



JANUARY | 2024

Transformative Power Solutions

Designing, developing and deploying power control systems that harmonize an increasingly complex energy system



Forward looking statements

This presentation contains forward-looking statements. Such forward-looking statements include those about American Superconductor Corporation's ("we," "us," "our," "AMSC" or the "Company") strategy, future plans, prospects and goals, including statements regarding addressable markets, business momentum, the anticipated benefits from our recent acquisitions, functionality, performance and capabilities of our products, approaching break-even, growth markets, power quality and control solutions positioning us for growth, industry and market opportunities for our products, expected high growth in India for future wind installations, potential revenue streams, customer demand, inflection points, growth drivers, our expected GAAP financial results for the quarter ending March 31, 2024, our expected cash, cash equivalents and restricted cash balance at March 31, 2024, and other statements containing the words "believes," "anticipates," "plans," "expects," "will" and similar expressions, although not all forward-looking statements contain these identifying words. Each forward-looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement. Such risks and uncertainties include: our history of operating losses and negative operating cash flows, which may continue in the future and require additional financing; our operating results may fluctuate significantly and fall below expectations; we may be required to issue performance bonds or provide letters of credit; risks related to changes in exchange rates; failure to maintain proper and effective internal control over financial reporting, our ability to produce accurate and timely financial statements could be impaired and may lead investors and other users to lose confidence in our financial data; not realizing all of the sales expected from our backlog of orders and contracts; U.S. government contracts being subject to audit, modification or termination; changes in U.S. government defense spending and reduction in revenue due to lack of government funding; the COVID-19 pandemic has adversely impacted our business, financial condition and results of operations and other future pandemics or health crises may have similar impacts; reliance on third-party manufacturers, suppliers, subcontractors and collaborators; uncertainty surrounding our prospects and financial condition may have an adverse effect on our customer and supplier relationships; failure to manufacture our Amperium wire at acceptable cost and quality levels which would substantially limit our future revenue and profit

potential; dependence upon attracting and retaining qualified personnel; A significant portion of our Wind segment revenues are derived from a single customer and if this customer's business is negatively affected, it could adversely impact our business; our success in addressing the wind energy market is dependent on the manufacturers that license our designs; failure or security breach of our or any of our critical third parties' information technology infrastructure and networks; failure to comply with evolving data privacy and data protection laws and regulations or to otherwise protect personal data; failure to implement our business strategy successfully; problems with product quality or product performance; risks from customers outside of the United States that may be either directly or indirectly related to governmental entities and risks associated with anti-bribery laws; limited success marketing and selling our superconductor products and system-level solutions; failure to realize anticipated benefits from acquisitions; we may be adversely affected by natural disasters, including events resulting from climate change, and our business continuity and disaster recovery plans may not adequately protect us or our value chain from such events; adverse changes in domestic and global economic conditions could adversely affect our operating results; our reliance on emerging markets; changes in India's political, social, regulatory and economic environment may affect our financial performance; dependence on the success of the commercial adoption of the REG system, which is currently limited; risks related to industry consolidation; risks related to the increasing focus on environmental and social initiatives; risks related to operations in foreign countries; dependence of the growth of the wind energy market on government subsidies, economic incentives and legislative programs; lower prices for other fuel sources may reduce the demand for wind energy development; risks related to our intellectual property; risks related to our technologies; risks related to our legal proceedings; risks related to our common stock; and the other important factors discussed under the caption "Risk Factors" in Part I. Item 1A of our Form 10-K for the fiscal year ended March 31, 2023, and our other reports filed with the U.S. Securities and Exchange Commission. We do not undertake, and specifically disclaim, any obligation to update any forward-looking statements contained in this presentation.

American Superconductor at a Glance

We design, develop and deploy power control systems that harmonize an increasingly complex energy system

Ticker symbol:
AMSC (NASDAQ)

HQ: Ayer, MA
(near Boston)

Founded:
1987

Global Manufacturing, Sales and R&D:
U.S., Australia, Austria, India, Romania, & U.K.

Business Highlights

Large and growing TAM driven by demand for new energy power systems across renewables, mining & materials (particularly for electric vehicles), semiconductor and military applications

Business momentum underwritten by new and existing customers looking to place larger orders

Recent successful acquisitions enable additional sales and cost leverage opportunities

Key inflection point in the business as AMSC approaches cashflow breakeven

Our Product Lines

New Energy Power Systems



Connects wind or solar farm to the grid, protects the fab from the grid, and powers and controls electrical equipment at site.

Wind Power Systems



Modernization of wind power installations through technological advancements, maximizing power generation and ROI

Ship Protection Systems



Proprietary technology enhances Naval ship capabilities and protection

Table of Contents

1	Growth Markets for AMSC	-----	PG. 05
2	Recent Operating Performance	-----	PG. 16
3	Inorganic Growth Contribution	-----	PG. 17
4	Growth Drivers & Business Model	-----	PG. 18
5	Recent Highlights	-----	PG. 20
6	Investment Highlights	-----	PG. 21
7	AMSC Financial Performance	-----	PG. 22

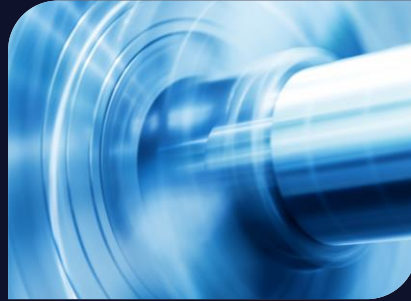
Growth markets for AMSC



Renewables

2022 Renewable Power CapEx: **\$472B**

There is significant investment in updating our aging grid so it can better support continued adoption of intermittent renewable power sources and the electrification of transportation



Mining & Materials

2022 Mining CapEx: **\$98B**

The need to prioritize energy security, electrify transportation, and bolster domestic supply chains is driving investment in critical minerals



Semiconductors

2023 Semiconductor CapEx: **\$147B**

An emphasis on the US regaining leadership in next-gen semiconductor manufacturing capacity and expertise to reduce reliance on international supply chains

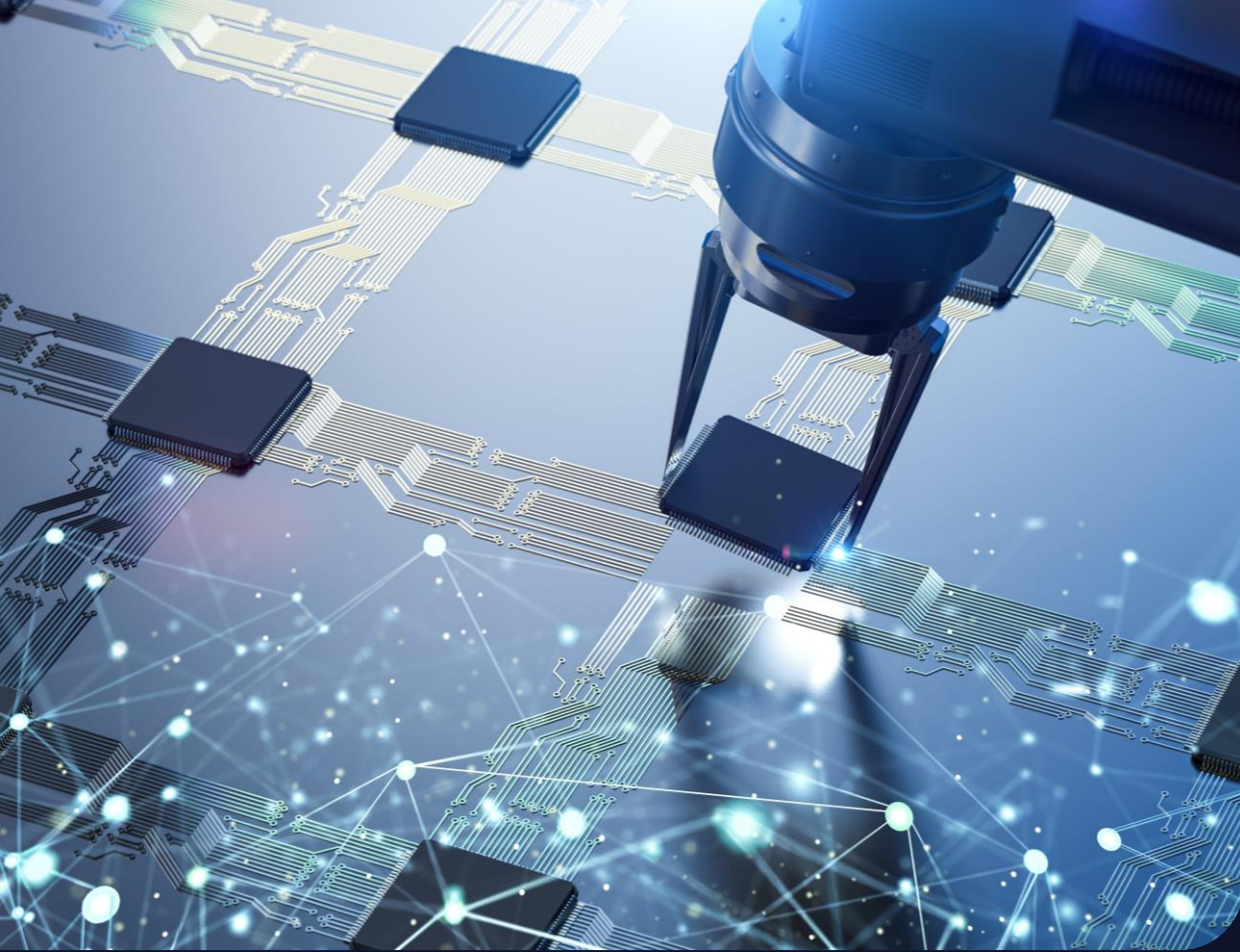


Military

2023 US Naval Ships CapEx: **\$41B**

Increasing demand for advanced ship protection systems to ensure performance and security amid geopolitical uncertainty

AMSC enables industrial
manufacturers to power their
factories in ways that scale without
adding complexity or size

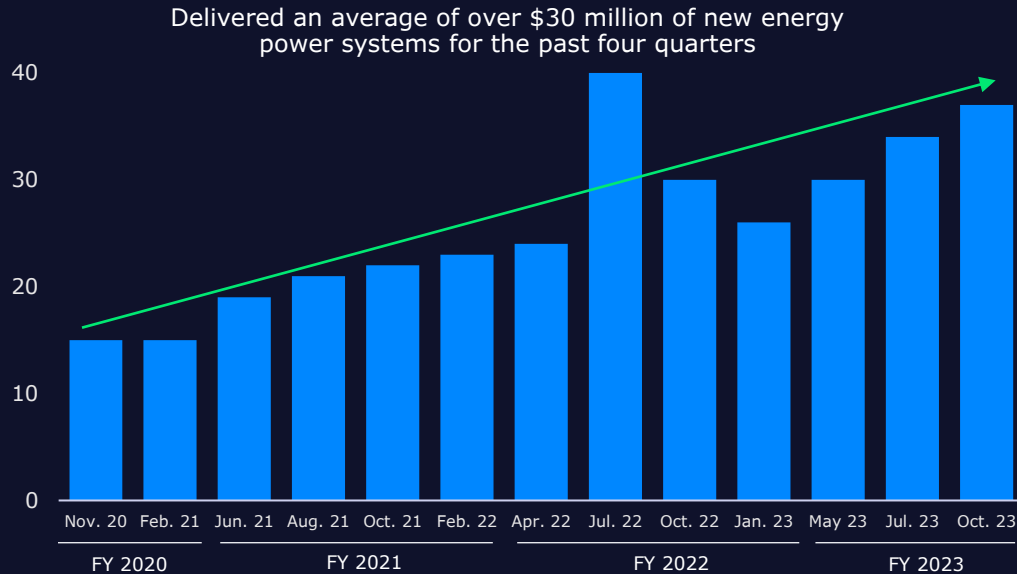


New Energy Power Systems

New Energy Power Systems Orders

Power control solutions that position us for growth

New Energy Power Systems Announced Orders



\$32M

FY23 Average New Energy
Systems Order per Quarter

\$25M

Q3FY23 New Energy
Systems Orders

Industry Opportunities

Renewables



- Connects wind or solar farm to the grid
- Controlling variability and the intermittent nature of renewable power production (electrical input) into the grid

Mining & Metals



- Powers and controls electrical equipment at site
- Controls and converts power to ensure continuous flow of stable power to equipment

Semiconductors



- Protects the fab from the grid
- Controls power surges and dips to avoid costly production disruptions

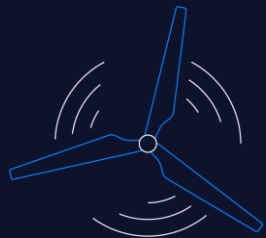
AMSC's proprietary technology
enables its partners to deliver
a superior product



Wind Turbine Electrical Control Systems (ECS)

Wind Turbine Electrical Control Systems (ECS)

AMSC's proprietary technology enables its partners to deliver a superior product

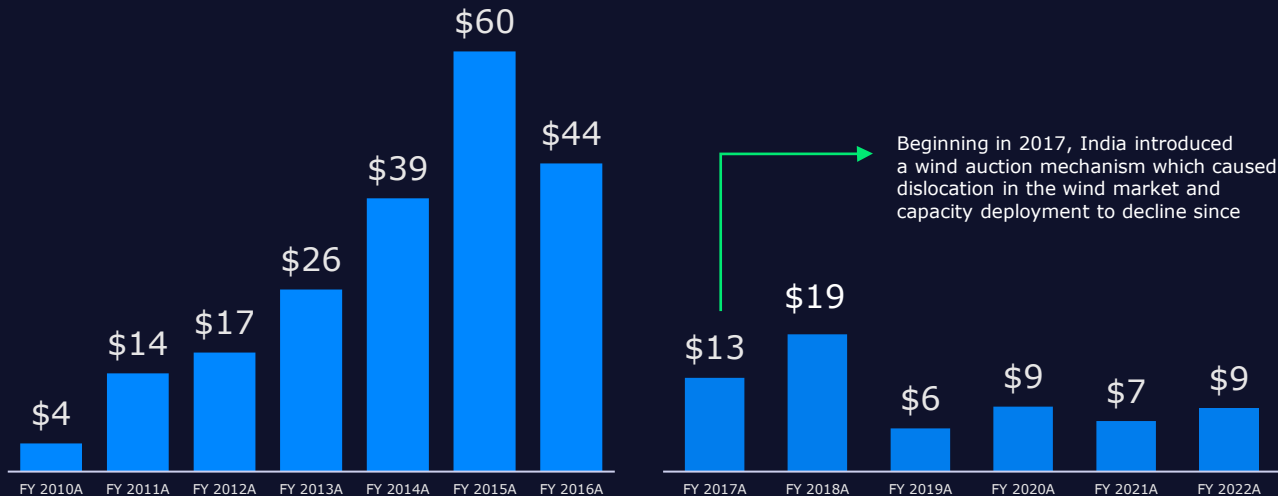


ECS Represents
5% - 10%
of the Turbine Cost*

Sources: Company management, GWEC.
*Typical wind turbine cost \$1.3M per MW

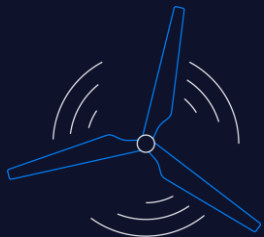
Historical Revenue from Sales of 2 MW Wind Turbines to Inox

\$ in USD millions



Wind Turbine Electrical Control Systems (ECS)

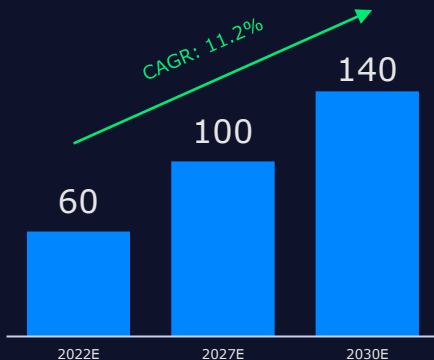
AMSC's proprietary technology enables its partners to deliver a superior product



High Growth is Expected for Future Wind Installations in India

Units in GW

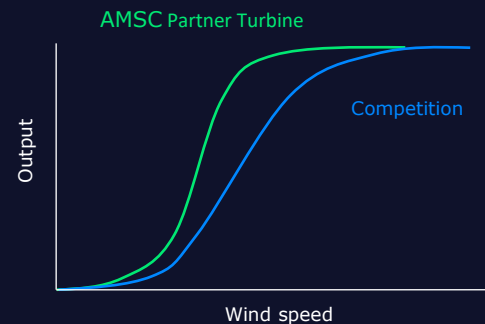
India is among the world's fastest-growing electricity markets, with power demand expected to double by 2030



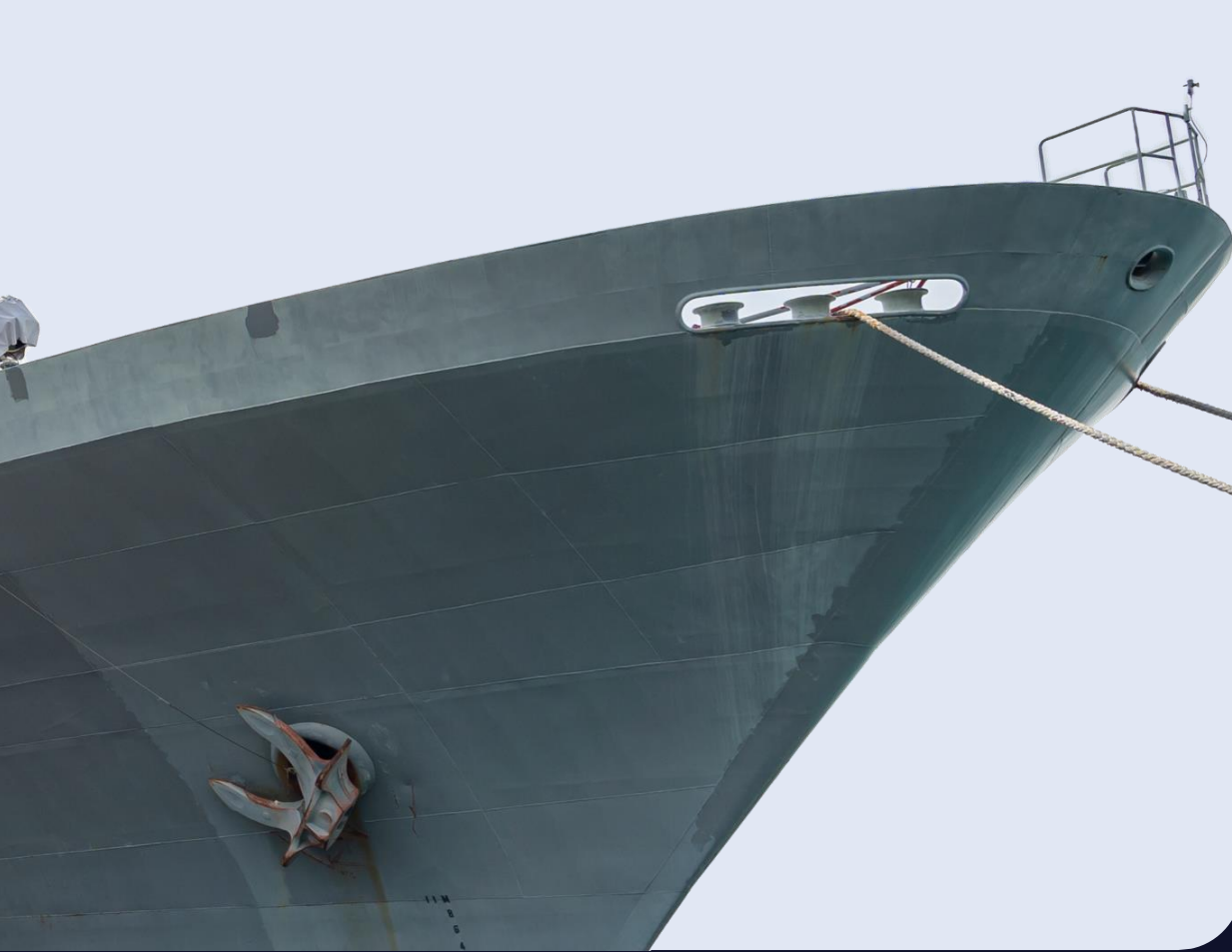
Sources: Company management, GWEC.

3 MW Wind Turbine Development Progress

- Q4FY21: Design certification of the 3 MW class wind turbine prototype for the Indian market is complete
- Q2FY22: 3 MW erected and in operation
- Q3FY22: Commissioning of the 3 MW is complete
- Q1FY23: Type certification completed, which allows for grid connectivity
- Q1FY23: AMSC received initial 3MW class ECS order
- Q3FY23: AMSC received follow-on 3MW class ECS order



AMSC's proprietary systems are
helping the US Navy better power
and protect its ships



Ship Protection Systems

LPD REVENUE

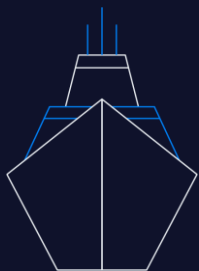
- 2 Flight I LPDs
- 13 Flight II LPDs
- \$10-\$15 million per vessel
- Potential **\$200** million revenue stream

SHIP IMPACT

- 60 Tons removed
- 50% Energy savings
- Lower installation cost
- Lower life cycle cost

Ship Protection System

AMSC's proprietary systems are helping the US Navy better power and protect its ships



Ship Protection Systems (SPS) awarded five contracts for San Antonio Class LPD

- USS Fort Lauderdale
- USS Richard McCool
- USS Philadelphia
- USS Harrisburg
- USS Pittsburgh

Opportunities under development

- SPS on other ship platforms
- SPS for allied Navies
- Additional content to support ship electrification

Deployable Mine Countermeasure Payload System

WHAT IS IT

AMSC's deployable High Temperature Superconductor (HTS) Magnetic Mine Countermeasure Payload System is a system for the U.S. Navy to deploy and test as part of its Mine Countermeasure Unmanned Service Vehicle program

WHAT IT DOES

The system is expected to provide a robust mine countermeasure capability to minimize risk to fleet assets during operations such as mine-hunting and mine-neutralization

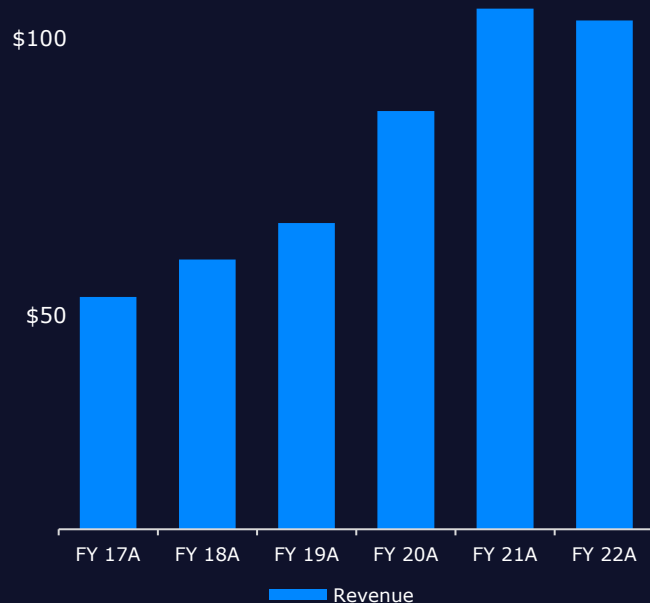
OPPORTUNITIES

- \$8M to develop and deliver initial system—Under Contract
- Multi-year program prior to initial production
- Program envisions multiple systems per year once production begins

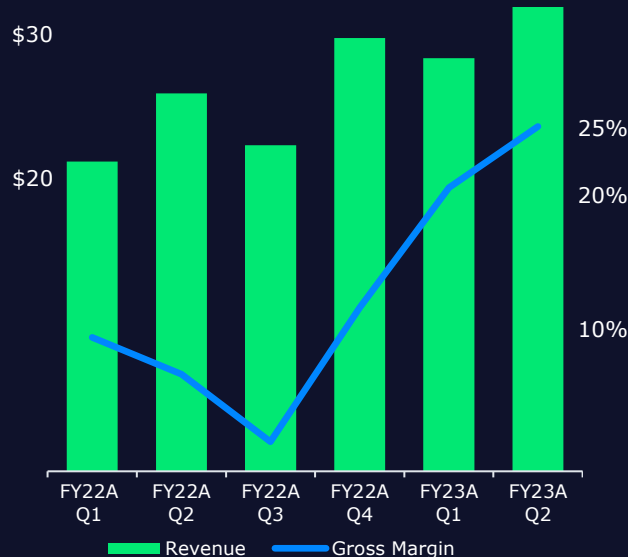
Recent Operating Performance

(\$ in millions, FYE 3/31)

Annual



Quarterly



Commentary

Consistent Revenue Growth

~17% revenue CAGR since FY 2017 driven by increasing customer demand for new energy power systems and ECS, stronger pricing and more content sold across new energy power systems

Inflection Point in Gross Margins

Achieving run-rate gross margin levels through stronger pricing, service revenue and manufacturing scale

Q3 FY2023 Results

\$39

Revenue

\$1

Operating
Cash Flow

\$25

Dec. 31, 2023
Cash

Inorganic Growth Contributing to Operating Performance

AMSC's successful acquisitions leading to larger sales in multiple markets

Recent Acquisitions

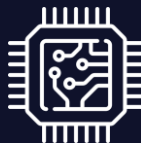
September 2017

Acquired ITC Power Solutions



October 2020

Acquired Northeast Power Systems



May 2021

Acquired Neeltran



Growth Drivers and Business Models

Inflection point in core businesses, positioning AMSC to achieve outsized growth and margin expansion:

New Energy Power Systems

- Delivery of higher quantities to repeat customers and markets
- Sale synergies driving larger orders
- Integration synergies optimizing cost structure

Wind Power Systems

- Robust 2 MW demand with upside growth opportunities
- Inox Wind announced type certification for its 3 MW class wind turbine, which is expected to drive additional customer demand

Ship Protection Systems

- We have a total of five SPS contracts for the San Antonio Class LPD and are delivering on two contracts
- Mine Countermeasure solution multi-year Navy contract presents scalable demand approaching an inflection point for additional ship systems

What's Next



**More Content in Substation Projects for
Renewables, Semiconductors and Materials**



**More Turbines with More
Value**

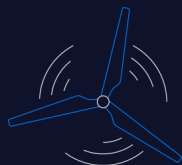


**More Ships with More
Content**



More Cities

Power Quality Solutions that Position Us for Growth



Electrical Control System for Wind Turbines (wtECS™)



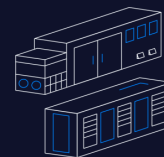
Transmission Voltage Management (D-VAR®)



Resilient Electric Grid (REG) Systems



Distribution Voltage Optimization (D-VAR VVO®)



Power Electronics & Control Systems



Ship Protection Systems (SPS)

What it is

Components and controls that act as the “brain” and “nerves” of turbines

Voltage regulation solution, driven by power electronics components

System that increases electric grid resiliency, reliability, and load serving capacity

Direct connect 15Kv class power quality system for distribution network

Capacitor banks and harmonic filters for medium-voltage power quality applications. Rectifiers and transformers for industrial equipment

Advanced HTS-based systems that enhance operational safety

What it does

Maximizes power generation, ROI of wind power installations

Connects renewable energy to grid; provides reactive power compensation

Increases reliability of urban grids and provides cost-effective, simplified solution for urban load growth

Optimally controls voltage, allowing utilities to build distribution networks using distributed generation (DG)

Mitigates common power quality issues in the areas of power-factor correction and harmonic distortion as well as current control

Degaussing is a magnetic system that interferes with a mine’s ability to detect and damage a ship

Target markets

Renewables: Wind turbine OEMs using AMSC wind turbine designs

Renewables and Semiconductors: Renewable plants, electric utilities, industrial facilities

Renewables: Urban electric utilities

Renewables: Electric distribution grids incorporating DG

Mining & Materials and Semiconductors: Industrial, mining and chemical

Military: Navy Surface fleet

Recent highlights



Market diversification highlights

Technology highlights

Financial highlights



Investment highlights

- New energy power systems orders milestone: Market diversification from customers in the metals, mining and materials, and semiconductors to new military and utility applications.
- ECS milestone: AMSC Agrees to Deliver nearly \$20 Million in Wind Turbine Electrical Control Systems to Inox Wind including \$5 Million of initial 3 MW ECS Order. Additional second \$8 Million ECS order for Inox Wind.
- SPS milestone: Won 5th SPS contract with U.S. Navy for LPD-32
- MCM milestone: Announced \$8 million contract for US Navy Deployable Mine Countermeasure System
- REG milestone: met specified performance requirements, releasing \$5 million of previously restricted cash in Q4 2022

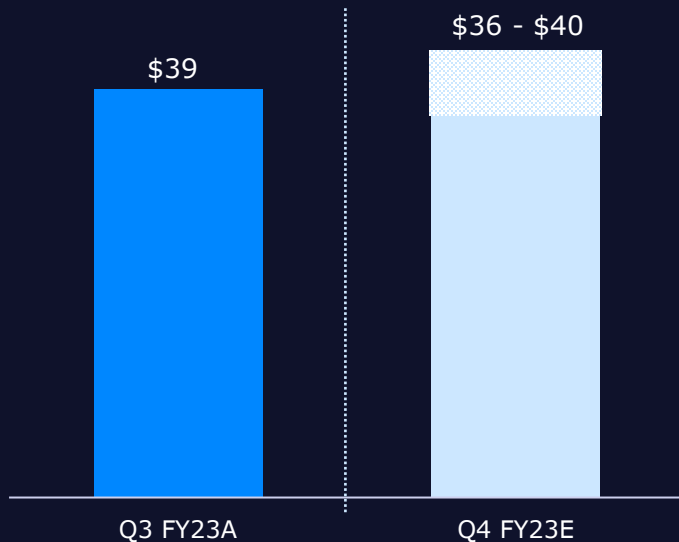
Market Opportunities:

- More content in substation projects for renewable, semiconductor and materials
- More turbines with more value
- More ships with more content
- More cities

AMSC Financial Performance

\$ in USD millions

Revenue



Q4'FY23 Guidance (as of Jan 24, 2024)¹

Revenue
\$36-\$40

Operating Cash Flow
\$0-\$2

Cash*
\$25

