi Hosseini**

*Analyst, Susquehanna International Group*

Q

Okay. Thank you, Steve. And quick follow up for Paul. OpEx in 2024, should we assume that it's kind of a flattish from here on?

**Paul R. Oldham***Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

I think sort of flattish. Certainly, that's what we guided to for Q1. I think Q2 will be similar and then flat means it could bounce around a little bit plus or minus because we get in the second half we'll see how revenues recover. There could be a little bit of increase in the second half, more based on inflation and other factors. But in any event, we don't anticipate operating expense going up. We have a good cost structure. We've worked hard to get it down from where we exited a year ago. We want to sort of try to live within that cost structure. We're funding our priorities. We're making great progress on our NPI and other strategic initiatives. So I think we'll try to stay roughly within this envelope. But I'd say maybe a little bit of increase in the second half just based on normal factors.

**Stephen Douglas Kelley***President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

And Mehdi, let me just – let me answer on the pricing issue. Can I just add a little more color, because I think...

[indiscernible] (00:42:13)

**Stephen Douglas Kelley***President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

...your question was more about what leverage we might have moving forward on the price? And I think it's really about new products. And in semi, in I&M, even in data center, we're bringing products to market now that offer more value to the customers and offer more profits to us. And that's how we plan to move our profitability up together with the actions we're taking in manufacturing.

**Mehdi Hosseini***Analyst, Susquehanna International Group*

Q

Got it. Thank you, Steve.

**Stephen Douglas Kelley***President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Thank you.

**Operator:** The next question is from the line of Scott Graham with Seaport Research. Please proceed with your questions.

**Scott Graham***Analyst, Seaport Global Securities LLC*

Q

Hey, good evening. Thanks for taking my questions, guys. I wanted to maybe talk a little bit more about the gross margin. Are you guys saying that the premiums had no effect on fourth quarter gross margin?

**Paul R. Oldham***Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

Yeah, no. What I said is though it did have some effect, we think that sort of in the 50 basis points to 100 basis points. So that's continued to come down every quarter. And I think what we said as we ended the quarter, it was approaching normal levels. So I think very end of the quarter, exit rate was pretty small, but that just means that those costs largely just need to roll through inventory now. So, you know, expect that same whatever 75 basis



point improvement to kind of flow through over the next quarter or quarter and a half. That's part of how we protect staying at 35. [indiscernible] (00:43:45) in that base plan as we go forward that those premiums are largely washed out. But there'll be a little bit more in the first few months. But in terms of an ongoing activity, we think that's largely normalized.

**Scott Graham**

*Analyst, Seaport Global Securities LLC*

Q

Okay. Okay. So, is there a case here, Paul, where I think you just answered it, but I'm not sure on the math. Are you saying that like sort of in the second half of the year as we roll through sales and the gross margin should start to naturally move up because the sales are no longer burdened by the premiums. So the gross income dollars goes up and the gross margin dollar – gross margin percent goes up with it. Is that the right way to look at it?

**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

Yeah. Said another way, the headwind that we've had over the last year, which has been dying down but a headwind nonetheless that dissipates completely after say the first quarter or a little bit into the second. So that means that going forward we don't have that headwind. But – so as volume picks up and other things improve, then we get that all the way to the bottom line. But I think the other thing is the improvements that we're making in the factories and efficiency from a cost perspective and even a little bit of mix as we're getting some product benefit from a sole-sourced perspective, sole-sourced mix towards the end of the year. All of those things really start to fall through. And that's why on similar revenue levels in the fourth quarter to what we had this year in the fourth quarter, we ought to be doing roughly 200 basis points better or, as I said, 250 basis points to 300 basis points better than where we're starting the year.

**Scott Graham**

*Analyst, Seaport Global Securities LLC*

Q

Okay. Yeah. Thank you. I think we're saying the same thing. Steve, I was hoping you could tell us a little bit more about sort of this seems like another push to the right in semi because the numbers that we're hearing for WFE, obviously, they started six months or a year ago, they were in the down 20s and then they came in from that to downs 10s and 15s. And I'm just wondering why with market conditions – it is still difficult, but seemingly less difficult, why is it kind of going the other way for you?

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Yeah. Scott, I think if you take a look at the data, we sell into etch and deposition applications and ion implant applications. So, more conventional applications within the semiconductor process universe. We do not sell into litho. So, if you extract the litho WFE, then I think you'll find that we're actually gaining share in that particular part of the market. I think what's important to realize, though, is the share gains are going to happen with the next-generation processes. So, that's why I spend so much time talking about eVerest and eVoS, because those are two new flagship technologies, which have been eagerly embraced by the customers and we think they are going to drive real share gain for the company over the next three to five years.

**Scott Graham**

*Analyst, Seaport Global Securities LLC*

Q

Okay. Last question, promise. The debt offering that you did last fall kind of sitting and waiting for an acquisition to deploy that on. Could you just give us an idea how the funnel is looking, is this sort of a modest setback in



earnings here, does that slow that process down or is that still full speed ahead and you're getting closer and closer to something? Just maybe sketch out kind of where you're at.

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

Yeah. Yeah. Just let me just give you some context. This is a modest speed bump for us, and it doesn't really impact any of our activities. So, we're going full speed ahead on development. We're going full speed ahead on M&A. And our M&A approach hasn't changed. We're basically looking at two tracks. The first track is technology tuck-ins. Those would be primarily for semiconductor applications. And the other track is basically larger acquisitions. And we are in contact with our targets. And we certainly have the money to deploy when we reach agreement with one or more of these targets. But we're in no hurry. We want to make sure that the deals we engage in make strategic sense, make financial sense for the company. And then, we'll basically deploy the same playbook we used with SL Power, we'll integrate quickly and maximize our synergies as fast as we can.

**Scott Graham**

*Analyst, Seaport Global Securities LLC*

Q

Yeah. Thank you...

**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

A

Yeah. And I'll just remind you, Scott, also that when we did the debt offering, one of the beauties of that was that it gives us optionality as well. So, we don't have to be in a hurry. We can be patient. There's other things we can do to deploy that cash that add value to the company, including arbitraging our debt next fall if that's something that makes sense at the time. So, we have a lot of options, and that I think gives us flexibility to be smart, to be patient and make sure we're doing the right thing.

**Scott Graham**

*Analyst, Seaport Global Securities LLC*

Q

Okay. Thank you.

**Operator:** [Operator Instructions] The next questions are coming from the line of Jim Ricchiuti with Needham & Company. Please proceed with your question.

**Jim Ricchiuti**

*Analyst, Needham & Co. LLC*

Q

Hi. Thanks. Most of my questions were answered. I was just curious, as we think about 2024, the way you're describing the year, if that plays out that way, I'm wondering, as you layer in some of the e-commerce activity, you've talked about working more on the distributor front, does any of that have the potential to add incrementally to the revenues in a meaningful way this year, or is that more in 2025?

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

A

It's a good question, Jim. I think we have the ability to add incrementally to revenues this year and next year. We actually launched the website in August of last year, and we saw an immediate uptick in engagement and downloads and so forth. So, I think some of that work is already underway. So, I'm encouraged by what I've seen so far. And that will continue throughout this year, right? So, it's much easier for customers now to engage with us

than it was six months ago. And as we add e-commerce to our website later this month, they'll be able to get samples of our products very quickly and make their decision more quickly.

So, I'm encouraged by that and also by the enthusiasm within our distributors. They're seeing how popular our products are. And they also are encouraged because they tend to make more money selling our subsystems than they do selling ICs. And so, that certainly makes a difference. And we're seeing a lot more enthusiasm for both power and advanced energy through our distributor channel.

**Jim Ricchiuti**

*Analyst, Needham & Co. LLC*

Thanks a lot. Good luck.

Q

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

Thanks, Jim.

A

**Operator:** Our next question is from the line of Duksan Jang with Bank of America. Please proceed with your question.

**Duksan Jang**

*Analyst, BofA Securities, Inc.*

Hi. Yeah. Thanks for taking the question. I want to go back to an earlier semis question. So, you said excluding litho, you're potentially gaining share in some of the areas. But if we look at one of your leading edge customers, they've posted a strong December, and even looking into March, they've had flattish outlook, whereas I think your semis outlook is a little bit falling behind. So, I just want to understand that disconnect between you and some of your customers.

Q

**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

Yeah. Basically, there's two issues there. One is inventory that some of our customers are still carrying, right? And the second is timing, because typically we'll be shipping products into a customer the quarter before they ship their products to their end customers. Sometimes it's two quarters before. And so, it's very hard to correlate our results with our customer's results on a quarter-by-quarter basis.

A

**Duksan Jang**

*Analyst, BofA Securities, Inc.*

Got it. Got it. And then, on to gross margins. So, I think, exiting this year, you're targeting 57% to 57.5%, but you still have that another 200 to 300 basis points in order to reach the 40% mark. So, what other kind of tailwinds do you have now? You don't have that inventory normalization anymore, potentially you have the factory optimization, but is that really enough to get you that 200 to 300 basis points? Thanks.

Q

**Paul R. Oldham**

*Chief Financial Officer & Executive Vice President, Advanced Energy Industries, Inc.*

Yeah. So, that's right. We would be exiting the year based on what we said in our prepared comments, somewhere between 37.5% and 38% gross margins. As we look in then into 2025, what are the other things? There are still more activities on the factory consolidation front. I think that the full benefit of that certainly bleeds

A

into the first half of 2025 as we execute our plans over the full course of 2024. I think that's another 100 basis points that could come through, for sure. I think the second thing is we start to see more benefit from our shift in mix as we have more sole-sourced products. That could add another 50 or more basis points. Over time, over a couple of years, we think that could be as much as another 150 or 200 basis points in total. But certainly, I think in the early 2025 range, I think there's easily 50 basis points in better mix and sole-sourced products there.

And the last thing, while this year has got a bit of a front-end air pocket, as Steve said, I think it exits back on a rate that's increasing. And I think, generally, the market views 2025 as a pretty strong year, which we'll benefit from, regardless of our new products, the channel investments and everything else. Those will be accelerators. And so, that's why we look into 2025, we think that'll be a strong year. And as we said, if we can get back to \$450 million, roughly, mid-\$400 million range, that's going to yield just with the volume impact margins around 40%.

So, we feel pretty good about that when you look out in time because of the work we're doing now to set up things we can control in terms of managing our cost structure, getting that where we'd like it, getting the foundation for gross margin in place, the investments in new products, opportunity to gain share, the investments in channel. We think all of that positions us well to see really nice earnings growth as we go into 2025. And look, that mid-\$400 million, as I said earlier, is an even peak revenue for us from the last upcycle. So, if you ran that out to a peak revenue level, I think we'd be well in excess of 40% gross margins.

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**Duksan Jang**

*Analyst, BofA Securities, Inc.*



Thank you.

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**Operator:** Our final question today is from the line of Mark Miller with Benchmark. Please proceed with your question.

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**Mark Miller**

*Analyst, The Benchmark Co. LLC*



I'm just wondering if you're seeing any impact of the slowing in EV sales, especially at second tier foundries?

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**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*



Your question, Mark, was whether we're seeing any impact in the slowing of EV sales?

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**Mark Miller**

*Analyst, The Benchmark Co. LLC*



Yeah...

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**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*



We really have very little direct exposure to that market. There's some indirect exposure through our work with IC makers, who are building silicon carbide chips and power MOSFETs and so forth. But at this point, we haven't seen any meaningful impact.

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**Mark Miller**

*Analyst, The Benchmark Co. LLC*



And what about the funding by the US, Europe and Japan for internal chip production? Is that going to become a driver into 2025?

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**Stephen Douglas Kelley**

*President, Chief Executive Officer & Director, Advanced Energy Industries, Inc.*

**A**

I think it will, Mark. Obviously, that benefits our customers – or the equipment customers, and anything that benefits them ultimately benefits us. So, we think building these geographical ecosystems is a good thing for the industry and will be a good thing for us.

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**Mark Miller**

*Analyst, The Benchmark Co. LLC*

**Q**

Thank you.

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**Operator:** Thank you. Ladies and gentlemen, this concludes our question-and-answer session and also concludes today's conference. You may now disconnect your lines at this time. And we thank you for your participation. Have a wonderful day.

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