

AMERICAN SUPERCONDUCTOR CORP /DE/  
Form 424B1  
July 20, 2007  
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Filed pursuant to Rule 424(b)(1)  
Registration No. 333-143903

PROSPECTUS

*4,700,000 Shares*

*COMMON STOCK*

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*American Superconductor Corporation is offering 4,700,000 shares of its common stock in the offering. Our common stock is listed on the NASDAQ Global Market under the symbol AMSC. On July 19, 2007, the last sale price of our common stock as reported on the NASDAQ Global Market was \$22.34.*

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*Investing in our common stock involves risks. See Risk Factors beginning on page 7.*

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*PRICE \$21.25 A SHARE*

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	<i>Price to Public</i>	<i>Underwriting Discounts and Commissions</i>	<i>Proceeds, Before Expenses, To Us</i>
<i>Per Share</i>	<i>\$21.25</i>	<i>\$1.19</i>	<i>\$20.06</i>
<i>Total</i>	<i>\$99,875,000</i>	<i>\$5,593,000</i>	<i>\$94,282,000</i>

*We have granted the underwriters the right to purchase up to an additional 705,000 shares solely to cover over-allotments.*

*The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.*

*The underwriters expect to deliver the shares to purchasers on July 25, 2007.*

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**Morgan Stanley**

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**Jefferies & Company**

**Needham & Company, LLC**

*July 19, 2007*

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You should rely only on the information contained in this prospectus and the documents incorporated by reference in this prospectus or to which we have referred you. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. You should not assume that the information contained in this prospectus or any document incorporated by reference is accurate as of any date other than the date on the front cover of the applicable document. Neither the delivery of this prospectus nor any distribution of securities pursuant to this prospectus shall, under any circumstances, create any implication that there has been no change in the information set forth or incorporated by reference into this prospectus or in our affairs since the date of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

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**PROSPECTUS SUMMARY**

*The following summary highlights the key information contained elsewhere in this prospectus. It does not contain all the information that may be important to you. You should read this entire prospectus carefully, especially the discussion of Risk Factors and our selected consolidated financial statements and related notes, before deciding to invest in shares of our common stock. In this prospectus, when we use phrases such as we, our and us, we are referring to American Superconductor Corporation and its subsidiaries as a whole, except where it is clear from the context that any of these terms refers only to American Superconductor Corporation. Unless otherwise indicated, the information in this prospectus assumes the underwriters do not exercise their over-allotment option.*

**AMERICAN SUPERCONDUCTOR CORPORATION**

**Company Overview**

We are a leading energy technologies company, offering an array of solutions based on two proprietary technologies: programmable power electronic converters and high temperature superconductor, or HTS, wires. Our products, services and system-level solutions enable cleaner, more efficient and more reliable generation, delivery and use of electric power. The programmability and scalability of our power electronic converters differentiates them from most competitive offerings. Our HTS wires carry 150 times the electrical current of comparably sized copper wire. The two primary markets we serve are the wind energy market and the power transmission and distribution or power grid market.

The demand for clean and renewable sources of electricity, such as wind energy, and the demand for modernized power grid infrastructure are being driven globally by a variety of factors. These factors include increasing electricity usage, power grid capacity constraints, fossil fuel price volatility and harmful levels of pollution and greenhouse gases. In addition, our growing digital-based economy demands better power reliability and quality. Concerns about these factors have led to increased spending by corporations and supportive government regulations and initiatives on local, state, national and global levels, including renewable portfolio standards, tax incentives and international treaties.

We conduct our operations through two business units:

*AMSC Power Systems.* AMSC Power Systems, or Power Systems, produces a broad range of products to increase electrical grid capacity and reliability; supplies electrical systems used in wind turbines; sells power electronic products that regulate wind farm voltage to enable their interconnection to the power grid; licenses proprietary wind energy system designs to manufacturers of such systems; and provides consulting services to the wind industry.

*AMSC Superconductors.* AMSC Superconductors, or Superconductors, focuses on the manufacturing of HTS wire and coils; the design and development of HTS products, such as power cables, fault current limiters and motors; and the management of large-scale HTS projects, such as HTS power cable system design, manufacturing and installation.

Our revenues for fiscal year 2006, which ended on March 31, 2007, were \$52.2 million. Our total backlog of orders and contracts grew by more than 200 percent to approximately \$80 million as of March 31, 2007 from \$23.8 million in backlog as of March 31, 2006. We expect to recognize as revenue at least \$58 million of the \$80 million in backlog in the fiscal year ending March 31, 2008. Overall, with strong demand for our product and service portfolio, the recent completion of two acquisitions, near-record quarterly revenues in the fourth quarter of fiscal 2006,

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and additional new orders and contracts since the end of fiscal 2006, we believe that we have set the stage for continued growth in fiscal 2007 and beyond.

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### **Market Opportunities**

Our products and services address two substantial global demands:

the demand for cleaner, renewable sources of electricity, such as wind power; and

the demand for a modernized power grid infrastructure to alleviate capacity constraints and improve the reliability, security, stability and efficiency of electricity.

The market for wind-generated, zero-emission electricity has been growing dramatically for more than a decade. According to the Global Wind Energy Council, or GWEC, nearly 15,200 megawatts, or MW, of wind generation capacity was added worldwide in calendar 2006, increasing the global installed base by 26 percent to 74,223 MW. Furthermore, global wind power capacity is expected to more than double to 149,500 MW by 2010. At the end of fiscal 2006, we had product sales and orders to support more than 3,760 MW of wind generated electricity worldwide, an increase of approximately 175 percent from 1,360 MW at the end of fiscal 2005. We address the wind energy market by providing services and designing, developing, manufacturing and selling critical components.

Until the early part of this decade, transmission grid investment experienced a prolonged depression, caused by uncertainties with respect to the ownership of and return on transmission grid assets caused by potential changes in power grid regulations and policies. This period of underinvestment has resulted in an increasing number of grid disturbances, local electric power outages and large-scale power blackouts. We currently address the power grid infrastructure opportunity by providing components and products designed to increase the power grid's capacity, reliability, security, stability and efficiency.

### **Competitive Strengths**

Our competitive strengths position us well to execute on our growth plans in the markets we serve.

*Technology Leadership and Engineering Expertise.* We are a technology leader in the development of power electronics and HTS wire-based solutions for the wind energy and power grid markets. As of March 31, 2007, we owned more than 370 patents and patent applications worldwide, and had rights through exclusive and non-exclusive licenses to more than 360 additional patents and patent applications. Our technology and manufacturing know-how, customer and product knowledge and patent portfolio provide us with a strong competitive position. We employ our 20 years of development expertise toward the design and commercialization of new products and solutions and toward the implementation of proprietary manufacturing processes.

*Sophisticated, Flexible Product Design.* Our products are highly flexible, and their sophisticated design allows for a high degree of customization. These products leverage our proprietary software and hardware combinations that enable us to configure our power electronics to efficiently and quickly meet the specific requirements of customers in a diverse range of markets. Furthermore, our proprietary HTS wire design and product engineering capabilities enable products with superior performance when compared to other market alternatives. Our wire design, for instance, allows us to tailor the lamination of our HTS wire to meet the electrical and mechanical performance requirements of widely varying end-use applications.

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*Highly Scalable, Low Cost Manufacturing Platform.* Our proprietary manufacturing technique for 344 superconductors, which is our brand name for what is generically known as second generation (2G) HTS wire, is modular in nature, which we believe will allow us to readily expand manufacturing capacity at relatively low incremental cost. All of the equipment we are installing today for the 344 superconductors manufacturing line is designed with the capability to process either 4 cm or 10 cm wide strips, which will allow us to increase gross capacity by 2.5 times without significant additional capital expenditures when we migrate from 4 cm to 10 cm production. We believe our capacity

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expansion on this manufacturing line will eventually enable us to manufacture this wire at one-fifth the cost of our first generation (1G) HTS wire, which we no longer manufacture.

*Close Consultative Relationships with Customers.* We have built a team of skilled engineers with extensive experience in the design, structure and modeling of power transmission and distribution grids and in the operation of wind farms and industrial sites. We work closely with our customers to understand their needs and develop solutions to their unique operational challenges. By determining solutions, our team is able to identify applications for our technology. We are then able to customize and target our offerings to specific customers.

*Highly Experienced Management and Technical Team.* Senior management has over 200 years of cumulative experience developing, manufacturing, marketing and selling energy technologies. This team is composed of veterans of the electrical equipment, utility and wind power markets and is backed by our 263 employees worldwide as of March 31, 2007, 23 of whom held Ph.D.s in materials science, physics, metallurgy, or engineering.

## **Strategy**

Our strategy is to drive revenue growth and enhance operating results by achieving a greater proliferation and acceptance of our products.

*Target High-Growth Segments with Commercial Products.* We target high-growth segments of the power and utility industry. Our Power Systems offerings are designed to meet the needs of the wind energy market, which is expected to grow by at least 19 percent annually through 2010, according to GWEC. Our HTS and grid-support products fill the needs of capacity-constrained transmission assets globally and address the demand for more reliable, secure and efficient transmission and distribution assets. After decades of decline, Edison Electric Institute, the association of U.S. shareholder-owned electric companies, expects investment in the transmission grid to increase from \$5.8 billion in 2005 to \$8.4 billion in 2009.

*Pursue Overseas Markets.* We are increasingly focusing our sales efforts on overseas markets and have been successful in targeting business in emerging economies, such as China and South Korea. We also have built significant sales momentum in countries where dynamic voltage standards for wind farms have been put in place, such as Australia, Canada, New Zealand and the United Kingdom. In fiscal 2006, which ended March 31, 2007, approximately 47 percent of our revenues came from sales outside the United States compared with 24 percent the prior fiscal year. In support of this expansion, we maintain field service and sales in Germany as well as operations in Austria. In the first half of fiscal 2006, we opened offices in China and Singapore to support our growing customer base in the Asia-Pacific region.

*Anticipate Customer Needs in the Development of System-Level Solutions.* We develop close working relationships with our customers that enable us to provide customized solutions and identify opportunities to employ our products. Our Network Solutions team collects and analyzes data regarding our customers' systems from entire power grids to manufacturing operations to wind farms. For example, our Network Solutions team carries out dynamic simulations for customers on the effects power grid disturbances may have on grid reliability under all operating conditions. They then can quantify how the incorporation of volt-amp-reactive, or VAR, solutions, such as static VAR compensators, or SVCs, and dynamic VAR, or D-VAR, systems, and advanced technologies, such as HTS cables and fault current limiters, or FCLs, can improve power grid operations. The group performs similar analyses to determine optimum power quality solutions for industrial manufacturing sites and wind farms.



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*Strengthen our Technology Leadership while Lowering Cost.* We work continuously to strengthen our leadership position in terms of reliability, effectiveness, cost and total product offering. We interact with our customers and suppliers not only to improve the performance and efficiency of our Power Systems solutions, but also to reduce material and manufacturing costs. In addition, we maintain a vigorous research and development effort that continues to yield increases in electrical and mechanical performance of our 344 superconductors, which already perform at levels that are comparable to or better than our 1G HTS wire. We continue to achieve productivity enhancements in our manufacturing of 344 superconductors, which we believe will enable us to manufacture this wire at one-fifth the cost of our 1G HTS wire.

*Pursue Targeted Strategic Acquisitions and Alliances.* We will continue to pursue strategic business relationships and acquisitions that complement our product portfolio and increase our rate of growth. We have built strategic alliances and close corporate relationships with many industry leaders including GE Energy, Nexans, Siemens, Southwire and Vestas to develop and commercialize our products and to bring them to market. We also have been successful in closing key acquisitions, including our recent acquisitions of Windtec and Power Quality Systems. The Windtec acquisition provides increased access to the growing wind market and complements sales of our existing D-VAR and PowerModule power electronics products in the wind market. Our recent Power Quality Systems acquisition enhances our reactive compensation product offerings for utility and industrial customers.

## **Corporate Information**

We were incorporated in the State of Delaware in April 1987. Our principal executive offices are located at Two Technology Drive, Westborough, Massachusetts 01581 and our telephone number at that address is (508) 836-4200.

Our website is located at [www.amsc.com](http://www.amsc.com). We have not incorporated by reference into this prospectus the information on our website and you should not consider it to be a part of this document. Our website address is included as an inactive textual reference only.

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**THE OFFERING**

Common stock we are offering	4,700,000 shares
Common stock to be outstanding after this offering	40,602,885 shares
Over-allotment option	705,000 shares
Net proceeds	We estimate that the net proceeds from this offering will be approximately \$93.5 million, based on the public offering price of \$21.25 per share and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.
Use of proceeds	We expect to use net proceeds from this offering to fund the expansion of our foreign operations, to expand our HTS wire manufacturing capacity and for working capital and other general corporate purposes. See Use of Proceeds.
Risk factors	You should read the Risk Factors section of this prospectus for a discussion of factors to consider carefully before deciding to purchase shares of our common stock.
NASDAQ Global Market symbol	AMSC
The number of shares of our common stock to be outstanding after this offering is based on the number of shares outstanding as of June 29, 2007, and excludes:	

options to purchase 4,009,489 shares of common stock outstanding as of June 29, 2007;

442,783 shares of common stock available for future issuance under our stock option plans as of June 29, 2007; and

warrants to purchase 273,750 shares of common stock outstanding as of June 29, 2007.

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The following table provides selected financial data for each of the three fiscal years in the period ended March 31, 2007. The financial data for each of the three fiscal years in the period ended March 31, 2007 have been derived from our audited consolidated financial statements, incorporated herein by reference to our Annual Report on Form 10-K for the year ended March 31, 2007. You should read this information in conjunction with our consolidated financial statements, including the related notes, which are incorporated by reference into this prospectus, and Management's Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this prospectus.

	Fiscal Year Ended March 31,		
	2007	2006	2005
(In thousands, except per share amounts)			
<b>Statement of Operations Data</b>			
Total revenues	\$ 52,183	\$ 50,872	\$ 58,283
Total costs and expenses	88,715	84,359	78,632
Net loss <sup>(1)</sup>	(34,675)	(30,876)	(19,660)
Net loss per common shares (basic and diluted)	(1.04)	(0.94)	(0.70)
Weighted average number of common shares outstanding (basic and diluted)	33,261	32,685	28,215

- (1) Included in the net loss for the year ended March 31, 2007 was a \$3,680,000 charge related to our adoption of SFAS 123(R) and a \$667,000 charge for restructuring and long-lived asset impairments related to our decision to re-align our AMSC Wires and AMSC Supermachines business units into the newly formed AMSC Superconductors business unit. The net loss for the year ended March 31, 2006 included a \$4,960,000 long-lived asset impairment charge related to our decision to complete the transition from 1G HTS wire to a lower cost 2G HTS wire manufacturing methodology.

The summary consolidated balance sheet data as of March 31, 2007 is presented on an actual basis and an as adjusted basis to reflect the sale of 4,700,000 shares of common stock offered by us in this offering at the public offering price of \$21.25 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

	As of March 31, 2007	
	Actual	As Adjusted
(In thousands)		
<b>Balance Sheet Data</b>		
Cash and cash equivalents and marketable securities	\$ 35,324	\$ 128,856
Working capital	34,942	128,474
Total assets	132,433	225,965
Total liabilities	30,812	30,812
Stockholders' equity	101,621	195,153

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**RISK FACTORS**

*An investment in our common stock involves a high degree of risk. You should carefully consider the following risk factors and the other information included or incorporated by reference into this prospectus before investing in our common stock. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. If any of these risks occur, our business could suffer, the market price of our common stock could decline and you could lose all or part of your investment in our common stock.*

**We have a history of operating losses, and we expect to incur losses in the future.**

We have been focused on research and development activities through the fiscal year ended March 31, 2007. We have incurred net losses in each year since our inception. Our net loss was \$34.7 million for the fiscal year ended March 31, 2007, \$30.9 million for the fiscal year ended March 31, 2006 and \$19.7 million for the fiscal year ended March 31, 2005. Our accumulated deficit as of March 31, 2007 was \$385.1 million. We expect to continue to incur operating losses until at least the end of the fiscal year ending March 31, 2009, and we cannot be certain that we will ever achieve profitability.

We had cash, cash equivalents and marketable securities totaling \$35.3 million at March 31, 2007. We believe our available cash, cash equivalents and marketable securities, together with the proceeds from this offering, will be sufficient to fund our working capital, capital expenditures and other cash requirements for the next several years. However, we may need additional funds if our performance deviates significantly from our current business plan, if there are significant changes in competitive or other market factors, or if unforeseen circumstances arise. Such funds may not be available, or may not be available under terms acceptable to us.

**There are a number of technological challenges that must be successfully addressed before our superconductor products can gain widespread commercial acceptance, and our inability to address such technological challenges could adversely affect our ability to acquire customers for our products.**

Many of our superconductor products are in the early stages of commercialization, while others are still under development. There are a number of technological challenges that we must successfully address to complete our development and commercialization efforts for superconductor products. We also believe that several years of further development in the cable, fault current limiter and motor industries will be necessary before a substantial number of additional commercial applications for our HTS wire in these industries can be developed and proven. We will also need to improve the performance and reduce the cost of our HTS wire to expand the number of commercial applications for it. We may be unable to meet such technological challenges or to sufficiently improve the performance and reduce the costs of our HTS wire. Delays in development, as a result of technological challenges or other factors, may result in the introduction or commercial acceptance of our superconductor products later than anticipated.

**The commercial uses of superconductor products are limited today, and a widespread commercial market for our products may not develop.**

To date, there has been no widespread commercial use of HTS products. Even if the technological hurdles currently limiting commercial uses of HTS products are overcome, it is uncertain whether a robust commercial market for those new and unproven products will ever develop. To date, many projects to install HTS cables and products in power grids have been funded or subsidized by the governmental authorities. If this

funding is curtailed, grid operators may not continue to utilize HTS cables and products in their projects. It is possible that the market demands we currently anticipate for our HTS products will not develop and that they will never achieve widespread commercial acceptance.

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**We have limited experience manufacturing our Power Systems products in commercial quantities, and failure to manufacture our Power Systems products in commercial quantities at acceptable cost and quality levels would impair our ability to meet customer delivery requirements.**

To be financially successful, we will have to manufacture our Power Systems products in commercial quantities at acceptable costs while also preserving the necessary performance and quality levels. We cannot be certain that we will be successful in developing product designs and manufacturing processes that permit us to manufacture our Power Systems products in commercial quantities at acceptable costs while preserving the necessary performance and quality. In addition, we may incur significant unforeseen expenses in our product design and manufacturing efforts.

**We have not manufactured our 344 superconductors in commercial quantities, and a failure to manufacture our 344 superconductors in commercial quantities at acceptable cost and quality levels would substantially limit our future revenue and profit potential.**

We are developing commercial-scale manufacturing processes for our 344 superconductors, which, while very different from our 1G HTS wire manufacturing processes, are also extremely complex and challenging. We expect to have installed and qualified by December 31, 2007 the capacity to manufacture 720,000 meters of our 344 superconductors annually. However, in order to be able to offer our wire at pricing that we believe will be commercially competitive, we estimate that we will need to develop the capacity to manufacture nine million meters of our 344 superconductors annually. We believe it will cost between approximately \$28 million and \$35 million to purchase and install additional equipment to achieve this commercial scale manufacturing capability. We may not be able to manufacture satisfactory commercial quantities of 344 superconductors of consistent quality with an acceptable yield and cost. Failure to successfully scale up manufacturing of our 344 superconductors would result in a significant limitation of the broad market acceptance of our HTS products and of our future revenue and profit potential.

**We have limited experience in marketing and selling our superconductor products and system-level solutions, and our failure to effectively market and sell our products and solutions could adversely affect our revenue and cash flow.**

To date, we have limited experience marketing and selling our superconductor products and system-level solutions, and there are few people who have significant experience marketing or selling superconductor products and system-level solutions. Once our products and solutions are ready for widespread commercial use, we will have to develop a marketing and sales organization that will effectively demonstrate the advantages of our products over both more traditional products and competing superconductor products or other technologies. We may not be successful in our efforts to market this new technology, and we may not be able to establish an effective sales and distribution organization.

We may decide to enter into arrangements with third parties for the marketing or distribution of our products, including arrangements in which our products, such as HTS wire, are included as a component of a larger product, such as a power cable system or a motor. By entering into marketing and sales alliances, the financial benefits to us of commercializing our products are dependent on the efforts of others.

**Our success in addressing the wind energy system market is dependent on the system manufacturers that license our system designs.**

Because an important element of our strategy for addressing the wind energy system market involves the license of our system designs to manufacturers of wind energy systems, the financial benefits to us of our products for the wind energy market are dependent on the success of

these manufacturers in selling wind energy systems that incorporate our designs. We may not be able to enter into marketing or distribution arrangements with third parties on financially acceptable terms, and third parties may not be successful in selling our products or applications incorporating our products.

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### **Growth of the wind energy market depends largely on the availability and size of government subsidies and economic incentives.**

At present, the cost of wind energy exceeds the cost of conventional power generation in many locations around the world. Various governments have used different policy initiatives to encourage or accelerate the development and adoption of wind energy and other renewable energy sources. Renewable energy policies are in place in the European Union, most notably Germany and Spain, certain countries in Asia, including China, Japan and South Korea, and many of the states in Australia and the United States. Examples of government sponsored financial incentives include capital cost rebates, feed-in tariffs, tax credits, net metering and other incentives to end-users, distributors, system integrators and manufacturers of wind energy products to promote the use of wind energy and to reduce dependency on other forms of energy. Governments may decide to reduce or eliminate these economic incentives for political, financial or other reasons. Reductions in, or eliminations of, government subsidies and economic incentives before the wind energy industry reaches a sufficient scale to be cost-effective in a non-subsidized marketplace could reduce demand for our products and adversely affect our business prospects and results of operations.

### **Many of our revenue opportunities are dependent upon subcontractors and other business collaborators.**

Many of the revenue opportunities for our business involve projects, such as the installation of superconductor cables in power grids and electrical system hardware in wind energy systems, in which we collaborate with other companies, including suppliers of cryogenic systems, manufacturers of electric power cables and manufacturers of wind energy systems. In addition, a key element of our business strategy is the formation of business alliances with motor manufacturers and/or marine propulsion system integrators. As a result, most of our current and planned revenue-generating projects involve business collaborators on whose performance our revenue is dependent. If these business partners fail to deliver their products or perform their obligations on a timely basis or fail to generate sufficient demand for the systems they manufacture, our revenue from the project may be delayed or decreased and we may not be successful in selling our products.

### **We may not realize all of the sales expected from our backlog of orders and contracts.**

At March 31, 2007, we had approximately \$80 million of backlog of orders and contracts. There can be no assurances that the revenue we expect to generate from our backlog will be realized in the periods we expect to realize such revenue, or at all. In addition, the backlog of orders and contracts, if realized, may not result in profitable revenue. Backlog represents the value of contracts and purchase orders received, less the revenue recognized to date on those contracts and purchase orders. Our customers have the right under some circumstances and with some penalties or consequences to terminate, reduce or defer firm orders that we have in backlog. In addition, our government contracts are subject to the risks described below. If our customers terminate, reduce or defer firm orders, we may be protected from certain costs and losses, but our sales will nevertheless be adversely affected and we may not generate the revenue we expect. Although we strive to maintain ongoing relationships with our customers, there is an ongoing risk that orders may be cancelled or rescheduled due to fluctuations in our customers business needs or purchasing budgets.

### **Our contracts with the U.S. government are subject to audit, modification or termination by the U.S. government, and the continued funding of such contracts remains subject to annual congressional appropriation which, if not approved, could adversely affect our results of operations and financial condition.**

As a company that contracts with the U.S. government, we are subject to financial audits and other reviews by the U.S. government of our costs and performance, accounting and general business practices relating to these contracts. Based on the results of these audits, the U.S. government may adjust our contract-related costs and fees. We cannot be certain that adjustments arising from government audits and reviews would not have a material adverse effect on our results of operations. Some of our contracts with the U.S. government are on a





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firm fixed price basis and, as such, are subject to more financial risk in the event of unanticipated cost overruns. For example, we recently announced that we had higher than planned costs in connection with a fixed price contract with the Navy.

All of our U.S. government contracts can be terminated by the U.S. government for its convenience. Termination-for-convenience provisions provide only for our recovery of costs incurred or committed, and for settlement of expenses and profit on work completed prior to termination. In addition to the right of the U.S. government to terminate its contracts with us, U.S. government contracts are conditioned upon the continuing approval by Congress of the necessary spending to honor such contracts. Congress often appropriates funds for a program on a fiscal-year basis even though contract performance may take more than one year. Consequently, at the beginning of many major governmental programs, contracts often may not be fully funded, and additional monies are then committed to the contract only if, as and when appropriations are made by Congress for future fiscal years. We cannot be certain that our U.S. government contracts will not be terminated or suspended in the future. The U.S. government's termination of, or failure to fully fund, one or more of our contracts would have a negative impact on our operating results and financial condition. Further, in the event that any of our government contracts are terminated for cause, it could affect our ability to obtain future government contracts which could, in turn, seriously harm our ability to develop our technologies and products.

We have recently learned that the United States House of Representatives Committee on Energy and Commerce, or Committee, and its Subcommittee on Oversight and Investigations has sent a letter to the United States Department of Homeland Security, or DHS, indicating that it is reviewing the origins of the sole source contract that DHS awarded to American Superconductor and Consolidated Edison for a project to develop electricity grids in New York City that can withstand major disruptions. As we previously announced, we signed a letter contract on this project on May 18, 2007 with DHS worth \$1,700,000, of which DHS will fund \$1,100,000. Final contract terms between DHS and us are being negotiated. Total project costs are estimated to be \$39,300,000 with DHS providing up to \$25,000,000 of the total project cost.

We have also learned that the Committee sent a letter to the Department of the Navy seeking information and documents regarding completed contracts between the U.S. Navy and us.

The Committee did not state the reason for its review of these matters. We have not been contacted regarding these matters and no information has been requested from us. Negotiations between us and the DHS regarding the final contract are continuing. While we continue to expect to successfully complete this contract, there can be no assurance that we will do so.

### **Our products face intense competition both from superconductor products developed by others and from traditional, non-superconductor products and alternative technologies, which could limit our ability to acquire or retain customers.**

The market for superconductor products is intensely competitive. We face competition both from competitors in the superconductor field and from vendors of traditional products and new technologies. There are many companies in the United States, Europe, Japan and China engaged in the development of HTS wire, including EHTS (a division of Bruker Biospin), Evico, Fujikura, Furukawa Electric, Innova Superconductor Technology, Nexans, MetOx, Showa, Sumitomo Electric Industries, SuperPower (a subsidiary of Royal Philips Electronics) and Zenergy. The superconductor industry is characterized by rapidly changing and advancing technology. Our future success will depend in large part upon our ability to keep pace with advancing HTS technology and developing industry standards.

Our power electronic products, such as D-VAR and PQ-SVC products, compete with a variety of other power reliability products, such as dynamic voltage restorers, or DVRs, static VAR compensators, or SVCs, static compensators, or STATCOMS, flywheels, battery-based power quality systems and competing power electronic converter systems. The manufacturers of products that compete with our power electronic products and PowerModule products include ABB, Alstom, Mitsubishi Electric, S&C Electric and Siemens.



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Our Windtec business faces competition for the supply of wind turbine engineering design services from design engineering firms, such as Garrad Hassan, and from licensors of wind turbine systems, such as Aerodyn, DeWind and REpower. We also face indirect competition in the wind energy market from manufacturers of wind energy systems, such as Gamesa, General Electric, Suzlon and Vestas.

The stand-alone FCL products that we are developing in collaboration with Siemens face competition from several competitors developing alternative solutions, including Beijing Superconductor, Hypertech, Hyundai, Innopower, KEPRI, Nexans, Rolls-Royce, SC Power, Sumitomo Electric, Superpower and Toshiba. The HTS motor and generator products that we are developing face competition from copper wire-based motors and generators, from permanent magnet motors that are being developed, including by DRS Technologies, and from companies developing HTS rotating machinery, including Converteam, Doosan Heavy Industries & Construction, General Electric, Ishikawajima-Harima Heavy Industries Co., Rockwell and Siemens. Research efforts and technological advances made by others in the superconductor field, in the wind energy market or in other areas with applications to the power quality and reliability markets may render our development efforts obsolete.

Many of our competitors have substantially greater financial resources, research and development, manufacturing and marketing capabilities than we have. In addition, as the HTS wire, HTS electric motors and generators, and power electronic systems markets develop, other large industrial companies may enter those fields and compete with us. If we are unable to compete successfully, it may harm our business, which in turn may limit our ability to acquire or retain customers.

### **Third parties have or may acquire patents that cover the materials, processes and technologies we use or may use in the future to manufacture our HTS products, and our success depends on our ability to license such patents or other proprietary rights.**

We expect that some or all of the HTS materials, processes and technologies we use in designing and manufacturing our products are or will become covered by patents issued to other parties, including our competitors. If that is the case, we will need to acquire licenses to these patents, successfully contest the validity of these patents or re-engineer our products so that they do not infringe such patents. The owners of these patents may refuse to grant licenses to us, or may be willing to do so only on terms that we find commercially unreasonable. If we are unable to obtain these licenses, we may have to contest the validity or scope of those patents or re-engineer our products to avoid infringement claims by the owners of these patents. It is possible that we will not be successful in contesting the validity or scope of a patent, or that we will not prevail in a patent infringement claim brought against us. Even if we are successful in such a proceeding, we could incur substantial costs and diversion of management resources in prosecuting or defending such a proceeding.

### **Our patents may not provide meaningful protection for our technology, which could result in us losing some or all of our market position.**

We own or have licensing rights under many patents and pending patent applications. However, the patents that we own or license may not provide us with meaningful protection of our technologies and may not prevent our competitors from using similar technologies, for a variety of reasons, such as:

the patent applications that we or our licensors file may not result in patents being issued;

any patents issued may be challenged by third parties; and

others may independently develop similar technologies not protected by our patents or design around the patented aspects of any technologies we develop.

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Moreover, we could incur substantial litigation costs in defending the validity of our own patents. We also rely on trade secrets and proprietary know-how to protect our intellectual property. However, our non-disclosure agreements and other safeguards may not provide meaningful protection for our trade secrets and other proprietary information. If the patents that we own or license or our trade secrets and proprietary know-how fail to protect our technologies, our market position may be adversely affected.

**Our success is dependent upon attracting and retaining qualified personnel, and our inability to do so could significantly damage our business and prospects.**

Our success will depend in large part upon our ability to attract and retain highly qualified research and development, management, manufacturing, marketing and sales personnel. Hiring those persons may be especially difficult due to the specialized nature of our business.

**We may acquire additional complementary businesses or technologies, which may require us to incur substantial costs for which we may never realize the anticipated benefits.**

We acquired Windtec on January 5, 2007 and Power Quality Systems on April 27, 2007. We may in the future acquire additional complementary businesses or technologies, although we currently have no commitments or agreements. As a result of the Windtec and Power Quality Systems acquisitions and any additional acquisitions we pursue, management's attention and resources may be diverted from our other businesses. An acquisition may also involve significant purchase price and significant transaction-related expenses.

Achieving the benefits of any acquisition involves additional risks, including:

difficulty assimilating acquired operations, technologies and personnel;

inability to retain management and other key personnel of the acquired business;

changes in management or other key personnel that may harm relationships with the acquired business's customers and employees; and

diversion of management attention as a result of the integration process.

We cannot ensure that we will realize any of the anticipated benefits of the Windtec and Power Quality Systems acquisitions or any other acquisition, and if we fail to realize these anticipated benefits, our operating performance could suffer.

**Our international operations are subject to risks that we do not face in the U.S., which could have an adverse effect on our operating results.**

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We completed our acquisition of Windtec, an Austrian-based company, on January 5, 2007 and we are expanding our sales and service operations in Austria and the Asia-Pacific region. We expect our revenue and operations outside the United States will continue to expand in the future. Our international operations are subject to a variety of risks that we do not face in the U.S., including:

difficulties in staffing and managing our foreign offices and the increased travel, infrastructure and legal compliance costs associated with multiple international locations;

potentially longer payment cycles for sales in foreign countries and difficulties in collecting accounts receivable;

additional withholding taxes or other taxes on our foreign income, and tariffs or other restrictions on foreign trade or investment, including export duties and quotas, trade and employment restrictions;

imposition of, or unexpected adverse changes in, foreign laws or regulatory requirements;

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increased exposure to foreign currency exchange rate risk;

reduced protection for intellectual property rights in some countries; and

political unrest, war or acts of terrorism.

Our overall success in international markets depends, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions. We may not be successful in developing and implementing policies and strategies that will be effective in managing these risks in each country where we do business. Our failure to manage these risks successfully could harm our international operations and reduce our international sales, thus adversely affecting our business, operating results and financial condition.

**Our common stock may experience extreme market price and volume fluctuations, which may prevent our stockholders from selling our common stock at a profit and could lead to costly litigation against us that could divert our management's attention.**

The market price of our common stock has historically experienced significant volatility and may continue to experience such volatility in the future. Factors such as technological achievements by us and our competitors, the establishment of development or strategic relationships with other companies, our introduction of commercial products, and our financial performance may have a significant effect on the market price of our common stock. In addition, the stock market in general, and the stock of high technology companies in particular, have in recent years experienced extreme price and volume fluctuations, which are often unrelated to the performance or condition of particular companies. Such broad market fluctuations could adversely affect the market price of our common stock. Due to these factors, the price of our common stock may decline and investors may be unable to resell their shares of our common stock for a profit. Following periods of volatility in the market price of a particular company's securities, securities class action litigation has often been brought against that company. If we become subject to this kind of litigation in the future, it could result in substantial litigation costs, a damages award against us and the diversion of our management's attention.



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**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, any prospectus supplement we may use in connection with this prospectus, and the documents we incorporate by reference into this prospectus contain forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. For this purpose, any statements contained herein that relate to future events or conditions, including without limitation, the statements included or incorporated by reference into this prospectus regarding industry prospects and our prospective results of operations or financial position, may be deemed to be forward-looking statements. The words believes, anticipates, plans, expects, and similar expressions are intended to identify forward-looking statements. Such forward-looking statements represent management's current expectations and are inherently uncertain. The important factors discussed above under Risk Factors, among others, could cause actual results to differ materially from those indicated by such forward-looking statements. Any such forward-looking statements represent management's views as of the date of the document in which such forward-looking statement is contained. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change.

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**USE OF PROCEEDS**

We estimate the net proceeds to us from this offering will be approximately \$93.5 million, or approximately \$107.7 million if the underwriters exercise their over-allotment option in full, based on the public offering price of \$21.25 per share, after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us.

We currently estimate that, of the net proceeds of this offering, we will spend

approximately \$10 million to fund the expansion of our operations in China and India;

approximately \$20 million to fund the expansion of our HTS wire manufacturing capacity; and

approximately \$10 million to finance working capital needs.

We intend to use any remaining proceeds for general corporate purposes, including bonding and corporate guarantees for large projects, and to pursue strategic business relationships and acquisitions.

The expected use of net proceeds that we receive in this offering represents our current intention based upon our present plans and business condition. The amounts and timing of our actual expenditures will depend upon numerous factors, including the success of our ongoing commercial efforts.

Pending the uses described above, we intend to invest the net proceeds of this offering in short-term, interest-bearing, investment-grade securities.

**PRICE RANGE OF COMMON STOCK**

Our common stock has been quoted on the NASDAQ Global Market under the symbol `AMSC` since 1991. The following table sets forth the high and low sale prices per share of our common stock as reported on the NASDAQ Global Market for the periods indicated.

	<b>High</b>	<b>Low</b>
Fiscal Year Ended March 31, 2006		
First Quarter	\$ 11.45	\$ 6.91
Second Quarter	11.99	8.70
Third Quarter	10.85	6.91
Fourth Quarter	11.89	7.92
Fiscal Year Ended March 31, 2007		

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First Quarter	11.52	8.25
Second Quarter	10.39	6.73
Third Quarter	11.26	8.90
Fourth Quarter	15.20	9.20
Fiscal Year Ended March 31, 2008		
First Quarter	21.48	13.10
Second Quarter (through July 19, 2007)	23.58	19.28

On July 19, 2007, the last sale price of our common stock as reported on the NASDAQ Global Market was \$22.34.

### DIVIDEND POLICY

We have never paid cash dividends on our common stock. We currently intend to retain earnings, if any, to fund the development and growth of our business and do not anticipate paying cash dividends for the foreseeable future. Payment of future cash dividends, if any, will be at the discretion of our Board of Directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs and plans for expansion.

**Table of Contents****CAPITALIZATION**

The following table sets forth our capitalization as of March 31, 2007:

on an actual basis; and

on an as adjusted basis to reflect the issuance and sale of 4,700,000 shares of our common stock in this offering at the public offering price of \$21.25 per share, after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us.

This table excludes 4,140,309 shares of our common stock reserved as of March 31, 2007 for issuance upon exercise of outstanding options and warrants, with a weighted average exercise price of \$16.14 per share, and 295,329 shares of our common stock issued in connection with our acquisition of Power Quality Systems. You should read this table together with our financial statements and accompanying notes, which are incorporated by reference into this prospectus, and with Management's Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this prospectus.

	As of March 31, 2007	
	Actual	Adjusted
	(in thousands)	
Long-term debt	\$	\$
Stockholders' equity:		
Common stock, \$.01 par value; 100,000,000 shares authorized; 35,016,073 shares issued and outstanding, actual; 39,716,073 shares issued and outstanding, as adjusted	350	397
Additional paid-in capital	486,194	579,679
Deferred contract costs - warrant	(13)	(13)
Accumulated other comprehensive income	145	145
Accumulated deficit	(385,055)	(385,055)
Total stockholders' equity	101,621	195,153
Total capitalization	\$ 101,621	\$ 195,153

**Table of Contents****DILUTION**

Our net tangible book value as of March 31, 2007 was approximately \$85,650,000, or \$2.45 per share. Net tangible book value per share represents our total tangible assets less our total liabilities, divided by the aggregate number of shares of our common stock outstanding. After giving effect to the sale of 4,700,000 shares of our common stock in this offering, at the public offering price of \$21.25 per share, after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us, our net tangible book value at March 31, 2007 would have been approximately \$179,182,000, or \$4.51 per share. This represents an immediate increase in net tangible book value per share of \$2.06 to existing stockholders and an immediate dilution of \$16.74 per share to new investors. Dilution per share represents the difference between the amount per share paid by the new investors in this offering and the net tangible book value per share at March 31, 2007, giving effect to this offering. The following table illustrates this per share dilution to new investors.

Public offering price per share	\$ 21.25
Net tangible book value per share as of March 31, 2007	\$ 2.45
Increase in net tangible book value per share attributable to new investors	2.06
Net tangible book value per share after this offering	4.51
Dilution per share to new investors	\$ 16.74

These calculations assume no exercise of stock options and warrants outstanding as of March 31, 2007. As of March 31, 2007, there were options and warrants outstanding to purchase an aggregate of 4,140,309 shares of our common stock with a weighted average exercise price of \$16.14 per share.

**Table of Contents****SELECTED CONSOLIDATED FINANCIAL DATA**

The selected consolidated financial data presented below for each of the five fiscal years in the period ended March 31, 2007 have been derived from our audited consolidated financial statements, including those incorporated in this prospectus by reference to our Annual Report on Form 10-K for the year ended March 31, 2007. The financial data presented below should be read in conjunction with the other financial information appearing elsewhere in this prospectus or incorporated by reference into this prospectus.

	Fiscal Year Ended March 31,				
	2007	2006	2005	2004	2003
	(In thousands, except per share data)				
<b>Statement of Operations Data</b>					
Revenues:					
Contract revenue	\$ 2,420	\$ 1,712	\$ 1,757	\$ 874	\$ 715
Product sales and prototype development contracts	49,763	49,161	56,526	40,434	20,305
<b>Total revenues</b>	<b>52,183</b>	<b>50,872</b>	<b>58,283</b>	<b>41,309</b>	<b>21,020</b>
Costs and expenses:					
Costs of revenue contract revenue	1,970	1,511	1,702	825	684
Cost of revenue product sales and prototype development contracts	50,730	51,938	56,172	43,455	31,518
Research and development	17,453	14,961	9,037	14,056	21,940
Selling, general and administrative	17,894	10,989	11,721	8,659	16,159
Restructuring charges	524				
Impairment charge	144	4,960			39,231
<b>Total costs and expenses</b>	<b>88,715</b>	<b>84,359</b>	<b>78,632</b>	<b>66,995</b>	<b>109,532</b>
Operating loss	(36,532)	(33,487)	(20,349)	(25,686)	(88,512)
Interest income	2,179	2,610	807	296	869
Other income (expense), net	(424)	(126)	(118)	45	10
<b>Net loss<sup>(1)</sup></b>	<b>\$ (34,675)</b>	<b>\$ (30,876)</b>	<b>\$ (19,660)</b>	<b>\$ (26,733)</b>	<b>\$ (87,633)</b>
Net loss per common share (basic and diluted)	\$ (1.04)	\$ (0.94)	\$ (0.70)	\$ (1.10)	\$ (4.21)
Weighted average number of common shares outstanding (basic and diluted)	33,261	32,685	28,215	24,196	20,831

- (1) Included in the net loss for the year ended March 31, 2007 was a \$3,680,000 charge related to our adoption of SFAS 123(R) and a \$667,000 charge for restructuring and long-lived asset impairments related to our decision to re-align our AMSC Wires and AMSC Supermachines business units into the newly formed AMSC Superconductors business unit. The net loss for the year ended March 31, 2006 included a \$4,960,000 long-lived asset impairment charge related to our decision to complete the transition from 1G HTS wire to a lower cost 2G HTS wire manufacturing methodology. The net loss for the year ended March 31, 2003 included a \$39,231,000 impairment charge related primarily to our building and equipment assets in Devens, Massachusetts that was recorded in connection with our plans to transition from 1G HTS wire to 2G HTS wire.

	2007	2006	As of March 31, 2005	2004	2003
	(In thousands)				
<b>Balance Sheet Data</b>					
Cash and cash equivalents and marketable securities	\$ 35,324	\$ 65,669	\$ 87,581	\$ 52,647	\$ 20,049
Working capital	34,942	66,220	77,272	46,202	19,407

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Total assets	132,433	133,470	158,917	129,899	101,979
Total long-term debt					
Stockholders equity	101,621	115,100	143,510	115,452	87,819

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**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL  
CONDITION AND RESULTS OF OPERATIONS**

**Executive Overview**

American Superconductor Corporation was founded in 1987. We are a leading energy technologies company, offering an array of solutions based on two proprietary technologies: programmable power electronic converters and high temperature superconductor, or HTS, wires. Our products, services and system-level solutions enable cleaner, more efficient and more reliable generation, delivery and use of electric power. The programmability and scalability of our power electronic converters differentiates them from most competitive offerings. Our HTS wires carry 150 times the electrical current of comparably sized copper wire. The two primary markets we serve are the wind energy market and the power transmission and distribution or power grid market.

Our HTS wire addresses constraints on the power grid by increasing the electric current carrying capacity of the transmission cables comprising these power grids and by providing for the manufacture of controllable alternating current power cables. In addition, our HTS wire, when incorporated into primary electrical equipment such as motors and generators, can provide increased manufacturing and operating savings due to a significant reduction in the size and weight of this equipment. Also, our power electronic converters increase the quantity, quality and reliability of electric power that is transmitted by electric utilities or consumed by large industrial entities.

Our products are in varying stages of commercialization. Our power electronic converters have been sold commercially, as part of an integrated system, to utilities, industrial manufacturers and wind farm developers, owners and operators since 1999. Our HTS wire has been produced commercially since the beginning of 2003, although its principal applications (power cables, fault current limiters, rotating machines and specialty magnets) are currently in the prototype stage. Some of these prototypes are funded by U.S. government contracts, primarily with the Department of Defense, or DOD, and Department of Energy, or DOE.

One of our major contracts with the U.S. Navy was converted from a cost-plus-incentive-fee contract to a firm-fixed-price contract on April 26, 2006, subjecting it to more financial risk in the event of unanticipated cost overruns. During the quarter ended December 31, 2006, a crack was discovered in a non-superconductor component of the 36.5 megawatt, or MW, motor that required repair. This event caused an unanticipated cost overrun on the Navy 36.5 MW contract that resulted in an estimated loss on this program of approximately \$1,616,000 being recorded in the quarter ended December 31, 2006. The crack was fully repaired and reassembly of the motor was completed in February 2007. However, additional technical issues occurred during the initial phase of factory acceptance testing in late February 2007, causing additional delays and cost overruns that led to a \$1,489,000 increase in the estimated loss on this program to \$3,105,000. The motor successfully passed factory acceptance testing at the end of March 2007 and was delivered to the Navy in June 2007.

The site for the Long Island Power Authority, or LIPA, 138,000 volt (138kV) HTS cable system in Hauppauge, New York has now been fully prepared, the cryogenics system has been completed and is operating, the cables have been manufactured and underground installation began in the spring of 2007. Commissioning of the cable system is scheduled for the fall of 2007. In March 2007, the DOE released the remaining incremental funding up to the then-current authorized contract ceiling of \$23,456,000, which allowed us to recognize revenue of \$2,721,000 during the quarter ended March 31, 2007 related to costs which had previously been deferred and recorded as inventory as of December 31, 2006. In May 2007, the DOE awarded us a contract modification of \$4,002,000 to cover subcontractor cost growth on the LIPA project, increasing the contract ceiling to \$27,458,000. On March 31, 2007, as a result of this contract modification being anticipated, we inventoried costs of \$1,127,000 incurred in excess of the then-current contract ceiling of \$23,456,000 as management deemed that future funding sufficient to cover these deferred costs was probable. These inventoried costs as of March 31,





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2007, will be recorded as costs of revenue and the corresponding revenue will be recognized in the first quarter of the fiscal year ending March 31, 2008.

Our success in the development efforts related to our lower-cost, second generation (2G) HTS wire led to a management decision in March 2006 to complete the transition of our HTS wire manufacturing operation from first generation (1G) to 2G HTS wire. As a result, all 1G wire production ceased with near-term market needs for HTS wire to be met from approximately 400,000 meters of 1G HTS wire inventory that was in stock as of March 31, 2006. As of March 31, 2007, approximately 280,000 meters remained in inventory, of which approximately 180,000 meters remained available for sale with the remainder committed to certain customers. We expect this remaining inventory will enable us to achieve our sales objectives for HTS wire while reducing operating losses and operating cash requirements for our AMSC Superconductors business unit.

Our cash requirements depend on numerous factors, including successful completion of our product development activities, ability to commercialize our product prototypes, rate of customer and market adoption of our products and the continued availability of U.S. government funding during the product development phase. Significant deviations to our business plan with regard to these factors, which are important drivers to our business, could have a material adverse effect on our operating performance, financial condition, and future business prospects. We expect to pursue the expansion of our operations through internal growth and potential strategic alliances and acquisitions. We are currently in the process of installing equipment for our 344 superconductors manufacturing line, which we expect will have a gross production capacity of approximately 720,000 meters per year in December 2007. This manufacturing line is expected to require approximately \$12,000,000 to \$14,000,000 in capital investment by December 2007, of which approximately \$9,000,000 has been spent on a cumulative basis through March 31, 2007.

On January 5, 2007, we completed the acquisition of Windtec Consulting GmbH, or Windtec. Windtec is an Austria-based designer and licensor of wind turbine systems and a provider of wind turbine electrical systems. Windtec is now a wholly-owned subsidiary and is operated by our AMSC Power Systems business unit. The Windtec purchase price was 1.3 million shares of our common stock, valued at approximately \$13,100,000 based on a five-day average stock price of \$10.08 per share at the time of signing the definitive acquisition agreements on November 28, 2006. The shares are subject to a lockup whereby the former sole owner and founder of Windtec may sell only a certain number of shares per year through January 2010. The all-stock transaction also includes an earn-out opportunity with the potential for the issuance of up to an additional 1.4 million shares of our common stock to be granted to the former owner and founder based on the achievement by Windtec of certain revenue growth targets for the years ending March 31, 2008 through March 31, 2011. The transaction includes the acquisition of 27 patents and patents pending worldwide on wind turbine technology. Prior to our acquisition of Windtec, Windtec was a customer of our Power Systems business unit for which we reported revenues of approximately \$2,584,000 for the nine-month period ended December 31, 2006 and approximately \$165,000 during the year ended March 31, 2006. Beginning on January 5, 2007, Windtec's results of operations are included in our consolidated financial statements.

On March 26, 2007, our Board of Directors approved a restructuring plan, which is referenced to as the Plan, to reduce future operating costs and to transition our high temperature superconductor products to the manufacturing stage by consolidating AMSC Wires, SuperMachines and Power Electronic Systems business segments into two operating segments: AMSC Superconductors and AMSC Power Systems. We consolidated our manufacturing operations by closing one of our two Westborough, Massachusetts facilities, moving operations from that facility into our Devens, Massachusetts plant, and reducing headcount by 37 employees.

We estimated aggregate restructuring charges associated with the Plan of approximately \$737,000. Of this total, \$524,000 of the restructuring charges was incurred during the quarter ended March 31, 2007, consisting of:

cash payments of \$380,000 for severance obligations payable primarily during the quarter ended June 30, 2007;



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\$51,000 in expenses incurred for the relocation of employees, equipment and inventory to the our Devens facility, payable during the quarter ended June 30, 2007; and

a \$93,000 accrual for the remaining lease payments on the vacated Westborough facility, with payments being made to our former landlord during the six-month period ending September 30, 2007.

Additional cash payments of \$213,000 for severance obligations will be expensed during the quarter ending June 30, 2007 and are expected to be paid out over the six-month period ending September 30, 2007, as a small number of the 37 affected employees remained with us through the end of May 2007 in order to complete ongoing projects. We expect approximately \$4,000,000 in savings related to salaries and facility-related costs in the year ending March 31, 2008. The restructuring actions under the Plan were substantially completed as of May 31, 2007.

On April 27, 2007, we completed the acquisition of Power Quality Systems, Inc., or PQS, in an all-stock transaction valued at approximately \$4,000,000 based on our closing stock price on April 27, 2007. Located in Pennsylvania, PQS offers reactive compensation products known as Static VAR Compensators, or SVCs, based on its proprietary thyristor switch technology. These products enhance the reliability of power transmission and distribution grids and improve the quality of power for manufacturing operations. PQS is being integrated into the AMSC Power Systems business unit. The 295,329 shares of stock issued as purchase price are subject to a lockup agreement whereby the former owners of PQS may sell only a certain number of shares per year through April 2009. The transaction also includes an earn-out opportunity with the potential for up to an additional 475,000 shares of our common stock to be issued to PQS's former owners based on the achievement of certain order growth targets for existing PQS products for the years ending March 31, 2008 and 2009.

## **Critical Accounting Policies and Estimates**

The preparation of consolidated financial statements requires that we make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. We base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ under different assumptions or conditions.

Our accounting policies that involve the most significant judgments and estimates are as follows:

Stock-based compensation;

Revenue;

Long-lived assets;

Inventory accounting;

Income taxes;

Goodwill; and

Acquisition accounting.

*Stock-based compensation.* On April 1, 2006, we adopted Statement of Financial Accounting Standards (SFAS) No. 123(R), Share-Based Payment, which requires us to account for stock-based payment transactions using a fair value-based method and recognize the related expense in the results of operations. We also applied the provisions of Staff Accounting Bulletin No. 107 in our adoption of SFAS No. 123(R). Prior to our adoption of SFAS No. 123(R), we accounted for stock-based payments to employees using the Accounting Principles Board (APB) Opinion No. 25, Accounting for Stock Issued to Employees, which required us to use the

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intrinsic value method. Therefore, we recognized compensation expense for restricted stock awards and did not recognize compensation cost for employee stock options where the exercise price of the stock option was equal to the market value of the underlying common stock on the date of grant. SFAS No. 123(R) allows companies to choose one of two transition methods: the modified prospective method or the modified retrospective transition method. Effective April 1, 2006, we elected the modified prospective method of transition and accordingly have not restated the results of prior periods. Stock-based compensation expense includes expense for the unvested awards outstanding at March 31, 2006 and all awards granted subsequent to March 31, 2006.

Under the fair value recognition provisions of SFAS No. 123(R), stock-based compensation is estimated at the grant date based on the fair value of the award and is recognized as expense over the requisite service period of the award. The fair value of restricted stock awards is determined by reference to the fair market value of our common stock on the date of grant. Consistent with the valuation method we used for disclosure-only purposes under the provisions of SFAS No. 123(R), we use the Black-Scholes option pricing model to estimate the fair value of awards with service condition and performance condition awards under SFAS No. 123(R). For awards with service conditions, we recognize compensation cost on a straight-line basis over the requisite service/vesting period. For awards with service and performance conditions and graded-vesting features (a certain percentage of stock awards vest each period), we recognize compensation costs on an accelerated, graded-vesting basis over the requisite service/vesting period. We use the lattice model to value market condition awards. For awards with market conditions with a single cliff vest feature, we recognize compensation costs on a straight-line basis over the requisite service period.

Determining the appropriate fair value model and related assumptions requires judgment, including estimating stock price volatilities of our common stock, forfeiture rates and expected terms. The expected volatility rates are estimated based on historical and implied volatilities of our common stock. The expected term represents the average time that the options that vest are expected to be outstanding based on the vesting provisions and our historical exercise, cancellation and expiration patterns. We estimate pre-vesting forfeitures when recognizing compensation expense based on historical and forward-looking factors. Changes in estimated forfeiture rates and differences between estimated forfeiture rates and actual experience may result in significant, unanticipated increases or decreases in stock-based compensation expense from period to period. The termination of employment of certain employees who hold large numbers of stock-based awards may also have a significant, unanticipated impact on forfeiture experience and, therefore, on stock-based compensation expense. We will update these assumptions on at least an annual basis and on an interim basis if significant changes to the assumptions are warranted.

*Revenue.* For certain arrangements, such as prototype development contracts and certain product sales, we record revenues using the percentage of completion method, measured by the relationship of costs incurred to total estimated contract costs. We use the percentage of completion revenue recognition method when a purchase arrangement meets all of the criteria in Statement of Position 81-1. Percentage of completion revenue recognition accounting is predominantly used on long-term prototype development contracts with the U.S. government, such as the 36.5 MW motor contract with the U.S. Navy. We follow this method since reasonably dependable estimates of the revenues and costs applicable to various stages of a contract can be made. However, the ability to reliably estimate total costs at completion is challenging, especially on long-term prototype development contracts, and could result in future changes in contract estimates. Since many contracts extend over a long period of time, revisions in scope, cost and funding estimates during the progress of work have the effect of adjusting earnings in the current period. Recognition of contract revenues and profit or loss are subject to revisions as the contract work progresses to completion. Revisions in profit or loss estimates are charged to income in the period in which the facts that give rise to the revision become known. During the year ended March 31, 2007, as a result of cost overruns and changes in estimates, we recorded an estimated loss of \$3,105,000 related to the Navy 36.5 MW motor program.

We recognize revenue for other product sales upon customer acceptance, which can occur at the time of delivery, installation, or post-installation, where applicable, provided persuasive evidence of an arrangement

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exists, delivery has occurred, the sales price is fixed or determinable and the collectibility is reasonably assured. For multiple-element arrangements, we use the residual method to allocate value to each undelivered item. Under the residual method, each undelivered item is allocated value based on verifiable objective evidence of fair value for that item and the remainder of the total arrangement price is allocated to the delivered items. For a delivered item to be considered a separate unit, the delivered item must have value to the customer on a standalone basis, there must be objective and reliable evidence of fair value of the undelivered items in the arrangement and the delivery or performance of the undelivered items must be considered probable and substantially within our control. We do not provide our customers with contractual rights of return for any of our products. When other significant obligations remain after products are delivered, revenue is recognized only after such obligations are fulfilled. The determination of what constitutes a significant post-delivery performance obligation (if any post-delivery performance obligations exist) is the primary subjective consideration we systemically evaluate in the context of each product shipment in order to determine whether to recognize revenue on the order or to defer the revenue until all post-delivery performance obligations have been completed.

Revenues associated with consulting, training and other similar services are recognized as the services are performed. Royalty revenue is recognized as the royalties are earned.

Customer deposits received in advance of revenue recognition are recorded as deferred revenue until customer acceptance is received. Deferred revenue also represents the amount billed to and/or collected from commercial and government customers on contracts which permit billings to occur in advance of contract performance/revenue recognition.

*Long-Lived Assets.* We periodically evaluate our long-lived assets, consisting principally of fixed assets and intangible assets, for potential impairment under SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets. We perform these evaluations whenever events or circumstances suggest that the carrying amount of an asset or group of assets is not recoverable. Our judgments regarding the existence of impairment indicators are based on market and operational performance. Indicators of potential impairment include:

a significant change in the manner in which an asset is used;

a significant decrease in the market value of an asset;

a significant adverse change in its business or the industry in which it is sold;

a current period operating cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the asset; and

significant advances in our technologies that require changes in our manufacturing process.

If we believe an indicator of potential impairment exists, we test to determine whether impairment recognition criteria in SFAS No. 144 have been met. To analyze a potential impairment, we project undiscounted future cash flows expected to result from the use and eventual disposition of the asset or primary asset in the asset group over its remaining useful life. If these projected cash flows are less than the carrying amount, an impairment loss is recognized in the Consolidated Statements of Operations based on the difference between the carrying value of the asset or asset group and its fair value, less any disposition costs. Evaluating the impairment requires judgment by our management to estimate future operating results and cash flows. If different estimates were used, the amount and timing of asset impairments could be affected.

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In the fourth quarter of the year ended March 31, 2007, we recorded a \$144,000 impairment charge to write down the value of certain manufacturing equipment as a result of our decision to consolidate and streamline the HTS operations of SuperMachines and AMSC Wires into our newly formed AMSC Superconductors business unit. The decision to consolidate the two business units and to move to a business model focusing on licensing certain rotating machine- related technology resulted in a change in how certain assets would be utilized going



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forward in the newly structured business unit. In the fourth quarter of the year ended March 31, 2006, we recorded a \$4,960,000 impairment charge to write down the value of our 1G asset group (consisting of equipment, patents and licenses), related to our decision to complete the transition of our wire manufacturing operations from 1G to 2G HTS wire, and to cease 1G HTS wire manufacturing. As of March 31, 2007, the net book value of these 1G manufacturing equipment assets are classified as assets held for sale and are carried at their estimated salvage value of \$2,171,000. We plan to sell these assets during the year ending March 31, 2008 through a public auction in June 2007 and subsequent private sales to interested parties. No impairment charges were recorded in the year ended March 31, 2005.

*Inventory accounting.* We write down inventory for estimated obsolescence or unmarketable inventory in an amount equal to the difference between the cost of the inventory and the estimated realizable value based upon assumptions of future demand and market conditions. If actual market conditions are less favorable than those projected, additional inventory write-downs may be required. Program costs may be deferred and recorded as inventory on contracts on which costs are incurred in excess of funding, if future funding is deemed probable.

During the fourth quarter of the year ended March 31, 2007, we wrote off \$933,000 of inventoried costs related to one of the two SuperVAR synchronous condensers, or SuperVAR, we had planned to ship to a customer due to technical issues with the unit. During the year ended March 31, 2006, we wrote down \$1,591,000 of 1G HTS wire inventory to its estimated net realizable value based on an analysis of existing backlog and anticipated demand for our 1G wire. Any future sales of previously written-down inventory will result in the recognition of revenue with minimal corresponding costs of revenue, which when sold will have a positive impact on our gross margin. During the fourth quarter of the year ended March 31, 2007, we began to realize sales of 1G HTS wire on previously written-down inventory. Approximately 31,000 meters of previously written-down 1G HTS wire was sold for \$514,000 with related costs of revenue of \$81,000. As of March 31, 2007, we had 1G HTS wire inventory with an original cost basis of \$3,224,000 that has been written down to estimated scrap value of \$983,100.

*Income taxes.* In accordance with applicable accounting standards, we regularly assess our ability to realize our deferred tax assets. Assessments of the realization of deferred tax assets require that management consider all available evidence, both positive and negative, and make significant judgments about many factors, including the amount and likelihood of future taxable income. Based on all the available evidence, we have recorded a valuation allowance to reduce our U.S. deferred tax assets to the amount that is more likely than not to be realizable due to the taxable losses incurred by us since our inception. Under current federal law, the utilization of the net operating loss and research and development and other tax credit carryforwards may be subject to limitations due to changes in ownership.

*Goodwill.* Goodwill represents the excess of cost over net assets of acquired businesses that are consolidated. In accordance with SFAS No. 142 Goodwill and Other Intangible Assets, goodwill is not amortized. In lieu of amortization, we perform an impairment review of our goodwill at least annually or when events and changes in circumstances indicate the need for such a detailed impairment analysis, as prescribed by SFAS No. 142. Goodwill is considered impaired when the carrying value of a reporting unit exceeds its estimated fair value. In assessing the recoverability of goodwill, we make assumptions regarding estimated future cash flows and other factors to determine the fair value of the reporting unit. To date, we have determined that goodwill is not impaired, but we could in the future determine that goodwill is impaired, which would result in a charge to earnings.

*Acquisition accounting.* We account for acquisitions under the purchase method of accounting in accordance with SFAS No. 141 Business Combinations (SFAS No. 141). We allocate the purchase price to the assets acquired and liabilities assumed based on their estimated fair values as of the date of acquisition. The excess of the purchase price paid by us over the estimated fair value of identifiable net assets acquired is recorded as goodwill.

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In November 2006, we entered into a Stock Purchase Agreement with the Gerald Hehenberger Privatstiftung, a trust incorporated according to the laws of Austria, or Trust, related to the acquisition of Windtec, a corporation incorporated according to the laws of Austria. Windtec develops and sells electrical systems for wind turbine systems. Windtec also provides technology transfer for the manufacturing of wind turbines; documentation services; and training and support regarding assembly, installation, commissioning, and service. Prior to entering into the Stock Purchase Agreement, Windtec was a customer since 2005 for our PowerModule PM1000 power converters that are utilized for the management and stabilization of electricity produced by wind turbine generators. We completed the acquisition in January 2007.

Pursuant to the Stock Purchase Agreement, we purchased from the Trust all of the issued and outstanding shares of Windtec, for which we paid the Trust 1,300,000 shares of our common stock. Additionally, we will pay the Trust up to an additional 1,400,000 shares of common stock upon Windtec's achievement of specified revenue objectives during the four years following closing of the acquisition. As a result of this transaction, Windtec is a wholly-owned subsidiary. The total purchase price of approximately \$13,562,000 includes the fair value of the shares of common stock issued and transaction costs of \$458,000. We allocated the purchase price to the assets acquired and liabilities assumed at their estimated fair values as of the date of the acquisition. The excess of the purchase price paid by us over the estimated fair value of net assets acquired has been recorded as goodwill. We have acquired intangible assets consisting of contractual relationships/backlog, customer relationships, trade names and trademarks, core technology and know-how, and goodwill. We amortize our customer relationships, trade names and trademarks, and core technology and know-how using the straight-line method over a period of 5 to 7 years, which approximates the expected economic consumption of these assets. We amortize our contractual relationships/backlog using the economic consumption method over an estimated period of 2 years. The issuance of any future shares of common stock based on the achievement of specified revenue objectives will increase goodwill.

## **RESULTS OF OPERATIONS**

### **Years Ended March 31, 2007 and March 31, 2006**

We have two reportable business segments: AMSC Power Systems and AMSC Superconductors. On March 26, 2007, in connection with the Board of Directors' approval of the restructuring plan, we began operating and reporting our financial results to the Chief Executive Officer in two reportable business segments: AMSC Superconductors and AMSC Power Systems. Accordingly, we recast our prior-year business segment financial information to conform to the new segment presentation.

AMSC Power Systems supplies power electronic systems used in wind turbines; produces products to increase electrical grid capacity and reliability and to regulate wind farm voltage for the electrical grid; and licenses proprietary wind energy system designs to manufacturers of such systems and provides consulting services to the wind industry through its Windtec subsidiary.

During the fourth quarter of the year ended March 31, 2007, we acquired Windtec and integrated that business into our AMSC Power Systems business unit. Results of Windtec's operations are included in our consolidated results from the date of acquisition on January 5, 2007.

AMSC Superconductors focuses on the manufacturing of HTS wire and coils; the design and development of HTS products, such as power cables, fault current limiters and motors; and the management of large-scale HTS projects, such as HTS power cable system design, manufacturing and installation.



**Table of Contents***Revenues*

Total consolidated revenues increased to \$52,183,000 in the year ended March 31, 2007 from \$50,872,000 for the prior year, an increase of \$1,311,000.

Revenues	For the year ended	
	2007	2006
AMSC Power Systems	\$ 30,850,000	\$ 15,001,000
AMSC Superconductors	21,333,000	35,871,000
<b>Total</b>	<b>\$ 52,183,000</b>	<b>\$ 50,872,000</b>

The \$1,311,000 increase in consolidated revenues for the year ended March 31, 2007 was the result of an increase of \$15,849,000 in the AMSC Power Systems business unit, partially offset by a decrease of \$14,538,000 in the AMSC Superconductors business unit.

Revenues in our AMSC Power Systems business unit, which consist of revenues from D-VAR, PQ-IVR and PowerModule product sales, service contracts, consulting arrangements, license agreements and prototype development contracts, increased by \$15,849,000 or 106% to \$30,850,000 for the year ended March 31, 2007 from \$15,001,000 for the prior year. The increase was primarily the result of a higher level of D-VAR and PowerModule system sales due to the growing demand for wind energy solutions, and higher PQ-IVR sales to industrial customers and revenue generated by Windtec subsequent to the acquisition. D-VAR system sales contributed approximately 51% growth from the prior year. This growth in D-VAR system sales can be partially attributed to countries such as the United Kingdom, Canada, Australia and New Zealand where transmission grid operators have adopted stringent interconnection standards for wind farms requiring dynamic voltage control. During the year ended March 31, 2007, we also shipped our first dynamic VAR compensator (DVC) to a customer in Iceland.

The Windtec acquisition completed on January 5, 2007 contributed approximately \$4,000,000 of additional revenue in the quarter ended March 31, 2007, net of the revenue that would have been recognized on the PowerModule shipments from us to Windtec absent the acquisition. PowerModule sales increased by over 500% from the prior fiscal year primarily as a result of PM1000 system shipments to a Windtec electrical systems customer in China. The continuing growth of the wind industry coupled with the increased global nature of our sales and the April 2007 acquisition of Power Quality Systems provide a strong foundation for continued growth in AMSC Power Systems.

Revenues in our AMSC Superconductors business unit, which consist of contract revenues, product sales from HTS wire sales, the DOE-sponsored project to install an HTS power cable in the transmission grid of the LIPA, and prototype development contract revenues primarily related to the work performed on the firm-fixed-price contract for the U.S. Navy's 36.5 MW motor, decreased by \$14,538,000 or 41% to \$21,333,000 for the year ended March 31, 2007 from \$35,871,000 for the year ended March 31, 2006. This decrease was primarily attributable to an \$8,765,000 decrease in 36.5 MW motor program revenues and a \$5,540,000 decrease in LIPA project revenues.

On April 26, 2006, a contract modification from the Navy on the 36.5 MW motor program was received that provided \$13,344,000 in additional funding, thereby increasing the contract value to \$90,150,000 and converting it from a cost-plus-incentive-fee contract to a firm-fixed-price contract. Revenues on this program are recognized on a percentage of completion basis and, as such, are subject to adjustments when estimates to complete the program are revised. The revenue decrease of \$8,765,000 from the prior year related to the 36.5 MW motor program is due to a

lower level of work performed on the motor program in the year ended March 31, 2007 as the program neared completion. In addition, delays in the completion of the motor resulted in an increase in

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estimated costs as well as a delay in revenue recognition of \$1,283,000 from the year ended March 31, 2007 until the first quarter ending June 30, 2007 of the next fiscal year. During the quarter ended December 31, 2006, a crack was discovered in a non-superconductor component of the 36.5 MW motor that required repair. This event caused an unanticipated cost overrun that resulted in an estimated loss on this program of approximately \$1,616,000 being recorded in the quarter ended December 31, 2006. The crack was fully repaired and reassembly of the motor was completed in February 2007. However, additional technical issues occurred during the initial phase of factory acceptance testing in late February 2007, causing additional delays and cost overruns that led to a \$1,489,000 increase in the estimated loss on this program to \$3,105,000. The motor successfully passed factory acceptance testing at the end of March 2007 and was delivered to the Navy in June 2007. Of the \$13,344,000 of additional funding received in April 2006, \$12,061,000 has been recognized as revenue in the year ended March 31, 2007. \$20,826,000 of revenue was recognized on this program in the year ended March 31, 2006. \$1,283,000 is expected to be recognized as revenue in the three months ending June 30, 2007.

On October 13, 2006, we signed a cost-plus-fixed-fee contract valued at \$5,254,000 with the U.S. Naval Sea Systems Command, or NAVSEA, for the design and optimization of HTS ship propulsion motors and power electronic drives. The first \$1,900,000 of incremental funding has been allotted for the initial stage of this contract, which is expected to be completed in the next nine months. We recognized \$389,000 of revenue during the year ended March 31, 2007 on this contract under the percentage of completion method. Revenue from other prototype development contracts related to rotating machines decreased by \$56,000 to \$156,000 in the year ended March 31, 2007 from \$212,000 in the year ended March 31, 2006. We are pursuing additional contracts for HTS motors and generators with the U.S. Navy and our strategic business alliance partner, Northrop Grumman Marine Systems, among others. However, we expect revenues related to motors to be significantly lower in the year ending March 31, 2008 compared to the year ended March 31, 2007 as we delivered the 36.5 MW motor in June 2007 and completed the final phase of the \$90,150,000 Navy contract.

LIPA project revenues decreased by \$5,540,000 to \$4,144,000 for the year ended March 31, 2007 from \$9,684,000 for the year ended March 31, 2006 due to a combination of funding limitations from the DOE and a lower level of work performed compared to prior year. In March 2007, the DOE released the remaining incremental funding up to the then-current authorized contract ceiling of \$23,456,000, which allowed us to recognize revenue of \$2,721,000 during the quarter ended March 31, 2007 related to costs that had previously been deferred and recorded as inventory as of December 31, 2006. In May 2007, the DOE awarded a contract modification of \$4,002,000 to cover subcontractor cost growth on the LIPA project, increasing the contract ceiling to \$27,458,000. On March 31, 2007, as a result of this contract modification being anticipated, we inventoried costs of \$1,127,000 in excess of the then-current contract ceiling of \$23,456,000 as management deemed that future funding sufficient to cover these deferred costs was probable. The deferred program costs consisted primarily of materials, labor, overhead, and subcontractor costs. As a result of the DOE awarded contract modification in May 2007, these deferred program costs that were inventoried as of March 31, 2007 will be recorded as costs of revenue and the corresponding revenue will be recognized in the first quarter of the fiscal year ending March 31, 2008. We expect to complete this project in the fall of 2007.

We anticipate that we will realize additional HTS cable project revenues in the year ending March 31, 2008 from the Project Hydra contract with Consolidated Edison, which is being funded by DHS and was announced on May 21, 2007. DHS is expected to invest up to a total of \$25,000,000 in the development of a new high temperature superconductor power grid technology to enable Secure Super Grids. Secure Super Grids utilize customized HTS wires, HTS power cables and ancillary controls to deliver more power through the grid while also being able to suppress power surges that can disrupt service. On May 18, 2007, we signed a letter contract valued at \$1,700,000, of which DHS provided initial funding of \$1,100,000, to commence work on this project. Final contract terms and conditions are estimated to be \$39,300,000 for this three-year project and are expected to be completed within 90 days of the letter contract. Consolidated Edison and Southwire Company are expected to be subcontractors to us. The remaining costs not funded by DHS will be cost shared by us and Consolidated Edison.

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Wire sales to other customers decreased by \$586,000 to \$2,656,000 in the year ended March 31, 2007, compared to \$3,242,000 in the year ended March 31, 2006, as a result of lower 1G HTS wire demand as we transition to manufacturing 2G wire. This decrease was partially offset by a \$21,000 increase in AMSC Superconductors contract revenues, which were \$1,927,000 in the year ended March 31, 2007, compared to \$1,906,000 in the prior-year period. We expect wire sales to other customers and contract revenues to remain relatively flat in the year ending March 31, 2008. We are in the process of installing, testing, and qualifying capital equipment for manufacturing our 2G HTS wire, the sales of which are currently constrained by limited manufacturing capacity. We expect to sell limited quantities of 2G HTS wire while we expand our 344 superconductor manufacturing line. We expect to have an annual gross capacity of 720,000 meters of wire at the end of calendar year 2007. We expect to continue to meet near-term customer demand for HTS wire from the approximately 280,000 meters of 1G HTS wire we had in inventory as of March 31, 2007.

*Cost-sharing funding*

In addition to reported revenues, we also received funding of \$2,919,000 for the year ended March 31, 2007 under U.S. government cost-sharing agreements with the U.S. Air Force and DOE, compared to \$1,644,000 for the year ended March 31, 2006, an increase of \$1,275,000. This increase in funding which was recognized as an offset to operating expenses, was the result of the \$5,350,000 Title III contract awarded by the Air Force in December 2005. Under the Title III contract, we recognized cost-sharing funding of \$2,260,000 and \$568,000 as an offset to operating expenses for the years ended March 31, 2007 and March 31, 2006, respectively. As required by government contract accounting guidelines, funding from government cost-sharing agreements is recorded as an offset to research and development and selling, general and administrative expenses, rather than as revenue. All of our cost-sharing agreements provide funding in support of 2G wire development work being performed in the AMSC Superconductors business unit. We anticipate that a portion of our funding in the future will continue to come from cost-sharing agreements as we continue to develop joint programs with government agencies. Backlog as of March 31, 2007 relating to cost-sharing agreements was \$2,663,000.

*Costs and expenses*

Total costs and expenses for the year ended March 31, 2007 were \$88,715,000 compared to \$84,359,000 for the prior year, a \$4,356,000 increase caused primarily by an increase in selling, general and administrative expenses along with an increase in research and development expenses. These increases were partially offset by lower costs of revenue-product sales and prototype development costs. Included in costs and expenses for the year ended March 31, 2007 was \$667,000 for restructuring and impairment charges related to the March 2007 decision to realign the former AMSC Wires and SuperMachines business units into the newly formed AMSC Superconductors business unit. Included in costs and expenses for the year ended March 31, 2006 was a long-lived asset impairment charge of \$4,960,000 recorded in the fourth quarter of the year ended March 31, 2006 related to our March 2006 decision to complete the transition of our wire manufacturing operation from 1G to 2G HTS wire. In connection with the completion of our transition from 1G to 2G HTS wire, we also recorded a 1G wire inventory write-down in the year ended March 31, 2006 of \$1,591,000, which is included in Costs of revenue product sales and prototype development contracts for that year.

Costs of revenue contract revenue increased to \$1,970,000 in the year ended March 31, 2007 from \$1,511,000 in the year ended March 31, 2006 due to an increase in contract revenue to \$2,420,000 in the year ended March 31, 2007 from \$1,712,000 in the year ended March 31, 2006. This increase in contract revenue is attributable to our recently acquired Windtec subsidiary, which contributed an additional \$492,000 in contract revenue and \$409,000 in costs of revenue-contract revenue in the three months ended March 31, 2007.

Costs of revenue product sales and prototype development contracts decreased by \$1,208,000 to \$50,730,000 in the year ended March 31, 2007 from \$51,938,000 in the year ended March 31, 2006 due to a \$10,579,000 decrease in costs of revenue at AMSC Superconductors associated primarily with the lower level of





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externally-funded work performed on the 36.5 MW motor program, partially offset by the cost overruns on this program. There were also lower costs of revenue on the LIPA program as a result of a lower level of work performed compared to the prior year. Included in costs of revenue in the year ended March 31, 2007 was the AMSC Superconductors write-off of \$933,000 of inventoried costs related to one of the two SuperVAR synchronous condensers we had planned to ship to a customer. Product sales in the AMSC Power Systems business unit increased to \$30,359,000 during the year ended March 31, 2007 from \$14,935,000 in the prior year ended March 31, 2006. As a result of the \$15,424,000 increase in product sales in the AMSC Power Systems business unit, costs of revenue-product sales increased by \$8,980,000 at AMSC Power Systems in the year ended March 31, 2007 compared to the prior year ended March 31, 2006. There was also an additional \$391,000 in stock compensation expense recorded during the year ended March 31, 2007 in costs of revenue-product sales and prototype development as a result of our adoption of SFAS No. 123(R) in April 2007.

*Research and development*

A portion of our R&D expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as R&D expenses). Additionally, a portion of R&D expenses was offset by cost-sharing funding. Our R&D expenditures are summarized as follows:

	For the year ended	
	March 31	
	2007	2006
R&D expenses per Consolidated Statements of Operations	\$ 17,453,000	\$ 14,961,000
R&D expenditures classified as Costs of revenue	24,482,000	29,720,000
R&D expenditures offset by cost-sharing funding	1,505,000	868,000
Aggregated R&D expenses	\$ 43,440,000	\$ 45,549,000

R&D expenses (exclusive of amounts classified as costs of revenue and amounts offset by cost-sharing funding) increased by \$2,492,000 to \$17,453,000 in the year ended March 31, 2007 from \$14,961,000 in the year ended March 31, 2006 as a result of two factors: a lower percentage of the R&D cost was classified as costs of revenue due to the lower level of funded prototype development contract work in AMSC Superconductors related to the Navy 36.5 MW motor program, and a higher level of internally-funded R&D spending incurred which was focused on 2G wire scale-up efforts. Aggregated R&D expenses, which include amounts classified as costs of revenue and amounts offset by cost-sharing funding, were \$43,440,000 and \$45,549,000 in the years ended March 31, 2007 and March 31, 2006, respectively. The decrease in the aggregated R&D spending during the year ended March 31, 2007 when compared to the prior year was due primarily to a lower level of externally-funded R&D spending at AMSC Superconductors. The decrease in R&D spending at AMSC Superconductors was partially offset by a \$448,000 increase in AMSC Power Systems R&D spending, primarily related to the recently acquired Windtec. In addition, there was \$909,000 in stock-based compensation expense classified as R&D expense in the year ended March 31, 2007 in connection with our adoption of SFAS No. 123(R).

**Table of Contents***Selling, general, and administrative*

A portion of the SG&A expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as SG&A expenses). Additionally, a portion of SG&A expenses was offset by cost-sharing funding. Our SG&A expenditures are summarized as follows:

	For the year ended	
	March 31	
	2007	2006
SG&A expenses per Consolidated Statements of Operations	\$ 17,894,000	\$ 10,989,000
SG&A expenditures classified as Costs of revenue	3,915,000	4,444,000
SG&A expenditures offset by cost-sharing funding	1,415,000	776,000
Aggregated SG&A expenses	\$ 23,224,000	\$ 16,209,000

SG&A expenses (exclusive of amounts classified as costs of revenue and amounts offset by cost-sharing funding) increased by \$6,905,000 to \$17,894,000 in the year ended March 31, 2007 from \$10,989,000 in the year ended March 31, 2006 primarily as a result of three factors: \$2,381,000 in higher stock-based compensation expense in connection with our adoption of SFAS No. 123(R) in April 2006, \$1,088,000 in higher professional services and \$960,000 related to the amortization of intangible assets and additional Windtec SG&A expenses following the Windtec acquisition in January 2007. Other increases in SG&A expenses were the result of expansion efforts related to sales and service in the Asia Pacific region, increased marketing costs and a higher level of management bonus payouts to AMSC Power Systems employees based on performance goals achieved during the year ended March 31, 2007. Also, as a result of the lower level of funded prototype development contract work in AMSC Superconductors in the year ended March 31, 2007, a lower percentage of the SG&A cost was classified as costs of revenue compared to the prior year. Aggregated SG&A expenses, which include amounts classified as costs of revenue and amounts offset by cost-sharing funding, increased to \$23,224,000 for the year ended March 31, 2007 from \$16,209,000 for the same period last year primarily as a result of the stock compensation, Windtec acquisition-related amortization and other SG&A expenses noted above.

We present Aggregated R&D and Aggregated SG&A expenses, which are non-GAAP measures, because we believe this presentation provides useful information on our aggregate R&D and SG&A spending and because R&D and SG&A expenses as reported on the Consolidated Statements of Operations have been and may in the future be subject to significant fluctuations solely as a result of changes in the level of externally funded contract development work, resulting in significant changes in the amount of the costs recorded as costs of revenue rather than as R&D and SG&A expenses, as discussed above.

During the year ended March 31, 2007, we recorded approximately \$524,000 in restructuring charges as a result of a restructuring plan announced on March 26, 2007 to consolidate our AMSC Wires, SuperMachines and Power Electronic business segments into two operating segments: AMSC Superconductors and AMSC Power Systems. We consolidated our manufacturing operations by closing one of our two Westborough, Massachusetts facilities, moving operations from that facility into the Devens, Massachusetts plant, and reducing headcount by 37 employees. The restructuring charges included \$380,000 for severance, \$93,000 to write off the remaining six months of facility lease payments, and \$51,000 incurred to relocate employees and equipment to our Devens facility. In addition there was a related \$143,000 fixed asset impairment for manufacturing equipment written down to its estimated salvage value. Additional cash payments of \$213,000 for severance obligations will be expensed during the quarter ending June 30, 2007 and are expected to be paid out over the six-month period ending September 30, 2007, as a small number of the 37 affected employees remained with us through the end of May 2007 in order to complete ongoing projects. During the year ended March 31, 2006, there were no restructuring charges recorded. As a result of a management decision made in March 2006 to transition from 1G to 2G wire manufacturing and to cease manufacturing the 1G wire, an impairment charge of \$4,960,000 was recorded in the quarter ended March 31, 2006. The impairment charge in the year ended March 31, 2006 included a write-down

of 1G equipment of \$3,302,000, licenses of \$1,220,000 and patents of \$438,000.

**Table of Contents***Operating income (loss)*

	For the year ended	
	March 31	
Operating income (loss)	2007	2006
AMSC Power Systems	\$ 402,000	\$ (3,641,000)
AMSC Superconductors	(31,419,000)	(27,549,000)
Unallocated corporate expense	(5,515,000)	(2,297,000)
Total	\$ (36,532,000)	\$ (33,487,000)

The operating income at AMSC Power Systems was \$402,000 during the year ended March 31, 2007 compared to an operating loss of \$3,641,000 in the prior year. The improvement was primarily a result of higher gross margins in the year ended March 31, 2007 in connection with the increased level of product sales. We expect amortization expense related to the Windtec acquisitions to increase from \$595,000 in the year ended March 31, 2007 to over \$4,000,000 in the fiscal year ending March 31, 2008, and there may be additional amortization of intangible assets in the year ending March 31, 2008 resulting from the analysis of the PQS purchase price allocation.

The operating loss at AMSC Superconductors increased to \$31,419,000 in the year ended March 31, 2007 compared to \$27,549,000 in the prior year as a result of lower revenues and margins related to the 36.5 MW Navy contract during the year ended March 31, 2007. The margin decrease was primarily the result of higher than planned subcontractor spending and an increase in costs related to a delay in the completion and delivery of our 36.5 MW ship propulsion motor into June 2007 resulting in the recognition of a contract loss of \$3,105,000 in the year ended March 31, 2007. The 36.5 MW motor program was converted from a cost-plus-incentive-fee contract to a firm-fixed-price contract on April 26, 2006. During the quarter ended December 31, 2006, a crack was discovered in a non-superconductor component of the 36.5 MW motor that required repair. This event caused an unanticipated cost overrun on the Navy 36.5 MW contract that resulted in an estimated loss of approximately \$1,616,000 being recorded in the quarter ended December 31, 2006. The crack was fully repaired and reassembly of the motor was completed in February 2007. However, additional technical issues occurred during the initial phase of factory acceptance testing in late February, causing additional delays and cost overruns that led to a \$1,489,000 increase in the estimated loss to \$3,105,000. The motor successfully passed factory acceptance testing at the end of March 2007 and was delivered to the Navy in June 2007. Cost overruns on this program directly impacted the profitability of this business unit during the year ended March 31, 2007.

In addition to the lower margins related to the 36.5MW motor, AMSC Superconductors wrote off \$933,000 of inventoried costs related to one of the two SuperVAR synchronous condensers we had planned to ship to a customer. AMSC Superconductors also recorded restructuring charges of \$524,000 and impairment charges of \$143,000 during March 2007 as a result of the decision to re-align our former SuperMachines and AMSC Wires business units into the newly formed AMSC Superconductors business unit. These increased costs were partially offset by lower depreciation and amortization expense as a result of the \$4,960,000 impairment charge on the 1G asset group (consisting of equipment, patents and licenses) that was recorded during the fourth quarter of the year ended March 31, 2006. We continue to invest in capital equipment for the scale-up of our 344 wire full scale manufacturing line. We expect depreciation expense to increase as we place into service this 2G manufacturing equipment over the next nine months. We expect this business unit to continue to incur operating losses during the next fiscal year ending March 31, 2008 while we continue to invest in the 344 superconductor manufacturing line.

The increase in unallocated corporate expense was due to an increase in stock-based compensation expense, primarily related to our adoption of SFAS No. 123(R) in April 2006.



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*Non-operating expenses/Interest income*

Interest income decreased to \$2,179,000 in the year ended March 31, 2007 from \$2,610,000 in the prior year, primarily as a result of the lower cash balances available for investment.

Other income (expense), net was (\$424,000) in the year ended March 31, 2007 compared to \$0 in the prior year and consisted primarily of a loss on the revaluation of the stock warrant issued in April 2005 to TM Capital Corp., a past financial advisor to us, related to a litigation settlement. The litigation settlement amount of \$2,653,000, which consisted of a \$1,700,000 cash payment made in April 2005 and a \$953,000 accrued liability relating to the warrant issued for 200,000 shares of our common stock, was accrued in the fourth quarter of the year ended March 31, 2005. The accrued warrant cost will continue to be classified as a current liability in accordance with Emerging Issues Task Force (EITF) Issue No. 00-19 until such time as the warrant is exercised or forfeited, and will be marked to market based primarily on the current price and expected volatility of our common stock as of the end of each reporting period. The warrant was valued at \$1,354,000 as of March 31, 2007 as compared to the March 31, 2006 warrant valuation of \$946,000, resulting in an expense of \$408,000 in the year ended March 31, 2007.

During the quarter ended March 31, 2007, we recorded a tax benefit of \$101,000 compared to \$0 of income tax in the prior year. This tax benefit was primarily the result of changes in the deferred tax liability of our Austrian subsidiary, Windtec, associated with the non-deductible amortization of intangible assets.

Based on our latest operating plan, we expect to continue to incur operating losses through at least the end of the year ending March 31, 2009 as we continue to devote significant financial resources to our commercialization efforts and to our ongoing research and development activities. We anticipate an increase in depreciation associated with the scale-up of our 2G manufacturing line as equipment is placed into service, as well as intangible asset amortization associated with the Windtec and PQS acquisitions.

Please refer to the Risk Factors section of this prospectus for a discussion of certain factors that may affect our future results of operations and financial condition.

**Years Ended March 31, 2006 and March 31, 2005**

*Revenues*

Total consolidated revenues decreased to \$50,872,000 in the year ended March 31, 2006 from \$58,283,000 in the year ended March 31, 2005, a decrease of \$7,411,000 or 13%.

	<b>For the year ended</b>	
	<b>March 31,</b>	
<b>Revenues</b>	<b>2006</b>	<b>2005</b>

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AMSC Power Systems	\$ 15,001,000	\$ 15,664,000
AMSC Superconductors	35,871,000	42,619,000
<b>Total</b>	<b>\$ 50,872,000</b>	<b>\$ 58,283,000</b>

The decrease in total revenues was primarily the result of lower revenues in our AMSC Superconductors business unit and slightly lower revenues in AMSC Power Systems business unit.

Revenues in the AMSC Power Systems business unit decreased by \$663,000 or 4% to \$15,001,000 in year ended March 31, 2006 from \$15,664,000 in the year ended March 31, 2005. This decrease occurred as a result of a lower level of service and maintenance revenues in the year ended March 31, 2006, which decreased by \$706,000 to \$617,000 in the year ended March 31, 2006 compared to \$1,323,000 in the year ended March 31,

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2005, which included a higher amount of product upgrades. D-VAR/PQ-IVR system sales in the year ended March 31, 2006 increased slightly to \$14,317,000 in the year ended March 31, 2006 from \$14,107,000 in the year ended March 31, 2005, as a higher volume of system sales to utilities and wind farms was largely offset by lower sales to industrial customers, such as semiconductor manufacturers. Revenues relating to development contracts also decreased to \$67,000 in the year ended March 31, 2006 from \$234,000 in the year ended March 31, 2005, contributing to the overall decrease in revenues at AMSC Power Systems.

Revenues in our AMSC Superconductors business unit were \$35,871,000 in the year ending March 31, 2006, a decrease of \$6,748,000 or 16% compared to \$42,619,000 in the year ending March 31, 2005. Revenues relating to the 36.5 MW motor program were \$20,826,000 in the year ended March 31, 2006 compared to \$30,070,000 in the year ended March 31, 2005, a decrease of \$9,244,000. This was the result of two factors: the first was a lower level of work performed on the 36.5 MW motor program as a result of the substantial completion of engineering design work and HTS coil fabrication in the prior fiscal year. The second factor contributing to the year ending March 31, 2006 decrease in revenues on the 36.5 MW motor program was a limitation on funding from the Navy at March 31, 2006 which limited the amount of revenue we were able to recognize. Due to this funding limitation, \$3,082,000 of program costs incurred in excess of the available funding were recorded as inventory as of March 31, 2006. These program costs were inventoried because future funding sufficient to cover these deferred costs was deemed probable. On April 26, 2006, such funding was received via a contract modification from the Navy which provided an additional \$13,344,000 of funding, thereby fully-funding the program at \$90,150,000 and converting it from a cost-plus-incentive-fee contract to a firm-fixed-price contract.

Revenues from our HTS wires in our AMSC Superconductors business unit were \$14,207,000 in the year ended March 31, 2006 compared to \$11,512,000 in the year ended March 31, 2005, an increase of \$2,695,000 or 23%. This was driven by a \$3,685,000 increase in work performed on the DOE project to install an HTS power cable in the transmission grid of LIPA, partially offset by a \$476,000 decrease in contract revenues and a \$514,000 decrease in HTS wire sales in the year ended March 31, 2006 compared to the year ended March 31, 2005.

LIPA project revenues increased to \$9,684,000 in the year ended March 31, 2006 from \$5,999,000 in the year ended March 31, 2005 as a result of the delivery of substantially all of the 1G HTS wire required for the project in the second and third quarters of the year ended March 31, 2006. Contract revenues decreased to \$1,281,000 in the year ended March 31, 2006 from \$1,757,000 in the year ended March 31, 2005, due to a lower level of work performed in the year ended March 31, 2006 on a 2G research contract awarded by the Defense Advanced Research Projects Agency, or DARPA, in June 2004. HTS wire sales (including \$147,000 for 2G HTS wire sales in the year ended March 31, 2006) to customers other than LIPA decreased to \$3,242,000 in the year ended March 31, 2006 from \$3,756,000 in the year ended March 31, 2005, due primarily to a reduction in the average selling price for our 1G HTS wire. We sold approximately 150,000 meters of 1G HTS wire to customers other than LIPA and the U.S. Navy in both years ended March 31, 2006 and 2005. Overall, including wire deliveries to the LIPA cable project and to the 36.5MW motor project, the AMSC Superconductors business unit delivered approximately 331,000 meters (or 205 miles) of 1G HTS wire, and over 2,700 meters of 2G HTS wire in the year ended March 31, 2006, compared to approximately 389,000 meters (or 242 miles) of 1G HTS wire in the prior fiscal year.

*Cost-Sharing Funding*

In addition to amounts reported as revenues, we also received funding of \$1,644,000 in the year ended March 31, 2006 under U.S. government cost-sharing agreements with the U.S. Air Force, DOE, and the Department of Commerce, compared to \$2,044,000 in the year ended March 31, 2005, a decrease of \$400,000 or 20%. The decline in funding was due to the conclusion early in the year ended March 31, 2006 of a cost-sharing program with the Department of Commerce. All of our cost-sharing agreements provide funding in support of 2G wire development work being done in the AMSC Superconductors business unit. Backlog as of March 31, 2006



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relating to cost-sharing agreements was \$5,082,000. As required by government contract accounting guidelines, funding from government cost-sharing agreements is recorded as an offset to research and development and selling, general and administrative expenses, rather than as revenue.

*Costs and expenses*

Total costs and expenses for the year ended March 31, 2006 were \$84,359,000 compared to \$78,632,000 for the prior year, a \$5,727,000 increase driven primarily by a long-lived asset impairment charge of \$4,960,000 recorded in the fourth quarter of the year ended March 31, 2006 related to our March 2006 decision to complete the transition of our wire manufacturing operation from 1G to 2G HTS wire. In connection with the completion of our transition from 1G to 2G HTS wire, we also recorded a 1G wire inventory write-down of \$1,591,000, which is included in

Costs of revenue product sales and prototype development contracts. Furthermore, we incurred a higher level of internally-funded research and development (R&D) spending in the year ended March 31, 2006 at AMSC Superconductors (particularly on 2G wire development and scale-up activities) and AMSC Power Systems business units. For the year ended March 31, 2005 selling, general and administrative (SG&A) expenses included a \$2,653,000 charge recorded in the fourth quarter related to a litigation settlement with TM Capital Corp., a past financial advisor to us.

Costs of revenue contract revenue decreased to \$1,511,000 in the year ended March 31, 2006 from \$1,702,000 in the year ended March 31, 2005 as contract revenues decreased slightly to \$1,712,000 in the year ended March 31, 2006 from \$1,757,000 in the year ended March 31, 2005.

Costs of revenue product sales and prototype development contracts decreased by \$4,234,000 to \$51,938,000 in the year ended March 31, 2006 from \$56,172,000 in the year ended March 31, 2005 due to a \$10,018,000 decrease in costs of revenue at AMSC Superconductors as a result of the lower level of work performed on the 36.5 MW motor program. Although revenues in the AMSC Power Systems business unit decreased slightly to \$15,001,000 in the year ended March 31, 2006 from \$15,664,000 in the year ended March 31, 2005, costs of revenue at AMSC Power Systems increased by \$1,900,000 in the year ended March 31, 2006 compared to the year ended March 31, 2005 due to the lower gross margins associated with the mix of product shipped (a higher percentage of our year ended March 31, 2006 product shipments consisted of transformers, capacitor banks, and other peripheral equipment which yield lower gross margins). At the AMSC Superconductors business unit, costs of revenue increased by \$3,884,000 in connection with the higher LIPA project sales and a \$1,591,000 write-down of a portion of our 1G HTS wire inventory to net realizable value (based on an analysis of existing backlog and anticipated demand for our 1G wire, compared to the available 1G wire supply).

*Research and development*

A portion of our R&D expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as R&D expenses). Additionally, a portion of R&D expenses was offset by cost-sharing funding. Our R&D expenditures are summarized as follows:

	For the year ended	
	March 31	
	2006	2005
R&D expenses per Consolidated Statements of Operations	\$ 14,961,000	\$ 9,037,000
R&D expenditures classified as Costs of revenue	29,720,000	32,991,000

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R&D expenditures offset by cost-sharing funding	868,000	1,276,000
Aggregated R&D expenses	\$ 45,549,000	\$ 43,304,000

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R&D expenses (exclusive of amounts classified as costs of revenue and amounts offset by cost-sharing funding) increased by \$5,924,000 to \$14,961,000 in the year ended March 31, 2006 from \$9,037,000 in the year ended March 31, 2005 primarily as a result of two factors: a lower percentage of the R&D cost incurred was classified as costs of revenue due to the lower level of funded prototype development contract work in AMSC Superconductors on the 36.5MW motor program and a higher level of internally-funded R&D spending incurred primarily focused on 2G wire development and scale-up activities, as well as higher internally-funded R&D spending at AMSC Power Systems.

Aggregated R&D expenses, which include amounts classified as costs of revenue and amounts offset by cost-sharing funding, increased by \$2,245,000 to \$45,549,000 in the year ended March 31, 2006 from \$43,304,000 in the year ended March 31, 2005, as a result of the aforementioned higher levels of internal R&D expenditures in both business units, partially offset by a lower level of externally-funded R&D spending at AMSC Superconductors. Aggregated R&D expenses were reduced by \$2,234,000 in the year ended March 31, 2006 as a result of the deferral of certain program-specific costs in inventory in connection with the March 31, 2006 limitation of funding from the Navy as of March 31, 2006 on the 36.5 MW motor program.

*Selling, general, and administrative*

A portion of the SG&A expenditures related to externally funded development contracts has been classified as costs of revenue (rather than as SG&A expenses). Additionally, a portion of SG&A expenses was offset by cost-sharing funding. Our SG&A expenditures are summarized as follows:

	For the year ended	
	March 31	
	2006	2005
SG&A expenses per Consolidated Statements of Operations	\$ 10,989,000	\$ 11,721,000
SG&A expenditures classified as Costs of revenue	4,444,000	8,257,000
SG&A expenditures offset by cost-sharing funding	776,000	768,000
<b>Aggregated SG&amp;A expenses</b>	<b>\$ 16,209,000</b>	<b>\$ 20,746,000</b>

SG&A expenses (exclusive of amounts classified as costs of revenue and amounts offset by cost-sharing funding) decreased by \$732,000 to \$10,989,000 in the year ended March 31, 2006 from \$11,721,000 in the year ended March 31, 2005. This decrease in the year ended March 31, 2006 SG&A expenses was primarily the result of the prior-year charges associated with a \$2,653,000 litigation settlement with TM Capital accrued in the fourth quarter of the year ended March 31, 2005 and \$520,000 of legal expenses incurred in the year ended March 31, 2005 in connection with the lawsuit. This decrease in SG&A expenses was partially offset by a lower percentage of SG&A expenditures being classified as costs of revenue in connection with the lower level of prototype development contract work in AMSC Superconductors on the 36.5 MW motor project.

Aggregated SG&A expenses, which include amounts classified as costs of revenue and amounts offset by cost-sharing funding, decreased by \$4,537,000 to \$16,209,000 in the year ended March 31, 2006 from \$20,746,000 in the year ended March 31, 2005. In addition to the \$2,653,000 cost associated with the TM Capital litigation settlement and \$520,000 of legal expenses incurred in connection with the lawsuit in the prior year, the remainder of the decrease in Aggregated SG&A expenses was due primarily to a lower level of management bonus payouts in the year ended March 31, 2006, compared to the year ended March 31, 2005. Also, Aggregated SG&A expenses were reduced by \$848,000 in the year ended March 31, 2006 as a result of the deferral of certain program-specific costs to inventory in connection with the limitation of funding from the Navy as of March 31, 2006 on the 36.5 MW motor program.



**Table of Contents***Operating profit/(loss)*

	For the year ended	
	March 31	
Operating income (loss)	2006	2005
AMSC Power Systems	\$ (3,641,000)	\$ 108,000
AMSC Superconductors	(27,549,000)	(15,115,000)
Unallocated corporate expense	(2,297,000)	(5,342,000)
 Total	 \$ (33,487,000)	 \$ (20,349,000)

AMSC Power Systems incurred an operating loss of \$3,641,000 in the year ended March 31, 2006 compared to an operating profit of \$108,000 in the year ended March 31, 2005 as a result of several factors: lower revenues; higher R&D spending, particularly on the development of a lower-cost, next-generation power electronic converter which is incorporated into our integrated power quality and reliability solutions; and lower gross margins in the year ended March 31, 2006 in connection with the mix of product shipped (a higher percentage of our year ended March 31, 2006 product shipments consisted of transformers, capacitor banks, and other peripheral equipment which yield lower gross margins).

The operating loss at AMSC Superconductors increased to \$27,549,000 in the year ended March 31, 2006 from an operating loss of \$15,115,000 in the year ended March 31, 2005 as a result of multiple factors: the long-lived 1G asset impairment charge of \$4,960,000 resulting from our March 2006 decision to complete the transition of our HTS wire manufacturing operations from 1G to 2G; a \$1,591,000 write-down to net realizable value of a portion of our 1G HTS wire inventory based on an analysis of existing backlog and anticipated demand for our 1G wire, compared to the available 1G wire supply; the higher level of internally-funded R&D spending on 2G wire development and scale-up activities; less manufacturing absorption due to a lower level of 1G HTS wire production beginning in the second quarter of the year ended March 31, 2006; and lower margins on both the 1G wire deliveries to the LIPA cable project as well as on sales of 1G HTS wire to other customers due to the lower average selling price in the year ended March 31, 2006. In addition, AMSC Superconductors incurred a higher operating loss in the year ended March 31, 2006 compared to the year ended March 31, 2005 as a result of the lower level of prototype development contract revenues in the year ended March 31, 2006 and lower fees earned on the 36.5 MW cost-plus-incentive-fee contract as a result of subcontractor cost overruns.

The decrease in unallocated corporate expenses is related mainly to prior-year legal and litigation settlement costs associated with the TM Capital lawsuit.

*Non-operating expenses/Interest income*

Interest income increased to \$2,610,000 in the year ended March 31, 2006 from \$807,000 in the year ended March 31, 2005. This increase in interest income primarily reflected higher interest rates available on our investments in the year ended March 31, 2006, compared to the year ended March 31, 2005, as well as the higher cash and investment balances available for investment as a result of our March 2005 public equity offering of 4,600,000 shares of our common stock that generated net proceeds (after deducting underwriting discounts and commissions, but before deducting offering expenses) of \$45,540,000. The year ended March 31, 2005 included \$35,000 in fees for various legal fees and expenses incurred in connection with a debt financing transaction that we decided not to pursue in August 2003 in favor of a public equity offering, which we completed in October 2003.

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Other income (expense), net was \$0 in the year ended March 31, 2006 compared to \$(82,000) in the year ended March 31, 2005, as the year ended March 31, 2006 foreign currency transaction losses offset a \$7,000 gain on the revaluation of the warrant for 200,000 shares of our common stock issued in April 2005 to TM Capital Corp., a past financial advisor to us, related to a litigation settlement. The warrant was valued at \$946,000 as of

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March 31, 2006, resulting in a gain of \$7,000 for the year ended March 31, 2006, as compared to the March 31, 2005 warrant valuation of \$953,000.

**Liquidity and Capital Resources**

At March 31, 2007, we had cash, cash equivalents and marketable securities of \$35,324,000 compared to \$65,669,000 at March 31, 2006, a decrease of \$30,345,000.

	March 31, 2007	March 31, 2006
Cash and cash equivalents	\$ 15,925,000	\$ 35,171,000
Marketable securities	19,399,000	30,498,000
<b>Total cash, cash equivalents, and marketable securities</b>	<b>\$ 35,324,000</b>	<b>\$ 65,669,000</b>

The decrease in cash and cash equivalents to \$15,925,000 at March 31, 2007 from \$35,171,000 at March 31, 2006 was primarily the result of net cash of \$22,761,000 used in operating activities and \$10,046,000 for the purchase of capital equipment, partially offset by \$11,223,000 net proceeds from the sale of marketable securities and \$3,524,000 proceeds from the issuance of common stock.

The principal uses of cash during the year ended March 31, 2007 were a net loss of \$34,675,000, a \$6,281,000 increase in accounts receivable, and \$10,046,000 in capital expenditures, primarily related to the 2G pilot production line. This was partially offset by depreciation and amortization expense of \$4,750,000, non-cash stock-based compensation expense of \$3,680,000, inventory write-downs of \$1,201,000 primarily related to the SuperVAR unit, an increase in accounts payable and accrued expenses of \$3,595,000, a decrease in inventory of \$1,072,000, and an increase of \$2,641,000 in deferred revenue. The increase in accounts receivable was the result of delays in milestone payments on the 36.5 MW motor program and a higher accounts receivable balance at AMSC Power Systems business unit due in part to higher system sales in the month of March 2007. The decrease in inventory relates to the deferred program costs of \$3,082,000 inventoried on the 36.5MW project as of the end of March 31, 2006 (due to the funding limitation), compared with deferred program costs of \$1,173,000 as of March 31, 2007 related primarily to the LIPA project. We expect cash use to decline significantly in the year ending March 31, 2008 compared to the cash use in the year ended March 31, 2007, as we expect to collect receivables from certain customers (particularly the 36.5 MW motor milestone payments coming due from the Navy of \$6,844,000), reduce capital spending as we complete the scale-up for the 344 superconductors pilot plant, and generate a higher level of positive cash flow at AMSC Power Systems compared to prior year in connection with the higher projected level of sales.

We have generated operating losses since our inception in 1987 and expect to continue incurring losses through at least the end of the fiscal year ending March 31, 2009. Operating losses for the years ended March 31, 2007, 2006, and 2005 contributed to net cash used by operating activities of \$22,761,000, \$19,589,000, and \$9,283,000, respectively, for these periods.

Although our cash requirements fluctuate based on a variety of factors, including customer adoption of our products and our research and development efforts to commercialize our products, we believe that our available cash will be sufficient to fund our working capital, capital expenditures, and other cash requirements through at least the end of the year ending March 31, 2009.

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We also have an unused line of credit of 685,000 (or approximately \$913,000) which is available until August 31, 2007; an amount of 585,000 (or approximately \$780,000) is available until June 30, 2010.

In the year ended March 31, 2007, we invested approximately \$8,400,000 in the 344 superconductors production line, and we anticipate spending approximately \$6,000,000 on this line in the year ended March 31,



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2008. These expenditures are being made to enable us to a) achieve a gross production capacity of approximately 720,000 meters annually of 344 superconductors in December 2007 on our 4 cm manufacturing technology, and b) prepare to migrate to the our 10cm manufacturing technology. We estimate that an additional \$28,000,000 to \$35,000,000 of capital expenditures would be needed for a full commercial manufacturing operation with a gross capacity of approximately 9 million meters of wire per year.

We have backlog (excluding amounts included in accounts receivable) of approximately \$79,500,000 to be received after March 31, 2007 from government and commercial customers, compared to \$23,761,000 at March 31, 2006. Backlog represents the value of contracts and purchase orders received, less the revenue recognized to date on those contracts and purchase orders. The \$55,739,000 increase in backlog from March 31, 2006 to March 31, 2007 was a result of \$83,532,000 in new orders and contracts received during the year ended March 31, 2007 along with acquiring \$27,308,000 of incremental backlog associated with the Windtec acquisition, adjusted to exclude the intercompany PowerModule orders already included in backlog. The new orders of \$83,532,000 were comprised primarily of \$59,961,000 in new system, power converter and Windtec-related (fourth quarter only) orders in our AMSC Power Systems business unit. Also contributing was the government contract modification, which provided \$13,344,000 in additional funding on the Navy 36.5 MW motor program, thereby increasing the contract value of the program to \$90,150,000 and converting it from a cost-plus-incentive-fee contract to a firm-fixed-price contract on April 26, 2006. The Navy 36.5 MW contract modification specifies a milestone payment plan. We received cash payments of \$6,500,000 during the year ended March 31, 2007. We anticipate that we will receive the remaining \$6,844,000 over the next two quarters for the milestones associated with the assembly, testing and delivery of the motor to the Navy. The additional new orders added into our backlog during the year ended March 31, 2007 were partially offset by revenues recognized on the 36.5 MW motor program and LIPA cable project, as work continued to progress on these multi-year contracts, which were originally awarded in February and April of 2003, respectively. The current backlog, including \$10,503,000 on U.S. government contracts, is subject to certain standard cancellation provisions. Additionally, several of our government contracts are being funded incrementally, and as such, are subject to the future authorization and appropriation of government funding on an annual basis. We have a history of successful performance under incrementally-funded contracts with the government.

Of the backlog amount of \$79,500,000 as of March 31, 2007, approximately 75% is billable to and potentially collectable from our customers within the next 12 months.

The possibility exists that we may pursue additional acquisition and joint venture opportunities in the future that may affect liquidity and capital resource requirements.

To date, inflation and foreign exchange have not had a material impact on our financial results.

**Table of Contents***Off-Balance Sheet Arrangements*

We do not have any off-balance sheet arrangements, as defined under SEC rules, such as relationships with unconsolidated entities or financial partnerships, which are often referred to as structured finance or special purpose entities, established for the purpose of facilitating transactions that are not required to be reflected on our balance sheet.

*Contractual Obligations*

As of March 31, 2007, we are committed to make the following payments under contractual obligations:

	Total	Payments due by period			
		Less than 1 year	1-3 years	3-5 years	More than 5 years
<b>Contractual obligations</b>					
Operating leases (rent)	\$ 7,766,000	\$ 3,068,000	\$ 3,809,000	\$ 889,000	\$
Operating leases (other)	128,000	57,000	71,000		
Purchase obligations (subcontracts)	2,863,000	2,863,000			
Purchase obligations (purchase orders)	28,959,000	28,959,000			
<b>Total contractual cash obligations</b>	<b>\$ 39,716,000</b>	<b>\$ 34,947,000</b>	<b>\$ 3,880,000</b>	<b>\$ 889,000</b>	<b>\$</b>

*New Accounting Pronouncements*

In July 2006, the FASB issued Interpretation No. 48, Accounting for Uncertainty in Income Taxes. FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements in accordance with FASB Statement No. 109, Accounting for Income Taxes. FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This Interpretation also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. FIN 48 is effective for fiscal years beginning after December 15, 2006, with earlier adoption permitted. We are currently evaluating the provisions of FIN 48.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements. SFAS 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and expands disclosures about fair value measurements. SFAS 157 applies under other accounting pronouncements that require or permit fair value measurements, the FASB having previously concluded in those accounting pronouncements that fair value is the relevant measurement attribute. Accordingly, SFAS 157 does not require any new fair value measurements. SFAS 157 is effective for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years, with earlier adoption permitted. The provisions of SFAS 157 should be applied prospectively as of the beginning of the fiscal year in which it is initially applied, with limited exceptions. We are currently evaluating the provisions of SFAS 157.

In September 2006, the FASB issued SFAS No. 158, Employers' Accounting for Defined Benefit Pension and Other Post retirement Plans, an amendment of SFAS Nos. 87, 88, 106, and 132(R), (SFAS No. 158). This statement requires an employer to recognize in its balance sheet the over-funded or under-funded status of a defined benefit post retirement plan measured as the difference between the fair value of plan assets and

the present value of the benefit obligation. The recognition of the net liability or asset will require an offsetting adjustment to accumulated other comprehensive income in shareholders' equity. SFAS No. 158 does not change how postretirement benefits are accounted for and reported in the income statement. SFAS No. 158 is effective for fiscal years ending after December 15, 2006. We do not offer pension or other post retirement plans to our employees and therefore we do not expect the adoption of SFAS No. 158 to have any effect on our financial position or results of operations.

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In September 2006, the SEC issued Staff Accounting Bulletin No. 108, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements" expressing the Staff's views regarding the process of quantifying financial statement misstatements. There have been two widely-recognized methods for quantifying the effects of financial statement errors: the "roll-over" method and the "iron curtain" method. The roll-over method focuses primarily on the impact of a misstatement on the income statement including the reversing effect of prior year misstatements but its use can lead to the accumulation of misstatements in the balance sheet. The iron-curtain method, on the other hand, focuses primarily on the effect of correcting the period-end balance sheet with less emphasis on the reversing effects of prior year errors on the income statement. SAB 108 establishes an approach that requires quantification of financial statement errors based on the effects of the error on each financial statement and the related financial statement disclosure. This model is commonly referred to as a "dual" approach because it essentially requires quantification of errors under both the iron-curtain and the roll-over methods. The provisions of SAB 108 should be applied to annual financial statements covering the first fiscal year ending after November 15, 2006. SAB 108 did not have an impact on our financial statements.

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### **BUSINESS**

#### **Overview**

We are a leading energy technologies company, offering an array of solutions based on two proprietary technologies: programmable power electronic converters and high temperature superconductor, or HTS, wires. Our products, services and system-level solutions enable cleaner, more efficient and more reliable generation, delivery and use of electric power. The programmability and scalability of our power electronic converters differentiates them from most competitive offerings. Our HTS wires carry 150 times the electrical current of comparably sized copper wire. The two primary markets we serve are the wind energy market and the power transmission and distribution or power grid market.

The demand for clean and renewable sources of electricity, such as wind energy, and the demand for modernized power grid infrastructure are being driven globally by a variety of factors. These factors include increasing electricity usage, power grid capacity constraints, fossil fuel price volatility, and harmful levels of pollution and greenhouse gases. In addition, our growing digital-based economy demands better power reliability and quality. Concerns about these factors have led to increased spending by corporations and supportive government regulations and initiatives on local, state, national and global levels, including renewable portfolio standards, tax incentives and international treaties.

We conduct our operations through two business units:

*AMSC Power Systems.* AMSC Power Systems, Power Systems, produces a broad range of products to increase electrical grid capacity and reliability; supplies electrical systems used in wind turbines; sells power electronic products that regulate wind farm voltage to enable their interconnection to the power grid; licenses proprietary wind energy system designs to manufacturers of such systems; and provides consulting services to the wind industry.

*AMSC Superconductors.* AMSC Superconductors, Superconductors, focuses on the manufacturing of HTS wire and coils; the design and development of HTS products, such as power cables, fault current limiters and motors; and the management of large-scale HTS projects, such as HTS power cable system design, manufacturing and installation.

#### **Competitive Strengths**

Our competitive strengths position us well to execute on our growth plans in the markets we serve.

*Technology Leadership and Engineering Expertise.* We are a technology leader in the development of power electronics and HTS wire-based solutions for the wind energy and power grid markets. As of March 31, 2007, we owned more than 370 patents and patent applications worldwide, and had rights through exclusive and non-exclusive licenses to more than 360 additional patents and patent applications. Our technology and manufacturing know-how, customer and product knowledge and patent portfolio provide us with a strong competitive position. We employ our 20 years of development expertise toward the design and commercialization of new products and solutions and toward the implementation of proprietary manufacturing processes.

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*Sophisticated, Flexible Product Design.* Our products are highly flexible, and their sophisticated design allows for a high degree of customization. These products leverage our proprietary software and hardware combinations that enable us to configure our power electronics to efficiently and quickly meet the specific requirements of customers in a diverse range of markets. Furthermore, our proprietary HTS wire design and product engineering capabilities enable products with superior performance when compared to other market alternatives. Our wire design, for instance, allows us to tailor the lamination of our HTS wire to meet the electrical and mechanical performance requirements of widely varying end-use applications.

*Highly Scalable, Low Cost Manufacturing Platform.* Our proprietary manufacturing technique for 344 superconductors, which is our brand name for what is generically known as second generation

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(2G) HTS wire, is modular in nature, which we believe will allow us to readily expand manufacturing capacity at a relatively low incremental cost. All of the equipment we are installing today for the 344 superconductors manufacturing line is designed with the capability to process either 4 cm or 10 cm wide strips, which will allow us to increase gross capacity by 2.5 times without significant additional capital expenditures when we migrate from 4 cm to 10 cm production. We believe our capacity expansion on this manufacturing line will eventually enable us to manufacture this wire at one-fifth the cost of our first generation (1G) HTS wire, which we no longer manufacture.

*Close Consultative Relationships with Customers.* We have built a team of skilled engineers with extensive experience in the design, structure and modeling of power transmission and distribution grids and in the operation of wind farms and industrial sites. We work closely with our customers to understand their needs and develop solutions to their unique operational challenges. By determining solutions, our team is able to identify applications for our technology. We are then able to customize and target our offerings to specific customers.

*Highly Experienced Management and Technical Team.* Senior management has over 200 years of cumulative experience developing, manufacturing, marketing and selling energy technologies. This team is composed of veterans of the electrical equipment, utility and wind power markets and is backed by our 263 employees worldwide as of March 31, 2007, 23 of whom held Ph.D.s in materials science, physics, metallurgy, or engineering.

## **Strategy**

Our strategy is to drive revenue growth and enhance operating results by achieving a greater proliferation and acceptance of our products.

*Target High-Growth Segments with Commercial Products.* We target high-growth segments of the power and utility industry. Our Power Systems offerings are designed to meet the needs of the wind energy market, which is expected to grow by at least 19 percent annually through 2010, according to the Global Wind Energy Council, or GWEC. Our HTS and grid-support products fill the needs of capacity-constrained transmission assets globally and address the demand for more reliable, secure and efficient transmission and distribution assets. After decades of decline, Edison Electric Institute, the association of U.S. shareholder-owned electric companies, expects investment in the transmission grid to increase from \$5.8 billion in 2005 to \$8.4 billion in 2009.

*Pursue Overseas Markets.* We are increasingly focusing our sales efforts on overseas markets and have been successful in targeting business in emerging economies, such as China and South Korea. We also have built significant sales momentum in countries where dynamic voltage standards for wind farms have been put in place, such as Australia, Canada, New Zealand and the United Kingdom. In fiscal 2006, which ended March 31, 2007, approximately 47 percent of our revenues came from sales outside the United States compared with 24 percent the prior fiscal year. In support of this expansion, we maintain field service and sales in Germany as well as operations in Austria. In the first half of fiscal 2006, we opened offices in China and Singapore to support our growing customer base in the Asia-Pacific region.

*Anticipate Customer Needs in the Development of System-Level Solutions.* We develop close working relationships with our customers that enable us to provide customized solutions and identify opportunities to employ our products. Our Network Solutions team collects and analyzes data regarding our customers' systems from entire power grids to manufacturing operations to wind farms. For example, our Network Solutions team carries out dynamic simulations for customers on effects power grid disturbances may have on grid reliability under all operating conditions. They then can quantify how the incorporation of volt-amp-reactive, or VAR, solutions, such as static VAR compensators, or SVCs, and dynamic VAR, or D-VAR, systems, and advanced technologies, such as HTS cables and fault current limiters, or FCLs, can improve power grid operations. The group performs similar analyses to determine optimum power quality solutions for industrial manufacturing sites and wind farms.

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*Strengthen our Technology Leadership while Lowering Cost.* We work continuously to strengthen our leadership position in terms of reliability, effectiveness, cost and total product offering. We interact with our customers and suppliers not only to improve the performance and efficiency of our Power Systems solutions, but also to reduce material and manufacturing costs. In addition, we maintain a vigorous research and development effort that continues to yield increases in electrical and mechanical performance of our 344 superconductors, which already perform at levels that are comparable to or better than our 1G HTS wire. We continue to achieve productivity enhancements in our manufacturing of 344 superconductors, which we believe will enable us to manufacture this wire at one-fifth the cost of our 1G HTS wire.

*Pursue Targeted Strategic Acquisitions and Alliances.* We will continue to pursue strategic business relationships and acquisitions that complement our product portfolio and increase our rate of growth. We have built strategic alliances and close corporate relationships with many industry leaders including GE Energy, Nexans, Siemens, Southwire and Vestas to develop and commercialize our products and to bring them to market. We also have been successful in closing key acquisitions, including our recent acquisitions of Windtec and Power Quality Systems, Inc. The Windtec acquisition provides increased access to the growing wind market and complements sales of our existing D-VAR and PowerModule power electronics products in the wind market. Our recent Power Quality Systems acquisition enhances our reactive compensation product offerings for utility and industrial customers.

## **Market Opportunities**

Our products and services address two substantial global demands:

the demand for cleaner, renewable sources of electricity, such as wind power, and

the demand for a modernized power grid infrastructure to alleviate capacity constraints and improve reliability, security, stability and efficiency of electricity.

## **Wind Energy**

The market for wind-generated, zero-emission electricity has been growing dramatically for more than a decade. According to the GWEC, nearly 15,200 megawatts, or MW, of wind generation capacity was added worldwide in calendar 2006, increasing the global installed base by 26 percent to 74,223 MW. Global wind power capacity is expected to more than double to 149,500 MW by 2010. This growth is being driven in part by the substantial government incentives and mandates that have been established on local, state and national levels. Additionally, wind power costs have been declining rapidly. According to the GWEC's Global Wind Energy Outlook 2006 report, A modern wind turbine annually produces 180 times more electricity at less than half the cost per unit (kWh) than its equivalent twenty years ago. At good locations, wind can compete with the cost of both coal and gas-fired power.

According to GWEC, more than \$23 billion was spent on wind power equipment globally in 2006. We currently are focusing our sales efforts primarily on the United States, Europe, China and India, all of which are undergoing a significant period of growth.

The installed base of wind generated electricity in the United States grew 27 percent to 11,603 MW in 2006 according to GWEC. Growth in the U.S. wind market is currently being driven by both strong demand as well as government support programs. The production tax credit (PTC) expiration date for wind energy was extended to 2008 in the 2005 Energy Policy Act. The PTC provides a two cent-per-kilowatt-hour tax credit for electricity generated with wind turbines over the first 10 years of a project's operations. In addition, half of the states have already adopted



renewable portfolio standards, requiring local utilities to obtain a specified percentage of their electricity from renewable energy sources.

In 2006, GWEC estimates that over 7,700 MW of wind generated electricity was installed in the European Union. Supporting the growth of the European wind market is strong policy support at EU and national levels.

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The EU's Renewables Directive, in place since 2001, aims to increase the share of electricity produced from renewable energy sources in the EU to 21 percent by 2010 from 15 percent in 2001. In support of the 21 percent target, incentive programs are operating in Europe, including feed-in tariffs, fixed premiums, and green certificate systems, which are often complemented by tax incentives or environmental taxes.

In China, the National Development and Reform Commission is promoting wind power concessions for large-scale commercial development. The program encourages local authorities to invite both local and international investors to develop 100 MW size wind farms at specific sites. In February of 2005, law was published requiring the creation of a national target for renewable development, a feed-in tariffs system for renewable energy power, a nation-wide cost sharing system, and a national fund for promoting renewable energy development. GWEC estimates the installed base of wind generated electricity in China grew more than 100 percent in 2006 to 2,604 MW.

India's installed base of wind generated electricity increased more than 40 percent in 2006 to 6,270 MW, making it the fourth largest producer in the world, behind Germany, Spain and the U.S. The fiscal incentives provided by the government to the wind energy sector in India include direct taxes (80 percent depreciation in the first year of installation of a project), tax holiday for 10 years and no income tax paid on power sales to utilities. The Ministry of New and Renewable Energy has also issued guidelines to all state governments to create an attractive environment for the export, purchase, wheeling and banking of electricity generated by wind power projects.

## **Our Approach to Wind Energy**

At the end of fiscal 2006, we had product sales and orders to support more than 3,760 MW of wind generated electricity worldwide, an increase of approximately 175 percent from 1,360 MW at the end of fiscal 2005. We address the wind energy market by providing services and designing, developing, manufacturing and selling critical components.

*Grid Interconnection.* We have been selling D-VAR systems and ancillary components since 2002 to wind farm developers, among others, to enable them to meet grid interconnection standards for dynamic voltage regulation that have been established in certain countries, such as Australia, Canada, New Zealand, Spain and the U.K. We currently have an installed base and orders for D-VAR systems for 30 wind farms worldwide.

*Electrical Systems.* We provide core electrical systems to manufacturers of wind energy systems. These electrical systems incorporate our PowerModule power electronic converters and are installed inside the nacelle of wind energy systems to regulate voltage and control power flows.

*Development Contracts.* Our Windtec subsidiary designs and develops entire state-of-the-art wind energy systems for manufacturers who are in the business of producing wind energy systems or who plan to enter the business of manufacturing wind energy systems. These customers typically pay us an upfront fee for the development work and provide us with a right of first refusal on the provision of core electrical systems needed to operate the wind energy systems;

*Licensed Designs.* We license our proprietary wind energy system designs to companies who wish to manufacture such systems. Companies that license our designs typically pay an upfront fee, pay royalties for each system they install, and provide us with a right of first refusal on the provision of core electrical systems needed to operate the wind energy systems;

*Service Contracts.* We sell service contracts to our customers who purchase our core electrical systems and our D-VAR systems; and

*Consulting Services.* We sell consulting services to customers who want to improve their wind energy system designs.

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Our Windtec business primarily targets markets outside the United States for its products and services. Our Windtec offerings are well-suited for emerging economies where local manufacturers are needed to meet increasing domestic demands for wind energy systems. Windtec is currently designing wind energy systems for, or licensing wind energy systems to, customers in China, Japan and South Korea, among others. According to GWEC, wind power capacity in these countries grew at 107 percent, 31 percent and 77 percent, respectively, in 2006. Windtec also is targeting customers in countries such as Brazil and India where wind capacity grew by 717 percent and 42 percent, respectively, in 2006.

Our D-VAR solution is sold primarily in countries that have dynamic voltage grid interconnection standards in place. In countries that do not yet have these requirements, such as the United States, utilities often enforce their own standards on wind farms to ensure the stability of their grids. This creates an additional business opportunity for our offerings.

## **Power Grid Infrastructure**

Until the early part of this decade, transmission grid investment experienced a prolonged depression caused by uncertainties with respect to the ownership of and return on transmission grid assets caused by potential changes in power grid regulations and policies. This period of underinvestment resulted in an increasing number of grid disturbances and blackouts, including the Northeast Blackout of August 14, 2003, which was the largest such event in U.S. history, affecting over 50 million people and costing up to an estimated \$6 billion in lost business for U.S. companies. A recent study conducted by researchers at Lawrence Berkeley National Laboratory found that electric power outages and blackouts cost America approximately \$80 billion annually.

Events and statistics such as these were pivotal in prompting broad public recognition of the need for concerted action to modernize and enhance the security of the nation's power grid. At the federal level, the Department of Energy (DOE) is supporting the development and implementation of new technologies and programs to enhance grid capacity and reliability. For instance, the DOE is now in the process of designating Electric Transmission Corridors to implement new transmission capacity that will relieve congestion problems in the U.S.

At the utility level, U.S. grid investment is now increasing rapidly, driven by a national awareness and federally regulated incentives providing returns on investment for such expenditures. The Edison Electric Institute estimates that transmission investment by utilities grew by 20 percent in 2006 to \$7.0 billion, and spending is expected to grow another 14 percent to \$7.9 billion in 2007.

As these expenditures are being considered, power grid operators are increasingly confronting reliability issues arising from the capacity limitations of transmission and distribution lines (overhead) and cables (underground). Pushing too much power through a line or cable will heat it up to its thermal limit. At that point, more power flow through the line or cable will cause it to fault (forced to be taken out of service) or, in severe cases, fail. Thus, as demand for power increases, it is necessary to upgrade existing transmission and distribution corridors with additional or higher capacity lines or cables.

Traditional transmission lines and cables reach their voltage stability limit well below their thermal threshold. Driving more power through a power grid when some of its lines and cables are operating above their voltage stability limit at peak demand times causes either low voltage in the power grid, a brownout, or risk of a sudden, uncontrollable voltage collapse, a blackout. The Northeast Blackout of 2003 was ascribed to a voltage collapse owing to operation of the grid above its voltage stability limit.

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The traditional way to increase power grid capacity and voltage stability is to install more overhead power lines and underground cables. This allows for redundancy of power flow pathways and allows power grid operators to safely run systems closer to the thermal limits of the weakest links in the power grid. However, as a result of rising public resistance to new overhead lines due to environmental, aesthetic and health concerns, permitting processes of five to 10 years or more have become common for new projects.

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In urban and metropolitan areas, installing additional conventional underground copper cables is similarly challenging for two important reasons: many existing underground corridors carrying power distribution cables are already filled to their physical capacity and cannot accommodate any additional conventional cables; and adding new conduits requires expanding or securing new corridors and digging up streets to lay new conduit. These tasks are costly and impose significant disruptions.

### **Our Approach to the Power Grid Infrastructure**

We currently address the power grid infrastructure opportunity by providing components and products designed to increase the power grid's capacity, reliability, security, stability and efficiency.

*HTS Cables.* Our Superconductors business manufactures HTS wire used in superconductor power cables, which are a new class of high-capacity, environmentally benign and easy-to-install transmission and distribution cables that address power grid capacity issues by increasing the thermal limit of existing or new corridors. Power cables are cylindrically shaped systems that consist of wires, which conduct electricity, surrounded by electrical insulation, which in turn is encased in a metal or polymeric jacket. Today, power cables are made primarily using copper wires. Because our HTS wire is able to carry 150 times the electrical current of comparably sized copper wire, power cables of the same diameter can use significantly less HTS wire than copper wire and yet conduct up to 10 times the power of copper cables of the same diameter. These new cable systems also bring efficiency advantages. Traditional cable systems heat up due to the electrical resistance of copper, and this heat causes electrical losses. It is estimated that, on average, eight percent of the electricity produced at generation sites is lost due to resistance in the power grid. Conversely, HTS materials carry direct current, DC, with 100 percent efficiency and alternating current, AC, with nearly 100 percent efficiency when they are cooled below a critical temperature. As a result, AC HTS power cables lose significantly less power to resistive heating than copper cables and DC HTS power cables have no energy losses due to resistive heating. According to Frost & Sullivan, the underground transmission and distribution power cable market in North America alone was expected to be more than \$900 million in 2005 and was expected to grow by eight percent annually through 2012. We believe the annual transmission and distribution power cable market worldwide today is at least \$2 billion.

*Reactive Compensation.* The power that flows through AC networks comprises both real power, measured in watts, and reactive power, measured in VARs. In simple terms, reactive power is required to support voltage in the power network. Voltage is the pressure that drives electrical current through the grid. Operators of AC power networks must closely and continuously balance real power and reactive power. Where reactive power support is inadequate, grids must be operated with heightened caution. Many lines within a power grid are rated well below their full thermal capacity because when grids are stressed, even brief voltage drops caused by transient events (e.g., line outages, plant trips, lightning strikes) can trigger instability and voltage collapse. Our Power Systems business offers power electronics systems that rapidly inject precise amounts of reactive power into transmission grids to compensate for fluctuations in reactive power. We expect the need for reactive compensation to support both steady-state and transient power grid operation will continue to rise as the demand for power increases and utilities increase their focus on energy efficiency. Reliability-must-run generators are used by utilities to support voltage during peak load timeframes. These systems, which consume significant amounts of fuel and emit greenhouse gases, can often be replaced by reactive compensation solutions. We estimate that the current annual addressable market for these products is at least \$250 million worldwide, and we expect this market to grow considerably as global demand for electricity also continues increasing.

*Secure Super Grids.* Our Superconductors business develops stand-alone fault current limiter devices and Secure Super Grid systems, which combine the advantages of HTS power cables with fault current limiters in one system. Fault current limiters are designed to protect the grid against power surges. As grids continue to expand, the frequency and magnitude of power surges or fault currents that arise from short circuits also increase. In some cities, power surges are approaching and surpassing the

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ratings of circuit breakers that have been used to protect the power grid, resulting in an increased risk of blackouts. We believe there is a need for a new solution that will be able to limit fault currents and protect ancillary utility equipment. We estimate that the worldwide addressable market for fault current limiters and Secure Super Grid systems exceeds \$1 billion annually.

## **AMSC Power Systems**

Our Power Systems business unit designs, develops, assembles, tests, services and sells power electronic products, systems and solutions that generate and rapidly switch, control and modulate power. Power Systems offers three product lines that service the needs of customers in a broad array of industries, including the transmission and distribution, wind power and manufacturing industries.

## **Power Electronics**

Power conversion and active grid management are enabled by power electronic devices, which convert generated or transmitted electric power to the appropriate form for a particular electrical application.

*PowerModule Power Converters.* Our PowerModule power electronic converters incorporate power semiconductor devices that switch, control and move large amounts of power faster and with far less disruption than the electromechanical switches that have historically been used. With power ratings from 60 to 1,000 kW per converter, this product utilizes a proprietary printed circuit board design that incorporates a microprocessor, thereby making it programmable for many uses. Programmability is important because individual PowerModule converters and integrated stacks of PowerModule converters can be programmed to meet the needs of different customers to control and condition varying levels of power from tens of kilowatts to megawatts across a wide range of applications. Our primary commercial PowerModule product is known as the PM1000. We also offer the PowerModule PM1000 Product Developer Kit and PM1000 System Developer Kit to enable potential new customers to more easily integrate and adopt the product in their applications. In addition to PowerModule power converter hardware, our Power Systems business unit is responsible for software development for the PowerModule power converters, as well as for the software needed to integrate the PowerModule power converters into larger scale systems.

While PowerModule systems today are used primarily in wind applications, they also have been incorporated into electric motor drives; distributed and dispersed generation devices (micro-turbines, fuel cells and photovoltaics) and power quality solutions (D-VAR, battery and flywheel-based uninterruptible power supplies).

*Thyristor Switches.* At the heart of several of our grid reliability, power quality and interconnection systems offerings is a thyristor switching technology that we obtained in April 2007 through the acquisition of Power Quality Systems, Inc. These are modular solid-state switches, or valves, that can be configured in a variety of different ways to cater to specific reactive compensation and power quality needs. Today, these products are solely used as a component in our static VAR compensator and power quality static VAR compensator offerings and are not sold as a stand-alone product.

**Table of Contents****Grid Reliability, Power Quality and Interconnection Systems**

Our grid reliability, power quality and interconnection systems product line consists of the following five core reactive compensation and voltage regulation offerings:

<b>Product</b>	<b>Description</b>
<i>D-VAR</i>	Our D-VAR (Dynamic VAR) reactive compensation systems provide a powerful and cost-effective source of dynamic reactive compensation for a wide range of operational needs. D-VAR solutions are customized to meet specific customer needs and include inherent flexibility to accommodate changing grid conditions. They can correct voltage instability problems on transmission networks, provide dynamic voltage and power factor control and regulation on transmission and distribution networks, protect industrial facilities requiring premium power quality, and support a stable point of interconnection for distributed generation facilities and large-scale wind farms. D-VAR systems utilize our proprietary and advanced control and monitoring system that detects and instantaneously compensates for voltage disturbances by injecting leading or lagging reactive power, precisely where it is needed on the grid. D-VAR systems are extremely flexible and scalable, ranging from 2 megaVAR (MVAR) to hundreds of MVAR.
<i>DVC</i>	Our DVC (Dynamic VAR Compensators) solutions are based on the successful D-VAR system. They are a hybrid Static Reactive Compensator/SVC solution that utilizes technology similar to D-VAR systems along with proprietary fast-switched capacitors and reactors. The DVC systems are utilized in situations where both transient and steady state voltage regulation is required, combining the technical superiority of the D-VAR system along with the economics of capacitor and reactor based reactive compensation systems.
<i>SVC</i>	Our SVCs (Static VAR Compensators) are a large, single-point solution geared toward utilities that are looking to stabilize their power grid. Our SVC is a transmission-level solution that utilizes thyristor switched capacitors and reactors to alleviate power flow restraints on stability limited lines and increase overall reliability of the power grid. Benefits of installing an SVC on a transmission system include: stabilized voltages on weaker networks, reduced transmission losses, increased transmission capacity, reducing or delaying the need for new lines, voltage control and stability, power swing damping and higher transient stability limits.
<i>PQ-IVR</i>	Our PQ-IVR (Power Quality-Industrial Voltage Restorer) systems offer large industrial customers a superior solution to disruptive power quality problems. PQ-IVR systems are voltage protection solutions that can detect power quality problems within milliseconds, and counteract them before they turn into costly productivity problems. PQ-IVR systems incorporate our latest PowerModule power electronic converters and can be configured to meet a wide range of customer requirements. Our system engineers work with customers to find the optimum low-cost solution for any industrial application. Just like our D-VAR product, PQ-IVR systems utilize our proprietary PowerModule technology.
<i>PQ-SVC</i>	Our power quality static VAR compensators, or PQ-SVC systems, address power system disturbances for the distribution grid and industrial facilities. This is a cost-effective, highly reliable solution that allows large electric loads to operate on the AC power system while minimizing the impacts of voltage sags and flicker problems. PQ-SVC systems mitigate flicker ranging from motor starts, to continual motor flicker, welding, factory operations and arc furnace operations.

Our grid reliability, power quality and interconnection systems have been purchased by more than 100 customers worldwide in a variety of industries. Representative customers include:

grid operators, such as American Electric Power, Landsnet and Northeast Utilities;

wind farm developers, owners, operators and vendors, such as Econnect, Enbridge and Suzlon; and

industrial customers, such as Bridgestone, Micron Technologies and Universal Compression.





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### **Wind Energy Systems and Solutions**

Our Windtec subsidiary provides a wide range of wind energy system designs and services. Wind energy systems comprise all components of a system needed to generate electricity from wind. These components include the foundation, the tower, wind turbine blades and the nacelle, which incorporates gear boxes, a generator, electrical systems and ancillary controls. To date, we have undertaken projects encompassing wind energy systems with power ratings ranging from 1.65 MW to 5 MW for use both on- and off-shore. Windtec licenses proprietary designs and develops tailored designs based on specific customer needs. Windtec offers these designs through technology transfer or licensing agreements. Customers then are able to begin manufacturing the wind energy systems. In addition to the design and development work, we offer customer training and support services as well as wind turbine electrical systems. Leveraging our PowerModule converters as a core component, our wind turbine electrical systems perform various functions, including controlling the pitch and variable speed of blades.

Representative customers include wind energy system manufacturers, such as:

Doosan Heavy Industries in South Korea;

Ebara in Japan;

Sinovel Wind in China; and

Wikov in the Czech Republic.

### **Facilities & Manufacturing**

Our Power Systems business unit currently operates out of facilities in New Berlin and Middleton, Wisconsin; West Mifflin, Pennsylvania; and Klagenfurt, Austria. In New Berlin, we design, develop, assemble and test our PowerModule power electronic converters. We outsource the manufacture of components of our PowerModule power converters, allowing us to focus on our core competency of design and final assembly and test of PowerModule systems. This also provides Power Systems with the flexibility to utilize best-of-breed subcomponents in the assembly of our converters. We assemble and test components and PowerModule power converters for incorporation into our grid reliability, power quality and interconnection systems, such as D-VAR, DVC and PQ-IVR in our Middleton, Wisconsin facility. Our West Mifflin, Pennsylvania facility is responsible for designing, manufacturing and selling our thyristor switch-based technology that we integrate into our PQ-SVC and SVC products. Our Windtec subsidiary operates out of Klagenfurt, Austria. This location is home to Windtec's core engineering, design and sales teams.

In order to reduce manufacturing costs and meet the growing global demand for our Power Systems products and services, we are actively examining opportunities to scale up our manufacturing capabilities for power electronic converters in the U.S. and establish manufacturing operations in China.

### **AMSC Superconductors**

Our Superconductors business unit designs, develops, manufactures and sells HTS wire and products made with HTS wire. We sell wire to original equipment manufacturers (OEMs) that incorporate HTS wire into value-added products, which are, in turn, sold to electric utilities, ship integrators and industrial end-users, among others. We also develop power cable systems, fault current limiters and rotating machines (including electric motors, generators and synchronous condensers) based on our HTS wire. In addition, the business unit manages projects that demonstrate these value-added HTS products and create market demand for HTS wire.

### **HTS Wire**

In calendar 2006, we completed our transition from the manufacture of 1G HTS wire to our proprietary 2G HTS wire, which we have named 344 superconductors. We have supplied approximately 80 percent of the 1G

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HTS wire used in HTS product development and system demonstrations worldwide. Our 344 superconductors have been designed to be easily adopted by our customers who have been developing products based on our 1G HTS wire.

With the ability to carry more than 150 times the power of copper wires of the same dimensions, our 344 superconductors have electrical and mechanical performance that is comparable to or better than our 1G HTS wire, and we expect to manufacture this wire at one fifth the cost our 1G HTS wire when production volumes exceed approximately 2.7 million meters per year. The superconductor compound we utilize in our 2G HTS wire is  $\text{YBa}_2\text{Cu}_3\text{O}_7$ , commonly referred to as YBCO.

Both 1G HTS wires and 344 superconductors are hair-thin, ribbon shaped wires that are approximately 0.4 cm wide. The core of our 344 superconductors consists of multiple thin coatings of several materials, including a thin coating of HTS material, on a base metal or alloy. A graphic representation of the multiple coatings in our 344 superconductors is shown in the following figure:

*Architecture of the core of 344 superconductors (un-laminated, not to scale)*

Many different manufacturing techniques can be utilized to produce each of the thin coatings in a 2G HTS wire. We believe we have chosen high-volume, low-cost manufacturing processes for the production of each of the coatings in our proprietary 344 superconductors, which we believe gives us a competitive edge in the marketplace.

The final form of both 1G HTS wire and 344 superconductors comprises a core ribbon-shaped wire that is laminated on both sides with a thin strip of a metal or alloy in the final step of manufacturing to tailor the mechanical properties of the product. Different end-use products require different mechanical properties; so the ability to tailor these properties in the final manufacturing step is important. We also believe our ability to cost-effectively laminate our wires provides us with a competitive advantage.

Because they have the same general dimensions, and because the electrical and mechanical performance of 344 superconductors equal or exceed that of 1G HTS wire, 344 superconductors can easily replace 1G HTS wire in applications that have already adopted 1G HTS wire. However, the two generations of HTS wire differ in the superconductor materials of which they are comprised, their internal architecture, how they are manufactured, and, in some instances, their end-use applications because 344 superconductors possess unique physical properties that enable a new class of superconductor products.

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Our 344 superconductors are smart materials because they are able to switch from a superconducting state with zero resistance to the flow of electricity, to the resistive state when the current passing through the wire exceeds a critical value. Because a high resistance reduces current in an electrical network, the smart switching feature of superconductor wire can be used to limit high fault currents that arise because of network short circuits. This is the basis of fault current limiting devices for utility and military applications. Our 344 superconductors are well suited for such applications because the resistance of the other layers in its structure can be kept high, thus decreasing the amount of wire required to achieve the required resistance. By contrast, the significant amount of silver in 1G HTS wire keeps the resistance low. Our lamination process also permits the economical addition of thick stabilizer to our 344 superconductors to minimize the temperature rise during a fault event. This lamination process is a further competitive advantage of our 344 superconductors and associated manufacturing process as it allows us to customize our product to meet the materials and performance needs of our customer's specific applications.

For the fiscal year ended March 31, 2007, we shipped 112,818 meters of 1G HTS wire from our inventory of this wire, which we no longer manufacture. As of March 31, 2007, we had remaining approximately 180,000 meters of 1G HTS wire available for sale in inventory, most of which we believe we will sell over the next several years. We are now manufacturing only 344 superconductors. For the fiscal year ended March 31, 2007, we had shipped 11,500 meters of 344 superconductors to more than 25 customers in more than 10 countries. We believe the demand for our limited supply of 344 superconductors is very strong.

## **HTS Wire-Based Products and Applications**

AMSC Superconductor's HTS wire is now being used in the development and commercialization of a broad array of products and applications. The business is currently focused on the development and commercialization of three main product areas for power grids: superconductor power cables, Secure Super Grid systems, and stand-alone fault current limiters.

*Superconductor Power Cables and Secure Super Grids.* An important application for our HTS wire is high-capacity AC and DC power cables. Because of the high power capacity of HTS wire, HTS power cables can carry up to 10 times more power, depending on the design and operating characteristics of the cable, than copper-based cables of the same diameter. The performance levels and mechanical properties of our HTS wire are sufficient today to meet the technical requirements for cables that can alleviate congestion in power transmission systems. We expect that the price for HTS wire for cable systems (as measured in dollars per kiloamp meter) will approach that of copper wire used in power cable systems in the years ahead.

There are several designs for HTS power cables being developed and tested by approximately nine cable manufacturers around the world. In all cases, the cryogenic coolant for the HTS wires in these cables is liquid nitrogen. Nitrogen, which comprises approximately 79 percent of the air we breathe, is an environmentally friendly, nonflammable material. When cooled by standard industrial refrigeration techniques, nitrogen gas turns into a relatively inexpensive liquid, which is used in many applications, ranging from steel making and freezing of foods, to crushing of spices to cryogenic freezing of biological materials on farms.

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*Key components of a co-axial, cold dielectric superconductor power cable.*

Among the advantages presented by HTS cables over conventional copper cables are increased power density, ease of installation, reduced voltage and increased reliability and security. In order for electric utilities and power grid operators to realize these advantages, they must first observe the successful testing and operation of HTS cables in high voltage test facilities and in actual power grid installations. The first HTS cable demonstration project was undertaken more than a decade ago. Today, two HTS cables are operating in the live grid in the United States; one in Columbus, Ohio, which utilizes our 1G HTS wire and one in Albany, New York, which utilizes 1G HTS wire manufactured by Sumitomo Electric Industries in Japan.

In April 2003, we were selected by the DOE as the prime contractor to install a half-mile long, 600 MW, 138 kilo-Volt (kV) HTS cable system in the power grid of the Long Island Power Authority (LIPA). We selected Nexans as our subcontractor to manufacture the HTS cable, the cable cryostat and the cable terminations, and we selected Air Liquide to provide the cryogenic system design and the refrigeration equipment. We produced approximately 160,000 meters of 1G HTS wire for this project and delivered all of the wire to Nexans during the fiscal year ended March 31, 2006. We expect the cable system to be installed and energized by the end of calendar 2007.

In addition to the U.S. HTS cable projects, additional demonstrations are underway in China, Europe, Japan, Korea and Mexico. We have supplied 80 percent of HTS wire for such projects.

Secure Super Grid systems increase the capacity of power grids while also being able to rapidly suppress fault currents. In May 2007, we announced that we had signed a contract with Consolidated Edison, Inc. to develop and deploy our Secure Super Grid technology in New York City within three years. The Department of Homeland Security is expected to invest up to \$25 million in the development of this technology. We believe this technology has the potential to significantly enhance the capacity, security and efficiency of electric power infrastructures in urban and metropolitan areas around the world, enabling Secure Super Grids.

*Fault Current Limiters.* The availability of 344 superconductors with their smart switching capability, coupled with our proprietary lamination technology, opens a path for stand-alone fault current limiting devices, which serve as surge suppressors for the electric power grid. Fault current limitation is becoming an increasingly critical issue for utilities with growing and highly meshed urban grids, and utility interest in finding a solution is high. Fault currents today are reaching levels that could exceed the safe operating levels of circuit breakers and other power equipment in numerous locations around the world. This results in millions of dollars in damaged utility equipment and is also a common cause of brownouts and blackouts.

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Many different designs of FCLs have been proposed to address this problem. The most widely investigated class is called a resistive FCL in which a current exceeding the critical current of the HTS material causes it to switch into a resistive state. We have years of experience and many patents in this area. As the first long-length 344 superconductors became available, we established in February 2005 a development agreement with Siemens Corporate Technology in Erlangen Germany to develop 344 superconductors for a stand-alone FCL application. In January 2007, this collaboration succeeded in demonstrating a single phase, 13 kV-class, 2.25 MVA-rated fault current limiter using our 344 superconductors and a proprietary bifilar coil concept. Our collaboration with Siemens continues with the goal of developing more advanced wire and higher rated FCL systems for commercial application. We have also sold 344 superconductors to seven additional customers worldwide who are developing FCLs. Among them is Hyundai Heavy Industries, which announced a successful test of an 8 MVA-rated system using our wire in early 2007.

*Rotating Machinery.* The use of HTS wire in rotating machines provides significant competitive advantages by enabling dramatic reductions in size, weight and manufacturing costs relative to conventional machines. Because of the manufacturing cost reductions associated with the reduced size of our HTS rotating machines, we expect the market price for rotating machines using our design to eventually be equivalent to that of copper-based machines at power ratings of 1 MW (1,333 horsepower) and above.

We have produced several such rotating machines in the past and have pursued patent protection on many aspects of these machines. In March 2007, we completed factory acceptance testing of our 36.5 MW (49,000 horsepower) HTS motor for the U.S. Navy. We plan to license designs for HTS rotating machines to companies that have the infrastructure to manufacture these systems. We believe contracts of this kind would yield license and consulting service fees from these companies and a growing stream of royalty payments and revenues from the sale of HTS wire and coils to licensees.

*Other Future HTS Opportunities.* Over the past several years, we have sold our HTS wire to a number of OEMs and research and development organizations that are developing other applications for HTS wire. We have sold HTS wire for transportation, military, medical, magnetic separation and other uses. Many of these applications are in the early development stage. For instance, in recent years, we have sold our HTS wire for:

a prototype electromagnet used by Central Japan Railway for its maglev train system;

a wind turbine generator being manufactured by a customer in Europe;

a degaussing cable for use on naval ships to reduce their magnetic signatures; and

magnetic processing systems for the clean up of waste water, which is being developed by a Japanese firm.

Some of these applications have the potential to become important markets for our HTS wire, and we will continue to market our HTS wire to a wide array of application developers. We cannot make any assurances, however, that these markets will become significant contributors to future revenue.

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**HTS Wire Manufacturing and Facilities**

We have investigated over a period of 12 years many different techniques for manufacturing each of the layers in our 344 superconductors. We have discovered and demonstrated a combination of high-volume, low-cost manufacturing steps that yield our proprietary 344 superconductors with very high electrical performance. The manufacturing steps we currently utilize to manufacture our proprietary 344 superconductors, are illustrated in the following figure.

*Ten individual steps are utilized in our reel-to-reel manufacturing process for 344 superconductors*

We believe the manufacturing steps we currently utilize will produce 344 superconductors at substantially lower costs than the 1G and generic 2G HTS wire manufacturing techniques being pursued by competitors. Our current estimates suggest we should be able to produce 344 superconductors at one-fifth the cost at which we had been producing 1G wire once we reach 2.7 million meters per year in production capacity. We believe the performance and manufacturing costs inherent in our manufacturing process for 344 superconductors will give us a competitive edge in the commercial market for HTS wires. We have also developed a strong portfolio of patents related to our fabrication methodology for 344 superconductors, with more than 90 worldwide patents and patent applications pending, and licenses to more than 50 worldwide patents and patent applications owned by others, as of March 31, 2007. However, we can make no assurances that we will be successful in fully scaling up our proprietary manufacturing process for 344 superconductors.



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We now produce 4 cm wide strips of superconductor material by our proprietary manufacturing process. One of the last steps of manufacturing is to slit the 4 cm wide strips into the industry-standard width, which is approximately 0.4 cm. As shown below, the result is that we produce multiple, ribbon-shaped wires from one manufacturing operation, which reduces manufacturing costs.

*Multiple, ribbon-shaped HTS wires with industry-standard dimensions can be produced after first producing coatings on a wider strip. Shown is a partially slit 4 cm wide strip.*

All of the equipment for our 344 superconductors manufacturing line is designed with the capability to process either 4 cm wide or 10 cm wide strips. As of March 31 2007, we had installed, commissioned and qualified 75 percent of the manufacturing equipment needed to achieve a gross annual capacity in December 2007 of 720,000 meters of 344 superconductors from 4 cm wide strips. Because our proprietary wire manufacturing technique is modular, we expect to be able to expand the current operation at a rate dictated by market demand by commissioning additional production modules and by widening the process strip from 4 cm to 10 cm, yielding a 2.5x increase in output with the same manufacturing equipment once we complete the migration to 10 cm strips.

In the fiscal year ended March 31, 2007, we invested approximately \$8.4 million in the 344 superconductors production line, and we anticipate spending approximately \$6,000,000 on this line in the year ended March 31, 2008. These expenditures are being made to enable us to a) achieve a gross production capacity of approximately 720,000 meters of 344 superconductors in December 2007 on our 4 cm manufacturing technology, and b) prepare to migrate to the our 10 cm manufacturing technology. We estimate that an additional \$28 million to \$35 million of capital expenditures would be needed for a full commercial manufacturing operation with a gross capacity of approximately 9 million meters of wire per year.

The current operation and subsequent expansion of this operation to full commercial manufacturing will be located in our Devens, Massachusetts facility.

We have made substantial investments in product and technology development since our inception.

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### **Sales and Marketing**

We have built a Network Solutions Team comprised of skilled engineers who were previously employed at electric utilities and who have extensive experience in the design and structure of transmission and distribution grids and in the operation of industrial sites and wind farms. This team plays a key role in our sales process, providing us with an in-depth understanding of customer needs. Using sophisticated software programs, the team performs analyses on the effects of disturbances in power grids to determine grid reliability under normal and peak loading conditions. This group also analyzes how the use of standard technologies, such as capacitors and static VAR compensators (SVCs), and advanced technologies, such as HTS cables, fault current limiters and D-VAR systems, will enable the reliable operation and improve the performance of power grids. This team performs similar analyses to determine the optimum power quality solution for industrial manufacturing sites and the solution needed to meet grid interconnection standards for wind farms. We believe our Network Solutions Team is a competitive differentiator because it enables us to obtain a thorough understanding of customer needs to offer highly customized solutions.

Our Power Systems products are sold directly by our sales force in the U.S., Europe and Asia. We have sold and intend to continue selling both individual PowerModule power converters as well as integrated PowerModule power converters for applications, such as motor drives, uninterruptible power supplies, wind turbines and distributed generation applications.

Our channels to market for HTS wire include direct sales as well as distributors, such as Kiswire in Korea and Suzuki Shokan in Japan. Our target markets include OEMs that incorporate our wire into prototype power cables, motors, generators and electromagnet applications for sale to the utility, transportation, ship building and industrial processing markets. We have strong relationships with key OEMs, such as Nexans, Siemens and Southwire. We also sell wire to customers that are in early stages of research and development. These customers use the wire in products, such as power transformers, fault current limiters and electromagnet applications in the medical, materials processing and transportation industries, as well as other fields.

For the year ended March 31, 2007, we had two customers that represented approximately 36 percent and 10 percent of total revenue. For the year ended March 31, 2006, we had three customers that represented approximately 41 percent, 19 percent and 12 percent of total revenue. For the year ended March 31, 2005, we had three customers that represented approximately 53 percent, 21 percent and 10 percent of total revenue. The portion of total revenue derived from customers located outside the United States was 47 percent for the year ended March 31, 2007, 24 percent for the year ended March 31, 2006 and 11 percent for the year ended March 31, 2005. For additional financial information, see the Notes to Consolidated Financial Statements included herein, including Note 16, entitled Business Segment Information, regarding our business segments.

### **Competition**

#### *Competition for AMSC Power Systems*

We face competition from companies that are developing power electronic converters for use in applications for which we expect to sell our PowerModule products. These companies include Inverpower, SatCon, Semikron and Xantrex.

We face competition from other companies selling power reliability products similar in application to our D-VAR and PQ-SVC products, such as STATCOM and SVC products made by ABB, Alstom, Mitsubishi Electric and Siemens; adaptive VAR compensators produced by S&C

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Electric; DVRs (dynamic voltage restorers) produced by companies, such as ABB and S&C Electric; and flywheels and battery-based UPS systems offered by various companies around the world.

Our Windtec subsidiary faces competition for the supply of wind turbine engineering design services from other full-service design engineering firms, such as Garrad Hassan. We also face competition for the licensing of

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wind turbine systems by companies, such as Aerodyn, DeWind and REpower. We also face indirect competition from current wind energy system manufacturers, such as Gamesa, GE, Suzlon and Vestas.

### *Competition for AMSC Superconductors*

We face competition both from vendors of traditional wires made from materials, such as copper and from companies who are developing HTS wires. While we no longer manufacture 1G HTS wire, we continue to sell this wire from inventory and face competition from EHTS (a division of Bruker Biospin in Germany), Innova Superconductor Technologies (China) and Sumitomo Electric Industries (Japan). Sumitomo has made progress recently in improving the performance of its 1G HTS wire.

We also face competition for our 344 superconductors from a number of companies in the U.S. and abroad who are developing 2G HTS wire technology. These include MetOx and Superpower (a subsidiary of Royal Philips Electronics) in the U.S.; Fujikura, Furukawa, Showa and Sumitomo in Japan; and EHTS, Evico, Nexans and Zenergy in Europe. We believe that the proprietary processes we have adopted will prove to be the best processes to provide not only high-performance wire, but also commercial quantities at the lowest cost. Five companies—Evico, Nexans, Showa, Sumitomo Electric and Zenergy—have been focusing their research programs more recently on the development of 2G HTS wire made by the same or similar processes we have chosen to utilize to manufacture 2G HTS wire.

We are developing a stand-alone HTS FCL in collaboration with Siemens and our Secure Super Grids technology, which incorporates HTS fault-current-limiting capability. The industrial competition for stand-alone FCLs based on HTS includes Hypertech, SC Power and SuperPower in the US; Nexans and Rolls-Royce in Europe; Sumitomo Electric and Toshiba in Japan; Beijing Superconductor and Innopower in China; and Hyundai and KEPRI in Korea. Initial work on HTS cables that incorporate fault current limiting characteristics was carried out several years ago by EHTS and Nexans using a different concept. The competition for stand-alone FCLs also includes non-HTS systems based on power electronics, including a system developed recently by Powell. We believe we have a strong intellectual property position in Secure Super Grids technology and also a strong position on stand-alone FCLs in collaboration with Siemens.

Many of our competitors have substantially greater financial resources, research and development, manufacturing and marketing capabilities than we do. In addition, as our target markets develop, other large industrial companies may enter these fields and compete with us.

## **Patents, Licenses and Trade Secrets**

### *Patent Background*

An important part of our business strategy is to develop a strong worldwide patent position in all of our technology areas. Our intellectual property (IP) patent portfolio comprises both patents we own and patents we license from others. We devote substantial resources to building a strong patent position, and we believe that we have significantly strengthened our position in the past several years. As of March 31, 2007, we owned (either alone or jointly) 104 U.S. patents and had 39 U.S. patent applications on file. We also hold licenses from third parties covering over 123 issued U.S. patents and 23 U.S. patent applications. Together with the international counterparts of each of these patents and patent applications, we own more than 370 patents and patent applications worldwide, and have rights through exclusive and non-exclusive licenses to more than 360 additional patents and patent applications.

We believe that our current patent position, together with our expected ability to obtain licenses from other parties to the extent necessary, will provide us with sufficient proprietary rights to develop and sell our products. However, for the reasons described below, there can be no assurance that this will be the case.

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Despite the strength of our patent position, a number of U.S. and foreign patents and patent applications of third parties relate to our current products, to products we are developing, or to technology we are now using in the development or production of our products. We may need to acquire licenses to those patents, or to successfully contest the scope or validity of those patents, or to design around patented processes or applications.

If companies holding patents or patent applications that we need to license are competitors, we believe the strength of our patent portfolio will significantly improve our ability to enter into license or cross-license arrangements with these companies. We have already successfully negotiated a cross-license with a competitor. However, there can be no assurance that we will be able to obtain all necessary licenses from competitors on commercially reasonable terms, or at all.

We may be required to obtain licenses to some patents and patent applications held by companies or other institutions, such as national laboratories or universities, not directly competing with us. Those organizations may not be interested in cross-licensing or, if willing to grant licenses, may charge unreasonable royalties. We have successfully obtained licenses related to HTS wire from a number of such organizations, including Lucent Technologies, MIT, ORNL, Superlink of New Zealand and Toshiba in Japan, with royalties we consider reasonable. Based on past experience, we expect that we will be able to obtain other necessary licenses on commercially reasonable terms. However, there can be no assurance that we will be able to do so.

Failure to obtain all necessary licenses upon reasonable terms could significantly reduce the scope of our business and have a materially adverse effect on our results of operations. We do not now know the likelihood of successfully contesting the scope or validity of patents held by others. In any event, we could incur substantial costs in challenging the patents of other companies. Moreover, third parties could challenge some of our patents or patent applications, and we could incur substantial costs in defending the scope and validity of our own patents or patent applications whether or not a challenge is ultimately successful.

### *Power Systems Patents*

We have received patents and filed a significant number of additional patent applications on power quality and reliability systems, including D-VAR, DVC and PQ-IVR systems. Our Power Systems products are covered by more than 65 patents and patents pending worldwide on both our systems and power converter products. The patents and applications are directed to inventions that significantly improve product performance and reduce product costs, thereby providing a competitive advantage. One invention of note allows for a reduction in the number of power inverters required in the system by optimally running the inverters in overload mode, thereby significantly reducing overall system costs. Another important invention utilizes inverters to offset transients due to capacitor bank switching, which provides improved system performance.

Our Windtec subsidiary designs a variety of wind turbine systems and licenses these designs, including know-how and patent rights, to third parties for an upfront fee and royalty payments for each installation of a wind turbine system. Windtec's wind turbine designs are covered by more than 25 patents and patents pending worldwide on wind turbine technology. Windtec has patent coverage on the unique design features of its blade pitch control system, which ensures optimal aerodynamic flow conditions on the turbine blades and improves system efficiency and performance. The pitch system includes a patented SafetyLOCK feature which causes the blades to rotate to a feathered position to prevent the rotor blades from spinning during a fault.

With our Power Systems business growing rapidly now in China, we recognize the importance of IP protection in that region. It is our judgment that China is steadily moving in the direction of recognizing and acting on international norms for IP. As such, we have incorporated China in

our patent strategy for all of our various products. Nevertheless, we recognize that the risk of IP piracy is still higher there than in most other developed countries, and so we are careful to limit the technology we provide through our product sales and other expansion plans in China. While we take the steps necessary to ensure the safety of our IP, there can be no assurance that that these measures will be fully successful.

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### *HTS Patents*

Since the discovery of high temperature superconductors in 1986, the HTS industry has been characterized by rapid technical advances, which in turn have resulted in a large number of patents, including overlapping patents, relating to superconductivity being applied for and granted worldwide. As a result, the patent situation in the field of HTS technology and products is unusually complex.

We have obtained licenses to patents and patent applications covering some HTS materials, including an exclusive license from Superlink and non-exclusive licenses from Lucent Technologies, Sumitomo Electric and Toshiba. However, we may have to obtain additional licenses to HTS materials.

In May 2006, we announced we had completed the transition to 2G HTS wire and, as a result, had ceased all 1G wire production. We are continuing to develop and ramp up production of our 2G HTS wire, which we call 344 superconductors, and we intend to continue to obtain a proprietary position in 2G HTS wire through a combination of patents, licenses and proprietary know-how. In addition to our owned patents and patent applications in 2G HTS wire, we have obtained an exclusive license from MIT for the MOD process we use to deposit the YBCO layer, and a nonexclusive license from University of Tennessee/Battelle to the RABiTS process we use for the substrate and buffer layers for this technology. If alternative processes become more promising in the future, we will also seek to develop a proprietary position in these alternative processes.

We have a significant number of patents and pending patents covering applications of HTS wire, such as HTS fault current limiters, Secure Super Grids technology, which includes both HTS power cables and fault current limiting capability, and HTS rotating machines. Since the HTS rotating machine, FCL cables and Secure Super Grids fields are relatively new fields, we believe we are building a particularly strong patent position in these areas. At present, we believe we have the broadest and most fundamental patent position in HTS rotating machines technology. We have also filed a series of patents on our concept for our proprietary Secure Super Grids technology. However, there can be no assurance that these patents will be sufficient to assure our freedom of action in these fields without further licensing from others.

### *Trade Secrets*

Some of the important technology used in our operations and products is not covered by any patent or patent application owned by or licensed to us. However, we take steps to maintain the confidentiality of this technology by requiring all employees and all consultants to sign confidentiality agreements and by limiting access to confidential information. No assurance can be given that these measures will prevent the unauthorized disclosure or use of that information. In addition, there is no assurance that others, including our competitors, will not independently develop the same or comparable technology that is one of our trade secrets.

## **Employees**

As of March 31, 2007, we employed a total of 263 persons, 23 of whom have a Ph.D. in materials science, physics or related fields. None of our employees is represented by a labor union. Retaining our key employees is important for achieving our goals, and we are committed to developing a working environment that motivates and rewards our employees.





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The following table lists our directors and executive officers and their ages as of July 9, 2007:

<b>Name</b>	<b>Age</b>	<b>Position</b>
Gregory J. Yurek	60	Chairman of the Board, Chief Executive Officer and President
Alexis P. Malozemoff	63	Executive Vice President and Chief Technical Officer
David A. Henry	45	Senior Vice President and Chief Financial Officer and Treasurer
Angelo R. Santamaria	44	Vice President and General Manager, AMSC Superconductors
Charles W. Stankiewicz	48	Executive Vice President, AMSC Power Systems
Terry M. Winter	65	Executive Vice President, Operations and Secretary
Albert J. Baciocco, Jr. <sup>(4)</sup>	76	Director
Vikram S. Budhraj <sup>(2)</sup>	59	Director
Peter O. Crisp <sup>(2)(3)</sup>	74	Director
Richard Drouin <sup>(2)(3)</sup>	74	Director
David R. Oliver, Jr. <sup>(1)</sup>	65	Director
Andrew G.C. Sage, II <sup>(4)</sup>	81	Director
John B. Vander Sande <sup>(1)(2)</sup>	63	Director
John W. Wood, Jr. <sup>(1)</sup>	63	Director

- (1) Member of the Audit Committee.
- (2) Member of the Compensation Committee.
- (3) Member of the Nominating and Corporate Governance Committee.
- (4) Messrs. Baciocco and Sage have decided to retire from our Board of Directors upon completion of their current term and are not nominees for election to our Board of Directors at our 2007 Annual Meeting of Stockholders.

**Gregory J. Yurek** co-founded American Superconductor in 1987 and has been chief executive officer since December 1989, president since June 2005 and chairman of the Board of Directors since October 1991. Dr. Yurek also served as president from March 1989 to February 2004, as vice president and chief technical officer from August 1988 until March 1989 and as chief operating officer from March 1989 until December 1989. Prior to joining American Superconductor, Dr. Yurek was a professor of Materials Science and Engineering at MIT for 12 years. He is a director of Nanosys, Inc. Dr. Yurek has been a director of American Superconductor since 1987.

**Alexis P. Malozemoff** joined American Superconductor as vice president, research and development in January 1991 and was elected our chief technical officer in January 1993 and senior vice president in May 1998. In May 2003, Dr. Malozemoff was appointed executive vice president in addition to retaining the position of chief technical officer. Prior to joining American Superconductor, Dr. Malozemoff spent 19 years at IBM in a variety of research and management positions, most recently as IBM's research coordinator for high temperature superconductivity.

**David A. Henry** joined American Superconductor in July 2007 as Senior Vice President and Chief Financial Officer. Prior to joining American Superconductor, Mr. Henry served as Senior Vice President and Chief Financial Officer of AMIS Holdings, Inc., or AMIS, the parent company of AMI Semiconductor, Inc., since April 2004. Prior to his position at AMIS, Mr. Henry worked for seven years at Fairchild Semiconductor International, Inc., where he was Vice President of Finance, Worldwide Operations from November 2002 until April 2004, and Vice President, Corporate Controller from March 1997 until November 2002. Prior to that, Mr. Henry worked for eight years at National Semiconductor Corporation, where he held various financial management positions.



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**Angelo R. Santamaria** joined American Superconductor in April 2004 as vice president and general manager of the AMSC Superconductors business unit. Prior to joining American Superconductor, Mr. Santamaria served as vice president and general manager at Microsemi Corporation, a semiconductor manufacturer. Mr. Santamaria had served in this role since 1997. Previously, Mr. Santamaria held various management positions in Operations and Engineering at Microsemi Corporation.

**Charles W. Stankiewicz** joined American Superconductor in July 1998 as general manager of the AMSC Power Systems business unit based in Middleton and New Berlin, Wisconsin. In March 2006, he was appointed to senior vice president, power systems, which encompassed the former AMSC Power Electronic Systems and SuperMachines business units, and our Advanced Grid Solutions business development team. In May 2007, he was appointed to the position of executive vice president of the AMSC Power Systems business unit. Prior to joining American Superconductor, Mr. Stankiewicz spent eighteen years in a variety of technical and business management positions at Westinghouse Electric Corporation and Asea Brown Boveri (ABB) where he most recently was the vice president of power development.

**Terry M. Winter** joined American Superconductor in 2004 in the newly created position of executive vice president, Advanced Grid Solutions. In July 2005, he was appointed by the Board of Directors to the position of chief operating officer. In February 2006, he was appointed to the position of executive vice president of operations. Previously, Mr. Winter served as president and chief executive officer of the California Independent System Operator, or ISO, a non-profit public benefit corporation, from 1999 to 2004, and from 1997 to 1999 he served as chief operating officer of that company. Prior to ISO, Mr. Winter spent 30 years in various positions within electric and gas utilities including San Diego Gas & Electric, Salt River Project and Los Angeles Department of Water & Power.

**Albert J. Baciocco, Jr.** has served as a director of American Superconductor since April 1997. He has been president of The Baciocco Group, a technical and management consulting practice in strategic planning, technology investment and implementation, since 1987. Preceding this, he served in the U.S. Navy for 34 years, principally within the nuclear submarine force and directing the Department of the Navy research and technology development enterprise, achieving the rank of Vice Admiral. Admiral Baciocco serves on several boards and committees of government, industry and academe. During the past 18 years, he has served as a director of several public corporations and is currently a director of Clipper Windpower plc. He is also a director of several private companies. In addition, he is a trustee at the South Carolina Research Authority and a director of the Foundation for Research Development at the Medical University of South Carolina.

**Vikram S. Budhraj** has served as a director of American Superconductor since March 2004. He has been president of Electric Power Group, LLC, a Pasadena, California-based consulting firm that provides management and strategic consulting services to the electric power industry, since January 2000. From 1977 to January 2000, Mr. Budhraj served in several key senior management positions at Edison International, the parent company of Southern California Edison, including: president of Edison Technology Solutions; senior vice president and head of the Power Grid Business Unit of Southern California Edison; and vice president of System Planning, Fuels and Operations of Southern California Edison. He chairs the Consortium for Electric Reliability Technology Solutions, or CERTS, and worked with the U.S.-Canadian Power Systems Outage Task Force that was formed to investigate the root causes of the August 14, 2003 power blackout in the Northeast. Mr. Budhraj has previously served as a director of several organizations, including the California Independent System Operator Corporation and Soft Switching Technologies.

**Peter O. Crisp** has served as a director of American Superconductor since 1987. He served as vice chairman of Rockefeller Financial Services from December 1997 until September 2004 and is currently a consultant. From 1969 to 1997, he was a general partner of Venrock Associates, a venture capital firm based in New York. Mr. Crisp served as a director of United States Trust Corporation until August 2004. He is also a director of several private companies.



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**Richard Drouin** has served as a director of American Superconductor since February 1996. He has been chairman of Abitibi Consolidated, the world's largest newsprint manufacturer, since 2000. Mr. Drouin was a partner at McCarthy Tétrault, a Canadian law firm, from December 1995 until December 2003. Mr. Drouin was the chairman and chief executive officer of Hydro-Quebec, a public electric utility based in Canada, from April 1988 to September 1995. Mr. Drouin is a director of Nstein Technologies, Addenda Capital and chairman of the Board of Trustees of the North American Electric Reliability Council.

**David R. Oliver, Jr.** has served as a director of American Superconductor since September 2006. He is chief operating officer of the defense division of European Aeronautic Defense and Space Company (EADS). Before joining EADS, Mr. Oliver was stationed in Baghdad as Director of Management and Budget for the Coalition Forces. Prior to that, he served as the United States Principal Deputy Under Secretary of Defense for Acquisition and Technology. Mr. Oliver also previously held management positions at both Westinghouse Electric and Northrop Grumman. In the Navy, he commanded both diesel and nuclear submarines and two submarine groups. His last Navy appointment was as Principal Deputy to the Assistant Secretary of the Navy for Research, Development and Acquisition. Rear Admiral (retired) Oliver's military decorations include the Defense and Navy Distinguished Service Medals as well as six awards of the Legion of Merit.

**Andrew G.C. Sage, II** has served as a director of American Superconductor since April 1997. He has been president of Sage Capital Corporation since 1974. Immediately prior to that time, he served as president of the investment banking firm of Lehman Brothers. Throughout his career, Mr. Sage has served in board and executive positions for numerous public companies.

**John B. Vander Sande** co-founded American Superconductor. Dr. Vander Sande has served as a director of American Superconductor since 1990. He is the Cecil and Ida Green Distinguished Professor of Material Science, emeritus, at MIT specializing in the microstructure of materials and was associate dean and acting dean of engineering at MIT from 1992 to 1999. He was founding executive director of the Cambridge-MIT Institute from 1999 to January 2003.

**John W. Wood, Jr.** has served as a director of American Superconductor since December 2006. He served as chief executive officer of Analogic Corporation, a leading designer and manufacturer of medical imaging and security systems, from 2003 through 2006. Prior to joining Analogic, he held senior executive positions over a 22-year career at Thermo Electron Corporation. Most recently, Mr. Wood served as president of Peek Ltd., a division of Thermo Electron Corporation, and as a senior vice president of the parent company. He previously served as president and chief executive officer of Thermedics, a subsidiary of Thermo Electron.

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### **DESCRIPTION OF CAPITAL STOCK**

#### **Common Stock**

Our authorized capital stock consists of 100,000,000 shares of common stock, \$.01 par value per share. Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Accordingly, holders of a plurality of the outstanding shares of our common stock entitled to vote in any election of directors may elect all of the directors standing for election. Holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our Board of Directors out of funds legally available therefor. Upon our liquidation, dissolution or winding-up, holders of our common stock are entitled to receive ratably our net assets available for distribution after the payment of all our debts and other liabilities. Holders of our common stock have no preemptive, subscription, redemption or conversion rights.

#### **Delaware Anti-Takeover Law**

We are subject to the provisions of Section 203 of the General Corporation Law of Delaware. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner or unless the interested stockholder acquired at least 85 percent of the corporation's voting stock (excluding shares held by designated stockholders) in the transaction in which it became an interested stockholder. A business combination includes mergers, assets sales and other transactions resulting in a financial benefit to the interested stockholder. In general, an interested stockholder is a person who, together with affiliates and associates, owns, or within the previous three years did own, 15 percent or more of the corporation's voting stock.

#### **Director and Officer Protection**

Our certificate of incorporation and by-laws contain provisions which provide for the indemnification and limitation of liability of directors and officers. Our by-laws provide that, in general, we shall indemnify each of our directors and officers against liabilities incurred by reason of the fact that such person was a director or officer of American Superconductor if such director or officer acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of American Superconductor. Our certificate of incorporation also provides that our directors may not be held personally liable to American Superconductor or our stockholders for monetary damages for a breach of fiduciary duty, except in specified circumstances involving wrongful acts, such as the breach of a director's duty of loyalty or acts of omission not in good faith or which involve intentional misconduct or a knowing violation of law. However, such limitation of liability would not apply to violations of the federal securities laws, nor does it limit the availability of nonmonetary relief in any action or proceeding against a director.

#### **Transfer Agent**

The transfer agent for our common stock is American Stock Transfer & Trust Company.





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Under the terms and subject to the conditions contained in an underwriting agreement, which we have filed as an exhibit to the registration statement of which this prospectus forms a part, the underwriters named below have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares of common stock indicated below:

<b>Name</b>	<b>Number of Shares</b>
Morgan Stanley & Co. Incorporated	2,580,300
Jefferies & Company, Inc.	1,012,850
Needham & Company, LLC	1,012,850
Arbour Capital Investments, LLC	47,000
Signal Hill Capital Group LLC	47,000
<b>Total</b>	<b>4,700,000</b>

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of our common stock offered by this prospectus are subject to the approval of legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus, less underwriting discounts and commissions, and part to certain dealers at a price that represents a concession not in excess of \$0.714 a share under the offering price. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by Morgan Stanley & Co. Incorporated.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to an aggregate of 705,000 shares of our common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to limited conditions, to purchase approximately the same percentage of the additional shares as the number listed next to the underwriter's name in the preceding table bears to the total number of shares listed next to the names of all underwriters in the preceding table.

The following table summarizes the compensation and estimated expenses we will pay in connection with this offering:

	<b>Per Share</b>		<b>Total</b>	
	<b>Without Over-Allotment</b>	<b>With Over-Allotment</b>	<b>Without Over-Allotment</b>	<b>With Over-Allotment</b>
Underwriting discounts and commissions to be paid by us	\$ 1.19	\$ 1.19	\$ 5,593,000	\$ 6,431,950
Proceeds, before expenses, to us	\$ 20.06	\$ 20.06	\$ 94,282,000	\$ 108,424,300

We estimate that our total expenses in connection with this offering, excluding underwriting discounts and commissions, will be approximately \$750,000.

Our common stock is listed on the NASDAQ Global Market under the symbol AMSC.

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We, Gerald Hehenberger Privatstiftung and certain of our directors and our executive officers have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, neither we nor they will, during the period ending 90 days after the date of this prospectus:

offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of directly or indirectly, any shares of our common stock or any securities convertible into or exercisable for shares of our common stock or exchangeable for our common stock; or

enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock,

whether any transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise.

The restrictions described in the preceding paragraph do not apply to:

the sale of shares offered pursuant to this prospectus;

the issuance by us of shares of common stock upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing or which is described in this prospectus;

the grant of options or the issuance of shares of common stock by us to employees, officers, directors, advisors or consultants pursuant to any employee benefit plan described in this prospectus;

the filing of any registration statement on Form S-8 in respect of any employee benefit plan or on Form S-3 for resales of the shares of common stock issued in connection with the acquisitions of Windtec and Power Quality Systems;

transactions by any person other than us relating to shares of common stock or other securities acquired in open market transactions after the completion of the offering of the shares, provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of common stock or other securities acquired in such open market transactions;

certain transfers of shares of common stock or any security convertible into common stock as a bona fide gift or by will or pursuant to the laws of descent and distribution, provided that each transferee also agrees to the restrictions described above;

the sale of shares of common stock as necessary to satisfy tax obligations with respect to grants of unrestricted shares of common stock; or

the establishment of a trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, provided that no transfers occur under such plan during the 90 day lock-up period. In the case of Mr. Yurek, transfers pursuant to a 10b5-1 plan are permitted following the press release reporting our results of operations for the first quarter of the fiscal year ending March 31, 2008.

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With respect to the lock-up agreement for Gerald Hehenberger Privatstiftung, in no event will the restricted period extend beyond November 30, 2007.

In order to facilitate the offering of our common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position in our common stock for their own account. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the over-

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allotment option. The underwriters may also sell shares in excess of the option to purchase additional shares, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. In addition, in order to cover any over-allotments or to stabilize the price of our common stock, the underwriters may bid for, and purchase, shares of our common stock in the open market. Finally, the underwriting syndicate may also reclaim selling concessions allowed to an underwriter or a dealer for distributing our common stock in the offering, if the syndicate repurchases previously distributed shares of our common stock to cover syndicate short positions or to stabilize the price of the common stock. Any of these activities may raise or maintain the market price of our common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities, and may end any of these activities at any time.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Member State it has not made and will not make an offer of shares to the public in that Member State, except that it may, with effect from and including such date, make an offer of shares to the public in that Member State:

(a) at any time to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;

(b) at any time to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts; or

(c) at any time in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of the above, the expression an offer of shares to the public in relation to any shares in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in that Member State.

Each underwriter has represented and agreed that it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000) in connection with the issue or sale of the shares in circumstances in which Section 21(1) of such Act does not apply to us and it has complied and will comply with all applicable provisions of such Act with respect to anything done by it in relation to any shares in, from or otherwise involving the United Kingdom.

The shares may not be offered or sold by means of any document other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent, or in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32) of Hong Kong, and no advertisement, invitation or document relating to the shares may be issued, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if

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permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made thereunder.

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or

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invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or SFA, (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

The shares have not been and will not be registered under the Securities and Exchange Law of Japan (the Securities and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Securities and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

We and the underwriters have each agreed to indemnify each other against specified liabilities, including liabilities under the Securities Act.

Some of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us for which they received or will receive customary fees and expenses.

A copy of this prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters, and one or more of the underwriters may distribute prospectuses electronically. The underwriters may agree to allocate a number of shares to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters that make Internet distributions on the same basis as other allocations.

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**VALIDITY OF SHARES**

The validity of the shares of common stock covered by this prospectus will be passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the underwriters by Ropes & Gray LLP, Boston, Massachusetts.

**EXPERTS**

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report of Form 10-K for the year ended March 31, 2007 have been so incorporated in reliance on the report (which contains an explanatory paragraph on management's assessment of the effectiveness of internal control over financial reporting and on the effectiveness of internal control over financial reporting due to the exclusion of certain elements of the internal control over financial reporting of Windtec Consulting GmbH acquired on January 5, 2007) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements of Windtec Consulting GmbH incorporated in this prospectus by reference to American Superconductor Corporation's Current Report on Form 8-K/A filed with the SEC on June 14, 2007 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to Windtec Consulting GmbH restatement of its financial statements as described in Note 2 to the financial statements) of PwC Wirtschaftsprüfung GmbH Wirtschaftsprüfungs-und Steuerberatungsgesellschaft, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

**INFORMATION INCORPORATED BY REFERENCE**

We are incorporating by reference certain documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information in the documents incorporated by reference is considered to be part of this prospectus. Information in documents that we file with the SEC after the date of this prospectus will automatically update and supersede information in this prospectus. We incorporate by reference the documents listed below and any future filings we may make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 after the date of this prospectus and prior to the termination of the offering of the shares of common stock covered hereby.

Our Annual Report on Form 10-K for the year ended March 31, 2007, filed with the SEC on June 14, 2007;

Our Current Report on Form 8-K, filed with the SEC on June 14, 2007;

Our Current Report on Form 8-K/A, filed with the SEC on June 14, 2007 (amending our Current Report on Form 8-K, as filed with the SEC on January 11, 2007, as amended by a Form 8-K/A filed with the SEC on March 23, 2007);

Our Current Report on Form 8-K, filed with the SEC on June 20, 2007;



Our Current Report on Form 8-K, filed with the SEC on July 2, 2007; and

The description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on March 5, 1991, as amended.

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A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request a free copy of any of the documents incorporated by reference into this prospectus by writing or telephoning us at the following address: American Superconductor Corporation, Two Technology Drive, Westborough, MA 01581, telephone: (508) 836-4200.

## **WHERE YOU CAN FIND MORE INFORMATION**

We are subject to the informational requirements of the Securities Exchange Act of 1934 and file annual, quarterly and special reports, proxy statements and other documents with the SEC. You may read and copy any reports, proxy statements and other documents we file at the SEC's public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. You may also obtain copies of these reports, proxy statements and other documents at the SEC's website, the address of which is <http://www.sec.gov>.

We have filed a registration statement on Form S-3 and related exhibits with the SEC under the Securities Act of 1933. The registration statement contains additional information about us and the shares of common stock covered by this prospectus. You may inspect the registration statement and exhibits without charge and obtain copies from the SEC at the location above or from the SEC's web site.

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