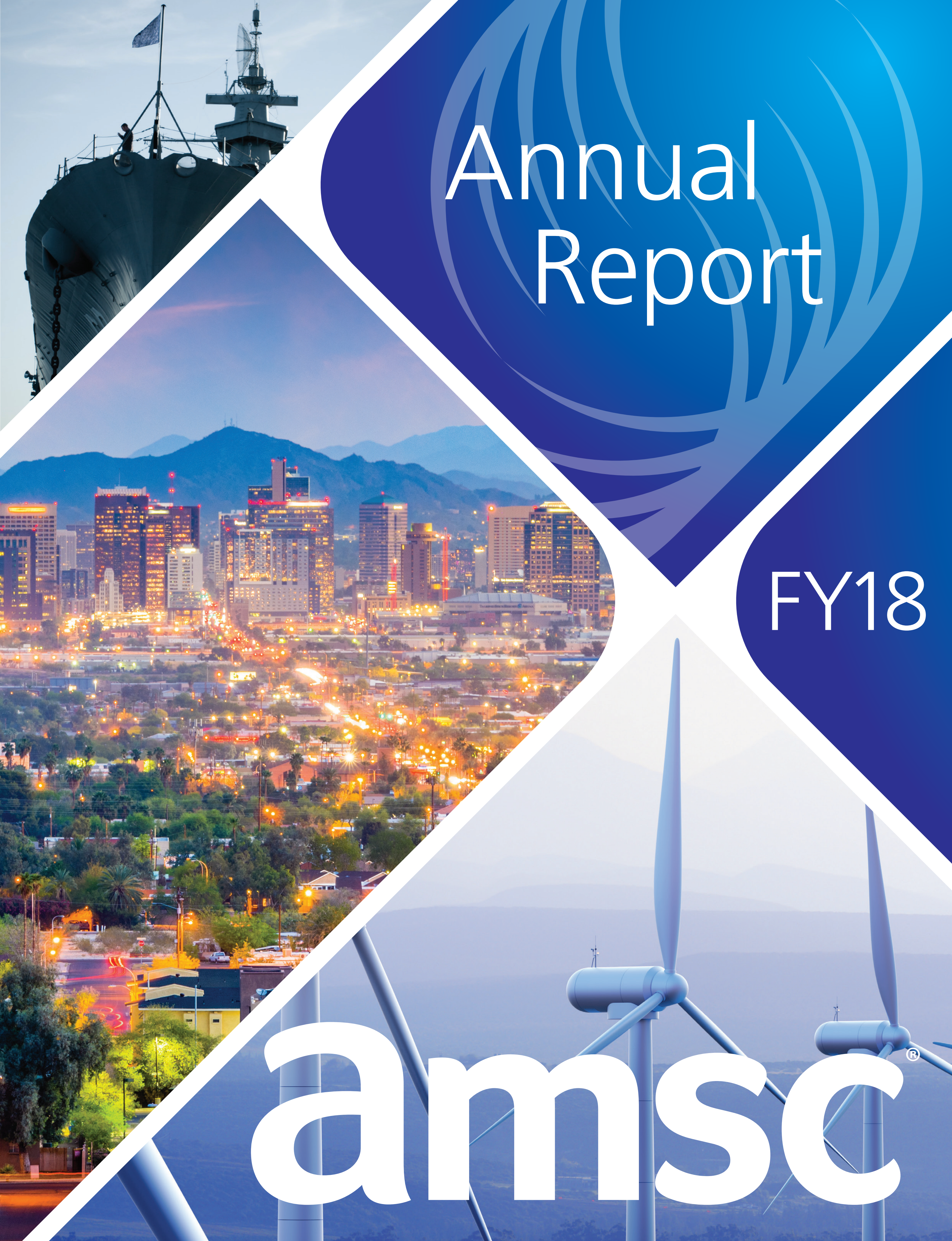


Annual Report

FY18

amsc®

AMSC Stockholders,

Our strong performance in fiscal 2018 was the result of a concerted effort undertaken over the past four years to shift AMSC's strategic direction and establish a predictable, re-occurring business in multiple markets. Our systems and solutions leverage the company's proprietary smart materials and smart software and controls to provide enhanced resiliency and improved performance of megawatt-scale power flow.

Our strategy is working. We transformed technologies into turnkey products and systems, and we communicated the value of our solutions to our end markets. We continue to expand our addressable markets to include the transmission grid (D-VAR), the distribution grid (VVO), urban grid infrastructure (REG), the marine market (SPS), and the global wind market – land based and off-shore (ECS), and we are excited to enter fiscal 2019 with multiple shots on goal.

In fiscal 2018, we grew and diversified our grid business. We won our second SPS order from the Navy. We agreed with the Commonwealth Edison Company of Chicago (ComEd) to deploy a REG system in Chicago. We secured orders to bring the latest wind turbine designs to Asian markets, and we finished the fiscal year with a strong balance sheet. We believe we are well-positioned for sustained revenue growth in our key markets and entry into new and large market opportunities, driven by our HTS-based systems and solutions.

During the fiscal year, we reached a settlement agreement with Sinovel that secured a crucial win in the ongoing battle to protect American intellectual property globally. Having closed this chapter in our history, we look forward to growing AMSC from a position of financial and operational strength.

We see growth through grid.

During fiscal 2018, our D-VAR team performed again. Not only did D-VAR sales record a fifth year of consecutive revenue growth, we concluded the year with a record backlog of D-VAR projects to execute on in fiscal 2019. We are connecting wind farms to the transmission grid across the world. We are also providing clean, reliable power to industrial facilities, domestically and abroad, with our D-VAR solution. Our growing list of repeat customers is a testament to the quality and performance of AMSC's products.

We are growing our presence in the distribution grid market as well. The introduction of VVO brings enhancements and reliability to the electric distribution grid that is experiencing increased use of renewables and Distributed Generation (DG). We believe our VVO solution expands our addressable market significantly. We began placing commercial units with multiple U.S. utilities during fiscal 2018 and expect to expand VVO sales fiscal 2019.

We have taken the beachhead in the marine market.

Our SPS is now the baseline degaussing system for the U.S. Navy's San Antonio class ship platform (LPD). Our goal is to have our advanced HTS-based degaussing system designed into additional vessel platforms and we are aggressively working to that end. We are also making headway in our efforts to expand AMSC content per vessel. We believe the Navy's stated desire to integrate new "electric weapons" onto its warships could drive the need for HTS-based in-board power delivery, power generation and potentially propulsion.

We are anticipating additional SPS orders for the San Antonio class.

Our prospects for growth in the marine market are bright. In fiscal 2019, we plan to work to expand our SPS to additional opportunities within the Navy, while establishing our manufacturing and product delivery systems for our current SPS orders.

Our REG business moved forward in fiscal 2018.

REG was chosen by ComEd to become a permanent part of Chicago's power grid. Pending approval by the Department of Homeland Security (DHS) of our contract modification, we intend to begin manufacturing of the first Resilient Electric Grid (REG) system for ComEd.

We have been developing opportunities to deploy our REG product in a number of utilities across the country. We are working closely with customers to bring our REG solution to project status.

We plan on delivering new advanced wind turbines to our partners.

In fiscal 2019, we are starting a new chapter with Inox Wind in India as we work together to bring a new high-performance 3 MW wind turbine to market. Inox first licensed our 2 MW wind turbine design for the Indian market over 10 years ago. Since that time, we have generated over $200 million in revenue as a preferred partner to Inox. Our license agreement for a 3 MW turbine design signals a continued strong partnership with Inox.

We are designing even bigger wind turbines and are focused on expanding our addressable market to off-shore applications. AMSC expects to enter the off-shore market in fiscal 2019 with our Korean partner, Doosan Heavy Industries. Our 5 MW off-shore turbine design is expected to be our most efficient, high-performance wind turbine to date, driving down the levelized cost of wind energy for our partners. We believe Southeast Asia is a geography well suited for our 5 MW turbine.

The initiatives we have undertaken over the past several years have changed the company. Our new products are leading an expected shift in our revenue mix towards a more predictable, re-occurring revenue base led by our nascent business with the U.S. Navy. We are successfully diversifying our revenue mix across and within our Wind and Grid segments.

We are at the beginning of a new multi-year chapter of the AMSC story. We remain committed to our guiding principle of delivering value to our shareholders. We look forward to advancing our march toward sustainable and profitable growth.

Our new chapter is being written by our employees who are guided by the values for which AMSC has always stood. At AMSC, we are constantly collaborating. We are always accountable to our customers. We hire the best and brightest engineers. Our culture is inherently innovative. We listen to and learn from the markets we serve. I am grateful for our employees' commitment. I also thank you, our customers and stockholders, for your continued support.

I look forward to reporting to you again following the completion of fiscal 2019.

Daniel Patrick McGahn
Chairman, President and Chief Executive Officer

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Form 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended March 31, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Transition Period from to

Commission file number 000-19672

American Superconductor Corporation
(Exact Name of Registrant as Specified in Its Charter)

Delaware **(State or Other Jurisdiction of Incorporation or Organization)**	**04-2959321** **(IRS Employer Identification Number)**
114 East Main Street **Ayer, Massachusetts** **(Address of Principal Executive Offices)**	**01432** **(Zip Code)**

Registrant's telephone number, including area code:
(978) 842-3000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	AMSC	Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by checkmark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by checkmark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by checkmark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer ☐	Accelerated filer ☒
Non-accelerated filer ☐	Smaller reporting company ☒
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the registrant's Common Stock held by non-affiliates of the registrant on September 28, 2018, based on the closing price of the shares of Common Stock on the Nasdaq Global Select Market on that date ($6.95 per share) was $143.3 million.

Number of shares outstanding of the registrant's Common Stock, as of May 30, 2019 was 21,449,546.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement for the annual meeting of stockholders scheduled to be held on August 1, 2019, to be filed with the Securities and Exchange Commission (the "SEC"), are incorporated by reference in answer to Part III of this Form 10-K.

AMERICAN SUPERCONDUCTOR CORPORATION

INDEX

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Any statements in this Annual Report that relate to future events or conditions, including without limitation, the statements in Part I, "Item 1A. Risk Factors" and in Part II under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and located elsewhere herein regarding industry prospects, our addressable markets, expectations for when our products become operational, capabilities and potential uses of our products, impacts to our balance sheet as a result of the adoption of the new lease accounting guidance, or our prospective results of operations or financial position, may be deemed to be forward-looking statements. Without limiting the foregoing, 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. There are a number of important factors that could materially impact the value of our common stock or cause actual results to differ materially from those indicated by such forward-looking statements. Such factors include the important factors discussed under the caption "Risk Factors" in Part 1. Item 1A of this Form 10-K for the fiscal year ended March 31, 2019, which among others, could cause actual results to differ materially from those indicated by forward-looking statements made herein and presented elsewhere by management from time to time. Any such forward-looking statements represent management's estimates as of the date of this Annual Report on Form 10-K. 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. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this Annual Report on Form 10-K.

PART I

Item 1. *BUSINESS*

Overview

American Superconductor Corporation (together with its subsidiaries, “AMSC®” or the “Company”) was founded on April 9, 1987. We are a leading system provider of megawatt-scale power solutions that enhance the performance of the power grid, protect our Navy’s fleet, and lower the cost of wind power. Our system level products leverage the Company’s proprietary “smart materials” and “smart software and controls” to provide enhanced resiliency and improved performance of megawatt-scale power flow.

In the power grid market, we enable electric utilities, industrial facilities, and renewable energy project developers to connect, transmit and move power through our power electronics and superconductor-based systems as well as our transmission planning services. We help protect the U.S. Navy surface fleet with advanced superconductor-based systems and we enable the use of high-efficiency, high performance, and low-weight magnetic systems which provide superior performance advantages to the traditional methods of mine field protection for the Navy fleet. In the wind power market, we enable manufacturers to field highly competitive wind turbines through our advanced power electronics and control system products, engineering, and support services. Our power grid and wind products and services provide exceptional reliability, security, efficiency, and affordability to our customers.

Our power system solutions help to improve energy efficiency, alleviate power capacity and other constraints, improve system resiliency, and increase the adoption of renewable energy generation. Demand for our solutions is driven by the growing needs for modernized smart grids that improve power reliability, security, and quality, the U.S. Navy’s effort to upgrade in-board power systems to support fleet electrification, and the need for increased renewable sources of electricity, such as wind and solar energy. Concerns about these factors have led to increased spending by corporations and the military, as well as supportive government regulations and initiatives on local, state and national levels, including renewable portfolio standards, tax incentives, and international treaties.

Market opportunities

We provide solutions that address three key drivers of our business:

- the evolving electric grid;
- the electrification of the Naval fleet; and
- the global demand for renewable energy

Our power system products address five market opportunities (areas):

- *Transmission grid.* We provide complete systems that enable electric utilities and renewable energy project developers to connect and transmit power with exceptional efficiency, reliability, security and affordability. We provide planning services that allow us to identify power grid congestion, poor power quality, and other risks, which help us determine how our solutions can improve network performance. These services often lead to sales of our grid interconnection solutions and power quality systems for wind farms and solar power plants.
- *Distribution grid.* We provide a direct-connect quality system that is installed on the primary distribution network in communities, business parks, or wherever enhanced power quality is beneficial and is designed to increase the reliability and resiliency of the distribution grid to serve the needs of modern energy consumers. Our systems save utilities time and money by avoiding costly options to strengthen the distribution grid.

- *Urban Grid Infrastructure:* We design systems to increase the reliability, security and capacity of the urban grid infrastructure. Today, many urban substations are not networked and can only power a small section of a city. Our power dense technology based on proprietary smart materials allows for the interconnection of substations, controlling the high fault currents that naturally result from such interconnections. If one substation is compromised, other substations help increase capacity and reliability. Our system allows instantaneous power outage recovery, potentially doubling to quadrupling a city's reliability and resiliency while minimizing grid investment. We design systems that leverage existing grid assets while protecting cities against storms, outages, cyber and physical attacks.
- *Marine protection systems*. We sell advanced degaussing systems to the U.S. Navy
- *Wind Power.* Our solutions enable manufacturers to field wind turbines with exceptional power output, reliability, and affordability. We supply advanced power electronics and control systems, license our highly engineered wind turbine designs, and provide extensive customer support services to wind turbine manufacturers. Our design portfolio includes a broad range of drive trains and power ratings of 2 megawatts ("MW") and higher. We provide a broad range of power electronics and software-based control systems that are highly integrated and designed for optimized performance, efficiency, and grid compatibility.

Our fiscal year begins on April 1 and ends on March 31. When we refer to a particular fiscal year, we are referring to the fiscal year beginning on April 1 of that same year. For example, fiscal 2018 refers to the fiscal year that began on April 1, 2018. Other fiscal years follow similarly.

Competitive strengths

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

- *Differentiated technologies.* Our products leverage the Company's proprietary smart materials and smart software and controls to provide enhanced resiliency and improved performance of megawatt-scale power flow. Conventional conductors of electricity, such as aluminum and copper wire, lose energy due to resistance. Using a compound of yttrium barium copper oxide ("YBCO"), we manufacture and provide high-temperature superconductor ("HTS") wire that can conduct many times more electricity than conventional conductors with minimal power loss. Our proprietary Amperium® superconductor wire was engineered to allow us to tailor the product via laminations to meet the electrical and mechanical performance requirements of widely varying end-use applications, including power cables and fault current limiters for the Grid market. Our PowerModule™ power converters are based on proprietary software and hardware combinations and are used in a broad array of applications, including our D-VAR® grid interconnection and voltage control systems, as well as our wind turbine electrical control systems. Our unique proprietary cooler technology enables our ship protection systems ("SPS") to perform in harsh environmental conditions in a quiet and efficient manner.
- *Turnkey systems.* We have developed full system solutions that we sell directly to customers. This business model leverages our applications expertise, drives value beyond the wire and enables us to recognize revenue and take ownership over the marketing and sales of the full systems.
- *Scalable, low-cost manufacturing platform.* Our manufacturing of proprietary wind turbine electrical control systems and power electronics products are primarily assembly operations with minimal fixed costs. We can increase the production of these products at costs that we believe are low relative to our competitors. Our proprietary manufacturing technique for Amperium superconductor wire is modular in nature, which allows us to expand manufacturing capacity at a relatively low incremental cost.
- *Robust patent position and engineering expertise.* We have an extensive portfolio of awarded patents and patent applications worldwide and have rights through exclusive and non-exclusive licenses to

additional patents and patent applications worldwide. We believe our technology and manufacturing knowledge base, customer and product expertise and patent portfolio provide a strong competitive position.

- *Unique solutions for the markets we serve.* We believe we provide wind turbine manufacturers with a unique and integrated approach of wind turbine design and engineering, customer support services and power electronics and control systems. We also believe we are the only company in the world that is able to provide transmission planning services, grid interconnection and voltage control systems, as well as superconductor-based distribution systems for power grid operators. This unique scope of supply provides us with greater insight into our customers' evolving needs and greater cross-selling opportunities.

Strategy

Building on these competitive strengths, we plan to focus on driving revenue growth and enhancing our operating results through the objectives defined below.

- *Provide solutions from power generation to delivery.* From the generation source to the distribution system, we focus on providing best-in-class engineering, support services, technologies and solutions that make the world's power supplies smarter, cleaner and stronger.
- *Focus on "megawatt-scale" power offerings.* Our research, product development, and sales efforts focus on megawatt-scale offerings ranging from designs of power electronics for large wind turbine platforms to systems that stabilize power flows, integrate renewable power into the grid and carry power to and from transmission and distribution substations.
- *Product innovation.* We have a strong record of developing unique solutions for megawatt-scale power applications and will continue our focus on investing in innovation. Recently, our product development efforts have included our Resilient Electric Grid ("REG") system for the electricity grid, SPS for the U.S. Navy, and D-VAR Volt Var Optimization ("VVO").
- *Pursue Emerging Overseas Markets and Serve Key Markets Locally.* We focus our sales efforts on overseas markets that are investing aggressively in renewable energy and power grid projects. As part of our strategy, we serve our key target markets with local sales and field service personnel, which enables us to understand market dynamics and more effectively anticipate customer needs while also reducing response time. We currently serve target markets such as Australia, China, India, Korea, South Africa, the United Kingdom, Jordan, Mexico and the United States.

Grid market overview

It is widely believed that the electricity grids around the world require modernization through widespread technology upgrades if they are to maintain reliability while solving rapidly evolving challenges such as more frequent severe weather, threats of physical- and cyber-attacks, expanded renewable generation (both large and small scale) and new types of customer loads such as electric vehicles. In fact, a series of reports written by the Electric Power Research Institute ("EPRI") in 2016 emphasize the need for increased resiliency, flexibility and connectivity in electric grids. According to the EPRI reports, the number of geophysical, meteorological, hydrological, and climatological events in the U.S. rose to an all-time high of 247 events in 2010 — up from approximately 200 in 2009 and less than 200 in all years combined from 1980 to 2010. Available data further indicate that the existing U.S. electrical grid has been stressed by U.S. wind power generation increasing from 8.7 Gigawatts ("GW") in 2005 to 82 GW in 2017, and photovoltaics ("PV") power generation increasing from almost zero in 2003 to nearly 50 GW as of the end of 2018.

Growth in both wind power and PV is expected to continue with the vast majority of such intermittent generation sources unsupported by energy storage, placing stress on the power grid. Finally, the Edison Electric

Institute estimates that the number of electric vehicles on the road in the U.S. is projected to reach 18.7 million in 2030, up from slightly more than 1 million at the end of 2018. These facts and the dependence on the safety, security and economy of the electricity grid have prompted broad recognition worldwide of the need to modernize and enhance the reliability and security of power grids.

Power grid operators worldwide face various challenges, including:

- *Stability*. Power grid operators are confronting power quality and stability issues arising from intermittent renewable energy sources and from the capacity limitations of transmission and overhead distribution lines and underground cables.
- *Reliability*. Traditional transmission lines and cables often reach their reliable voltage stability limit well below their thermal threshold. Driving more power through a power grid when some lines and cables are operating above their voltage stability limit during times of peak demand can cause either unacceptably low voltage in the power grid (a brownout) or risk of a sudden, uncontrollable voltage collapse (a blackout).
- *Capacity*. The traditional way to enable increases in power grid capacity without losing voltage stability is to install more overhead power lines and underground cables. However, permitting new transmission and distribution lines can take 10 years or more due to various public policy issues, such as environmental, aesthetic, and health concerns. In urban and metropolitan areas, installing additional conventional underground copper cables is similarly challenging, since many existing underground corridors carrying power distribution cables are already filled to their physical capacity and cannot accommodate any additional conventional cables. In addition, adding new conduits requires excavation to expand existing corridors or create new corridors, which are costly and disruptive undertakings.
- *Efficiency*. Most overhead lines and underground cables use traditional conductors such as copper and aluminum, which lose power due to electrical resistance. At transmission voltage, electrical losses average about 7% in the United States and other developed nations, but can exceed 20% in some locations due to the distance of the line, quality of the conductor, and the power grid's architecture and characteristics, among other factors.
- *Security*. Catastrophic equipment failures caused by aging equipment, physical and cyber events, and weather-related disasters can leave entire sections of an urban environment without power for hours or days. It can be difficult to recover from extended power outages in urban load centers, worsening situations where the personal safety of residents and the economic health of businesses are threatened.

Our solutions for the power quality and grid infrastructure market

We address these challenges in the grid market by providing services and solutions designed to increase the power grid's capacity, resiliency, reliability, security and efficiency. Our solutions include:

- *D-VAR® Systems*. Our D-VAR system is a system that consists of power electronics and other static components used for controlling power flow and voltage in the AC transmission system. Our D-VAR system aims to increase controllability and power transferability of a network, which allows more effective utilization of existing assets, and reduces the need for new transmission lines and facilities to increase electricity availability. The power that flows through AC networks comprises both real power, measured in watts, and reactive power, measured in Volt Amp Reactive ("VARs"). In simple terms, reactive power is required to support voltage in the power network. D-VAR systems can provide the reactive power needed to stabilize voltage on the grid. These systems also can be used to connect wind farms and solar power plants to the power grid seamlessly as well as to protect certain industrial facilities against voltage swells and sags. Our D-VAR sales process begins with our group of experienced transmission planners working with power grid operators, renewable energy developers, and industrial system operators to identify power grid constraints and determine how our solutions might improve network performance. These services often lead to sales of grid interconnection solutions for wind farms and solar power plants, and power quality systems for utilities and heavy industrial operations.

- *D-VAR VVO®*. We believe D-VAR VVO will allow us to enter the market for products to serve the distribution power grid. VVO is designed to be a direct-connect 15 kilovolt class power quality system for a utility's distribution network to optimally control voltage as distribution networks are increasingly impacted by distributed generation, such as roof top and community solar. We believe VVO has the potential to save utilities time and money by avoiding costly options to increase the reliability and resiliency of the distribution grid and to allow utilities to build a "plug 'n play" network to serve the demands of modern energy consumers. The intended target markets of VVO are electric distribution grids incorporating distributed generation, including where utility grid modernization attributes such as the following are applicable: mandated efficiency upgrades, mass adoption of rooftop solar, community solar, utility-owned micro-girds, variable load conditions on the distribution grid and voltage regulations alternatives.
- *REG Systems*. Our REG system has two primary applications that increase the reliability and the capacity of the urban infrastructure. For applications focused on reliability improvement, the REG system is used in a "ring" or "loop" configuration to interconnect nearby urban substations. This enables urban utilities to share transmission connections and excess station capacity, while controlling the high fault currents that naturally result from such interconnections, providing protection against the adverse effects that follow the loss of critical substation facilities in urban areas. We believe a utility installing our REG system could double or quadruple its reliability (e.g. N-1 to N-2, or greater) by networking substations, which is a solution that utilities would generally not consider when using conventional technology due to the disruptive nature and economic disadvantages of conventional technology in urban settings. For applications focused on capacity improvement, the REG system can be used in a "branch" configuration. In this application, the REG system connects an existing large urban substation with a new, much smaller, and more simplified substation within the city at a lower cost. The smaller urban substation does not need large power transformers and takes up much less space, thereby significantly reducing real estate, construction, and other related costs in the urban area. The key component to the REG system is a breakthrough cable system that combines very high-power handling capacity with fault current limiting characteristics—features that are attributable to our proprietary Amperium HTS wire.

Marine market overview

Defense spending has increased over the past two years as the U.S. military moves to rebuild and retool for competition against other great powers. In spring 2018, the Department of Defense submitted the Navy's 2019 shipbuilding plan to Congress, covering government fiscal years 2019 to 2048, which if fully carried out, will represent the largest naval buildup since the Reagan Administration in the 1980s. In September 2018, the Navy's fleet numbered 285 battle force ships. The Navy's requirement, as stated in its 2019 shipbuilding plan, is to build and maintain a larger fleet of 355 battle force ships. The United States' fiscal year 2019 defense budget includes a $299 million request for the Navy Laser Family of Systems, which the Navy has designated a fast-track initiative, to provide near-term, ship-based laser weapon capabilities. We believe such new warfighting capabilities will require an HTS-based power distribution solution, potentially creating further demand for our system.

Since WWII, the Navy fleet has protected its warfare vessels with copper-based degaussing systems. Our HTS-based degaussing system provides world class mine protection while reducing the weight of the degaussing system by as much as 80%, and reducing energy consumption by more than half that of legacy degaussing systems.

We believe that our HTS systems are an enabling technology for the Navy in its mission to create an all-electric ship (Super Ship). Our HTS-based SPS degaussing system has been designed into the San

Antonio-class amphibious warfare ship platform, starting with LPD 28. AMSC and the U.S. Navy have collaborated on AMSC's advanced HTS-based ship protection systems. The core components of the ship protection system are common and transferable to other applications being targeted for ship implementation.

Navy fleets worldwide face various challenges, including:

- *Power Capacity:* Today's Navy continues to see increased demand for more power applied from both on and off the ship (shore power). This need is driven by many factors, including the continued development of high-power density advanced weapons systems and sensors. Many power dense applications that naval engineers are working on today are already relying on the independent development of improved power distribution systems for its implementation. Free Electron Lasers, High Power Radar, Laser Self Defense Systems, Electro Magnetic Rail Guns and Active Denial (Directed Energy) systems are just a few of the Navy applications that we believe will demand higher capacity and more efficient energy transfer before deployment to a platform in the fleet can be realized.
- *Space and Weight Limitations:* Advances in sensors and weapons for modern ship applications are expected to drive the need for new power solutions to be light and compact, for weapons' power draw to be more efficiently cooled and for easing installation on new ships and enabling upgrades on existing ones.
- *Efficiency:* Increased power demands for routine (peace time) operations are straining the conventional copper based power cable systems that are currently used. The copper cables are very heavy, cumbersome, and hard to handle. The weight of the cables requires a coordinated effort between a crew on the pier and a crew on the ship. In many instances, handling these cables requires the use of a crane or a boom truck to extend them from the pier-side power substations up to the ship's connection point. More efficient, compact, lighter weight power transfer and distribution systems are expected to be required for tomorrow's Navy to satisfy its future mission requirements.

Our solutions for the marine market

Each Navy ship can be thought of as having its own power grid. We provide advanced ship protection systems, power management, and power generation systems that are designed to help fleets increase system efficiencies, enhance warfare capabilities, and boost reliability, performance and security. Our systems support the Navy's mission to "electrify the fleet". Our systems allow for the ship to generate a large amount of electrical power and distribute the power through an in-board power system to a propulsion motor by way of a much smaller, lighter, and higher performing HTS cable system, enabling a more advanced, reliable, and secure solution with a smaller footprint. Our solutions include:

- *Ship Protection Systems*. The primary focus of our SPS has been degaussing systems. These systems reduce a naval ship's magnetic signature, making it much more difficult for a mine to detect and damage a ship. Traditionally made of heavy copper wire, degaussing is required on all U.S. Navy combat ships. Our HTS advanced degaussing system is lightweight, compact, and often outperforms its conventional counterpart. This HTS system is estimated to enable up to an 80% reduction in total degaussing system weight, offering significant potential for fuel savings or options to add different payloads. The core components of a degaussing system are transferable to other applications being targeted for ship implementation. Our SPS has been designed into the San Antonio class of amphibious assault vessels. We are also seeking opportunities to propagate SPS throughout the surface fleet, creating a relatively long-term revenue stream.
- *In Board Power Delivery Systems*. We are working on expanding HTS technology into the fleet through a variety of applications, including in board power flow and management. The Navy continues to see increased demand for more power. This need is driven by many factors, including the continued development of high power density advanced weapons systems and sensors. Many power dense applications that naval engineers are working on today are already relying on improved power

distribution systems for their implementation and deployment. Free Electron Lasers, High Power Radar, Laser Self Defense Systems, Electro Magnetic Rail Guns and Active Denial (Directed Energy) systems are just a few of the Navy applications that will demand higher capacity and more efficient energy transfer before deployment to a platform in the fleet can be realized. Continued space and weight limitations for these ship applications are expected to drive the need for new power solutions to be light and compact, easing installation on new ships and enabling upgrades on existing ones. Our HTS power cables enable high density energy transfer at unsurpassed efficiency levels in a compact, lightweight package.

- *Power Generation Systems*. We are also working on expanding HTS technology into the fleet through a variety of applications including power generation and electric propulsion. The same HTS technology used in SPS and in board power delivery systems when applied to rotating machines results in high power density motors and generators. This enables dramatically more power to be produced in the same machinery space used for conventional systems, which in turn affords the Navy additional power for high energy density weapons without significant structural changes to the ship.
- *Propulsion systems.* Our development work in power generation systems for the Navy extends to HTS-based electric power propulsion. In board power delivery systems and power generation systems, when applied to high power density motors, enable the transition to electric propulsion. We, along with Northrop Grumman Corp. successfully completed a full-power test of the world's first 36.5-MW HTS ship propulsion motor. The motor, rated at 49,000 horsepower, was successfully tested for a large U.S. Navy combatant ship at the Navy's integrated power system land-based test site in Philadelphia. Incorporating coils of HTS wire that are able to carry 150 times the current of similar-sized copper wire makes the motor less than half the size of conventional motors used on the first two DDG-1000 hulls and will reduce ship weight by nearly 200 metric tons. This is expected to make new ships more fuel-efficient. Our technology and systems allow the Navy to free up space for additional war-fighting capability.

Wind market overview

The global energy mix is transitioning towards an increasing amount of renewable energy, including wind power. Wind power is unlimited in supply and its generation is a zero-emission process. Wind power has become a major pillar of power supply throughout the world. Wind power is expected to play a key role in the achievement of the objectives of the Paris Climate Change agreement and the Sustainable Development Goals.

According to GlobalData, a research firm, approximately 52 GW of wind generation capacity were added worldwide in calendar 2018, as compared to 51 GW in calendar 2017. GlobalData anticipates that more than 57 GW of additional capacity will be added in 2019.

According to GlobalData, annual wind installations in India for calendar 2018 were 1.6 GW and for calendar 2019 are estimated to be 2.7 GW.

Several factors are expected to drive the future growth in the wind power market, including substantial government incentives and mandates that have been established globally, technological improvements, turbine cost reductions, the development of the offshore wind market, and increasing cost competitiveness with existing power generation technologies. Technological advances, declining turbine production cost and fluctuating prices for some fossil fuels continue to increase the competitiveness of wind versus traditional power generation technologies.

Our solutions for the wind market

We address the challenges of the wind power market by designing and engineering wind turbines, providing extensive support services to wind turbine manufacturers, and manufacturing and selling critical components for wind turbines.

- *Electrical Control Systems.* We provide full electrical control systems ("ECS") to manufacturers of wind turbines designed by us. Our ECS regulate voltage, control power flows and maximize wind turbine efficiency, among other functions. To date, we have shipped enough core electrical components and complete ECS to power over 16,000 Megawatts ("MW") of wind power. We believe our ECS represent approximately 5-10% of a wind turbine's bill of materials.
- *Wind Turbine Designs.* We design and develop entire state-of-the-art onshore and offshore wind turbines with power ratings of 2 MWs and higher for manufacturers who are in the business of producing wind turbines or who plan to enter the business of manufacturing wind turbines. These customers typically pay us licensing fees, and in some cases royalties, for wind turbine designs, and purchase from us the ECS needed to operate the wind turbines.
- *Customer Support Services*. We provide extensive customer support services to wind turbine manufacturers. These services range from providing designs for customers' wind turbine manufacturing plants to establishing and localizing their supply chains and training their employees on proper wind turbine installation and maintenance. We believe these services enable customers to accelerate their entry into the wind turbine manufacturing market and lower the cost of their wind turbine platforms.

Our approach to the wind energy markets allows our customers to use our world-class turbine engineering capabilities while minimizing their research and development costs. These services and our advanced ECS provide our customers with the ability to produce standardized or next-generation wind turbines at scale for their local market or the global market quickly and cost-effectively. Our team of highly experienced engineers works with clients to customize turbine designs specifically tailored to local markets while providing ongoing access to field services support and future technological advances.

Customers

We serve customers globally through a localized sales and field service presence in our core target markets. We have served over 100 customers in the grid market since our inception, including YMC, Inc. and the U.S. Navy, SSE plc in the United Kingdom, Consolidated Power Projects (Pty) Ltd in South Africa, Fuji Bridex in Singapore, Vestas Wind Systems A/S in Denmark, and Ergon Energy in Australia. Additionally, our sales personnel in the United States are supported by manufacturers' sales representatives. We have designed wind turbines for and licensed wind turbine designs to wind turbine manufacturing customers including Inox Wind Limited ("Inox") in India and Doosan Heavy Industries ("Doosan") in Korea.

In fiscal 2018, 2017 and 2016, Inox accounted for 34%, 27% and 59% of our total revenues, respectively, and in fiscal 2018 Vestas accounted for 15% of our total revenues. No other customer accounted for more than 10% of our total revenues in each of fiscal 2018, 2017 and 2016.

Facilities and Manufacturing

Our primary facilities and their primary functions are as follows:

- Ayer, Massachusetts — Corporate headquarters; Grid segment manufacturing, and research and development
- Pewaukee, Wisconsin — Grid segment research and development
- Richland, Washington — Grid segment research and development

- Klagenfurt, Austria — Wind segment project engineering, customer support and research and development
- Timisoara, Romania — Wind segment manufacturing

Our global footprint also includes sales and/or field service offices in Australia, China, India, South Korea, the United Kingdom and McLean, VA.

The principal raw materials used in the manufacture of the Company's products are nickel, silver, yttruim, copper, brass, and stainless steel. Major components are insulated gate bi-polar transistors, heatsinks, inductors, enclosures, transformers, and printed circuit boards. Most of these raw materials are available from multiple sources in the United States and world markets. Generally, the Company believes that adequate alternative sources are available for the majority of its key raw material and purchased component needs, however, the Company is dependent on a single or limited number of suppliers for certain materials and components.

Sales and Marketing

Our strategy is to serve customers locally in our core target markets through a direct sales force operating out of sales offices worldwide. In addition, we utilize manufacturers' sales representatives in the United States to market our products to utilities in North America. The sales force also leverages business development staff for our various offerings as well as our team of wind turbine engineers and power grid transmission planners, all of whom help to ensure that we have an in-depth understanding of customer needs and provide cost-effective solutions for those needs.

Segments

We segment our operations into two market-facing business units: Wind and Grid. We believe this market-centric structure enables us to more effectively anticipate and meet the needs of wind turbine manufacturers, power generation project developers, the Navy's ship protection systems and electric utilities.

Competition

We face competition in various aspects of our technology and product development. We believe that competitive performance in the marketplace depends upon several factors, including technical innovation, range of products and services, product quality and reliability, customer service and technical support.

We face competition from other companies offering FACTS systems similar to our D-VAR products. These include adaptive VAR compensators, Dynamic voltage restorers ("DVRs"), and STATCOMs produced by ABB, Siemens, and Ingeteam, and battery-based uninterruptable power supply ("UPS") systems offered by various companies around the world.

With our HTS-based REG product, we are offering a new approach that provides alternatives to utilities for power system design. Therefore, we believe that we compete with traditional approaches such as new full-sized substations, overhead and underground transmission, and urban power transformers.

We believe we are currently the only company that can offer HTS-based SPS products that have been fully qualified for use aboard U.S. Navy surface combatants. Therefore, the primary competition for our SPS products is currently coming from defense contractors that provide the copper-based systems that our lighter, more efficient HTS versions have been developed to replace. Companies such as L3, Excelis, Raytheon, and Textron have the bulk of the copper-based business today.

Our power module conversion equipment and our electrical control systems are designed and integrated into our wind turbine designs in a way to achieve maximum performance of the turbine. Typically, we are the exclusive provider of the power module conversion equipment and electrical control systems for our wind turbine designs. As a result, our power conversion equipment and electrical control systems see limited competition. Other companies that serve the wind turbine components industry include ABB, and Semikron. We also face indirect competition in the wind energy market from global manufacturers of wind turbines, such as Siemens Gamesa, General Electric, and Suzlon. We face competition for the supply of wind turbine engineering design services from design engineering firms such as Aerodyn.

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") portfolio includes both patents we own and patents we license from others. We devote substantial resources to building a strong patent position. Together with the international counterparts of our patents and patent applications, we own an extensive portfolio of patents and patent applications worldwide, and have rights through exclusive and non-exclusive licenses. We believe that our current patent position, together with our 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, we cannot assure you that this will be the case.

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, contest the scope or validity of those patents, or design around patented processes or applications as necessary. 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 cross-licenses with several competitors.

Failure to obtain all necessary patents, licenses and other IP rights upon reasonable terms could significantly reduce the scope of our business and have a material 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.

Wind and Grid Patents

We have received patents and filed a significant number of additional patent applications on power quality and reliability systems, including our D-VAR products. Our products are covered by patents and patents pending worldwide on both our systems and power converter products. The patents and applications focus on 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 uses inverters to offset transients due to capacitor bank switching, which provides improved system performance.

Under our Windtec Solutions™ brand, we design a variety of wind turbine systems and license these designs, including expertise and patent rights, to third parties for an upfront fee, plus in some cases, future royalties. Our wind turbine designs are covered by patents and patents pending worldwide on wind turbine technology. We have patent coverage on the unique design features of our 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 that causes the blades to rotate to a feathered position to prevent the rotor blades from spinning during a fault.

HTS Patents

Since the discovery of high temperature superconductors in 1986, rapid technical advances have characterized the HTS industry, which in turn have resulted in a large number of patents, including overlapping patents, relating to superconductivity. 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. We currently have non-exclusive rights to a fundamental U.S. patent (U.S. 8,060,169 B1) covering 2G and similar HTS wire and applications and may elect in the future to allow our rights under this license to lapse. However, we may have to obtain additional licenses to HTS materials and, upon expiration of U.S. 8,060,169 patent to the materials covered by such patent.

We are focusing on the production of our Amperium wire, and we intend to continue to maintain a leadership position in 2G HTS wire through a combination of patents, licenses and proprietary expertise. In addition to our owned patents and patent applications in 2G HTS wire, we have obtained licenses from (i) MIT for the MOD process we use to deposit the YBCO layer, and (ii) Alcatel-Lucent on the YBCO material.

We have extensive patents and patents pending covering applications of HTS wire, such as HTS fault current limiting technology including our fault current limiting cable, HTS rotating machines and ship protection systems. Since the superconductor rotating machine and the fault current limiting cable applications are relatively new, we are building a particularly strong patent position in these areas. At present, we believe we have the world's broadest and most fundamental patent position in superconductor rotating machines technology. We have also filed a series of patents on our concept for our proprietary fault current limiting technology. However, there can be no assurance that that these patents will be sufficient to assure our freedom of action in these fields without further licensing from others. See Part I, Item 1A, "Risk Factors," for more information regarding the status of the commercialization of our Amperium wire products.

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. We cannot provide any assurance that these measures will prevent the unauthorized disclosure or use of that information. In addition, we cannot provide any 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, 2019, we employed 233 persons, of which 223 are full time employees. None of our employees is represented by a labor union.

Available information

Our internet address is www.amsc.com. We are not including the information contained in our website as part of, or incorporating it by reference into, this document. We make available, free of charge, through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such materials with, or furnish such materials to, the SEC.

We intend to disclose on our website any amendments to, or waivers of, our Code of Business Conduct and Ethics that are required to be disclosed pursuant to the SEC or Nasdaq rules.

Information about our Executive Officers

The table and biographical summaries set forth below contain information with respect to our executive officers as of the date of this filing:

Name	Age	Position
Daniel P. McGahn	47	President, Chief Executive Officer and Chairman
John W. Kosiba, Jr.	46	Senior Vice President, Chief Financial Officer and Treasurer

Daniel P. McGahn joined us in December 2006 and has been chief executive officer and a member of our board of directors since June 2011 and chairman of the board since July 2018. He previously served as president and chief operating officer from December 2009 to June 2011, as senior vice president and general manager of our AMSC Superconductors business unit from April 2008 until December 2009, as vice president of our AMSC Superconductors business unit from March 2007 to April 2008 and as vice president of strategic planning and development from December 2006 to March 2007. From 2003 to 2006, Mr. McGahn served as executive vice president and chief marketing officer of Konarka Technologies. We believe Mr. McGahn's qualifications to sit on our board of directors include his extensive experience with our company, including serving as our president since 2009, experience in the power electronics industry and strategic planning expertise gained while working in senior management as a consultant for other public and private companies.

John W. Kosiba, Jr. was appointed senior vice president, chief financial officer and treasurer effective April 4, 2017. Mr. Kosiba joined us as managing director, finance operations, in June 2010. He then served as vice president, finance operations, from September 2011 to May 2013. Prior to his appointment as senior vice president and chief financial officer, Mr. Kosiba served most recently as senior vice president, Gridtec solutions and finance operations, where he was responsible for (i) overseeing finance and accounting operations, budgeting, strategic planning and financial planning and analysis for the company, and (ii) managing the day-to-day business operations of our Gridtec solutions' business segment. From January 2008 until June 2010, Mr. Kosiba served as division director and controller of Amphenol Aerospace, a division of Amphenol Corporation and a manufacturer of interconnect products for the military, commercial aerospace and industrial markets. In this role, Mr. Kosiba was responsible for overseeing finance, accounting, budgeting, audit and all aspects of financial planning and analysis for the division.

Item 1A. *RISK FACTORS*

Risks Related to Our Financial Performance

We have a history of operating losses, which may continue in the future. Our operating results may fluctuate significantly from quarter to quarter and may fall below expectations in any particular fiscal quarter.

We have recorded net losses in two of the last three fiscal years, followed by a net income of $26.8 million for the fiscal year ended March 31, 2019, largely as a result of the receipt of payments from Sinovel Wind Group Co. Ltd. pursuant to the terms of the Settlement Agreement described further herein. We may not be profitable in fiscal 2019 or future years.

There is currently substantial uncertainty in our business, which makes it difficult to evaluate our business and future prospects. In addition, our operating results historically have been difficult to predict and have at times fluctuated from quarter to quarter due to a variety of factors, many of which are outside of our control. As a result of all of these factors, comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance. In addition, we have in the past, and may continue to, provide public guidance on our expected operating and financial results for future periods. Such guidance is comprised of forward-looking statements subject to the risks and uncertainties described in this Annual Report and in our other public filings and statements. Our actual results may not always be in line with or exceed the guidance we have provided. If our revenue or operating results fall below the expectations of investors or any securities analysts that follow our company in any period or we do not meet our guidance, the trading price of our common stock would likely decline.

Our operating expenses do not always vary directly with revenue and may be difficult to adjust in the short term. As a result, if revenue for a particular quarter is below our expectations, we may not be able to proportionately reduce operating expenses for that quarter, and therefore such a revenue shortfall would have a disproportionate effect on our operating results for that quarter.

We have a history of negative operating cash flows, and we may require additional financing in the future, which may not be available to us.

As of March 31, 2019, we had approximately $78.2 million of cash, cash equivalents, and restricted cash, and during the fiscal year ended March 31, 2019, we generated $42.7 million in cash for our operating activities, including a net settlement from Sinovel for $52.7 million. We have historically experienced substantial net losses, although we did report net income of $26.8 million for the fiscal year ended March 31, 2019. From April 1, 2011 through the date of this Annual Report, our various restructuring activities have resulted in a substantial reduction of our global workforce. We plan to continue to closely monitor our expenses and, if required, will further reduce operating costs and capital spending to enhance liquidity.

Our liquidity is highly dependent on our ability to profitably grow our revenues, control our operating costs, and secure additional financing, if required. We may require additional capital to conduct our business and adequately respond to future business challenges or opportunities, including, but not limited to, the need to develop new products or enhance existing products, maintain or expand research and development projects, collateralize performance bonds or letters of credit, and the need to build inventory or to invest other cash to support business growth. In order to raise additional capital, we may offer shares of our common stock or other securities convertible into or exchangeable for our common stock. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of each of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders.

In the event that additional liquidity is required, there can be no assurance that such financing would be available or, if available, that such financing could be obtained upon terms acceptable to us, which would have a material adverse effect on our business, financial condition and prospects.

We may be required to issue performance bonds or provide letters of credit, which restricts our ability to access any cash used as collateral for the bonds or letters of credit.

While we have been required to provide performance bonds in the form of surety bonds or other forms of security and letters of credit in the past, the size of the bonds and letters of credit was not material. In recent years, we have entered into contracts that require us to post bonds of significant magnitude and some of our suppliers have asked us to provide letters of credit. In many instances, we have been required to deposit cash in escrow accounts as collateral for these instruments, which is unavailable to us for general use for significant periods of time. Should we be unable to obtain performance bonds or letters of credit in the future, significant future potential revenue could become unavailable to us. Further, should our working capital situation deteriorate, we would not be able to access the restricted cash to meet working capital requirements.

Changes in exchange rates could adversely affect our results of operations.

Currency exchange rate fluctuations could have an adverse effect on our revenues and results of operations, and we could experience losses with respect to hedging activities. In fiscal 2018, 74% of our revenues were recognized from sales outside of the United States. In addition, approximately 38% of our revenues in fiscal 2018 were derived under sales contracts where prices were denominated in the Euro. Unfavorable currency fluctuations could require us to increase prices to foreign customers, which could result in a lesser number of orders, and therefore lower revenues, from such customers. Alternatively, if we do not adjust the prices for our products in response to unfavorable currency fluctuations, our results of operations could be adversely affected. In addition, most sales made by our foreign subsidiaries are denominated in the currency of the country in which these products are sold, and the currency they receive in payment for such sales could be less valuable at the time of receipt as a result of exchange rate fluctuations. However, we cannot be certain that our efforts will be adequate to protect us against significant currency fluctuations or that such efforts will not expose us to additional exchange rate risks.

If we fail to maintain proper and effective internal control over financial reporting, our ability to produce accurate and timely financial statements could be impaired and may lead investors and other users to lose confidence in our financial data.

Maintaining effective internal control over financial reporting is necessary for us to produce reliable financial statements.

We note that a system of procedures and controls, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all systems of procedures and controls, no evaluation can provide absolute assurance that all control issues, including instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and breakdowns can occur because of simple errors or mistakes. Additionally, procedures and controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override. The design of any system of procedures and controls also is based, in part, upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, our systems of procedures and controls, as we further develop and enhance them, may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective system of procedures and controls, misstatements due to errors or fraud may occur and not be detected. Such misstatements could be material and require a restatement of our financial statements.

If we are unable to maintain effective internal controls, we may not have adequate, accurate or timely financial information, and we may be unable to meet our reporting obligations or comply with the requirements of the SEC or the Sarbanes-Oxley Act of 2002, which could result in the imposition of sanctions, including the inability of registered broker dealers to make a market in our common stock, or an investigation by regulatory authorities. Any such action or other negative results caused by our inability to meet our reporting requirements or to comply with legal and regulatory requirements or by our disclosure of an accounting, reporting or control issue could adversely affect the trading price of our securities and our business. Significant deficiencies or material weaknesses in our internal control over financial reporting could also reduce our ability to obtain financing or could increase the cost of any financing we obtain.

Risks Related to Our Operations

A significant portion of our revenues are derived from a single customer. If this customer's business is negatively affected, it will adversely impact our business.

Our largest customer is Inox in India. Inox accounted for 34% of our total revenues during the fiscal year ended March 31, 2019 and 27% of our total revenues during the fiscal year ended March 31, 2018. Revenues from Inox are supported by a supply contract to purchase, and a license to make, use and supply, wind turbine ECS. Inox has been active in the new central and state government auction regime in India and has over 900 MW of orders from the first four Solar Energy Corporation of India Limited ("SECI") central government auctions, and 50 MW from the Maharashtra state government auction. However, we cannot predict if and how successful Inox will be in executing on these orders or in obtaining new orders under the new central and state auction regime. Any failure by Inox to succeed under this regime, or any delay in Inox's ability to deliver its wind turbines, could result in fewer ECS shipments to Inox. If Inox cancels or does not fully perform under the supply contract or discontinues future purchases from us under the supply contract, we would likely be unable to replace the related revenues. Any of the foregoing actions would have a material adverse impact on our business, operating results and financial position.

Our financial condition may have an adverse effect on our customer and supplier relationships.

Our relationships with our customers and suppliers are predicated on the belief that we will continue to operate. Our customers, particularly in the utility industry, are generally risk averse and may not enter into sales contracts with us if there is uncertainty regarding our ability to support working capital needs of large scale projects. This has had, and may continue to have, an adverse effect on our ability to grow our revenues. In addition, current and future suppliers may be less likely to grant us credit, resulting in a negative impact on our working capital and cash flows.

Our contracts with the U.S. government are subject to audit, modification or termination by the U.S. government and include certain other provisions in favor of the government. The continued funding of such contracts remains subject to annual congressional appropriation, which, if not approved, could reduce our revenue and lower or eliminate our profit.

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.

Our U.S. government contracts customarily contain other provisions that give the government substantial rights and remedies, many of which are not typically found in commercial contracts, including provisions that allow the government to:

- obtain certain rights to the intellectual property that we develop under the contract;
- decline to award future contracts if actual or apparent organizational conflicts of interest are discovered, or to impose organizational conflict mitigation measures as a condition of eligibility for an award;

- suspend or debar us from doing business with the government or a specific government agency; and
- pursue criminal or civil remedies under the False Claims Act, False Statements Act and similar remedy provisions unique to government contracting.

All of our U.S. government contracts, as well as certain of our contracts with third parties that are dependent on U.S. government contracts, can be terminated by the U.S. government for its convenience, including our contract with the Department of Homeland Security ("DHS") to deploy our resilient electric grid ("REG") system in Commonwealth Edison Company's ("ComEd") electric grid in Chicago, Illinois ("Project REG"). Moving to the manufacturing and construction stage of Project REG is dependent upon DHS's approval of the subcontract agreement entered into between AMSC and ComEd on October 31, 2018 (the "Subcontract Agreement") for Project REG. We can provide no assurance that DHS will approve the Subcontract Agreement for Project REG. Termination-for-convenience provisions typically 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 the U.S. 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 the U.S. Congress for future fiscal years. In addition, government shutdowns could prevent or delay such contracts from being funded.

We cannot be certain that our U.S. government contracts, including our contract for Project REG, or our contracts with third parties that relate to projects for the U.S. government 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.

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

Because an important element of our strategy for addressing the wind energy market involves the license of our wind turbine designs to manufacturers of those systems, the financial benefits to us from our products for the wind energy market are dependent on the success of these manufacturers in selling wind turbines based on our designs. We may not be able to enter into marketing or distribution arrangements with third parties on financially acceptable terms, or at all, and third parties may not be successful in selling our products or applications incorporating our products.

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

We have attracted a highly skilled management team and specialized workforce, including scientists, engineers, researchers, manufacturing, personnel, and marketing and sales professionals. Hiring and retaining good personnel for our business is challenging, and highly qualified technical personnel are likely to remain a limited resource for the foreseeable future. We may not be able to hire the necessary personnel to implement our business strategy. In addition, we may need to provide higher compensation or more training to our personnel than we currently anticipate. Moreover, any officer or employee can terminate his or her relationship with us at any time.

Over the past several years, we have substantially reduced our global workforce in order to lower expenses, reorganize our global operations, and streamline various functions of the business, to match the demand for our products. Ongoing employee retention is challenging following these reductions in workforce and organizational changes since we also must continue to motivate employees and keep them focused on our strategies and goals. Losing the services of any of our executive officers or key employees could materially and adversely impact our business.

We may experience difficulties re-establishing our HTS wire production capability in our Ayer, Massachusetts facility.

As part of our effort to increase manufacturing efficiency, we moved from our former manufacturing facility located in Devens, Massachusetts to our smaller-scale leased facility located in Ayer, Massachusetts. Moving our HTS wire manufacturing operations to a different plant involves various risks, including the inability to commence HTS wire manufacturing within the cost and time frame estimated and the inability to produce a high quality product with an acceptable yield and cost. Failure to successfully commence the manufacturing of our HTS wire due to these and other unforeseen risks could adversely affect our ability to meet customer demand for our products and could increase the cost of production versus projections, both of which could adversely impact our operating and financial results.

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

We cannot assure you that we will realize the revenue we expect to generate from our backlog in the periods we expect to realize such revenue, or at all.

In addition, the backlog of orders, if realized, may not result in profitable revenue. Backlog represents the value of contracts and purchase orders received for which delivery is expected in the next twelve months. 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 above. 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 they may cancel orders or reschedule orders due to fluctuations in their business needs or purchasing budgets.

Our business and operations would be adversely impacted in the event of a failure or security breach of our information technology infrastructure.

We rely upon the capacity, reliability, and security of our information technology hardware and software infrastructure and our ability to expand and update this infrastructure in response to our changing needs. Any failure to manage, expand, and update our information technology infrastructure or any failure in the operation of this infrastructure could harm our business. In addition, the costs associated with updating and securing our information technology infrastructure are likely to increase as such security measures become more complex, which may harm our operating results and financial condition.

Despite our implementation of security measures, our systems are vulnerable to damages from computer viruses, natural disasters, unauthorized access and other similar disruptions. Our business is also subject to break-ins, sabotage, and intentional acts of vandalism by third parties as well as employees. Our business activities in China may increase our risks to such breaches. Any system failure, accident, or security breach could result in disruptions to our operations. To the extent that any disruption or security breach results in a loss or damage to our data, or inappropriate disclosure of confidential information, it could harm our reputation, result in substantial remediation costs, lead to lost revenues and litigation, increase our insurance premiums and have other adverse effects on our business.

Failure to comply with evolving data privacy and data protection laws and regulations or to otherwise protect personal data, may adversely impact our business and financial results.

We are subject to many rapidly evolving privacy and data protection laws and regulations in Europe and around the world. This requires us to operate in a complex environment where there are significant constraints on how we can process personal data across our business. The European General Data Protection Regulation (the "GDPR"), which became effective in May 2018, has established stringent data protection requirements for companies doing business in or handling personal data of individuals in the European Union. The GDPR imposes obligations on data controllers and processors including the requirement to maintain a record of their data processing and to implement policies and procedures as part of their mandated privacy governance framework. Breaches of the GDPR could result in substantial fines, which in some cases could be up to four percent of our worldwide revenue. In addition, a breach of the GDPR or other data privacy or data protection laws or regulations could result in regulatory investigations, reputational damage, orders to cease/change our use of data, enforcement notices, as well potential civil claims including class action type litigation. There is a risk that we may be subject to fines and penalties, litigation and reputational harm if we fail to properly process or protect the data or privacy of third parties or comply with the GDPR or other applicable data privacy and data protection regimes.

We rely upon third-party suppliers for the components and subassemblies of many of our Wind and Grid products, making us vulnerable to supply shortages and price fluctuations, which could harm our business.

Many of our components and subassemblies are currently manufactured for us by a limited number of qualified suppliers. Any interruption in the supply of components or subassemblies, or our inability to obtain substitute components or subassemblies from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers, which would have an adverse effect on our business and operating results.

We are producing certain Wind products in our manufacturing facility in Romania. In order to minimize costs and time to market, we have and will continue to identify local suppliers that meet our quality standards to produce certain of our subassemblies and components. These efforts may not be successful. In addition, any event which negatively impacts our supply, including, among others, wars, terrorist activities, natural disasters and outbreaks of infectious disease, could delay or suspend shipments of products or the release of new products or could result in the delivery of inferior products. Our revenues from the affected products would decline or we could incur losses until such time as we are able to restore our production processes or put in place alternative contract manufacturers or suppliers. Even though we carry business interruption insurance policies, we may suffer losses as a result of business interruptions that exceed the coverage available under our insurance policies.

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 turbines, in which we collaborate with other companies, including suppliers of cryogenic systems, manufacturers of electric power cables and manufacturers of wind turbines. 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 collaborators 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.

If we fail to implement our business strategy successfully, our financial performance could be harmed.

Our future financial performance and success are dependent in large part upon our ability to implement our business strategy successfully. Our business strategy envisions several initiatives, including driving revenue growth and enhancing operating results by increasing customer adoption of our products by targeting high-growth segments with commercial and system-level products. We may not be able to implement our business strategy successfully or achieve the anticipated benefits of our business plan. If we are unable to do so, our long-term growth and profitability may be adversely affected. Even if we are able to implement some or all of the initiatives of our business plan successfully, our operating results may not improve to the extent we anticipate, or at all. In addition, to the extent we have misjudged the nature and extent of industry trends or our competition, we may have difficulty in achieving our strategic objectives. Any failure to implement our business strategy successfully may adversely affect our business, financial condition and results of operations. In addition, we may decide to alter or discontinue certain aspects of our business strategy at any time.

Our ability to implement our business strategy could also be affected by a number of factors beyond our control, such as increased competition, legal developments, government regulation, general economic conditions, or increased operating costs or expenses.

Problems with product quality or product performance may cause us to incur warranty expenses and may damage our market reputation and prevent us from achieving increased sales and market share.

Consistent with customary practice in our industry, we guarantee our products and/or services to be free from defects in material and workmanship under normal use and service. We generally provide a one- to three-year warranty on our products, commencing upon installation. A provision is recorded upon revenue recognition to cost of revenues for estimated warranty expense based on historical experience. The possibility of future product failures or issues related to services we provided could cause us to incur substantial expenses to repair or replace defective products or re-perform such services potentially in excess of our reserves. Furthermore, widespread product failures may damage our market reputation and reduce our market share and cause sales to decline.

Many of our customers outside of the United States may be either directly or indirectly related to governmental entities, and we could be adversely affected by violations of the United States Foreign Corrupt Practices Act and similar worldwide anti-bribery laws outside the United States.

The U.S. Foreign Corrupt Practices Act and similar worldwide anti-bribery laws in non-U.S. jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. Many of our customers outside of the United States are, either directly or indirectly, related to governmental entities and are therefore subject to such anti-bribery laws. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that have experienced governmental corruption to some degree, and in certain circumstances strict compliance with anti-bribery laws may conflict with local customs and practices. Our internal control policies and procedures may not always protect us from reckless or criminal acts committed by our employees or agents. Violations of these laws, or allegations of such violations, could disrupt our business and result in a material adverse effect on our business, results of operations and financial condition.

We have had limited success marketing and selling our superconductor products and system-level solutions, and our failure to more broadly market and sell our products and solutions could lower our revenue and cash flow.

To date, we have had limited success marketing and selling our 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 more traditional products, competing superconductor products and other technologies. We may not be successful in our efforts to market this 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 Amperium wire, are included as a component of a larger product, such as a power cable system. By entering into marketing and sales alliances, the financial benefits to us of commercializing our products will be dependent on the efforts of others.

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.

Our prior acquisitions required substantial integration and management efforts. As a result of any acquisition we pursue, management's attention and resources may be diverted from our other businesses. An acquisition may also involve the payment of a significant purchase price, which could reduce our cash position or dilute our stockholders, and require 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;
- unforeseen liabilities of the acquired business;
- diversion of management's and employees' attention from other business matters as a result of the integration process;
- mistaken assumptions about volumes, revenue and costs associated with the acquired business, including synergies;
- limitations on rights to indemnity from the seller;
- mistaken assumptions about the overall costs of equity or debt used to finance the acquisition; and
- unforeseen difficulties operating in new product areas, with new customers, or in new geographic areas.

We cannot provide any assurance that we will realize any of the anticipated benefits of any acquisition, and if we fail to realize these anticipated benefits, our operating performance could suffer.

Risks Related to Our Markets

Our success depends upon the commercial adoption of the REG system, which is currently limited, and a widespread commercial market for our products may not develop.

To date, there has been no widespread commercial use of the REG system. It is uncertain whether a robust commercial market for those new and unproven products will ever develop.

In addition, we believe in-grid demonstrations of REG systems are necessary to convince utilities and power grid operators of the benefits of this technology. Even if a project is funded, completion of projects can be delayed as a result of other factors. It is possible that the market demands we currently anticipate for our REG system will not develop and that they will never achieve widespread commercial acceptance. In such event, we would not be able to implement our strategy, and our profits could be reduced or eliminated. Even if a commercial market for our REG systems were to develop, commercial terms requested by utilities and power grid operators relating to bonding requirements, limitations of liability, warranty periods, or other contractual provisions, may not be acceptable to us, which could impede our ability to enter into contractual arrangements for the sale of our REG system.

Growth of the wind energy market depends largely on the availability and size of government subsidies, economic incentives and legislative programs designed to support the growth of wind energy.

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, certain countries in Asia, including India, 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. In the United States, various legislation and regulations designed to support the growth of wind energy have been implemented or proposed by the federal government, such as the Production Tax Credit for Renewable Energy ("PTC") and the Clean Power Plan. Governments, including the U.S. government, may decide to reduce or eliminate these economic incentives, or curtail legislative programs supportive of wind energy technologies for political, financial or other reasons. Any reductions in, or eliminations of, government subsidies, economic incentives or favorable legislative programs 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.

We have operations in, and depend on sales in, emerging markets, including India, and global conditions could negatively affect our operating results or limit our ability to expand our operations outside of these markets. Changes in India's political, social, regulatory and economic environment may affect our financial performance.

We have operations in India and in recent years a significant portion of our total revenues has been derived from customers in this market. Our financial performance depends upon our ability to carry on our operations and sell our products in markets such as India, as well as other emerging markets around the world. We are, and will continue to be, subject to financial, political, economic and business risks in connection with our operations and sales in these emerging markets. In addition to the business risks inherent in developing and servicing these markets, economic conditions may be more volatile, legal and regulatory systems less developed and predictable, and the possibility of various types of adverse governmental action more pronounced in emerging markets. In addition, inflation, fluctuations in currency and interest rates, competitive factors, civil unrest and labor problems could affect our revenues, expenses and results of operations. Our operations could also be adversely affected by acts of war, terrorism or the threat of any of these events as well as government actions such as controls on imports, exports and prices, tariffs, new forms of taxation, or changes in fiscal regimes and increased government regulation in the countries in which we operate or service customers. Unexpected or uncontrollable events or circumstances in any of these markets could have a material adverse effect on our financial results and cash flows.

Our financial performance could be affected by the political and social environment in India. In recent years, India has experienced civil unrest and terrorism and has been involved in conflicts with neighboring countries. The potential for hostilities between India and Pakistan has been high in light of tensions related to recent terrorist incidents in India and the unsettled nature of the regional geopolitical environment, including events in and related to Afghanistan and Iraq.

With respect to our activities in all emerging markets, we may be impacted by issues with managing foreign sales operations, including long payment cycles, potential difficulties in accounts receivable collection and, especially from significant customers, fluctuations in the timing and amount of orders. The adverse effect of any of these issues on our business could be increased due to the concentration of our business with a small number of customers. Operations in foreign countries also expose us to risks relating to difficulties in enforcing our proprietary rights, currency fluctuations and adverse or deteriorating economic conditions. If we experience problems with obtaining registrations, compliance with foreign country or applicable U.S. laws, or if we experience difficulties in payments or intellectual property matters in foreign jurisdictions, or if significant political, economic or regulatory changes occur, our results of operations would be adversely affected.

Our products face intense competition, which could limit our ability to acquire or retain customers.

The markets for our products are intensely competitive and many of our competitors have substantially greater financial resources and 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.

We face competition from other companies offering FACTS systems similar to our D-VAR products. These include adaptive VAR compensators, Dynamic voltage restorers ("DVRs"), and STATCOMs produced by ABB, Siemens, and Ingeteam, and battery-based uninterruptible power supply ("UPS") systems offered by various companies around the world.

With our HTS-based REG product, we are offering a new approach that provides alternatives to utilities for power system design. Therefore, we believe that we compete with traditional approaches such as new full-sized substations, overhead and underground transmission, and urban power transformers.

We believe we are currently the only company that can offer HTS-based SPS products that have been fully qualified for use aboard U.S. Navy surface combatants. Therefore, the primary competition for our SPS products is currently coming from defense contractors that provide the copper-based systems that our lighter, more efficient HTS versions have been developed to replace. Companies such as L3, Excelis, Raytheon, and Textron have the bulk of the copper-based business today.

As the HTS wire, superconductor 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.

With respect to our Wind business, other companies that serve the wind turbine components industry include ABB, Hopewind, and Semikron. We also face indirect competition in the wind energy market from global manufacturers of wind turbines, such as Siemens Gamesa, General Electric, and Suzlon. We face competition for the supply of wind turbine engineering design services from design engineering firms such as Aerodyn.

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

In recent years, a substantial majority of our consolidated revenues were recognized from customers outside of the United States. For example, 74% of our revenues in fiscal 2018 and 64% of our revenues in fiscal 2017 were recognized from sales outside the United States. We also manufacture certain of our products and purchase a portion of our raw materials and components from suppliers in other foreign countries. Our international operations are subject to a variety of risks that we do not face in the United States, including:

- potentially longer payment cycles for sales in foreign countries and difficulties in collecting accounts receivable;
- difficulties in staffing and managing our foreign offices and the increased travel, infrastructure and legal compliance costs associated with multiple international locations;
- additional withholding taxes or other taxes on our foreign income and repatriated cash, 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;
- 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.

In addition, the current U.S. presidential administration has withdrawn the United States from the Trans-Pacific Partnership trade agreement, is renegotiating the North American Free Trade Agreement, and has made various comments suggesting the possible re-negotiation of or withdrawal from other trade agreements and the potential imposition of new import barriers. Trade tensions between the U.S. and China, as well as those between the U.S. and Canada, Mexico and other countries have been escalating in recent years. For example, the U.S. administration has recently imposed new tariffs on products imported from China, which are likely to impact our products and supplies imported from China to the U.S., and the Chinese government has countered with additional retaliatory tariffs on U.S. manufactured goods. We cannot predict whether the United States or any other country will impose new quotas, tariffs, taxes or other trade barriers upon the importation or exportation of our products or gauge the effect that new barriers would have on our financial position or results of operations. These new tariffs or any additional tariffs or other trade barriers may cause our costs to increase, our products to be less competitive, and our business, results of operations and financial position to be materially adversely affected.

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 or conduct operations. Our failure to manage these risks successfully could harm our international operations and reduce our international sales, thus lowering our total revenue and reducing or eliminating our profits.

Lower prices for other fuel sources may reduce the demand for wind energy development, which could have a material adverse effect on our ability to grow our Wind business.

The wind energy market is affected by the price and availability of other fuels, including nuclear, coal, natural gas and oil, as well as other sources of renewable energy. To the extent renewable energy, particularly wind energy, becomes less cost-competitive due to reduced government targets, increases in the cost of wind energy, as a result of new regulations, and incentives that favor alternative renewable energy, cheaper alternatives or otherwise, demand for wind energy and other forms of renewable energy could decrease. Slow growth or a long-term reduction in the demand for renewable energy could have a material adverse effect on our ability to grow our Wind business.

Adverse changes in domestic and global economic conditions could adversely affect our operating results.

We have become increasingly subject to the risks arising from adverse changes in domestic and global economic conditions. In recent years, the state of both the domestic and global economies has been uncertain due to the difficulty in obtaining credit, weak economic recovery, and financial market volatility. Adverse credit conditions in the future could have a negative impact on our ability to execute on future strategic activities. In addition, if credit is difficult to obtain in the future, some customers may delay or reduce purchases. This could result in reductions in sales of our products, longer sales cycles, slower adoption of new technologies, increased accounts receivable and inventory write-offs and increased price competition. Any of these events would likely harm our business, results of operations and financial condition.

Unfavorable results of legal proceedings could have a material adverse effect on our business, operating results and financial condition.

From time to time, we may become subject to legal proceedings and claims that arise in or outside the ordinary course of business. Results of legal proceedings cannot be predicted with certainty. Our insurance coverage may be insufficient, our assets may be insufficient to cover any amounts that exceed our insurance coverage, and we may have to pay damage awards or otherwise may enter into settlement arrangements in connection with such claims. Any such payments or settlement arrangements in legal proceedings could have a material adverse effect on our business, operating results or financial condition. Regardless of merit, legal proceedings could result in substantial costs and significantly and adversely impact our reputation and divert management's attention and resources, which could have a material adverse effect on our business, operating results or financial condition. In addition, such lawsuits may make it more difficult to finance our operations.

Risks Related to Our Technologies

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

We rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely, in part, on confidentiality agreements with our employees, contractors, consultants, outside scientific collaborators and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets or independently develop processes or products that are similar or identical to our trade secrets and courts outside the United States may be less willing to protect trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

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.

Moreover, we could incur substantial litigation costs in defending the validity of or enforcing 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.

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 will also need to improve the performance and reduce the cost of our Amperium 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 Amperium 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.

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 Amperium 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. 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 technology and products could infringe intellectual property rights of others, which may require costly litigation and, if we are not successful, could cause us to pay substantial damages and disrupt our business.

In recent years, there has been significant litigation involving patents and other intellectual property rights in many technology-related industries. There may be patents or patent applications in the United States or other countries that are pertinent to our products or business of which we are not aware. The technology that we incorporate into and use to develop and manufacture our current and future products, including the technologies we license, may be subject to claims that they infringe the patents or proprietary rights of others. The success of our business will also depend on our ability to develop new technologies without infringing or misappropriating the proprietary rights of others. Third parties may allege that we infringe patents, trademarks or copyrights, or that we misappropriated trade secrets. These allegations could result in significant costs and diversion of the attention of management. If a successful claim were brought against us and we are found to infringe a third party's intellectual property rights, we could be required to pay substantial damages, including treble damages if it is determined that we have willfully infringed such rights, or be enjoined from using the technology deemed to be infringing, or using, making or selling products deemed to be infringing. If we have supplied infringing products or technology to third parties, we may be obligated to indemnify these third parties for damages they may be required to pay to the patent holder and for any losses they may sustain as a result of the infringement. In addition, we may need to attempt to license the intellectual property right from such third party or spend time and money to design around or avoid the intellectual property. Any such license may not be available on reasonable terms, or at all. An adverse determination may subject us to significant liabilities and/or disrupt our business.

Risks Related to Our Common Stock

Our common stock has experienced, and may continue to experience, significant 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 our financial performance, liquidity requirements, technological achievements by us and our competitors, the establishment of development or strategic relationships with other companies, strategic acquisitions, new customer orders and contracts, and our introduction of commercial products may have a significant effect on the market price of our common stock. 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. In the past, we have been subject to a number of class action lawsuits which were filed against us on behalf of certain purchasers of our common stock. If we become subject to additional litigation of this kind in the future, it could result in additional substantial litigation costs, a damages award against us and the further diversion of our management's attention.

Item 1B. *UNRESOLVED STAFF COMMENTS*

Not applicable.

Item 2. *PROPERTIES*

Our corporate headquarters and Grid manufacturing operations are located in a leased 88,000-square-foot facility in Ayer, Massachusetts. Our Wind manufacturing operations are located in a leased 62,000-square-foot facility in Timisoara, Romania.

We also occupy leased facilities located in Australia, Austria, China, India, Wisconsin, Washington and the United Kingdom with a combined total of approximately 76,000 square feet of space. These leases have varying expiration dates through November 2022 which can generally be terminated at our request after a six month advance notice. These locations focus primarily on applications engineering, sales and/or field service and do not have significant leases or physical presence. We believe all of these facilities are well-maintained and suitable for their intended uses.

The following table summarizes information regarding our significant leased properties, as of March 31, 2019:

Location	Supporting	Square footage	Owned/ Leased
United States			
Ayer, Massachusetts	Corporate & Grid Segment	88,000	Leased
Romania			
Timisoara	Wind Segment	62,000	Leased

Item 3. *LEGAL PROCEEDINGS*

We are not party to any material legal proceedings.

Item 4. *MINE SAFETY DISCLOSURES*

Not Applicable.

PART II

Item 5. *MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES*

Market Information

Our common stock has been listed on the Nasdaq Global Select Market under the symbol "AMSC" since 1991. The following table sets forth the high and low sales price per share of our common stock as reported on the Nasdaq Global Select Market for each quarter of the two most recent fiscal years.

	Common Stock Price	
	High	Low
Fiscal year ended March 31, 2019:		
First quarter	$ 8.03	$ 5.31
Second quarter	7.50	4.84
Third quarter	12.50	5.78
Fourth quarter	16.44	10.62
Fiscal year ended March 31, 2018:		
First quarter	$ 7.75	$ 3.88
Second quarter	4.98	2.89
Third quarter	4.84	3.06
Fourth quarter	6.51	3.62

Holders

The number of holders of record of our common stock on May 30, 2019 was 199.

Dividend Policy

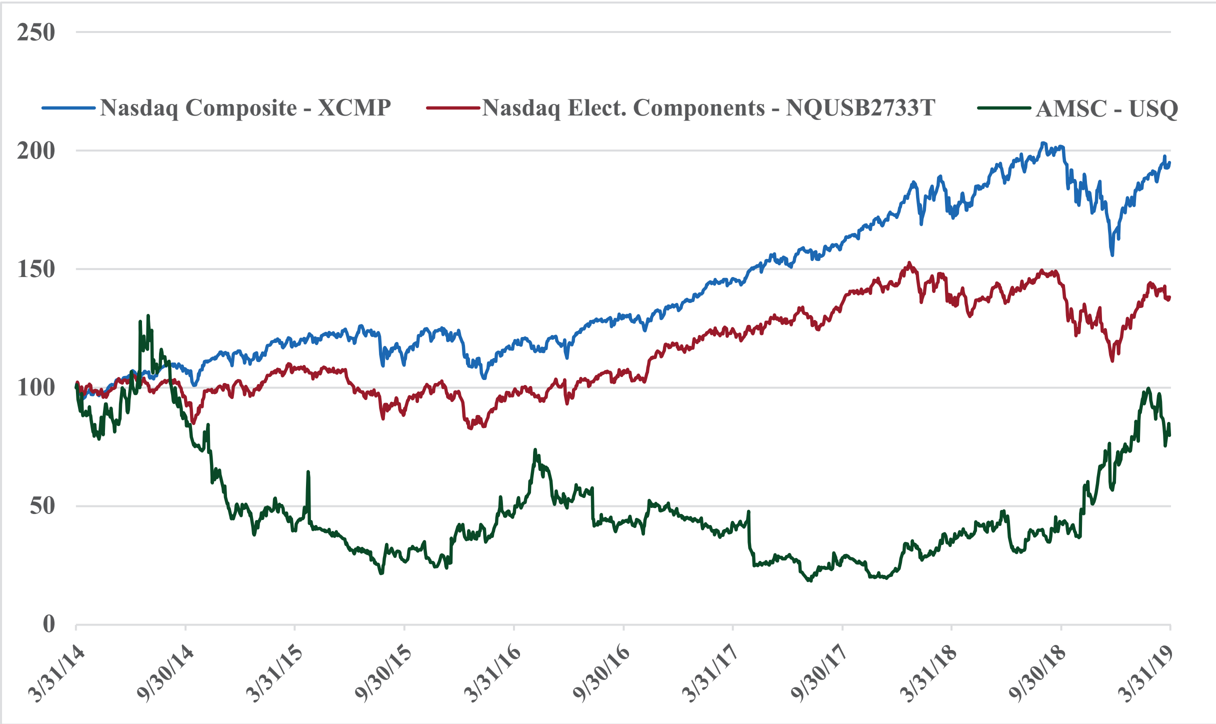
We have never paid cash dividends on our common stock. We currently intend to retain earnings, if any, to fund the development and growth of our business and do not anticipate paying cash dividends for the foreseeable future. Payment of future cash dividends, if any, will be at the discretion of our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

Stock Performance Graph

The following graph compares the cumulative total stockholder return on our common stock from March 31, 2014 to March 31, 2019 with the cumulative total return of (i) the Nasdaq Composite Index and (ii) the Nasdaq Electrical Components & Equipment Index.

This graph assumes the investment of $100.00 on March 31, 2014 in our common stock, the Nasdaq Composite Index and the Nasdaq Electrical Components & Equipment Index, and assumes any dividends are reinvested. Measurement points are March 31, 2014; March 31, 2015; March 31, 2016; March 31, 2017; March 31, 2018; and March 31, 2019.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN
Among American Superconductor Corporation,
the Nasdaq Composite Index and the Nasdaq Electrical Components & Equipment Index



Company/Index	2014	2015	2016	2017	2018	2019
	Fiscal year ended March 31,					
American Superconductor Corporation	100.00	40.00	47.20	42.61	36.15	79.88
Nasdaq Composite Index	100.00	118.12	118.77	145.94	176.24	194.97
Nasdaq Electrical Components & Equipment Index	100.00	108.39	98.83	124.54	139.12	138.22

Item 6. ***SELECTED FINANCIAL DATA***

This item is not required for smaller reporting companies.

Item 7. *MANAGEMENT DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS*

Executive Overview

We are a leading provider of megawatt-scale solutions that enhance the performance of the power grid, protect our Navy's fleet, and lower the cost of wind power. In the power grid market, we enable electric utilities, industrial facilities, and renewable energy project developers to connect, transmit and distribute power through our transmission planning services and power electronics and superconductor-based systems. In the wind power market, we enable manufacturers to field highly competitive wind turbines through our advanced power electronics and control system products, engineering, and support services. Our power grid and wind products and services provide exceptional reliability, security, efficiency and affordability to our customers.

Our power system solutions help to improve energy efficiency, alleviate power grid capacity constraints, improve system resiliency, and increase the adoption of renewable energy generation. Demand for our solutions is driven by the growing needs for modernized smart grids that improve power reliability, security and quality, the U.S. Navy's effort to upgrade in-board power systems to support fleet electrification, and the need for increased renewable sources of electricity, such as wind and solar energy. Concerns about these factors have led to increased spending by corporations and the military, as well as supportive government regulations and initiatives on local, state, and national levels, including renewable portfolio standards, tax incentives and international treaties.

We manufacture products using two proprietary core technologies: PowerModule programmable power electronic converters and our Amperium high temperature superconductor (HTS) wires. These technologies and our system-level solutions are protected by a broad and deep intellectual property portfolio consisting of hundreds of patents and licenses worldwide.

We operate our business under two market-facing business units: Grid and Wind. We believe this market-centric structure enables us to more effectively anticipate and meet the needs of electric utilities, power generation project developers and wind turbine manufacturers.

- *Grid.* Through our Gridtec Solutions™, our Grid business segment enables electric utilities and renewable energy project developers to connect, transmit and distribute power with exceptional efficiency, reliability, security and affordability. We provide transmission planning services that allow us to identify power grid congestion, poor power quality, and other risks, which help us determine how our solutions can improve network performance. These services often lead to sales of our grid interconnection solutions for wind farms and solar power plants, power quality systems and transmission and distribution cable systems. We also sell ship protection products to the U.S. Navy through our Grid business segment.
- *Wind.* Through our Windtec Solutions™, our Wind business segment enables manufacturers to field wind turbines with exceptional power output, reliability and affordability. We supply advanced power electronics and control systems, license our highly engineered wind turbine designs, and provide extensive customer support services to wind turbine manufacturers. Our design portfolio includes a broad range of drivetrains and power ratings of 2 MW and higher. We provide a broad range of power electronics and software-based control systems that are highly integrated and designed for optimized performance, efficiency, and grid compatibility.

Our fiscal year begins on April 1 and ends on March 31. When we refer to a particular fiscal year, we are referring to the fiscal year beginning on April 1 of that same year. For example, fiscal 2018 refers to the fiscal year beginning on April 1, 2018. Other fiscal years follow similarly.

We have historically experienced recurring operating losses, despite generating net income of $26.8 million in the fiscal year ended March 31, 2019, and as of March 31, 2019 had an accumulated deficit of $961.5 million.

In addition, although we generated positive operating cash flow in the fiscal year ended March 31, 2019, we have historically experienced recurring negative operating cash flows. At March 31, 2019, we had cash and cash equivalents of $77.5 million, with no outstanding debt other than ordinary trade payables. Cash generated from operations for the fiscal year ended March 31, 2019 was $42.7 million. The current period results include the net gain received from the first and second installments of the Sinovel settlement of $52.7 million in fiscal 2018.

On July 3, 2018, we and our wholly-owned subsidiaries Suzhou AMSC Superconductor Co. Ltd. ("AMSC China") and AMSC Austria GmbH ("AMSC Austria") entered into a settlement agreement (the "Settlement Agreement") with Sinovel Wind Group Co., Ltd. ("Sinovel"). The Settlement Agreement settled the previously disclosed litigation and arbitration proceedings between us and Sinovel (the "Proceedings"), and any other civil claims, counterclaims, causes of action, rights and obligations directly or indirectly relating to the subject matters of the Proceedings and our contracts with Sinovel (the "Contracts"), subject to certain exceptions. Under the terms of the Settlement Agreement, Sinovel agreed to pay AMSC China an aggregate cash amount in Renminbi ("RMB") equivalent to $57.5 million, consisting of two installments. Sinovel paid the first installment of the RMB equivalent of $32.5 million on July 4, 2018, and paid the second installment of the RMB equivalent of $25.0 million on December 27, 2018.

In addition, pursuant to the terms of the Settlement Agreement, we and AMSC Austria have granted Sinovel a non-exclusive license for certain of our intellectual property to be used solely in Sinovel's doubly fed wind turbines (the "License"). We have agreed not to sue Sinovel, Sinovel's power converter suppliers or Sinovel's customers for use of the technology covered by the License.

On July 25, 2018, we received notice from BASF Corporation ("BASF") that BASF will not be extending the term of the Joint Development Agreement dated March 4, 2016 ("JDA") by and between BASF and us beyond March 3, 2019. As a result, BASF will not be required to pay $1.0 million in 2019 to us as otherwise would have been required pursuant to the terms of the JDA. To date, BASF has paid $6.0 million to us under the JDA.

On October 31, 2018, we entered into a Subcontract Agreement with Commonwealth Edison Company ("ComEd") (the "Subcontract Agreement") for the manufacture and installation of our resilient electric grid ("REG") system within ComEd's electric grid in Chicago, Illinois (the "Project"). As provided in the Subcontract Agreement, the Subcontract Agreement will become effective upon the signing of an amendment by us and the U.S. Department of Homeland Security ("DHS") to the existing contract (the "Prime Contract") between ourselves and DHS. Unless terminated earlier by ourselves or DHS according to the terms of the Subcontract Agreement, the term of the Subcontract Agreement will continue until we complete our warranty obligations under the Subcontract Agreement. Under the terms of the Subcontract Agreement, we have agreed, among other things, to provide the REG system and to supervise ComEd's installation of the REG system in Chicago. As part of our separate cost sharing arrangement with DHS under the Prime Contract, we expect funding provided by DHS in connection with the Subcontract Agreement to be between $9.0 to $11.0 million, which represents the total amount of revenues we are expected to recognize over the term of the Subcontract Agreement and includes up to $1.0 million that we have agreed to reimburse ComEd for costs incurred by ComEd while undertaking its tasks under the Subcontract Agreement (the "Reimbursement Amount"). In addition, we have agreed to deliver an irrevocable letter of credit in the amount of $5.0 million to secure certain obligations under the Subcontract Agreement. ComEd has agreed to provide the site and provide all civil engineering work required to support the installation, operation and integration of the REG system into ComEd's electric grid. Other than the Reimbursement Amount, ComEd is responsible for its own costs and expenses. Construction of the Project is expected to commence within six months after DHS's approval. The REG system is expected to be operational in 2021.

Results of Operations

Fiscal Years Ended March 31, 2019 and March 31, 2018

Revenues

Total revenues increased by 16% to $56.2 million in fiscal 2018 from $48.4 million in fiscal 2017. Our revenues are summarized as follows (in thousands):

	Fiscal Years Ended March 31,	
	2019	2018
Revenues:		
Grid	$34,290	$34,109
Wind	21,917	14,294
Total	$56,207	$48,403

Revenues in our Grid business unit are derived from our D-VAR product sales, HTS wire sales, ship protection systems, government-sponsored electric utility projects, license contracts and other prototype development contracts. We also engineer, install and commission our products on a turnkey-basis for some customers. The Grid business unit accounted for 61% of total revenues in fiscal 2018 and 70% in fiscal 2017. Grid revenue remained constant with an increase of 1% to $34.3 million in fiscal 2018 from $34.1 million in fiscal 2017.

Revenues in our Wind business unit are derived from wind turbine electrical control systems and core components, wind turbine license and development contracts, service contracts and consulting arrangements. Our Wind business unit accounted for 39% of total revenues in fiscal 2018 and 30% in fiscal 2017. Revenues in the Wind business unit increased 53% to $21.9 million in fiscal 2018 from $14.3 million in fiscal 2017. The increase in Wind business unit revenues was driven primarily by increased revenues from Inox in India due to increased ECS shipments during fiscal 2018. Inox has been active in the new central and state government auction regime in India and has over 900 MW of orders from the first four Solar Energy Corporation of India Limited ("SECI") central government auctions, and 50 MW from the Maharashtra state government auction. However, we cannot predict if and how successful Inox will be in executing on these orders or in obtaining new orders under the new central and state auction regime. Any failure by Inox to succeed under this regime, or any delay in Inox's ability to deliver its wind turbines, could result in fewer ECS shipments to Inox.

Cost of Revenues and Gross Margin

Cost of revenues decreased by 5% to $42.2 million in fiscal 2018, compared to $44.6 million in fiscal 2017. Gross margin increased to 24.9% in fiscal 2018 from 7.8% in fiscal 2017. The increase in gross margin in fiscal 2018 was driven primarily by lower depreciation and reduced fixed factory overhead.

Operating Expenses

Research and development

Research and development ("R&D") expenses decreased by 15% to $9.9 million, or 18% of revenue in fiscal 2018, compared to $11.6 million, or 24% of revenue, in fiscal 2017. The decrease in R&D expenses is primarily the result of lower compensation cost due to decreased headcount.

Selling, general, and administrative

Selling, general and administrative ("SG&A") expenses decreased by 2% to $22.0 million, or 39% of revenue in fiscal 2018 from $22.6 million, or 47% of revenue, in fiscal 2017. The decrease in SG&A expenses is primarily the result of lower compensation cost due to decreased headcount.

Gain on Sinovel settlement

We recorded a gain of $52.7 million, net of legal and other direct costs, in the year ended March 31, 2019, as a result of the receipt of the payments from Sinovel Wind Group Co., Ltd. (“Sinovel”) required by the Settlement Agreement, described further above.

Amortization of acquisition related intangibles

We recorded $0.3 million in fiscal 2018 and $0.2 million in fiscal 2017 in amortization expense related to our core technology and know-how, and trade names and trademark intangible assets.

Change in fair value of contingent consideration

The change in fair value of our contingent consideration for a make whole payment related to our acquisition of Infinia Technology Corporation in 2017 (the “ITC Acquisition”) resulted in a loss of $0.1 million in fiscal 2017. The change in the fair value was primarily driven by the change in stock price from the acquisition date through the settlement date.

Restructuring

We recorded restructuring charges of $0.5 million in fiscal 2018 for facility exit costs and $1.5 million in fiscal 2017, which was comprised of $1.3 million severance pay as a result of the reduction in force announced on April 4, 2017 and $0.2 million for facility exit costs resulting from the move of the corporate office. Included in the $1.3 million severance pay, charged to operations in the year ended March 31, 2018, is $0.5 million of severance pay for one of our former executive officers pursuant to the terms of a severance agreement dated June 30, 2017. Under the terms of the severance agreement, our former executive officer was entitled to eighteen months of his base salary, and received his final severance payment in December 2018.

Operating income (loss)

Our operating income (loss) is summarized as follows (in thousands):

	Fiscal Years Ended March 31,	
	2019	**2018**
Operating income (loss):		
Grid	$(10,600)	$(18,963)
Wind	48,103	(8,904)
Unallocated corporate expenses	(3,480)	(4,290)
Total	$ 34,023	$(32,157)

The Grid segment generated operating losses of $10.6 million in fiscal 2018 and $19.0 million in fiscal 2017. The decrease in operating loss for fiscal 2018 is primarily due to lower depreciation and lower operating expenses compared to the prior year.

The Wind segment generated operating income of $48.1 million in fiscal 2018 and an operating loss of $8.9 million in fiscal 2017. The increase in operating income for fiscal 2018 was due primarily to the receipt of the payments from Sinovel required by the Settlement Agreement, as well as increased shipments of ECS to Inox.

Unallocated corporate expenses in fiscal 2018 consisted of stock-based compensation expense of $3.0 million, and a restructuring charge of $0.5 million. Unallocated corporate expenses in fiscal 2017 consisted of stock-based compensation expense of $2.7 million, a restructuring charge of $1.5 million, as well as $0.1 million for the change in fair value of the contingent consideration for the ITC Acquisition.

Change in fair value of warrants

The change in fair value of warrants resulted in a loss of $3.7 million in fiscal 2018 compared to a gain of $0.7 million in fiscal 2017. The changes in the fair value were primarily due to changes in our stock price, which is a key valuation metric.

Gain on sale of minority interest

We recorded a gain on sale of minority interest of $0.1 million related to receipt of payment from the prior sale of Blade Dynamics in fiscal 2018 compared to $1.2 million in fiscal 2017 related to receipt of payments from the prior sales of our investments in Tres Amigas and Blade Dynamics, which were fully impaired prior to the time of their sale.

Interest income, net

Interest income, net was $1.1 million in fiscal 2018 compared to interest income, net of $0.1 million for fiscal 2017. The increase in interest income, net, was driven primarily by higher cash balances earning higher interest rates than in the prior year.

Other (expense) income, net

Other income, net was $1.6 million in fiscal 2018, compared to other expense, net of $2.8 million in fiscal 2017. The increase in other income, net was due primarily to higher foreign currency gains in fiscal 2018.

Income Taxes

We recorded an income tax expense of $6.4 million in fiscal 2018 compared to an income tax benefit of $0.2 million in fiscal 2017. The increase in income tax expense was primarily due to the repayment of previously reserved intercompany trade balances due to AMSC Austria from AMSC China, a dividend paid by AMSC Austria to the parent company following the Sinovel settlement and deferred tax expense related to withholding taxes expected on future foreign dividends to the parent.

Please refer to the “Risk Factors” section in Part I, Item 1A, for a discussion of certain factors that may affect our future results of operations and financial condition.

Non-GAAP Measures

Generally, a non-GAAP financial measure is a numerical measure of a company’s performance, financial position or cash flow that either excludes or includes amounts that are not normally excluded or included in the most directly comparable measure calculated and presented in accordance with generally accepted accounting principles in the United States (“GAAP”). The non-GAAP measures included in this Form 10-K, however, should be considered in addition to, and not as a substitute for or superior to the comparable measure prepared in accordance with GAAP.

We define non-GAAP net loss as net loss before gain on sale of minority investments, gain on Sinovel settlement, net, stock-based compensation, amortization of acquisition-related intangibles, consumption of zero cost-basis inventory; changes in fair value of warrants and contingent consideration, non-cash interest expense, other non-cash or unusual charges, and the tax effect of adjustments indicated in the table below. The tax effect of adjustments relates primarily to the gain on Sinovel settlement, net. We believe non-GAAP net loss assists management and investors in comparing our performance across reporting periods on a consistent basis by excluding these non-cash charges and other items that we do not believe are indicative of our core operating performance. In addition, we use non-GAAP net loss as a factor to evaluate the effectiveness of our business strategies. A reconciliation of GAAP to non-GAAP net loss is set forth in the table below (in thousands, except per share data):

	Year ended March 31, 2019	2018
Net income (loss)	$ 26,761	$(32,776)
Gain on sale of interest in minority investments	(127)	(1,167)
Gain on Sinovel settlement, net	(52,698)	—
Stock-based compensation	3,030	2,692
Amortization of acquisition-related intangibles	340	183
Consumption of zero cost-basis inventory	—	(734)
Change in fair value of warrants and contingent consideration	3,725	(635)
Non-cash interest expense	—	19
Tax effect of adjustments	5,925	177
Non-GAAP net loss	(13,044)	(32,241)
Non-GAAP net loss per share	$ (0.64)	$ (1.70)
Weighted average shares outstanding - basic and diluted	20,335	18,967

We incurred non-GAAP net losses of $13.0 million or $0.64 per share for fiscal 2018, compared to $32.2 million, or $1.70 per share, for fiscal 2017. The decrease in non-GAAP net loss in fiscal 2018 compared to fiscal 2017 was driven primarily by an increase in net income driven by higher revenues, as well as lower depreciation and operating costs.

We define non-GAAP operating cash flow as operating cash flow before: the gain on Sinovel settlement (net of legal fees and expenses); tax effect of Sinovel settlement, net; and other unusual cash flows or items. We believe non-GAAP operating cash flow assists management and investors in comparing our operating cash flow across reporting periods on a consistent basis by excluding these non-recurring cash items that we do not believe are indicative of our core operating cash flow. A reconciliation of GAAP to non-GAAP operating cash flow is set forth in the table below (in thousands):

	March 31, 2019
Operating cash flow	$ 42,714
Sinovel settlement (net of legal fees and expenses)	(52,740)
Tax effect of Sinovel settlement, net	2,377
Non-GAAP operating cash flow	$ (7,649)

Liquidity and Capital Resources

We have experienced recurring operating losses and as of March 31, 2019 had an accumulated deficit of $961.5 million. In addition, although we generated positive operating cash flows in the year ended March 31, 2019, we have historically experienced recurring negative operating cash flows. Although our sales to Inox increased in the year ended March 31, 2019 compared to the year ended March 31, 2018, we cannot predict if and how successful Inox will be in executing on SECI orders or in obtaining additional orders under the new central and state auction regime. Any failure by Inox to succeed under this regime, or any delay in Inox's ability to deliver its wind turbines, could result in fewer ECS shipments to Inox

Our cash requirements depend on numerous factors, including whether Inox is successful under the new central and state auction regime as noted above, the successful completion of our product development activities, our ability to commercialize our REG system and ship protection system solutions, rate of customer and market adoption of our products, collecting receivables according to established terms, and the continued availability of U.S. government funding during the product development phase of our Superconductors-based products. We continue to closely monitor our expenses and, if necessary, expect to further reduce our operating and capital spending to enhance liquidity.

At March 31, 2019, we had cash, cash equivalents, and restricted cash of $78.2 million, compared to $34.2 million at March 31, 2018, an increase of $44.0 million. Our cash, cash equivalents and restricted cash balance as of March 31, 2019 reflects the $52.7 million in payments from Sinovel under the Settlement Agreement, as described above. As of March 31, 2019, we had approximately $31.6 million of cash, cash equivalents, and restricted cash in foreign bank accounts. Our cash and cash equivalents, and restricted cash are summarized as follows (in thousands):

	March 31, 2019	March 31, 2018
Cash and cash equivalents	$77,483	$34,084
Restricted cash	715	165
Total cash, cash equivalents, and restricted cash	$78,198	$34,249

Net cash provided by (used in) operating activities was $42.7 million and ($24.8 million) in fiscal 2018 and 2017, respectively. The increase in net cash provided by operations in fiscal 2018 compared to fiscal 2017 was due primarily to the receipt of the full amount of the Sinovel settlement, offset slightly by lower depreciation expense in fiscal 2018.

Net cash provided by investing activities was $2.2 million and $15.6 million in fiscal 2018 and 2017, respectively. The decrease in net cash provided by investing activities in fiscal 2018 compared to fiscal 2017 was due primarily to the proceeds from the sale of the Devens property in fiscal 2017, with no similar transactions in fiscal 2018.

Net cash provided by (used in) financing activities was ($0.3 million) and $15.3 million in fiscal 2018 and 2017, respectively. The decrease in net cash provided by financing activities in fiscal 2018 compared to fiscal 2017 was primarily due to the proceeds from our equity offering in fiscal 2017 and the lack of a similar offering in fiscal 2018.

At March 31, 2019, we had $0.7 million of restricted cash included in long-term assets and at March 31, 2018, we had $0.2 million of restricted cash included in long-term assets. These amounts included in restricted cash primarily represent deposits to secure surety bonds and letters of credit for various customer contracts. These deposits are held in interest bearing accounts.

We believe we have sufficient available liquidity to fund our operations and capital expenditures for the next twelve months. In addition, we may seek to raise additional capital, which could be in the form of loans, convertible debt or equity, to fund our operating requirements and capital expenditures. Our liquidity is highly dependent on our ability to increase revenues, including our ability to collect revenues under our agreements with Inox, control our operating costs, and our ability to raise additional capital, if necessary. There can be no assurance that we will be able to raise additional capital on favorable terms or at all, or execute on any other means of improving our liquidity as described above.

Legal Proceedings

From time to time, we are involved in legal and administrative proceedings and claims of various types. We record a liability in our consolidated financial statements for these matters when a loss is known or considered probable and the amount can be reasonably estimated. We review these estimates each accounting period as additional information is known and adjust the loss provision when appropriate. If a matter is both probable to result in liability and the amounts of loss can be reasonably estimated, we estimate and disclose the possible loss or range of loss to the extent necessary to make the consolidated financial statements not misleading. If the loss is not probable or cannot be reasonably estimated, a liability is not recorded in our consolidated financial statements.

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 except as discussed below.

We occasionally enter into construction contracts that include a performance bond. As these contracts progress, we continually assess the probability of a payout from the performance bond. Should we determine that such a payout is probable, we would record a liability.

In addition, we have various contractual arrangements, under which we have committed to purchase certain minimum quantities of goods or services on an annual basis.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") and the International Accounting Standards Board ("IASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers (Topic 606).* The guidance substantially converges final standards on revenue recognition between the FASB and IASB providing a framework on addressing revenue recognition issues and, upon its effective date, replaces almost all existing revenue recognition guidance, including industry-specific guidance, in current U.S. generally accepted accounting principles. The FASB has subsequently issued multiple amendments to ASU 2014-09 which are all effective for annual reporting periods beginning after December 15, 2017.

As of April 1, 2018, we have adopted ASU 2014-09 and its amendments, reported the impact in our consolidated financial statements, and implemented changes to our business processes, systems and controls to support revenue recognition and the related disclosures under this ASU. Our assessment included a detailed review of representative contracts from each of our revenue streams and a comparison of our historical accounting policies and practices to the new standard. We adopted the new standards retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the modified retrospective transition method) to all existing contracts that have remaining obligations as of April 1, 2018. Accordingly, we have elected to retroactively adjust only those contracts that do not meet the definition of a complete contract at the date of the initial application. This guidance has led us to recognize certain revenue transactions sooner than in the past on certain contracts, as we need to estimate the revenue we will be entitled to upon contract completion, and later on other contracts, such as Consulting and Statement of Work transactions, due to the lack of an enforceable right to payment for performance obligations satisfied over time. There are no changes in the accounting for our largest revenue stream which includes Inox Wind Ltd as our primary customer. Across other revenue streams such as D-VAR® Equipment and D-VAR® Turnkey, the timing of revenue recognition will be affected for multiple types of contracts, primarily multiple performance obligation contracts in our Grid business unit, but those differences did not have a material impact on our consolidated financial statements. The adjustment to opening retained earnings was not significant for the period commencing on April 1, 2018. Additionally, the adoption of this new standard did not have any tax impact on the consolidated financial statements. As part of this analysis, we evaluated our information technology capabilities and systems, and did not incur significant information technology costs to modify systems currently in place.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. The amendments in ASU 2016-01 enhance the reporting model for financial instruments to provide users of financial statements with more decision-useful information. This ASU is effective for annual reporting periods beginning after December 15, 2017, and interim periods within those fiscal years. We adopted ASU 2016-01 effective April 1, 2018 and noted no significant impact to our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The guidance in this ASU supersedes the leasing guidance in Topic 840, Leases. Under the new guidance, lessees are required to recognize lease assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. This ASU and its amendments are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years.

- In July 2018, the FASB issued ASU 2018-10, *Codification improvements to Topic 842, Leases.* The amendments in ASU 2018-10 provide more clarification in regards to the application and requirements of ASU 2016-02.
- In July 2018, the FASB issued ASU 2018-11, *Topic 842, Leases — Targeted improvements.* The amendments in ASU 2018-11 provide for the option to adopt the standard prospectively and recognize a cumulative-effect adjustment to the opening balance of retained earnings as well as offer a new practical expedient that will allow us to elect, by class of underlying asset, to not separate non-lease and lease components in certain circumstances and instead to account for those components as a single item.

We have evaluated the provisions of ASU 2016-02 and its amendments, and assessed the impact the adoption of this guidance will have on our financial position, results of operations and disclosures. This process has included identifying the implementation team, applying the revised definition of a lease per Accounting Standards Codification ("ASC") 842 to existing agreements and, from that information, creating an initial population. We have made the policy election to exclude all leases shorter than 12 months from the recognition of the recording of the right of use ("ROU") asset and related liabilities. We have elected the package of three practical expedients in regards to all leases that commenced before the effective date. We made a policy election to not separate non-lease and lease components for all asset classes. The adoption of this guidance will result in certain changes to our financial statements to add the related asset and liability accounts for all of our operating leases. We will continue to assess our agreements for any other impacts that may result from the adoption of this standard. Based on our analysis of our population of lease agreements we have determined that our initial population will be made up entirely of operating leases. We have prepared control wording, and are finalizing the overall lease policy as well as identifying and implementing changes necessary to comply with the provisions of ASU 2016-02.

ASU 2016-02 became effective on April 1, 2019, and we adopted the new standard using the modified retrospective transition method, which impacts all leases existing at, or entered into after the period of adoption. For all leases existing at the time of adoption we will recognize a cumulative effect adjustment to the opening balance of retained earnings as of April 1, 2019. As a result of the adoption of ASC 842, we expect to recognize an increase in net lease assets between \$3.0 million and \$5.0 million and an increase in net lease liabilities between \$3.0 million and \$5.0 million related to the recognition of a right-of-use asset and the associated liability.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The amendments in ASU 2016-13 provide more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. The ASU is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that year. We are currently evaluating the impact, if any, the adoption of ASU 2016-13 may have on our consolidated financial statements.

In 2016, the FASB issued the following two ASU's on *Statement of Cash Flows (Topic 230)*. Both amendments are effective for annual reporting periods beginning after December 15, 2017, including interim periods within that year.

- In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows* (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The amendments in ASU 2016-15 provide more guidance towards the classification of multiple different types of cash flows in order to reduce the diversity in reporting across entities.
- In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cas*h. The amendments in ASU 2016-18 explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows.

We adopted ASU 2016-15 and ASU 2016-18 effective April 1, 2018 and and the consolidated statement of cash flow has been prepared to conform with ASU 2016-18 for all periods presented.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*. The amendments in ASU 2016-16 improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. The ASU is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that year. We adopted ASU 2016-16 effective April 1, 2018 and noted no significant impact to our consolidated financial statements.

In February 2017, the FASB issued ASU 2017-05, *Other Income — Gains and Losses from the Derecognition of Non-financial Assets (Subtopic 610-20)*. The amendments in ASU 2017-05 clarify the scope of Subtopic 610-20, *Other Income-Gains and Losses from the Derecognition of Non-financial Assets*, and add guidance for partial sales of non-financial assets. Subtopic 610-20, which was issued in May 2014 as a part of ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, provides guidance for recognizing gains and losses from the transfer of non-financial assets in contracts with non-customers. We adopted ASU 2017-05 effective April 1, 2018 and adjusted the opening balance of accumulated deficit by $0.1 million for recognition of the deferred gain on the sale of the 64 Jackson Road building that occurred on March 28, 2018.

In May 2017, the FASB issued ASU 2017-09, *Compensation — Stock Compensation (Subtopic 718) Scope of Modification Accounting*. The amendments in ASU 2017-09 provide clarity and reduce both (1) diversity in practice and (2) cost and complexity when applying the guidance in Topic 718, Compensation — Stock Compensation, to a change to the terms or conditions of a share-based payment award. The ASU is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those periods. We adopted ASU 2017-09 effective April 1, 2018 and noted no significant impact to our consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, *Earnings per Share (Topic* 260), *Distinguishing Liabilities from Equity (Topic 480), and Derivatives and Hedging (Topic 815)*. The amendments in ASU 2017-11 provide guidance for freestanding equity-linked financial instruments, such as warrants and conversion options in convertible debt or preferred stock, and should no longer be accounted for as a derivative liability at fair value as a result of the existence of a down round feature. The ASU is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those periods. We are currently evaluating the impact the adoption of ASU 2017-11 and do not expect a significant impact on our consolidated financial statements, primarily due to the put option feature which requires continued liability classification under ASC 840.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*. The amendments in ASU 2017-12 provide improved financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. In addition, the amendments in this update make certain targeted improvements to simplify the application of the hedge accounting guidance. The ASU is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those periods. We are currently evaluating the impact the adoption of ASU 2017-12 may have on our consolidated financial statements.

In June 2018, the FASB issued ASU 2018-07, *Compensation — Stock Compensation (Topic 718): Improvements to Non-Employee Share Based Payment Accounting*. The amendments in ASU 2018-07 provide for the simplification of the measurement of share-based payment transactions for acquiring goods and services from non-employees. The ASU is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those periods. We adopted ASU 2018-07 effective April 1, 2018 and noted no significant impact on our consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Changes to the Disclosure Requirements for Fair Value Measurement*. The amendments in ASU 2018-13 provide for increased effectiveness of the disclosures made around fair value measurements while including consideration for costs and benefits. The ASU is effective for annual reporting periods beginning after December 15, 2019, including interim periods within those periods. We are currently evaluating the impact the adoption of ASU 2018-13 may have on our consolidated financial statements.

We do not believe that other recently issued accounting pronouncements will have a material impact on our financial statements.

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:

- Revenue recognition;
- Accounts receivable;
- Inventory;
- Valuation of long-lived assets;
- Goodwill;
- Income taxes;
- Stock-based compensation;
- Contingencies;
- Product warranty; and
- Fair value of financial instruments.

Revenue recognition

On April 1, 2018, we adopted ASC 606, *Revenue from Contracts with Customers* using the modified retrospective method, therefore prior period amounts have not been restated and continue to be reported under the accounting standards in effect for those periods. The adoption of this guidance has led to recognizing certain revenue transactions sooner than in the past on certain contracts, as we are required to estimate the revenue we will be entitled to upon contract completion, and later on other contracts, such as Consulting and Statement of Work transactions, due to the lack of an enforceable right to payment for performance obligations satisfied over time, specifically in the technology product line.

Revenue contracts are defined as an arrangement that creates enforceable rights and obligations of both parties where collection of the contract price is deemed probable. We record revenue based on a five-step model which includes identifying the performance obligations, determining the transaction price, allocating the contract transaction price to the performance obligations, and recognizing the revenue when (or as) control of goods or services is transferred to the customer. The transfer of control can occur at the time of delivery, installation or post-installation where applicable.

For certain arrangements, such as contracts to perform research and development, prototype development contracts and certain customized product sales, we record revenues using the over-time method, measured by the relationship of costs incurred to total estimated contract costs. Over-time revenue recognition accounting is predominantly used on certain turnkey power systems installations for electric utilities and long-term prototype development contracts with the U.S. government. We follow this method when any of the three following criteria are met: when the customer receives the benefits as they are performed, control transfers to the customer as the work is performed, or there is no alternative use to us and there is an enforceable right to payment through the life of the contract. 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. For contracts where reasonably dependable estimates of the revenues and costs cannot be made, we follow the point in time method.

We enter into sales arrangements that may provide for multiple performance obligations to a customer. Sales of certain products may include extended warranty and support or service packages, and at times include performance bonds. As these contracts progress, we continually assess the probability of a payout from the performance bond. Should we determine that such a payout is likely; we would record a liability. We would reduce revenue to the extent a liability is recorded. In addition, we enter into licensing arrangements that include training services.

Performance obligations are separated into more than one unit of accounting when (1) the delivered element(s) have value to the customer on a stand-alone basis, and (2) our promise to transfer the goods or services to the customer is separately identifiable from other promises in the contract. In general, revenues are separated between the different product shipments which have stand-alone value, and the various services to be provided. Revenue for product shipments is generally recognized at a point in time where control of the product is transferred to the customer, while revenues for the services are generally recognized over the period of performance. We identify all goods and/or services that are to be delivered separately under a sales arrangement and allocate the transaction price to each distinct performance obligation using the respective standalone selling price ("SSP") which is determined primarily using the cost plus expected margin approach for products and a relief from royalty method for licenses. Revenue allocated to each performance obligation is recognized when, or as, the performance obligation is satisfied. We review SSP and the related margins at least annually.

Our license agreements provide either for the payment of contractually determined paid-up front license fees or milestone based payments in consideration for the grant of rights to manufacture and or sell products using our patented technologies or know-how. Some of these agreements provide for the release of the licensee from past and future intellectual property infringement claims. When we can determine that we have no further obligations other than the grant of the license and that we have fully transferred the technology know-how, we recognize the revenue under a point in time model. In other license arrangements, we may also agree to provide training services to transfer the technology know-how. In these arrangements, we have determined that the licenses have no standalone value to the customer and are not separable from training services as we can only fully transfer the technology know-how through the training component. Accordingly, we account for these arrangements as a single unit of accounting, and recognize revenue over the period of its performance using the over-time method. Costs for these arrangements are expensed as incurred.

Existing customers are subject to ongoing credit evaluations based on payment history and other factors. If it is determined that collectability of any portion of the contract value is not probable, an analysis of variable consideration will be performed using either the most likely amount or expected value method to determine the amount of revenue that must be constrained until the scenario causing the variability has been resolved. For contractual arrangements that involve variable consideration, we recognize revenue for these amounts upon reaching the constraining event successfully. We do not generally provide for extended payment terms or provide our customers with a right of return.

Infrequently, we receive requests from customers to hold product being purchased from us for a valid business purpose. We recognize revenues for such arrangements provided the transaction meets, at a minimum, the following criteria: a valid business purpose for the arrangement exists; risk of ownership of the purchased product has been transferred to the buyer; there is a fixed delivery date that is reasonable and consistent with the buyer's business purpose; the product is ready for shipment; we have no continuing performance obligation in regards to the purchased product and these products have been segregated from our inventories and cannot be used to fill other orders received. There were no such transactions during the fiscal year ended March 31, 2019. For the fiscal year ended March 31, 2018, such transactions recognized as revenue were $3.7 million.

We have elected to record taxes collected from customers on a net basis and do not include tax amounts in revenue or costs of revenue.

Our contract assets and liabilities primarily relate to the timing differences between cash received from a customer in connection with contractual rights to invoicing and the timing of revenue recognition following completion of performance obligations. Our accounts receivable balance is made up entirely of customer contract related balances.

See Note 3, "Revenue Recognition," for further information regarding the Company's adoption of Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers*.

Accounts Receivable

Accounts receivable consist of amounts owed by commercial companies and government agencies. Accounts receivable are stated net of allowances for doubtful accounts. Our accounts receivable relate principally to a limited number of customers. As of March 31, 2019, of our total receivable balance, Vestas accounted for approximately 21%, and RES System 3, LLC accounted for approximately 16%, with no other customers accounting for greater than 10% of the balance. As of March 31, 2018, of our total receivable balance, Inox accounted for approximately 32%, and Fuji Bridex Pte Ltd accounted for approximately 17%, with no other customers accounting for greater than 10% of the balance. Changes in the financial condition or operations of our customers may result in delayed payments or non-payments which would adversely impact our cash flows from operating activities and/or our results of operations. As such, we may require collateral, advanced payment or other security based upon the customer history and/or creditworthiness. In determining the allowance for doubtful accounts, we evaluate the collectability of accounts receivable based primarily on the probability of recoverability based on historical collection and write-off experience, the age of past due receivables, specific customer circumstances, and current economic trends. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payment, additional allowances may be required. Failure to accurately estimate the losses for doubtful accounts and ensure that payments are received on a timely basis could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Inventory

Inventories include material, direct labor and related manufacturing overhead, and are stated at the lower of cost, determined on a first-in, first-out basis, or net realizable value determined on a first-in, first-out basis as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation.. We record inventory when we take delivery and title to the product according to the terms of each supply contract.

Program costs may be deferred and recorded as inventory on contracts on which costs are incurred in excess of approved contractual amounts and/or funding, if future recovery of the costs is deemed probable.

At each balance sheet date, we evaluate our ending inventories for excess quantities and obsolescence. Inventories that management considers excess or obsolete are reserved. Management considers forecasted demand in relation to the inventory on hand, competitiveness of product offerings, market conditions and product life cycles when determining excess and obsolescence and net realizable value adjustments. Once inventory is written down and a new cost basis is established, it is not written back up if demand increases.

We recorded inventory reserves of $0.9 million and $0.4 million during fiscal 2018 and 2017, respectively, based on evaluating our ending inventories for excess quantities and obsolescence.

Valuation of long-lived assets

We periodically evaluate our long-lived assets, consisting principally of fixed and amortizable intangible assets for potential impairment. In accordance with the applicable accounting guidance for the treatment of long-lived assets, we review the carrying value of our long-lived assets or asset group that is held and used, including intangible assets subject to amortization, for impairment whenever events and circumstances indicate that the carrying value of the assets may not be recoverable. Under the held and used approach, the asset or asset group to be tested for impairment should represent the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. The determination of our asset groups involves a significant amount of judgment, assumptions and estimates. We evaluate our long-lived assets whenever events or circumstances suggest that the carrying amount of an asset or group of assets may not be recoverable from the estimated undiscounted future cash flows.

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 group is used;
- a significant decrease in the market value of an asset group;
- identification of other impaired assets within a reporting unit;
- 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 group; and
- significant advances in our technologies that require changes in our manufacturing process.

There were no indicators requiring further impairment testing on our long-lived assets during the fiscal years ended March 31, 2019 or 2018.

Goodwill

Goodwill represents the excess of cost over net assets of acquired businesses that are consolidated. We perform our annual assessment of goodwill on February 28 of each fiscal year and whenever events or changes in circumstances or a triggering event indicate that the carrying amount may not be recoverable. Determining whether a triggering event has occurred often involves significant judgment from management. An entity is permitted to first assess qualitatively whether it is necessary to perform a goodwill impairment test. The quantitative impairment test is required only if the entity concludes that it is more likely than not that a reporting unit's fair value is less than its carrying amount. We determine the fair value of a reporting unit based on an income approach utilizing a discounted cash flow adjusted for entity specific factors. In evaluating whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, an entity should consider the totality of all relevant events or circumstances that affect the fair value or carrying amount of a reporting unit. If the carrying value of a reporting unit's goodwill exceeds its implied fair value, then an impairment loss equal to the difference is recorded. See Note 4, "Acquisition and Related Goodwill" for further information and discussion.

We performed our annual assessment of goodwill on February 28, 2019 and noted no triggering events from the analysis date to March 31, 2019 and determined that there was no impairment to goodwill.

Income taxes

Our provision for income taxes is comprised of a current and a deferred portion. The current income tax provision is calculated as the estimated taxes payable or refundable on tax returns for the current year. The deferred income tax provision is calculated for the estimated future tax effects attributable to temporary differences and carryforwards using expected tax rates in effect in the years during which the differences are expected to reverse. All deferred tax assets and liabilities are presented as non-current in the Consolidated Balance Sheet.

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 valuation allowances to reduce our deferred tax assets to the amount that is more likely than not to be realizable due to the taxable losses that have been incurred since our inception and uncertainty around our future profitability.

Accounting for income taxes requires a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if, based on the technical merits, it is more likely than not that the position will be sustained upon audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any changes in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision. We include interest and penalties related to gross unrecognized tax benefits within the provision for income taxes. See Note 13, "Income Taxes," of our consolidated financial statements for further information regarding our income tax assumptions and expenses.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the "Act") was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 34% to 21% effective for tax years beginning after December 31, 2017 and a one-time mandatory deemed repatriation of cumulative foreign earnings. We have calculated a provisional estimate of the impact of the Act in our year end income tax provision in accordance with our understanding of the Act and guidance available as of the date of this filing. See Note 13, "Income Taxes," of our consolidated financial statements for the results of this assessment.

Stock-based compensation

We measure compensation cost arising from the grant of share-based payments to employees and non-employees at fair value and recognize such cost over the period during which the employee and non-employee is required to provide service in exchange for the award, usually the vesting period. Total stock-based compensation expense recognized during the fiscal years ended March 31, 2019 and 2018, was $3.0 million and $2.7 million, respectively. For awards with service conditions only, we recognize compensation cost on a straight-line basis over the requisite service/vesting period. For awards with performance conditions, accruals of compensation cost are made based on the probable outcome of the performance conditions. The cumulative effect of changes in the probability outcomes are recorded in the period in which the changes occur.

Determining the appropriate fair value model and calculating the fair value of share-based payment awards requires the input of highly subjective assumptions, including the expected life of the share-based payment awards and stock price volatility. Management determined that expected volatility rates should be 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. The assumptions used in calculating the fair value of share-based payment awards represent management's best estimates, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if circumstances change and we use different assumptions, our stock-based compensation expense could be materially different in the future. In addition, we are required to estimate an expected forfeiture rate and only recognize expense for those shares expected to vest. If our actual forfeiture rate is materially different from our estimate, the stock-based compensation expense could be significantly different from what we have recorded in the current period. See Note 14, "Stockholders' Equity," of our consolidated financial statements for further information regarding our stock-based compensation assumptions and expenses.

Our adoption of ASU 2018-07 *Compensation — Stock Compensation (Topic 718): Improvements to Non-Employee Share Based Payment Accounting* on April 1, 2018 resulted in the accounting for share-based payments made to non-employees to be accounted for in the same manner as other share-based payments for employees, with the measurement being based on the fair value at the grant date. The non-employee share based payments will be included within our stock compensation currently reported.

Contingencies

From time to time, we are involved in legal and administrative proceedings and claims of various types. We record a liability in our consolidated financial statements for these matters when a loss is known or considered probable and the amount can be reasonably estimated. We review these estimates each accounting period as additional information is known and adjust the loss provision when appropriate. If the loss is not probable or cannot be reasonably estimated, a liability is not recorded in our consolidated financial statements. If, with respect to a matter, it is not both probable to result in liability and the amount of loss cannot be reasonably estimated, an estimate of possible loss or range of loss shall be disclosed unless such an estimate cannot be made. We do not recognize gain contingencies until they are realized. Legal costs incurred in connection with loss contingencies are expensed as incurred. See Note 15, "Commitments and Contingencies", of our consolidated financial statements for further information.

Product Warranty

Warranty obligations are incurred in connection with the sale of our products. We generally provide a one to three year warranty on our products, commencing upon installation. The costs incurred to provide for these warranty obligations are estimated and recorded as an accrued liability at the time of sale. Future warranty costs are estimated based on historical performance rates and related costs to repair given products. The accounting estimate related to product warranty involves judgment in determining future estimated warranty costs. Should actual performance rates or repair costs differ from estimates, revision to the estimated warranty liability would be required.

Fair Value of Financial Instruments

Our financial instruments consist principally of cash and cash equivalents, accounts receivable, notes receivable, accounts payable, accrued expenses, and warrants. The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses due to their short term nature approximate fair value at March 31, 2019 and 2018. The estimated fair values have been determined through information obtained from market sources and management estimates. Notes receivable fair value has been estimated based on a present value calculation using current market information for a similar term loan with similar terms. We have appropriately valued notes receivable within Level 2 of the valuation hierarchy. The fair value for the debt and warrant arrangements has been estimated by management based on the terms that we believe we could obtain in the current market for debt with the same terms and similar maturities. The warrants are subject to revaluation at each balance sheet date, and any change in fair value will be recorded as a change in fair value in other (expense) income until the earlier of the warrants' exercise or expiration. We rely on assumptions used in a lattice model to determine the fair value of the warrants. We have appropriately valued the warrants within Level 3 of the valuation hierarchy.

Item 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

This item is not required for smaller reporting companies.

Item 8. *FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA*

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
of American Superconductor Corporation

Opinions on the Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of American Superconductor Corporation and its subsidiaries (the Company) as of March 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for the years then ended, and the related notes (collectively, the financial statements). We also have audited the Company's internal control over financial reporting as of March 31, 2019, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of March 31, 2019 and 2018, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of March 31, 2019, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ RSM US LLP

We have served as the Company's auditor since 2013.

Boston, Massachusetts
June 5, 2019

AMERICAN SUPERCONDUCTOR CORPORATION
PART I — FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS
CONSOLIDATED BALANCE SHEETS
(In thousands)

	March 31, 2019	March 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 77,483	$ 34,084
Accounts receivable, net	7,855	7,365
Inventory	12,119	19,780
Notes receivable, current portion	2,888	3,000
Prepaid expenses and other current assets	3,053	2,947
Total current assets	103,398	67,176
Property, plant and equipment, net	8,972	12,513
Intangibles, net	2,890	3,230
Note receivable, long term portion	—	2,559
Goodwill	1,719	1,719
Restricted cash	715	165
Deferred tax assets	1,357	542
Other assets	279	271
Total assets	$ 119,330	$ 88,175
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 15,885	$ 12,625
Derivative liabilities	4,942	1,217
Deferred revenue, current portion	7,557	13,483
Total current liabilities	28,384	27,325
Deferred revenue, long term portion	7,962	8,454
Deferred tax liabilities	1,698	110
Other liabilities	93	57
Total liabilities	38,137	35,946
Commitments and contingencies (Note 15)		
Stockholders' equity:		
Common stock, $0.01 par value, 75,000,000 shares authorized; 21,651,631 and 21,138,689 shares issued at March 31, 2019 and 2018, respectively	216	211
Additional paid-in capital	1,044,622	1,041,113
Treasury stock, at cost, 235,518 and 165,094 shares at March 31, 2019 and 2018, respectively	(2,101)	(1,645)
Accumulated other comprehensive (loss) income	(5)	883
Accumulated deficit	(961,539)	(988,333)
Total stockholders' equity	81,193	52,229
Total liabilities and stockholders' equity	$ 119,330	$ 88,175

The accompanying notes are an integral part of the consolidated financial statements.

AMERICAN SUPERCONDUCTOR CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	Fiscal Year Ended March 31,	
	2019	2018
Revenues	$ 56,207	$ 48,403
Cost of revenues	42,190	44,608
Gross profit	14,017	3,795
Operating expenses:		
Research and development	9,874	11,594
Selling, general and administrative	22,028	22,577
Gain on Sinovel settlement	(52,698)	—
Amortization of acquisition related intangibles	340	183
Loss on contingent consideration	—	71
Restructuring	450	1,527
Total operating expenses	(20,006)	35,952
Operating income (loss)	34,023	(32,157)
Change in fair value of derivatives and warrants	(3,725)	706
Gain on sale of minority interests	127	1,167
Interest income (expense), net	1,117	147
Other income (expense), net	1,599	(2,800)
Income (loss) before income tax expense (benefit)	33,141	(32,937)
Income tax expense (benefit)	6,380	(161)
Net income (loss)	$ 26,761	$(32,776)
Net income (loss) per common share		
Basic	$ 1.32	$ (1.73)
Diluted	$ 1.29	$ (1.73)
Weighted average number of common shares outstanding		
Basic	20,335	18,967
Diluted	20,726	18,967

The accompanying notes are an integral part of the consolidated financial statements.

AMERICAN SUPERCONDUCTOR CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In thousands)

	Fiscal Year Ended March 31, 2019	Fiscal Year Ended March 31, 2018
Net income (loss)	$26,761	$(32,776)
Other comprehensive (loss) gain, net of tax:		
Foreign currency translation (losses) gains	(888)	1,386
Total other comprehensive (loss) gain, net of tax	(888)	1,386
Comprehensive income (loss)	$25,873	$(31,390)

The accompanying notes are an integral part of the consolidated financial statements.

AMERICAN SUPERCONDUCTOR CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock						
	Number of Shares	Par Value	Additional Paid-in Capital	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at March 31, 2017	14,714	$147	$1,017,510	$(1,371)	$ (503)	$(955,557)	$ 60,226
Issuance of common stock - ESPP	40	—	174	—	—	—	174
Issuance of common stock - restricted shares	819	8	(8)	—	—	—	—
Stock-based compensation expense	—	—	2,692	—	—	—	2,692
Issuance of stock for 401(k) match	81	1	350	—	—	—	351
Issuance of common stock - equity offering	4,600	46	16,906	—	—	—	16,952
Issuance of stock in business acquisition	885	9	3,489	—	—	—	3,498
Repurchase of treasury stock	—	—	—	(274)	—	—	(274)
Cumulative translation adjustment	—	—	—	—	1,386	—	1,386
Net loss	—	—	—	—	—	(32,776)	(32,776)
Balance at March 31, 2018	21,139	$211	$1,041,113	$(1,645)	$ 883	$(988,333)	$ 52,229
Issuance of common stock - ESPP	20	—	157	—	—	—	157
Issuance of common stock - restricted shares	451	4	(4)	—	—	—	—
Stock-based compensation expense	—	—	3,030	—	—	—	3,030
Issuance of stock for 401(k) match	42	1	326	—	—	—	327
Repurchase of treasury stock	—	—	—	(456)	—	—	(456)
Cumulative translation adjustment	—	—	—	—	(888)	—	(888)
Cumulative impact of adoption of ASU No. 2014-09	—	—	—	—	—	33	33
Net income	—	—	—	—	—	26,761	26,761
Balance at March 31, 2019	21,652	$216	$1,044,622	$(2,101)	$ (5)	$(961,539)	$ 81,193

The accompanying notes are an integral part of the consolidated financial statements.

AMERICAN SUPERCONDUCTOR CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Fiscal Year Ended March 31, 2019	Fiscal Year Ended March 31, 2018
Cash flows from operating activities:		
Net income (loss)	$26,761	$(32,776)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operations:		
Depreciation and amortization	4,609	11,459
Stock-based compensation expense	3,030	2,692
Provision for excess and obsolete inventory	878	434
Recovery of prepaid taxes	—	(82)
Gain on sale from minority interest investments	(127)	(1,167)
Change in fair value of warrants and contingent consideration	3,725	(635)
Non-cash interest (income) expense	(224)	19
Other non-cash items	(117)	793
Changes in operating asset and liability accounts:		
Accounts receivable	(529)	1,145
Inventory	5,007	(2,423)
Prepaid expenses and other current assets	(365)	558
Accounts payable and accrued expenses	2,839	(2,956)
Deferred revenue	(2,773)	(1,888)
Net cash provided by (used in) operating activities	42,714	(24,827)
Cash flows from investing activities:		
Purchase of property, plant and equipment	(952)	(2,534)
Proceeds from the sale of property, plant and equipment	3,138	16,910
Cash paid for acquisition, net of cash received	—	74
Proceeds from sale of minority interests	127	1,167
Change in other assets	(144)	(15)
Net cash provided by investing activities	2,169	15,602
Cash flows from financing activities:		
Employee taxes paid related to net settlement of equity awards	(456)	(274)
Repayment of debt	—	(1,575)
Proceeds from public equity offering, net	—	16,952
Proceeds from exercise of employee stock options and ESPP	157	175
Net cash provided by (used in) financing activities	(299)	15,278
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(635)	452
Net increase in cash, cash equivalents and restricted cash	43,949	6,505
Cash, cash equivalents and restricted cash at beginning of year	34,249	27,744
Cash, cash equivalents and restricted cash at end of year	$78,198	$ 34,249
Supplemental schedule of cash flow information:		
Issuance of common stock in connection with the purchase of Infinia Technology Corporation	$ —	$ 3,498
Cash paid for income taxes, net of refunds	2,859	1576
Issuance of common stock to settle liabilities	457	350
Deferred gain on sale of 64 Jackson Road building	—	105
Cash paid for interest	—	42

The accompanying notes are an integral part of the consolidated financial statements.

1. Nature of the Business and Operations and Liquidity

Nature of the Business and Operations

American Superconductor Corporation (together with its subsidiaries, "AMSC®" or the "Company") was founded on April 9, 1987. The Company is a leading system provider of megawatt-scale power solutions that enhance the performance of the power grid, protect the Navy's fleet, and lower the cost of wind power. The Company's products leverage its proprietary "smart materials" and "smart software and controls" to provide enhanced resiliency and improved performance of megawatt-scale power flow.

The Company's consolidated financial statements have been prepared on a going concern basis in accordance with United States generally accepted accounting principles ("GAAP") and the Securities and Exchange Commission's ("SEC") instructions to Form 10-K. The going concern basis of presentation assumes that the Company will continue operations and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business.

Liquidity

The Company has historically experienced recurring operating losses, although the Company generated net income of $26.8 million in the fiscal year ended March 31, 2019, and as of March 31, 2019, the Company had an accumulated deficit of $961.5 million. In addition, although the Company generated positive operating cash flow in fiscal 2018, the Company has historically experienced recurring negative operating cash flows. At March 31, 2019, the Company had cash, cash equivalents and restricted cash of $78.2 million. Cash provided by operations for the year ended March 31, 2019 was $42.7 million.

On July 3, 2018, the Company and its wholly-owned subsidiaries Suzhou AMSC Superconductor Co. Ltd. ("AMSC China") and AMSC Austria GMBH ("AMSC Austria") entered into a settlement agreement (the "Settlement Agreement") with Sinovel Wind Group Co., Ltd. ("Sinovel"). The Settlement Agreement settled the litigation and arbitration proceedings between the Company and Sinovel. Under the terms of the Settlement Agreement, Sinovel agreed to pay AMSC China an aggregate cash amount in Renminbi ("RMB") equivalent to $57.5 million, consisting of two installments. Sinovel paid the first installment of the RMB equivalent of $32.5 million on July 4, 2018, which was repatriated to the U.S. entity during the nine months ended December 31, 2018, and paid the second installment of the RMB equivalent of $25.0 million on December 27, 2018. The Company's fiscal 2018 results include the net gain received from the settlement with Sinovel of $52.7 million.

On February 1, 2018, ASC Devens LLC (the "Seller"), a wholly-owned subsidiary of the Company, entered into a Purchase and Sale Agreement (the "PSA") with 64 Jackson, LLC (the "Purchaser") and Stewart Title Guaranty Company ("Escrow Agent"), to effectuate the sale of certain real property located at 64 Jackson Road, Devens, Massachusetts, including the building that had served as the Company's headquarters (collectively, the "Property"), in exchange for total consideration of $23.0 million, composed of (i) cash consideration of $17.0 million, and (ii) a $6.0 million subordinated secured commercial promissory note payable to the Company (the "Seller Note"). Subsequently, the Seller, the Purchaser and Jackson 64 MGI, LLC ("Assignee") entered into an Assignment of Purchase and Sale Agreement (the "Assignment Agreement"), pursuant to which the Purchaser assigned all of its rights and interests in the PSA to the Assignee and the Assignee agreed to assume all of the Purchaser's obligations and liabilities under the PSA. The transaction closed on March 28, 2018, at which time the Company received, from the Assignee, cash consideration, net of certain agreed upon closing costs, of $16.9 million, and the Seller Note at an interest rate of 1.96%. The Seller Note is secured by a subordinated second mortgage on the Property and a subordinated second assignment of leases and rents. The Company received the first $3.0 million payment due pursuant to the Seller Note on March 28, 2019.

In December 2015, the Company entered into a set of strategic agreements valued at approximately $210.0 million with Inox Wind Ltd. ("Inox" or "Inox Wind"), which includes a multi-year supply contract pursuant to which the Company will supply electrical control systems to Inox and a license agreement allowing Inox to manufacture a limited number of electrical control systems. After Inox purchases the specified number of electrical control systems required under the terms of the supply contract, Inox agreed that the Company will continue as Inox's preferred supplier and Inox will be required to purchase from the Company a majority of its electrical control systems requirements for an additional three-year period.

The Company believes that based on the information presented above and its annual management assessment, it has sufficient liquidity to fund its operations and capital expenditures for the next twelve months following the issuance of the financial statements for the year ended March 31, 2019. The Company's liquidity is highly dependent on its ability to increase revenues, including its ability to collect revenues under its agreements with Inox, its ability to control its operating costs, and its ability to raise additional capital, if necessary. There can be no assurance that the Company will be able to continue to raise additional capital, on favorable terms or at all, from other sources or execute on any other means of improving liquidity described above.

2. Summary of Significant Accounting Policies

Basis of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany balances and transactions are eliminated. Certain reclassifications of prior years' amounts have been made to conform to the current year presentation. These reclassifications had no effect on net income, cash flows from operating activities or stockholders' equity.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. The Company bases its estimates on historical experience and various other factors believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. On an ongoing basis, the Company evaluates its estimates, including those related to revenue recognition, collectability of receivables, realizability of inventory, goodwill and intangible assets, warranty provisions, stock-based compensation, valuation of warrant and derivative liabilities, tax reserves, and deferred tax assets. Provisions for depreciation are based on their estimated useful lives using the straight-line method. Some of these estimates can be subjective and complex and, consequently, actual results may differ from these estimates under different assumptions or conditions. While for any given estimate or assumption made by the Company's management there may be other estimates or assumptions that are reasonable, the Company believes that, given the current facts and circumstances, it is unlikely that applying any such other reasonable estimate or assumption would materially impact the financial statements.

Cash Equivalents

Cash equivalents consist of highly liquid instruments with maturities of three months or less that are regarded as high quality, low risk investments and are measured using such inputs as quoted prices, and are classified within Level 1 of the valuation hierarchy. Cash equivalents consist principally of certificates of deposits and money market accounts.

Accounts Receivable

Accounts receivable consist of amounts owed by commercial companies and government agencies. Accounts receivable are stated net of allowances for doubtful accounts. The Company's accounts receivable relate principally to a limited number of customers. As of March 31, 2019, Vestas accounted for approximately 21% and RES System 3, LLC accounted for approximately 16% of the Company's total receivable balance, with no other customer accounting for greater than 10% of the balance. As of March 31, 2018, Inox accounted for approximately 32% and Fuji Bridex Pte Ltd for approximately 17% of the Company's total receivable balance, with no other customer accounting for greater than 10% of the balance. Changes in the financial condition or operations of the Company's customers may result in delayed payments or non-payments which would adversely impact its cash flows from operating activities and/or its results of operations. As such, the Company may require collateral, advanced payment or other security based upon the customer history and/or creditworthiness. In determining the allowance for doubtful accounts, the Company evaluates the collectability of accounts receivable based primarily on the probability of recoverability based on historical collection and write-off experience, the age of past due receivables, specific customer circumstances, and current economic trends. If the financial condition of the Company's customers were to deteriorate, resulting in an impairment of their ability to make payment, additional allowances may be required. Failure to accurately estimate the losses for doubtful accounts and ensure that payments are received on a timely basis could have a material adverse effect on the Company's business, financial condition, results of operations, and cash flows.

Inventory

Inventories include material, direct labor and related manufacturing overhead, and are stated at the lower of cost, determined on a first-in, first-out basis, or net realizable value determined on a first-in, first-out basis as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The Company records inventory when it takes delivery and title to the product according to the terms of each supply contract.

Program costs may be deferred and recorded as inventory on contracts on which costs are incurred in excess of approved contractual amounts and/or funding, if future recovery of the costs is deemed probable.

At each balance sheet date, the Company evaluates its ending inventories for excess quantities and obsolescence. Inventories that management considers excess or obsolete are reserved. Management considers forecasted demand in relation to the inventory on hand, competitiveness of product offerings, market conditions and product life cycles when determining excess and obsolescence and net realizable value adjustments. Once inventory is written down and a new cost basis is established, it is not written back up if demand increases.

For the fiscal years ended March 31, 2019 and 2018, the Company recorded inventory reserves of approximately $0.9 million and $0.4 million, respectively, based on evaluating its ending inventory on hand for excess quantities and obsolescence.

Property, Plant and Equipment

Property, plant and equipment are carried at cost less accumulated depreciation and amortization. The Company accounts for depreciation and amortization using the straight-line method to allocate the cost of property, plant and equipment over their estimated useful lives as follows:

Asset Classification	Estimated Useful Life in Years
Building	40
Process upgrades to the building	10-40
Machinery and equipment	3-10
Furniture and fixtures	3-5
Leasehold improvements	Shorter of the estimated useful life or the remaining lease term

Expenditures for maintenance and repairs are expensed as incurred. Upon retirement or other disposition of assets, the costs and related accumulated depreciation are eliminated from the accounts and the resulting gain or loss is reflected in operating expenses.

Valuation of Long-Lived Assets

The Company periodically evaluates its long-lived assets, consisting principally of fixed assets and amortizable intangible assets, for potential impairment. In accordance with the applicable accounting guidance for the treatment of long-lived assets, the Company reviews the carrying value of its long-lived assets or asset group that is held and used, including intangible assets subject to amortization, for impairment whenever events and circumstances indicate that the carrying value of the assets may not be recoverable. Under the held and used approach, the asset or asset group to be tested for impairment should represent the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. The Company evaluates its long-lived assets whenever events or circumstances suggest that the carrying amount of an asset or group of assets may not be recoverable from the estimated undiscounted future cash flows.

There were no indicators requiring impairment testing on the Company's long-lived assets during the fiscal years ended March 31, 2019 and 2018.

Goodwill

Goodwill represents the excess of cost over net assets of acquired businesses that are consolidated. The Company performs its annual assessment of goodwill on February 28th of each fiscal year and whenever events or changes in circumstances or a triggering event indicate that the carrying amount may not be recoverable. Determining whether a triggering event has occurred often involves significant judgment from management. An entity is permitted to first assess qualitatively whether it is necessary to perform a goodwill impairment test. The quantitative impairment test is required only if the entity concludes that it is more likely than not that a reporting unit's fair value is less than its carrying amount. The Company determines the fair value of a reporting unit based on an income approach utilizing a discounted cash flow adjusted for entity specific factors. In evaluating whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, an entity should consider the totality of all relevant events or circumstances that affect the fair value or carrying amount of a reporting unit. If the carrying value of a reporting unit's goodwill exceeds its implied fair value, then an impairment loss equal to the difference is recorded. See Note 4, "Acquisition and Related Goodwill" for further information and discussion.

The Company performed its annual assessment of goodwill on February 28, 2019 and noted no triggering events from the analysis date to March 31, 2019 and determined that there was no impairment to goodwill. Additionally, there was no impairment identified for the fiscal year ended March 31, 2018 based on the assessment performed in prior year.

Equity Method Investments

The Company uses the equity method of accounting for investments in entities in which it has an ownership interest, but does not exercise a controlling interest in the operating and financial policies of an investee. Under this method, an investment is carried at the acquisition cost, plus the Company's equity in undistributed earnings or losses since acquisition.

The Company periodically tests its investments for potential impairment whenever events and circumstances indicate a loss in the fair value of the investments may be other than temporary. There were no minority investments as of March 31, 2019 and 2018.

Revenue Recognition

On April 1, 2018, the Company adopted ASC 606, *Revenue from Contracts with Customers* using the modified retrospective method, therefore prior period amounts have not been restated and continue to be reported under the accounting standards in effect for those periods. The adoption of this guidance has led to recognizing certain revenue transactions sooner than in the past on certain contracts, as the Company will need to estimate the revenue it will be entitled to upon contract completion, and later on other contracts, such as Consulting and Statement of Work transactions, due to the lack of an enforceable right to payment for performance obligations satisfied over time, specifically in the technology product line.

Revenue contracts are defined as an arrangement that creates enforceable rights and obligations of both parties where collection of the contract price is deemed probable. The Company records revenue based on a five-step model which includes identifying the performance obligations, determining the transaction price, allocating the contract transaction price to the performance obligations, and recognizing the revenue when (or as) control of goods or services is transferred to the customer. The transfer of control can occur at the time of delivery, installation or post-installation where applicable.

For certain arrangements, such as contracts to perform research and development, prototype development contracts and certain customized product sales, the Company records revenues using the over-time method, measured by the relationship of costs incurred to total estimated contract costs. Over-time revenue recognition accounting is predominantly used on certain turnkey power systems installations for electric utilities and long-term prototype development contracts with the U.S. government. The Company follows this method when any of the three following criteria are met: when the customer receives the benefits as they are performed, control transfers to the customer as the work is performed, or there is no alternative use to the Company and there is an enforceable right to payment through the life of the contract. 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. For contracts where reasonably dependable estimates of the revenues and costs cannot be made, the Company follows the point in time method.

The Company enters into sales arrangements that may provide for multiple performance obligations to a customer. Sales of certain products may include extended warranty and support or service packages, and at times include performance bonds. As these contracts progress, the Company continually assesses the probability of a payout from the performance bond. Should the Company determine that such a payout is likely; the Company would record a liability. The Company would reduce revenue to the extent a liability is recorded. In addition, the Company enters into licensing arrangements that include training services.

Performance obligations are separated into more than one unit of accounting when (1) the delivered element(s) have value to the customer on a stand-alone basis, and (2) the Company’s promise to transfer the goods or services to the customer is separately identifiable from other promises in the contract. In general, revenues are separated between the different product shipments which have stand-alone value, and the various services to be provided. Revenue for product shipments is generally recognized at a point in time where control of the product is transferred to the customer, while revenues for the services are generally recognized over the period of performance. The Company identifies all goods and/or services that are to be delivered separately under a sales arrangement and allocates the transaction price to each distinct performance obligation using the respective standalone selling price (“SSP”) which is determined primarily using the cost plus expected margin approach for products and a relief from royalty method for licenses. Revenue allocated to each performance obligation is recognized when, or as, the performance obligation is satisfied. The Company reviews SSP and the related margins at least annually.

The Company’s license agreements provide either for the payment of contractually determined paid-up front license fees or milestone based payments in consideration for the grant of rights to manufacture and or sell products using its patented technologies or know-how. Some of these agreements provide for the release of the licensee from past and future intellectual property infringement claims. When the Company can determine that it has no further obligations other than the grant of the license and that the Company has fully transferred the technology know-how, the Company recognizes the revenue under a point in time model. In other license arrangements, the Company may also agree to provide training services to transfer the technology know-how. In these arrangements, the Company has determined that the licenses have no standalone value to the customer and are not separable from training services as the Company can only fully transfer the technology know-how through the training component. Accordingly, the Company accounts for these arrangements as a single unit of accounting, and recognizes revenue over the period of its performance using the over-time method. Costs for these arrangements are expensed as incurred.

Existing customers are subject to ongoing credit evaluations based on payment history and other factors. If it is determined that collectability of any portion of the contract value is not probable, an analysis of variable consideration will be performed using either the most likely amount or expected value method to determine the amount of revenue that must be constrained until the scenario causing the variability has been resolved. For contractual arrangements that involve variable consideration, the Company recognizes revenue for these amounts upon reaching the constraining event successfully. The Company does not generally provide for extended payment terms or provide its customers with a right of return.

Infrequently, the Company receives requests from customers to hold product being purchased from us for a valid business purpose. The Company recognizes revenues for such arrangements provided the transaction meets, at a minimum, the following criteria: a valid business purpose for the arrangement exists; risk of ownership of the purchased product has been transferred to the buyer; there is a fixed delivery date that is reasonable and consistent with the buyer's business purpose; the product is ready for shipment; the Company has no continuing performance obligation in regards to the purchased product and these products have been segregated from our inventories and cannot be used to fill other orders received. There were no such transactions in revenue for the fiscal year ended March 31, 2019. For the fiscal year ended March 31, 2018, such transactions recognized as revenue were $3.7 million.

The Company has elected to record taxes collected from customers on a net basis and does not include tax amounts in revenue or costs of revenue.

The Company's contract assets and liabilities primarily relate to the timing differences between cash received from a customer in connection with contractual rights to invoicing and the timing of revenue recognition following completion of performance obligations. The Company's accounts receivable balance is made up entirely of customer contract related balances.

See Note 3, "Revenue Recognition," for further information regarding the Company's adoption of Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers*.

Product Warranty

Warranty obligations are incurred in connection with the sale of the Company's products. The Company generally provides a one to three year warranty on its products, commencing upon installation. The costs incurred to provide for these warranty obligations are estimated and recorded as an accrued liability at the time of sale. Future warranty costs are estimated based on historical performance rates and related costs to repair given products. The accounting estimate related to product warranty involves judgment in determining future estimated warranty costs. Should actual performance rates or repair costs differ from estimates, revision to the estimated warranty liability would be required.

Research and Development Costs

Research and development costs are expensed as incurred.

Income Taxes

The Company's provision for income taxes is comprised of a current and a deferred portion. The current income tax provision is calculated as the estimated taxes payable or refundable on tax returns for the current year. The deferred income tax provision is calculated for the estimated future tax effects attributable to temporary differences and carry-forwards using expected tax rates in effect in the years during which the differences are expected to reverse.

Deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each fiscal year end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized. The Company has provided a valuation allowance against its U.S. and China deferred income tax assets since the Company believes that it is more likely than not that these deferred tax assets are not currently realizable due to uncertainty around profitability in the future.

Accounting for income taxes requires a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if, based on the technical merits, it is more likely than not that the position will be sustained upon audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. The Company reevaluates these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any changes in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision. The Company includes interest and penalties related to gross unrecognized tax benefits within the provision for income taxes. See Note 13, “Income Taxes,” for further information regarding its income tax assumptions and expenses.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Act”) was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 34% to 21% effective for tax years beginning after December 31, 2017 and a one-time mandatory deemed repatriation of cumulative foreign earnings. See Note 13, “Income Taxes,” for further information regarding its income tax assumptions and expenses.

Stock-Based Compensation

The Company accounts for stock-based payment transactions using a fair value-based method and recognizes the related expense in the results of operations.

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 the Company’s common stock on the date of grant. The Company uses the Black-Scholes option pricing model to estimate the fair value of awards with service and performance conditions. For awards with service conditions only, the Company recognizes compensation cost on a straight-line basis over the requisite service/vesting period. For awards with performance conditions, accruals of compensation cost are made based on the probable outcome of the performance conditions. The cumulative effect of changes in the probability outcomes are recorded in the period in which the changes occur.

Determining the appropriate fair value model and related assumptions requires judgment, including estimating stock price volatilities of the Company’s common stock and expected terms. The expected volatility rates are estimated based on historical and implied volatilities of the Company’s 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 the Company’s historical exercise, cancellation and expiration patterns.

The Company estimates 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. The Company will update these assumptions on at least an annual basis and on an interim basis if significant changes to the assumptions are warranted.

The Company's adoption of ASU 2018-07 *Compensation — Stock Compensation (Topic 718): Improvements to Non-Employee Share Based Payment Accounting* on April 1, 2018 also resulted in the accounting for share-based payments made to non-employees to be accounted for in the same manner as other share-based payments for employees, with the measurement being based on the fair value at the grant date. The non-employee share based payments will be included within the Company's stock compensation currently reported.

Computation of Net Income (Loss) per Common Share

Basic net income (loss) per share ("EPS") is computed by dividing net loss by the weighted-average number of common shares outstanding for the period. Diluted EPS is computed by dividing the net loss by the weighted-average number of common shares and dilutive common equivalent shares outstanding during the period, calculated using the treasury stock method. Common equivalent shares include the effect of restricted stock, exercise of stock options and warrants and contingently issuable shares. For the fiscal years ended March 31, 2019 and 2018, common equivalent shares of 907,988, and 1,157,895, respectively, were not included in the calculation of diluted EPS as they were considered antidilutive. The following table reconciles the numerators and denominators of the EPS calculation for the fiscal years ended March 31, 2019 and 2018 (in thousands except per share amounts):

	Fiscal year ended March 31,	
	2019	**2018**
Numerator:		
Net income (loss)	$26,761	$(32,776)
Denominator:		
Weighted-average shares of common stock outstanding	21,265	19,621
Weighted-average shares subject to repurchase	(930)	(654)
Shares used in per-share calculation — basic	20,335	18,967
Shares used in per-share calculation — diluted	20,726	18,967
Net income (loss) per share — basic	$ 1.32	$ (1.73)
Net income (loss) per share — diluted	$ 1.29	$ (1.73)

Foreign Currency Translation

The functional currency of all the Company's foreign subsidiaries is the U.S. dollar, except for AMSC Austria, for which the local currency (Euro) is the functional currency, and AMSC China, for which the local currency (Renminbi) is the functional currency. The assets and liabilities of AMSC Austria and AMSC China are translated into U.S. dollars at the exchange rate in effect at the balance sheet date and income and expense items are translated at average rates for the period. Cumulative translation adjustments are excluded from net loss and shown as a separate component of stockholders' equity. Net foreign currency gains and losses are included in other income (expense), net on the consolidated statement of operations and were $1.6 million and ($2.8) million, for the fiscal years ended March 31, 2019 and 2018, respectively. The Company has no restrictions on the foreign exchange activities of its foreign subsidiaries, including the payment of dividends and other distributions.

Risks and Uncertainties

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could materially differ from those estimates and would impact future results of operations and cash flows.

The Company invests its available cash in high credit, quality financial instruments and invests primarily in investment-grade marketable securities, including, but not limited to, government obligations, money market funds and corporate debt instruments.

Several of the Company's government contracts are being funded incrementally, and as such, are subject to the future authorization, appropriation, and availability of government funding. The Company has a history of successfully obtaining financing under incrementally-funded contracts with the U.S. government and it expects to continue to obtain additional contract modifications in the year ending March 31, 2020 and beyond as incremental funding is authorized and appropriated by the government.

Contingencies

From time to time, the Company may be involved in legal and administrative proceedings and claims of various types. The Company records a liability in its consolidated financial statements for these matters when a loss is known or considered probable and the amount can be reasonably estimated. Management reviews these estimates in each accounting period as additional information is known and adjusts the loss provision when appropriate. If the loss is not probable or cannot be reasonably estimated, a liability is not recorded in the consolidated financial statements. If, with respect to a matter, it is not both probable to result in liability and the amount of loss cannot be reasonably estimated, an estimate of possible loss or range of loss is disclosed unless such an estimate cannot be made. The Company does not recognize gain contingencies until they are realized. Legal costs incurred in connection with loss contingencies are expensed as incurred. See Note 15, "Commitments and Contingencies," for further information.

Disclosure of Fair Value of Financial Instruments

The Company's financial instruments consist principally of cash and cash equivalents, accounts receivable, accounts payable, accrued expenses, warrants to purchase shares of common stock, derivatives, and a senior secured term loan. The carrying amounts of cash and cash equivalents, accounts receivable, short-term debt, accounts payable, and accrued expenses due to their short nature approximate fair value at March 31, 2019 and 2018. The estimated fair values have been determined through information obtained from market sources and management estimates. The fair value for the warrant arrangements has been estimated by management based on various assumptions in a lattice model and are subject to revaluation at each balance sheet date. The Company classifies the estimates used to fair value these instruments as Level 3 inputs. See Note 5, "Fair Value Measurements" for a full discussion on fair value measurements.

3. Revenue Recognition

On April 1, 2018, the Company adopted ASC 606, *Revenue from Contracts with Customers,* and all the related amendments and applied it to all contracts that were not completed as of April 1, 2018 using the modified retrospective method. The Company recognized the cumulative effect of initially applying the new revenue standard as an adjustment of less than $0.1 million to the opening balance of accumulated deficit. Prior period amounts have not been restated and continue to be reported under the accounting standards in effect for those periods.

The adoption of this guidance has led to recognizing certain revenue transactions sooner than in the past on certain contracts, as the Company will need to estimate the revenue it will be entitled to upon contract completion, and later on other contracts, such as Consulting and Statement of Work transactions, due to the lack of an enforceable right to payment for performance obligations satisfied over time, specifically in the technology product line. The Company does not expect a material impact to its consolidated statements of operations on an ongoing basis from the adoption of the new standard.

In addition, the FASB issued Accounting Standards Update ("ASU") 2017-05, *Other Income — Gains and Losses from the Derecognition of Non-financial Assets (Subtopic 610-20)*, in February 2017, to amend ASC 610-20, *Other Income—Gains and Losses from the Derecognition of Non-financial Assets* (issued at the same time as ASC 606), which provides a model for the measurement and recognition of gains and losses on the sale of non-financial assets, such as property and equipment, including real estate. As a result of adopting ASU 2017-05 on April 1, 2018, the Company recognized an adjustment to the opening balance of accumulated deficit for the deferred gain from the March 28, 2018 sale of the Company's former headquarters in Devens, Massachusetts in the amount of $0.1 million.

The cumulative effect to the Company's consolidated April 1, 2018 balance sheet from the adoption of the new revenue standard and the sale of nonfinancial assets was as follows (in thousands):

	March 31, 2018	Opening Adjustment	April 1, 2018
Assets:			
Accounts Receivable	$ 7,365	$ (678)	$ 6,687
Inventory	19,780	(1,599)	18,181
Prepaid expenses and other current assets	2,947	2,277	5,224
Notes receivable, long term portion	2,559	105	2,664
Liabilities and Stockholders' Equity:			
Accounts payable and accrued expenses	$ (12,625)	$(2,729)	$ (15,354)
Deferred revenue	(13,483)	2,657	(10,826)
Accumulated deficit	$(988,333)	$ (33)	$(988,366)

Included in the opening adjustment are reclassifications for accounts receivable, deferred program costs and deferred revenue for previous balances related to agreements that no longer meet the definition of a customer contract under ASC 606. The impact of adoption on the Company's opening balances and for the fiscal year ended March 31, 2019, in all financial statement line items impacted by ASC 606 was immaterial from the amount that would have been reported under the previous guidance.

The Company's revenues in its Grid segment are derived primarily through enabling the transmission and distribution of power, providing planning services that allow it to identify power grid needs and risks, and developing ship protection systems for the U.S. Navy. The Company's revenues in its Wind segment are derived primarily through supplying advanced power electronics and control systems, licensing its highly engineered wind turbine designs, and providing extensive customer support services to wind turbine manufacturers. The Company records revenue based on a five-step model in accordance with ASC 606. For its customer contracts, the Company identifies the performance obligations, determines the transaction price, allocates the contract transaction price to the performance obligations, and recognizes the revenue when (or as) control of goods or services is transferred to the customer. As of March 31, 2019, 85% of revenue was recognized at the point in time when control transferred to the customer, with the remainder being recognized over time.

In the Company's equipment and system product line, each contract with a customer summarizes each product sold to a customer, which typically represents distinct performance obligations. A contract's transaction price is allocated to each distinct performance obligation using the respective standalone selling price which is determined primarily using the cost plus expected margin approach and recognized as revenue when, or as, the performance obligation is satisfied. The majority of the Company's product sales transfer control to the customer in line with the contracted delivery terms and revenue is recorded at the point in time when title and risk transfer to the customer, as the Company has determined that this is the point in time that control transfers to the customer.

In the Company's service and technology development product line, there are several different types of transactions and each begins with a contract with a customer that summarizes each product sold to a customer, which typically represents distinct performance obligations. The technology development transactions are primarily for activities that have no alternative use and for which a profit can be expected throughout the life of the contract. In these cases, the revenue is recognized over time, but in the instances where the profit cannot be assured throughout the entire contract then the revenue is recognized at a point in time. Each contract's transaction price is allocated to each distinct performance obligation using the respective standalone selling price which is determined primarily using the cost plus expected margin approach. The ongoing service transactions are for service contracts that provide benefit to the customer simultaneously as the Company performs its obligations, and therefore this revenue is recognized ratably over time throughout the effective period of these contracts. The transaction prices on these contracts are allocated based on an adjusted market approach which is re-assessed annually for reasonableness. The field service transactions include contracts for delivery of goods and completion of services made at the customer's requests, which are not deemed satisfied until the work has been completed and/or the requested goods have been delivered, so all of this revenue is recognized at the point in time when the control changes, and at allocated prices based on the adjusted market approach driven by standard price lists. The royalty transactions are related to certain contract terms on transactions in the Company's equipment and systems product line based on activity as specified in the contracts. The transaction prices of these agreements are calculated based on an adjusted market approach as specified in the contract. The Company reports royalty revenue for usage-based royalties when the sales have occurred. In circumstances when collectability is not assured and a contract does not exist under ASC 606, revenue is deferred until a non-refundable payment has been received for substantially all the amount that is due and there are no further remaining performance obligations.

The Company's service contracts can include a purchase order from a customer for specific goods in which each item is a distinct performance obligation satisfied at a point in time at which control of the goods is transferred to the customer which occurs based on the contracted delivery terms or when the requested service work has been completed. The transaction price for these goods is allocated based on the adjusted market approach considering similar transactions under similar circumstances. Service contracts are also derived from ongoing maintenance contracts and extended service-type warranty contracts. In these transactions, the Company is contracted to provide an ongoing service over a specified period of time. As the customer is consuming the benefits as the service is being provided the revenue is recognized over time ratably.

The Company's policy is to not accept volume discounts, product returns, or rebates and allowances within its contracts. In the event a contract was approved with any of these terms, it would be evaluated for variable consideration, estimated and recorded as a reduction of revenue in the same period the related product revenue was recorded.

The Company provides assurance-type warranties on all product sales for a term of typically one to two years, and extended service-type warranties at the customers' option for an additional term ranging up to four additional years. The Company accrues for the estimated warranty costs for assurance warranties at the time of sale based on historical warranty experience plus any known or expected changes in warranty exposure. For all extended service-type warranties, the Company recognizes the revenue ratably over time during the effective period of the services.

The Company records revenue net of sales tax, value added tax, excise tax and other taxes collected concurrent with revenue-producing activities. The Company has elected to recognize the cost for freight and shipping when control over the products sold passes to customers and revenue is recognized. The Company has elected to recognize incremental costs of obtaining a contract as expense when incurred except in contracts where the amortization period would exceed twelve months; in such cases the long term amount will be assessed for materiality. The Company has elected to not adjust the promised amount of consideration for the effects of a significant financing component if the period of financing is twelve months or less.

The Company's contracts with customers do not typically include extended payment terms and may include milestone billing over the life of the contract. Payment terms vary by contract type and type of customer and generally range from 30 to 60 days from delivery.

The following tables disaggregate the Company's revenue by product line and by shipment destination:

	Year Ended March 31, 2019	
	Grid	Wind
Product Line:		
Equipment and systems	$26,645	$19,287
Services and technology development	7,645	2,630
Total	$34,290	$21,917
Region:		
Americas	$22,811	$ 112
Asia Pacific	7,267	21,200
EMEA	4,212	605
Total	$34,290	$21,917

In the fiscal years ended March 31, 2019 and 2018, 74% and 64% of the Company's revenues, respectively, were recognized from sales outside the United States. The Company maintains operations in Austria, Romania, and the United States and sales and service support centers around the world.

As of March 31, 2019 and March 31, 2018, the Company's contract assets and liabilities primarily relate to the timing differences between cash received from a customer in connection with contractual rights to invoicing and the timing of revenue recognition following completion of performance obligations. The Company's accounts receivable balance is made up entirely of customer contract related balances. Changes in the Company's contract assets, which are included in "Unbilled Accounts Receivable" and "Deferred program costs" (see Note 6, "Accounts Receivable" and Note 7, "Inventory" for a reconciliation to the condensed consolidated balance sheet) and contract liabilities, which are included in the current portion and long term portion of "deferred revenue" in the Company's condensed consolidated balance sheets, are as follows:

	Unbilled AR	Deferred Program Costs	Contract Liabilities
Beginning balance as of March 31, 2018	$ 3,016	$ 2,567	$ 21,937
Impact of adoption of ASC 606	—	(1,599)	(2,657)
Increases for costs incurred to fulfill performance obligations	—	1,585	—
Increase (decrease) due to customer billings	(12,076)	—	20,540
Decrease due to cost recognition on completed performance obligations	—	(2,212)	—
Increase (decrease) due to recognition of revenue based on transfer of control of performance obligations	11,324	(9)	(23,084)
Other changes and FX impact	(51)	(14)	(1,215)
Ending balance as of March 31, 2019	$ 2,213	$ 318	$ 15,521

The Company's remaining performance obligations represent the unrecognized revenue value of the Company's contractual commitments. The Company's performance obligations may vary significantly each reporting period based on the timing of major new contractual commitments. As of March 31, 2019, the Company had outstanding performance obligations on existing contracts under ASC 606 to be recognized in the next twelve months of approximately $47.5 million. There are also approximately $11.6 million of outstanding performance obligations to be recognized over a period of thirteen to sixty months. The remaining performance obligations are subject to customer actions and therefore the timing of revenue recognition cannot be reasonably estimated. The twelve month performance obligations include anticipated shipments to Inox based on the twelve month rolling forecast provided by Inox on the multi-year supply contract. The quantities specified in any forecast provided by Inox related to the multi-year supply contract are firm and irrevocable for the first three months of a twelve month rolling forecast. The timing of the performance obligations beyond the Inox-provided twelve month forecast are not determinable and therefore are not included in the total remaining performance obligations.

The following table sets forth customers who represented 10% or more of the Company's total revenues for the year ended March 31, 2019 and 2018:

	Reportable Segment	Year Ended March 31, 2019	Year Ended March 31, 2018
Inox Wind Limited	Wind	34%	27%
Vestas	Grid	15%	<10%

4. Acquisition and Related Goodwill

Acquisition of Infinia Technology Corporation

On September 25, 2017, the Company acquired Infinia Technology Corporation ("ITC") for approximately $3.8 million (the "Acquisition"). Located in Richmond, Washington, ITC is a technology firm founded in 2009 specializing in the design, development and commercialization of cryo-coolers for a wide range of applications. This technology supports the Company's efforts with the U.S. Navy and ship protection systems ("SPS") products.

The following table summarizes the consideration paid for ITC and the amounts of the assets acquired and liabilities assumed recognized at the acquisition date, as well as the fair value at the acquisition date (in millions):

	September 25, 2017
Consideration	
Cash	$0.1
Equity (884,890 shares of common stock at $4.02 per share)	3.6
Contingent consideration	0.6
Total Consideration	$4.3
Recognized amounts of identifiable assets acquired and liabilities assumed	
Core technology and know-how	$3.4
Working capital	0.2
Property, plant and equipment	0.0
Total identifiable net assets	$3.6
Long-term deferred tax liability	1.1
Goodwill recognized	$1.7

The results of ITC's operations, which were not significant from the date of the Acquisition, September 25, 2017, through March 31, 2019, are included in the Company's consolidated results. Assuming the Acquisition had occurred on April 1, 2017, the impact on the consolidated results of the Company would not have been significant.

Goodwill

At the time of the Acquisition, the Company allocated the purchase price to the assets acquired and liabilities assumed at their estimated fair values as of the date of Acquisition. The excess of the purchase price paid by the Company over the estimated fair value of net assets acquired of $1.7 million has been recorded as goodwill in the Company's Grid segment. Goodwill represents the value associated with the acquired workforce and synergies related to the merger of the two companies.

The Company performed its annual assessment of goodwill on February 28, 2019 and noted no triggering events from the analysis date to March 31, 2019 and determined that there was no impairment to goodwill. Additionally, no impairment resulted from the assessment performed in the fiscal year ended March 31, 2018.

5. Fair Value Measurements

A valuation hierarchy for disclosure of the inputs to valuation used to measure fair value has been established. This hierarchy prioritizes the inputs into three broad levels as follows:

Level 1 - Inputs are unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date.

Level 2 - Inputs include quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability, and inputs that are derived principally from or corroborated by observable market data by correlation or other means (market corroborated inputs).

Level 3 - Unobservable inputs that reflect the Company's assumptions that market participants would use in pricing the asset or liability. The Company develops these inputs based on the best information available, including its own data.

The Company provides a gross presentation of activity within Level 3 measurement roll-forward and details of transfers in and out of Level 1 and 2 measurements. A change in the hierarchy of an investment from its current level is reflected in the period during which the pricing methodology of such investment changes. Disclosure of the transfer of securities from Level 1 to Level 2 or Level 3 is made in the event that the related security is significant to total cash and investments. The Company did not have any transfers of assets and liabilities from Level 1, Level 2 or Level 3 of the fair value measurement hierarchy during the year ended March 31, 2019.

A financial asset's or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following table provides the assets and liabilities carried at fair value on a recurring basis, measured as of March 31, 2019 and 2018 (in thousands):

	Total Carrying Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
March 31, 2019:				
Assets:				
Cash equivalents	$41,839	$41,839	$—	$ —
Derivative liabilities:				
Warrants	$ 4,942	$ —	$—	$4,942

	Total Carrying Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
March 31, 2018:				
Assets:				
Cash equivalents	$32,589	$32,589	$—	$ —
Derivative liabilities:				
Warrants	$ 1,217	$ —	$—	$1,217

The table below reflects the activity for the Company's major classes of liabilities measured at fair value on a recurring basis (in thousands):

	Warrants
April 1, 2018	$1,217
Mark to market adjustment	3,725
March 31, 2019	$4,942

	Warrants
April 1, 2017	$1,923
Mark to market adjustment	(706)
March 31, 2018	$1,217

Valuation Techniques

Cash Equivalents

Cash equivalents consist of highly liquid instruments with maturities of three months or less that are regarded as high quality, low risk investments and are measured using such inputs as quoted prices, and are classified within Level 1 of the valuation hierarchy. Cash equivalents consist principally of certificates of deposits and money market accounts.

Warrants

Warrants were issued in conjunction with a Securities Purchase Agreement (the "Purchase Agreement") with Capital Ventures International ("CVI"), an equity offering to Hudson Bay Capital in November 2014, and a Loan and Security Agreement with Hercules Technology Growth Capital, Inc. ("Hercules"). The warrants issued to CVI expired on October 4, 2017. See Note 12 "Warrants and Derivative Liabilities," for additional information.

Outstanding warrants are subject to revaluation at each balance sheet date, and any change in fair value will be recorded as a change in fair value in derivatives and warrants until the earlier of their exercise or expiration.

The Company relies on various assumptions in a lattice model to determine the fair value of warrants. The Company has valued the warrants within Level 3 of the valuation hierarchy. See Note 12, "Warrants and Derivative Liabilities," for a discussion of the warrants and the valuation assumptions used.

6. Accounts Receivable

Accounts receivable at March 31, 2019 and March 31, 2018 consisted of the following (in thousands):

	March 31, 2019	March 31, 2018
Accounts receivable (billed)	$5,642	$4,403
Accounts receivable (unbilled)	2,213	3016
Less: Allowance for doubtful accounts	—	(54)
Accounts receivable, net	$7,855	$7,365

7. Inventory

Inventory, net of reserves, at March 31, 2019 and March 31, 2018 consisted of the following (in thousands):

	March 31, 2019	March 31, 2018
Raw materials	$ 5,474	$ 7,526
Work-in-process	1,922	920
Finished goods	4,405	8,767
Deferred program costs	318	2,567
Net inventory	$12,119	$19,780

The Company recorded inventory write-downs of $0.9 million and $0.4 million for the fiscal years ended March 31, 2019 and 2018, respectively. These write downs were based on evaluating its inventory on hand for excess quantities and obsolescence.

Deferred program costs as of March 31, 2019 and March 31, 2018 primarily represent costs incurred on programs accounted for upon completion of the project when control has transferred to the customer before revenue and costs will be recognized.

8. Note Receivable

AMSC entered into a purchase and sale agreement dated February 1, 2018 for the Devens facility (including land, building and building improvements) located at 64 Jackson Road, Devens, Massachusetts to 64 Jackson Road, LLC, a limited liability company, in the amount of $23.0 million. The terms for payment included a $1.0 million security deposit, and a note receivable for $6.0 million payable to AMSC with the remaining cash net of certain adjustments for closing costs at the date of settlement.

The note receivable is due in two $3.0 million installments plus accrued interest at 1.96% rate. The first installment was paid on March 28, 2019 and the second installment was paid May 23, 2019. The note was subordinate to East Boston Savings Bank's mortgage on the Devens property. The note receivable was discounted to its present value of $5.7 million utilizing a discount rate of 6%, which was based on management's assessment of what an appropriate loan at current market rate would be. The $0.3 million discount was recorded as an offset to the long term portion of the note receivable. As of March 31, 2019, the remaining $0.1 million discount is being amortized to interest income as an offset to the short term portion of the note, over the remaining term of the note.

In addition, the resulting gain of $0.1 million from the sale of the Devens property which was deferred previously was recorded as a component of the cumulative effect of an accounting change upon the adoption of ASU 2017-05 which was issued as a part of ASU 2014-09. This gain was recorded as an offset to the opening accumulated deficit.

Note receivable as of March 31, 2019 consisted of the following (in thousands):

	March 31, 2019	March 31, 2018
Current assets		
Note receivable, current	$3,000	$3,000
Note receivable discount	(112)	—
Total current note receivable	$2,888	$3,000
Long term assets		
Note receivable, long term	$ —	$3,000
Note receivable discount	—	(336)
Deferred gain on sale	—	(105)
Total long term note receivable	$ —	$2,559

9. Property, Plant and Equipment

The cost and accumulated depreciation of property and equipment at March 31, 2019 and 2018 are as follows (in thousands):

	March 31, 2019	March 31, 2018
Construction in progress - equipment	$ 603	$ 654
Equipment and software	45,705	72,760
Furniture and fixtures	1,269	1,878
Leasehold improvements	1,955	1,426
Property, plant and equipment, gross	49,532	76,718
Less accumulated depreciation	(40,560)	(64,205)
Property, plant and equipment, net	$ 8,972	$ 12,513

Depreciation expense was $4.3 million and $11.0 million, for the fiscal years ended March 31, 2019 and 2018, respectively. Included in depreciation expense for the year ended March 31, 2018 is $4.9 million of accelerated depreciation recorded to cost of revenues related to revised estimates of the remaining useful lives of certain pieces of manufacturing equipment. Construction in progress — equipment primarily includes capital investments in the Company's leased facility in Ayer, Massachusetts.

10. Intangible Assets

Intangible assets at March 31, 2019 and 2018 consisted of the following (in thousands):

	2019			2018			
	Gross Amount	Accumulated Amortization	Net Book Value	Gross Amount	Accumulated Amortization	Net Book Value	Estimated Useful Life
Core technology and know-how	$4,970	$(2,080)	$2,890	$8,703	$(5,473)	$3,230	5-10

The Company recorded intangible amortization expense of $0.3 million and $0.5 million, for the fiscal years ended March 31, 2019, and 2018, respectively.

Expected future amortization expense related to intangible assets is as follows (in thousands):

Fiscal years ending March 31,	Total
2020	340
2021	340
2022	340
2023	340
2024	340
Thereafter	1,190
Total	$2,890

The geographic composition of intangible assets is as follows (in thousands):

	March 31,	
	2019	2018
Intangible assets by geography:		
U.S.	$2,890	$3,230
Total	$2,890	$3,230

The business segment composition of intangible assets is as follows (in thousands):

	March 31,	
	2019	2018
Intangible assets by business segments:		
Grid	$2,890	$3,230
Total	$2,890	$3,230

11. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses at March 31, 2019 and March 31, 2018 consisted of the following (in thousands):

	March 31, 2019	March 31, 2018
Accounts payable	$ 2,939	$ 3,096
Accrued inventories in-transit	244	1,207
Accrued other miscellaneous expenses	1,759	2,412
Advanced deposits	631	—
Accrued compensation	5,404	3,605
Income taxes payable	3,363	536
Accrued warranty	1,545	1,769
Total	$15,885	$12,625

The Company generally provides a one to three year warranty on its products, commencing upon installation. A provision is recorded upon revenue recognition to cost of revenues for estimated warranty expense based on historical experience.

Product warranty activity was as follows (in thousands):

	Fiscal Years Ended March 31,	
	2019	2018
Balance at beginning of period	$1,769	$ 2,344
Change in accruals for warranties during the period	727	890
Settlements during the period	(951)	(1,465)
Balance at end of period	$1,545	$ 1,769

12. Warrants and Derivative Liabilities

The Company accounts for its warrants and contingent consideration as liabilities due to certain adjustment provisions within the instruments, which require that they be recorded at fair value. The warrants are subject to revaluation at each balance sheet date and any change in fair value is recorded as a change in fair value of warrants until the earlier of its expiration or its exercise at which time the warrant liability will be reclassified to equity. The Company calculated the fair value of the warrants utilizing an integrated lattice model. See Note 5, "Fair Value Measurements" for further discussion.

Hercules Warrant

The Company issued Hercules warrants to purchase 13,927 shares of common stock (the "First Warrant") and 25,641 shares of common stock (the "Second Warrant") in conjunction with prior term loans that have been repaid in full. On December 19, 2014, the Company entered into a second amendment to the Loan and Security Agreement with Hercules (the "Hercules Second Amendment"). In conjunction with the Hercules Second Amendment, the Company issued Hercules a warrant to purchase 58,823 shares of the Company's common stock (the "Hercules Warrant") which replaced the First Warrant and the Second Warrant. The Hercules Warrant is exercisable at any time after its issuance at an exercise price of $7.85 per share, subject to certain price-based and other anti-dilution adjustments, including the equity offering in May 2017, the acquisition of ITC with common stock in September 2017 and sales of common stock under the ATM entered into in January 2017, and expires on June 30, 2020. This warrant had a fair value of $0.4 million as of March 31, 2019 and $0.1 million as of March 31, 2018. On April 8, 2019 Hercules notified the Company of its intent to exercise this warrant on a cashless basis. Hercules received 22,821 shares of the Company's common stock on April 17, 2019.

November 2014 Warrant

On November 13, 2014, the Company completed an offering of 909,090 units of the Company's common stock with Hudson Bay Capital. Each unit consisted of one share of the Company's common stock and 0.9 of a warrant to purchase one share of common stock, or a warrant to purchase in the aggregate 818,181 shares (the "November 2014 Warrant"). The November 2014 Warrant is exercisable at any time, at an exercise price equal to $7.81 per share, subject to certain price-based and other anti-dilution adjustments including those noted above, and expires on November 13, 2019.

Following is a summary of the key assumptions used to calculate the fair value of the November 2014 Warrant:

	March 31, 2019	December 31, 2018	September 30, 2018	June 30, 2018
Fiscal Year 2018				
Risk-free interest rate	2.43%	2.61%	2.62%	2.40%
Expected annual dividend yield	—	—	—	—
Expected volatility	75.61%	70.29%	63.66%	67.40%
Term (years)	0.62	0.87	1.12	1.37
Fair value	\$4.6 million	\$3.6 million	\$1.3 million	\$1.6 million

	March 31, 2018	December 31, 2017	September 30, 2017	June 30, 2017
Fiscal Year 2017				
Risk-free interest rate	2.20%	1.87%	1.49%	1.44%
Expected annual dividend yield	—	—	—	—
Expected volatility	65.86%	65.86%	65.64%	67.21%
Term (years)	1.62	1.87	2.12	2.37
Fair value	\$1.1 million	\$0.4 million	\$0.8 million	\$0.9 million

The Company recorded a net loss, resulting from an increase in the fair value of the November 2014 Warrant of \$3.5 million, and a net gain, resulting from a decrease in the fair value of the November 2014 Warrant, of \$0.7 million to change in fair value of derivatives and warrants in the fiscal years ended March 31, 2019 and 2018, respectively.

Contingent Consideration

The Company evaluated the ITC acquisition Make Whole Payment set forth in the SPA, which ultimately required net settlement cash, and determined the contingent consideration qualified for liability classification and derivative treatment under ASC 815. As a result, for each period the fair value of the contingent consideration was remeasured and the resulting gain or loss was recognized in operating expenses.

Following is a summary of the key assumptions used to calculate the fair value of the contingent consideration related to the ITC acquisition:

	September 30, 2017	September 25, 2017
Fiscal Year 2017		
Risk-free interest rate	1.09%	1.09%
Expected annual dividend yield	—	—
Expected volatility	66.54%	65.71%
Term (years)	0.31	0.32
Fair value	\$0.4 million	\$0.6 million

All of the stock related to this liability was sold as of December 5, 2017 and the amount of the Make Whole Payment was calculated to be \$0.7 million, and subsequently paid on January 5, 2018. As such, no fair value estimate using a Black-Scholes model was needed as the liability was recorded at the known settlement value for the period ending December 31, 2017. The Company recorded a net loss of \$0.1 million resulting from an increase in the fair value of the contingent consideration in the fiscal year ended March 31, 2018.

13. Income Taxes

Loss before income taxes for the fiscal years ended March 31, 2019, and 2018 are provided in the table as follows (in thousands):

	Fiscal years ended March 31, 2019	Fiscal years ended March 31, 2018
Income/(Loss) before income tax expense:		
U.S.	$(24,289)	$(100,341)
Foreign	57,430	67,404
Total	$ 33,141	$ (32,937)

The components of income tax expense (benefit) attributable to continuing operations consist of the following (in thousands):

	Fiscal years ended March 31, 2019	Fiscal years ended March 31, 2018
Current		
Federal	$1,246	$ 374
Foreign	4,399	592
Total current	5,645	966
Deferred		
Federal	1,588	(1,086)
Foreign	(853)	(41)
Total deferred	735	(1,127)
Income tax (benefit) expense	$6,380	$ (161)

The reconciliation between the statutory federal income tax rate and the Company's effective income tax rate is shown below.

	Fiscal years ended March 31, 2019	Fiscal years ended March 31, 2018
Statutory federal income tax rate	(21)%	(31)%
Federal rate change	—	351
Deemed dividend and dividends paid	—	7
Foreign income tax rate differential	4	(62)
Reversal of uncertain tax benefits	—	(3)
True-up of NOLs	(60)	11
GILTI	37	—
Other	3	(5)
Valuation allowance	92	(268)
Effective income tax rate	-19%	— %

The following is a summary of the principal components of the Company's deferred tax assets and liabilities (in thousands):

	March 31, 2019	March 31, 2018
Deferred tax assets:		
Net operating loss carryforwards	$ 181,657	$ 210,194
Research and development and other tax credit carryforwards	13,046	12,828
Accruals and reserves	14,781	22,406
Fixed assets and intangible assets	1,553	1,568
Other	2,785	12,996
Gross deferred tax assets	213,822	259,992
Valuation allowance	(196,340)	(227,686)
Total deferred tax assets	17,482	32,306
Deferred tax liabilities:		
Intercompany Debt	(16,028)	(29,130)
Other	(1,794)	(2,744)
Total deferred tax liabilities	(17,822)	(31,874)
Net deferred tax asset	$ (340)	$ 432

The Tax Cuts and Jobs Act ("Tax Reform Act"), that was signed into law on December 22, 2017, significantly changed the U.S. tax law by, among other things, lowering the corporate income tax rates, implementing a territorial tax system, expanding the tax base, imposing a tax on deemed repatriated earnings of foreign subsidiaries, taxing certain foreign earnings to the U.S. through global intangible low-taxed income ("GILTI"), modifying officer's compensation deduction limitations and creating new limitations on deductible interest expense. The Company recognized the impact of the Tax Reform Act in its consolidated financial statements for the year ended March 31, 2018. In accordance with Staff Accounting Bulletin No. 118 ("SAB 118"), the Company had a measurement period up to one year beginning December 22, 2017 to obtain, analyze and prepare the information needed to complete the accounting requirements of the Tax Reform Act. The Company completed the analysis allowed under SAB 118 when it finalized the deemed repatriation tax computation in conjunction with the filing of the Company's 2017 federal and state tax returns and the final impact did not result in any material change from the original estimate.

The Company has elected to recognize the income tax related to GILTI as a period expense in the period the tax is incurred or expected to occur for the year ended March 31, 2019. The inclusion of GILTI had no impact on the Company's income tax expense or effective tax rate in the period due to the full valuation allowance applied to the U.S. entity.

The Company has provided a full valuation allowance against its net deferred income tax assets in the U.S. and China since it is more likely than not that its deferred tax assets will not be realizable. After consideration of all the available evidence, both positive and negative, the Company has determined that a $196.5 million valuation allowance at March 31, 2019 is necessary to reduce the deferred tax assets to the amount that will more likely than not be realized.

At March 31, 2019, the Company had aggregate net operating loss carryforwards in the U.S. for federal and state income tax purposes of approximately $776.0 million and $198.0 million, respectively, which expire in the years ending March 31, 2019 through 2039. For U.S. federal tax purpose, approximately $30.0 million of Federal net operating losses have an indefinite carryforward period. Included in the U.S. net operating loss are $3.7 million of acquired losses from Power Quality Systems, Inc. and $0.3 million of acquired losses from

Infinia Technology Corporation. Research and development and other tax credit carryforwards amounting to approximately $10.1 million and $3.5 million are available to offset federal and state income taxes, respectively, and will expire in the years ending March 31, 2019 through 2039.

At March 31, 2019, the Company had aggregate net operating loss carryforwards for its Chinese operation of approximately $21.8 million, which can be carried forward for five years and begin to expire December 31, 2019.

Section 382 of the U.S. Internal Revenue Code of 1986, as amended (the "IRC"), provides limits on the extent to which a corporation that has undergone an ownership change (as defined) can utilize any net operating loss ("NOL") and general business tax credit carryforwards it may have. The Company updated its study through June 15, 2017 as a result of the May 2017 equity offering to determine whether Section 382 could limit the use of its carryforwards in this manner. After completing this study, the Company has concluded that the limitation will not have a material impact on its ability to utilize its NOL carryforwards. If there were material ownership changes subsequent to the study, such changes could limit the Company's ability to utilize its NOL carryforwards. The Company increased its NOL's by $0.3 million due to acquired losses in the fiscal year ended March 31, 2018 from ITC. The Company conducted a study on the acquired NOL and concluded that the limitations under Section 382 will not have a material impact on its ability to utilize its NOL carryforwards.

The total amount of undistributed foreign earnings available to be repatriated at March 31, 2019 was $30.0 million resulting in the recording of a $1.7 million deferred tax liability for foreign withholding taxes.

The Company has not recorded a deferred tax asset for the temporary difference associated with the excess of the tax greater than the book basis in its Chinese subsidiary as the future tax benefit is not expected to reverse in the foreseeable future.

Accounting for income taxes requires a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if, based on the technical merits, it is more likely than not that the position will be sustained upon audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. The Company reevaluates these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any changes in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision. The Company did not identify any uncertain tax positions at March 31, 2019. The Company did not have any gross unrecognized tax benefits at March 31, 2019 or 2018.

There were no reversals of uncertain tax positions in the fiscal years ended March 31, 2019 and 2018.

The Company accounts for interest and penalties related to uncertain tax positions as part of its provision for federal and state income taxes. Any unrecognized tax benefits, if recognized, would favorably affect its effective tax rate in any future period. The Company does not expect that the amounts of unrecognized benefits will change significantly within the next twelve months.

The Company conducts business globally and, as a result, its subsidiaries file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. Major tax jurisdictions include the U.S., China, Romania and Austria. All U.S. income tax filings for fiscal years ended March 31, 1996 through 2019 remain open and subject to examination.

All fiscal years from the fiscal year ended March 31, 2014 through 2019 remain open and subject to examination in Austria. The Company's tax filings in China for calendar years 2013 and 2014 were examined with no material exceptions. As of March 31, 2019, the Company remains open to audit for the calendar years 2016 and forward in China. Tax filings in Romania for the fiscal years ended March 31, 2014 through 2019 remain open and subject to examination.

14. Stockholders' Equity

Stock-Based Compensation Plans

As of March 31, 2019, the Company had two active stock plans: the 2007 Stock Incentive Plan, as amended (the "2007 Plan") and the Amended and Restated 2007 Director Stock Plan (the "2007 Director Plan"). Both the 2007 Plan and the 2007 Director Plan were approved by the Company's stockholders on July 29, 2016.

The 2007 Plan provides for the grant of incentive stock options intended to qualify under Section 422 of the Internal Revenue Code of 1986, as amended, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units and other stock-based awards. In the case of options, the exercise price shall be equal to at least the fair market value of the common stock, as determined by (or in a manner approved by) the Board of Directors, on the date of grant. The contractual life of options is generally 10 years. Options generally vest over a 3-5 year period while restricted stock generally vests over a 3 year period.

As of March 31, 2019, the 2007 Director Plan provided for the grant of nonstatutory stock options and stock awards to members of the Board of Directors who are not also employees of the Company (outside directors). Under the terms of the 2007 Director Plan, each outside director is granted an option to purchase shares of common stock with an aggregate grant date value equal to $40,000 upon his or her initial election to the Board with an exercise price equal to the fair market value of the Company's common stock on the date of the grant. These options vest in equal annual installments over a two-year period. In addition, each outside director is granted an award of shares of common stock with an aggregate grant date value equal to $40,000 3 business days following the last day of each fiscal year, subject to proration for any partial fiscal year of service.

As of March 31, 2019, the 2007 Plan had 367,507 shares and the 2007 Director Plan had 77,587 shares available for future issuance.

Stock-Based Compensation

The components of employee stock-based compensation for the years ended March 31, 2019 and 2018 were as follows (in thousands):

	Fiscal years ended March 31,	
	2019	**2018**
Stock options	$ 221	$ 227
Restricted stock and stock awards	2,781	2,434
Employee stock purchase plan	28	31
Total stock-based compensation expense	$3,030	$2,692

The estimated fair value of the Company's stock-based awards, less expected annual forfeitures, is amortized over the awards' service period. There is no unrecognized compensation cost for unvested outstanding stock options for the fiscal year ended March 31, 2019. The total unrecognized compensation cost for unvested outstanding restricted stock was $2.6 million for the fiscal year ended March 31, 2019. This expense will be recognized over a weighted-average expense period of approximately 1.5 years.

The following table summarizes employee stock-based compensation expense by financial statement line item for the fiscal years ended March 31, 2019 and 2018 (in thousands):

	Fiscal years ended March 31,	
	2019	2018
Cost of revenues	$ 116	$ 137
Research and development	365	373
Selling, general and administrative	2,549	2,182
Total	$3,030	$2,692

The following table summarizes the information concerning currently outstanding and exercisable employee and non-employee options:

	Options / Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value (thousands)
Outstanding at March 31, 2018	280,891	$69.51		
Canceled/forfeited	(116,626)	31.76		
Outstanding at March 31, 2019	164,265	$96.30	3.1	$—
Exercisable at March 31, 2019	164,265	$96.30	3.0	$—
Fully vested and expected to vest at March 31, 2019	164,265	$96.30	3.1	$—

There were no stock options granted during the fiscal years ended March 31, 2019 or 2018. Intrinsic value represents the amount by which the market price of the common stock exceeds the exercise price of the options. Given the decline in the Company's stock price, exercisable options as of March 31, 2019 and 2018 had no intrinsic value.

The following table summarizes the employee and non-employee restricted stock activity for the year ended March 31, 2019:

	Shares	Weighted Average Grant Date Fair Value	Intrinsic Aggregate Value (thousands)
Outstanding at March 31, 2018	896,486	$4.65	
Granted	532,053	6.9	
Vested	(405,802)	6.1	
Forfeited	(68,789)	5.04	
Outstanding at March 31, 2019	953,948	$5.26	$12,268

The total fair value of restricted stock that was granted during the fiscal years ended March 31, 2019 and 2018 was $3.6 million and $3.3 million, respectively. The total fair value of restricted stock that vested during the fiscal years ended March 31, 2019 and 2018 was $2.6 million and $1.4 million, respectively.

There were 57,000 performance-based restricted shares awarded during the fiscal year ended March 31, 2019 and 267,125 performance-based restricted shares awarded during the fiscal year ended March 31, 2018.

The remaining shares awarded vest upon the passage of time. For awards that vest upon the passage of time, expense is being recorded over the vesting period.

Employee Stock Purchase Plan

The Company has the 2000 Employee Stock Purchase Plan, as amended (the "ESPP") which provides employees with the opportunity to purchase shares of common stock at a price equal to the market value of the common stock at the end of the offering period, less a 15% purchase discount. As of March 31, 2019, the ESPP had 239,954 shares available for future issuance. The Company recognized less than $0.1 million of compensation expense for the fiscal year ended March 31, 2019 and 2018, related to the ESPP.

Equity Offerings

On May 10, 2017, the Company completed an additional equity offering (the "Offering") which included a 30-day option (the "Option") to the underwriters to purchase up to an additional 600,000 shares of common stock at the public offering price. The total net proceeds to the Company during the year ended March 31, 2018 from the Offering and Option were approximately $17.0 million, after deducting underwriting discounts and commissions and offering expenses payable by the Company. The Company terminated its At Market Issuance Sales Agreement ("ATM") with FBR Capital Markets & Co ("FBR") in conjunction with the Offering.

15. Commitments and Contingencies

Purchase Commitments

The Company periodically enters into non-cancelable purchase contracts in order to ensure the availability of materials to support production of its products. Purchase commitments represent enforceable and legally binding agreements with suppliers to purchase goods or services. The Company periodically assesses the need to provide for impairment on these purchase contracts and record a loss on purchase commitments when required.

Lease Commitments

Operating leases include minimum payments under leases for the Company's facilities and certain equipment. The Company's primary leased facilities are located in Klagenfurt, Austria; Suzhou, China; Ayer, Massachusetts; Timisoara, Romania; and Pewaukee, Wisconsin; with a combined total of approximately 187,000 square feet of space. These leases have varying expiration dates through November 2022 which can generally be terminated at the Company's request after a six month advance notice. The Company leases other locations which focus primarily on applications engineering, sales and/or field service and do not have significant leases or physical presence. See Item 2, "Properties" for further information.

Minimum future lease commitments at March 31, 2019 were as follows (in thousands):

Fiscal years ended March 31,	Total
2020	$1,121
2021	894
2022	648
2023	416
2024	65
Total	$3,144

Rent expense under the operating leases mentioned above was as follows (in thousands):

	Fiscal years ended March 31, 2019	Fiscal years ended March 31, 2018
Rent expense	$1,286	$1,510

Legal Contingencies

From time to time, the Company is involved in legal and administrative proceedings and claims of various types. The Company records a liability in its consolidated financial statements for these matters when a loss is known or considered probable and the amount can be reasonably estimated. The Company reviews these estimates each accounting period as additional information is known and adjusts the loss provision when appropriate. If a matter is both probable to result in a liability and the amounts of loss can be reasonably estimated, the Company estimates and discloses the possible loss or range of loss to the extent necessary to make the consolidated financial statements not misleading. If the loss is not probable or cannot be reasonably estimated, a liability is not recorded in its consolidated financial statements.

Other

The Company enters into long-term construction contracts with customers that require the Company to obtain performance bonds. The Company is required to deposit an amount equivalent to some or all the face amount of the performance bonds into an escrow account until the termination of the bond. When the performance conditions are met, amounts deposited as collateral for the performance bonds are returned to the Company. In addition, the Company has various contractual arrangements in which minimum quantities of goods or services have been committed to be purchased on an annual basis.

As of March 31, 2019, the Company had $0.7 million of restricted cash included in long-term assets. These amounts included in restricted cash primarily represent deposits to secure letters of credit for various supply contracts. These deposits are held in interest bearing accounts.

16. Employee Benefit Plans

The Company has implemented a defined contribution plan (the “Plan”) under Section 401(k) of the Internal Revenue Code. Any contributions made by the Company to the Plan are discretionary. The Company has a stock match program under which the Company matched, in the form of Company common stock, 50% of the first 6% of eligible contributions. The Company recorded expense of $0.3 million for the fiscal year ended March 31, 2019, and $0.4 million for the fiscal year ended March 31, 2018, and recorded corresponding charges to additional paid-in capital related to this program.

17. Restructuring

The Company accounts for charges resulting from operational restructuring actions in accordance with ASC Topic 420, *Exit or Disposal Cost Obligations* (“ASC 420”) and ASC Topic 712, *Compensation — Nonretirement Postemployment Benefits* (“ASC 712”). In accounting for these obligations, the Company is required to make assumptions related to the amounts of employee severance, benefits, and related costs and the time period over which leased facilities will remain vacant, sublease terms, sublease rates and discount rates. Estimates and assumptions are based on the best information available at the time the obligation arises. These estimates are reviewed and revised as facts and circumstances dictate; changes in these estimates could have a material effect on the amount accrued on the consolidated balance sheet.

The $0.5 million charged to operations in the fiscal year ended March 31, 2019 was related to exit costs incurred primarily during the first half of fiscal 2018 for the move of the Company’s corporate office.

On April 3, 2017, the Board of Directors approved a plan to reduce the Company’s global workforce by approximately 8%, effective April 4, 2017. The purpose of the workforce reduction was to reduce operating expenses to better align with the Company’s current revenues. Included in the $1.3 million severance pay, charged to operations in the fiscal year ended March 31, 2018, is $0.5 million of severance pay for one of the Company’s former executive officers pursuant to the terms of a severance agreement dated June 30, 2017. Under the terms of the severance agreement, the Company’s former executive officer was entitled to 18 months of his base salary, and received his final severance payment in December 2018.

The following table presents restructuring charges and cash payments during the years ended March 31, 2019 and 2018 (in thousands):

	Severance pay and benefits	Facility exit and Relocation costs	Total
Accrued restructuring balance at April 1, 2018	$ 262	$ 173	$ 435
Charges to operations	—	450	450
Cash payments	(262)	(623)	(885)
Accrued restructuring balance at March 31, 2019	$ —	$ —	$ —
Accrued restructuring balance at April 1, 2017	$ —	$ —	$ —
Charges to operations	1,325	202	1,527
Cash payments	(1,063)	(29)	(1,092)
Accrued restructuring balance at March 31, 2018	$ 262	$ 173	$ 435

All restructuring charges discussed above are included within restructuring in the Company's consolidated statements of operations. The Company includes accrued restructuring within accounts payable and accrued expenses in the consolidated balance sheets.

18. Business Segments

The Company reports its financial results in two reportable business segments: Grid and Wind.

Through the Company's power grid offerings, the Grid business segment enables electric utilities, industrial facilities, and renewable energy project developers to connect, transmit and distribute power through our transmission planning services, power electronics, and superconductor-based systems. The sales process is enabled by transmission planning services that allow it to identify power grid congestion, poor power quality and other risks, which helps the Company determine how its solutions can improve network performance. These services often lead to sales of grid interconnection solutions for wind farms and solar power plants, power quality systems, and transmission and distribution cable systems. The Company also sells ship protection products to the U.S. Navy through its Grid business segment.

Through the Company's wind power offerings, the Wind business segment enables manufacturers to field highly competitive wind turbines through our advanced power electronics and control system products, engineered designs, and support services. The Company supplies advanced power electronics and control systems, licenses its highly engineered wind turbine designs, and provides extensive customer support services to wind turbine manufacturers. The Company's design portfolio includes a broad range of drive trains and power ratings of 2 megawatts ("MWs") and higher. The Company provides a broad range of power electronics and software-based control systems that are highly integrated and designed for optimized performance, efficiency, and grid compatibility.

The operating results for the two business segments are as follows (in thousands):

	Fiscal Years Ended March 31,	
	2019	2018
Revenues:		
Grid	$34,290	$34,109
Wind	21,917	14,294
Total	$56,207	$48,403

	Fiscal Years Ended March 31,	
	2019	2018
Operating income (loss):		
Grid	$(10,600)	$(18,963)
Wind	48,103	(8,904)
Unallocated corporate expenses	(3,480)	(4,290)
Total	$ 34,023	$(32,157)

Total assets for the two business segments as of March 31, 2019 and March 31, 2018 are as follows (in thousands):

	March 31, 2019	March 31, 2018
Grid	$ 31,075	$37,012
Wind	8,167	16,790
Corporate assets	80,088	34,373
Total	$119,330	$88,175

The accounting policies of the business segments are the same as those for the consolidated Company. The Company's business segments have been determined in accordance with the Company's internal management structure, which is organized based on operating activities. The Company evaluates performance based upon several factors, of which the primary financial measures are segment revenues and segment operating income (loss). The disaggregated financial results of the segments reflect allocation of certain functional expense categories consistent with the basis and manner in which Company management internally disaggregates financial information for the purpose of assisting in making internal operating decisions. In addition, certain corporate expenses which the Company does not believe are specifically attributable or allocable to either of the two business segments have been excluded from the segment operating loss.

Unallocated corporate expenses primarily consist of stock-based compensation expense of $3.0 million and $2.7 million, in the fiscal years ended March 31, 2019 and 2018, respectively, restructuring charges of $0.5 million and $1.5 million for the fiscal years ended March 31, 2019 and 2018, and a change in the fair value of contingent consideration of $0.1 million for the fiscal year ended March 31, 2018.

Geographic information about property, plant and equipment associated with particular regions is as follows (in thousands):

	March 31, 2019	March 31, 2018
North America	$8,555	$11,933
Europe	345	478
Asia Pacific	72	102
Total	$8,972	$12,513

19. Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") and the International Accounting Standards Board ("IASB") issued, ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The guidance substantially converges final standards on revenue recognition between the FASB and IASB providing a framework on addressing revenue recognition issues and, upon its effective date, replaces almost all existing revenue recognition guidance, including industry-specific guidance, in current U.S. generally accepted accounting principles. The FASB has subsequently issued multiple amendments to ASU 2014-09 which are all effective for annual reporting periods beginning after December 15, 2017.

As of April 1, 2018, the Company has adopted ASU 2014-09 and its amendments, reported the impact in its consolidated financial statements, and implemented changes to its business processes, systems and controls to support revenue recognition and the related disclosures under this ASU. The Company's assessment included a detailed review of representative contracts from each of the Company's revenue streams and a comparison of its historical accounting policies and practices to the new standard. The Company adopted the new standards retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (the modified retrospective transition method) to all existing contracts that have remaining obligations as of April 1, 2018. Accordingly, the Company has elected to retroactively adjust only those contracts that do not meet the definition of a complete contract at the date of the initial application. This guidance has led to recognizing certain revenue transactions sooner than in the past on certain contracts, as the Company will need to estimate the revenue it will be entitled to upon contract completion, and later on other contracts, such as Consulting and Statement of Work transactions, due to the lack of an enforceable right to payment for performance obligations satisfied over time. There were no changes in the accounting for its largest revenue stream which includes Inox Wind as its primary customer. Across other revenue streams such as D-VAR® Equipment and D-VAR® turnkey projects, the timing of revenue recognition will be affected for multiple types of contracts, primarily multiple performance obligation contracts in its Grid business unit, but those differences did not have a material impact on its consolidated financial statements. The adjustment to opening accumulated deficit was not significant in the period commencing on April 1, 2018. Additionally, the adoption of this new standard did not have any tax impact on the consolidated financial statements. As part of this analysis, the Company evaluated its information technology capabilities and systems, and did not incur significant information technology costs to modify systems currently in place.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. The amendments in ASU 2016-01 will enhance the reporting model for financial instruments to provide users of financial statements with more decision-useful information. This ASU is effective for annual reporting periods beginning after December 15, 2017, and interim periods within those fiscal years. The Company adopted ASU 2016-01 effective April 1, 2018 and noted no significant impact to its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The guidance in this ASU supersedes the leasing guidance in Topic 840, *Leases*. Under the new guidance, lessees are required to recognize lease assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. This ASU and its amendments are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years.

- In July 2018, the FASB issued ASU 2018-10, *Codification improvements to Topic 842, Leases.* The amendments in ASU 2018-10 provide more clarification in regards to the application and requirements of ASU 2016-02.
- In July 2018, the FASB issued ASU 2018-11, *Topic 842, Leases — Targeted improvements.* The amendments in ASU 2018-11 provide for the option to adopt the standard prospectively and recognize a cumulative-effect adjustment to the opening balance of retained earnings as well as offer a new practical expedient that will allow the Company to elect, by class of underlying asset, to not separate non-lease and lease components in certain circumstances and instead to account for those components as a single item.

The Company has evaluated the provisions of ASU 2016-02 and its amendments, and assessing the impact the adoption of this guidance will have on its financial position, results of operations and disclosures. This process has included identifying the implementation team, applying the revised definition of a lease per ASC 842 to existing agreements, and from that information, creating an initial population. The Company made the policy election to exclude all leases shorter than 12 months from the recognition of the recording of the right of use ("ROU") asset and related liabilities. The Company elected the package of three practical expedients in regards to all leases that commenced before the effective date. The Company made a policy election to not separate non-lease and lease components for all asset classes. The adoption of this guidance will result in certain changes to the financial statements to add the related asset and liability accounts for all of its operating leases. The Company will continue to assess its agreements for any other impacts that may result from the adoption of this standard. Based on the analysis of the initial lease population, the Company has determined that its initial population will be made up entirely of operating leases. The Company has prepared control wording, is finalizing the overall lease policies and has identified and implemented any changes that were necessary to comply with the provisions of ASU 2016-02.

ASU 2016-02 became effective on April 1, 2019, and the Company adopted the standard using the modified retrospective transition method, which impacts all leases existing at, or entered into after, the period of adoption. For all leases existing at the time of adoption the Company will recognize a cumulative effect adjustment to its opening balance of retained earnings as of April 1, 2019. As a result of the adoption of ASC 842, the Company expects to recognize an increase in net lease assets between $3.0 million and $5.0 million and an increase in net lease liabilities between $3.0 million and $5.0 million related to the recognition of a right-of-use asset and the associated liability.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The amendments in ASU 2016-13 will provide more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. The ASU is effective for annual reporting periods beginning after December 15, 2019, including interim periods within that year. The Company is currently evaluating the impact, if any, the adoption of ASU 2016-13 may have on its consolidated financial statements.

In 2016, the FASB issued the following two ASU's on Statement of Cash Flows (Topic 230). Both amendments are effective for annual reporting periods beginning after December 15, 2017, including interim periods within that year.

- In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*. The amendments in ASU 2016-15 provide more guidance towards the classification of multiple different types of cash flows in order to reduce the diversity in reporting across entities.

- In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*. The amendments in ASU 2016-18 explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows.

The Company adopted ASU 2016-15 and ASU 2016-18 effective April 1, 2018 and the consolidated statement of cash flow has been prepared to conform with ASU 2016-18 for all periods presented.

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*. The amendments in ASU 2016-16 will improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. The ASU is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that year. The Company adopted ASU 2016-16 effective April 1, 2018 and noted no significant impact to its consolidated financial statements.

In February 2017, the FASB issued ASU 2017-05, *Other Income — Gains and Losses from the Derecognition of Non-financial Assets (Subtopic 610-20)*. The amendments in ASU 2017-05 clarify the scope of Subtopic 610-20, *Other Income-Gains and Losses from the Derecognition of Non-financial Assets*, and add guidance for partial sales of non-financial assets. Subtopic 610-20, which was issued in May 2014 as a part of ASU No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), provides guidance for recognizing gains and losses from the transfer of non-financial assets in contracts with non-customers. The Company adopted ASU 2017-05 effective April 1, 2018 and adjusted the opening balance of accumulated deficit by $0.1 million for recognition of the deferred gain on the sale of the 64 Jackson Road building that occurred on March 28, 2018.

In May 2017, the FASB issued ASU 2017-09, *Compensation — Stock Compensation (Subtopic 718) Scope of Modification Accounting*. The amendments in ASU 2017-09 provide clarity and reduce both (1) diversity in practice and (2) cost and complexity when applying the guidance in Topic 718, Compensation — Stock Compensation, to a change to the terms or conditions of a share-based payment award. The ASU is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those periods. The Company adopted ASU 2017-09 effective April 1, 2018 and noted no significant impact to its consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, *Earnings per Share (Topic* 260), *Distinguishing Liabilities from Equity (Topic 480), and Derivatives and Hedging (Topic 815)*. The amendments in ASU 2017-11 provide guidance for freestanding equity-linked financial instruments, such as warrants and conversion options in convertible debt or preferred stock, and should no longer be accounted for as a derivative liability at fair value as a result of the existence of a down round feature. The ASU is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those periods. The Company is currently evaluating the impact of the adoption of ASU 2017-11 and does not expect a significant impact on its consolidated financial statements, primarily due to the put option feature within the Company's warrant agreements which requires continued liability classification under ASC 480.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*. The amendments in ASU 2017-12 provide improved financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. In addition, the amendments in this update make certain targeted improvements to simplify the application of the hedge accounting guidance. The ASU is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those periods. The Company is currently evaluating the impact the adoption of ASU 2017-12 may have on its consolidated financial statements.

In June 2018, the FASB issued ASU 2018-07, *Compensation — Stock Compensation (Topic 718): Improvements to Non-Employee Share Based Payment Accounting*. The amendments in ASU 2018-07 provide for the simplification of the measurement of share-based payment transactions for acquiring goods and services from non-employees. The ASU is effective for annual reporting periods beginning after December 15, 2018, including interim periods within those periods. The Company adopted ASU 2018-07 effective April 1, 2018 and noted no significant impact on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Changes to the Disclosure Requirements for Fair Value Measurement*. The amendments in ASU 2018-13 provide for increased effectiveness of the disclosures made around fair value measurements while including consideration for costs and benefits. The ASU is effective for annual reporting periods beginning after December 15, 2019, including interim periods within those periods. The Company is currently evaluating the impact the adoption of ASU 2018-13 may have on its consolidated financial statements.

20. Subsequent Events

The Company has performed an evaluation of subsequent events through the time of filing this Annual Report on Form 10-K with the SEC, and has determined that there are no such events to report.

Item 9. *CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE*

None.

Item 9A. *CONTROLS AND PROCEDURES*

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2019. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2019, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over our financial reporting. Internal control over financial reporting is defined in Rules 13a–15(f) and 15d–15(f) under the Exchange Act as a process designed by, or under the supervision of, a company's chief executive officer and chief financial officer, and effected by the board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

(1) Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of assets;

(2) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of management and directors; and

(3) Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on the financial statements.

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, an evaluation was conducted of the effectiveness of our internal control over financial reporting based on the Committee of Sponsoring Organizations of the Treadway Commission's *Internal Control — Integrated Framework* (2013 Edition). Based on this evaluation, management concluded that our internal control over financial reporting was effective as of March 31, 2019.

The effectiveness of our internal control over financial reporting as of March 31, 2019 has been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting during the quarter ended March 31, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. ***OTHER INFORMATION***

None.

PART III

Item 10. *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

The response to this item is contained in part under the caption "Executive Officers" in Part I of this Annual Report on Form 10-K, and in part in our Proxy Statement for the Annual Meeting of Stockholders to be held in 2019 (the "2019 Proxy Statement") in the sections "Corporate Governance — Members of the Board," "Corporate Governance — Code of Business Conduct and Ethics," "Corporate Governance —Board Committees" and "Corporate Governance — Board Committees — Audit Committee," "Corporate Governance — Director Nomination Process", "Corporate Governance — Board Determination of Independence", which sections are incorporated herein by reference.

Item 11. *EXECUTIVE COMPENSATION*

The sections of the 2019 Proxy Statement titled "Information About Executive and Director Compensation," "Information About Executive and Director Compensation — Compensation Committee Interlocks and Insider Participation" and "Information About Executive and Director Compensation — Compensation Committee Report" are incorporated herein by reference.

Item 12. *SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS*

The sections of the 2019 Proxy Statement titled "Stock Ownership of Certain Beneficial Owners and Management" and "Information about Executive Officer and Director Compensation — Securities Authorized for Issuance Under our Equity Compensation Plans" are incorporated herein by reference.

Item 13. *CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE*

The sections of the 2019 Proxy Statement titled "Certain Relationships and Related Transactions" and "Corporate Governance — Board Determination of Independence" and "Corporate Governance — Board Committees" are incorporated herein by reference.

Item 14. *PRINCIPAL ACCOUNTING FEES AND SERVICES*

The section of the 2019 Proxy Statement titled "Ratification of Selection of Independent Registered Public Accounting Firm (Proposal 4)" is incorporated herein by reference.

PART IV

Item 15. ***EXHIBITS AND FINANCIAL STATEMENT SCHEDULES***

(a) Document filed as part of this Annual Report on Form 10-K:

1. Financial Statements

The following financial statements of American Superconductor Corporation, supplemental information and report of independent registered public accounting firm required by this item are included in Item 8, "Financial Statements and Supplementary Data," in this Form 10-K:

2. Financial Statement Schedules

All schedules are omitted because they are not applicable, not required or the required information is shown in the consolidated financial statements or notes thereto.

3. Exhibits Required by Item 601 of Regulation S-K under the Exchange Act.

See (b) Exhibits.

(b) Exhibits

The list of Exhibits filed as a part of this Annual Report on Form 10-K is set forth on the Exhibit Index immediately following Item 16, "Form 10-K Summary", and is incorporated herein by reference.

Item 16. ***FORM 10-K SUMMARY***

None.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed/ Furnished Herewith
3.1	Restated Certificate of Incorporation of the Registrant, as amended.	S-3	333-191153	3.1	9/13/2013	
3.2	Certificate of Amendment of Restated Certificate of Incorporation of the Registrant, dated March 24, 2015.	8-K	000-19672	3.1	3/24/2015	
3.3	Amended and Restated By-Laws of the Registrant.	S-3	333-191153	3.2	9/13/2013	
4.1	Form of Indenture, between the Registrant and Wilmington Trust, National Association.	S-3	333-222874	4.1	2/5/2018	
4.2	Form of Warrant Agreement, by and between the Registrant and the American Stock Transfer and Trust Company, dated November 13, 2014, and Form of Warrant.	8-K	000-19672	4.1	11/13/2014	
4.3	Description of Capital Stock					*
10.1+	2007 Stock Incentive Plan, as amended.	8-K	000-19672	10.1	8/2/2016	
10.2+	Form of Incentive Stock Option Agreement under 2007 Stock Incentive Plan, as amended.	8-K	000-19672	10.2	8/7/2007	
10.3+	Form of Non-statutory Stock Option Agreement under 2007 Stock Option Plan, as amended.	8-K	000-19672	10.3	8/7/2007	
10.4+	Form of Restricted Stock Agreement Regarding Awards to Executive Officers under 2007 Stock Option Plan, as amended.	8-K	000-19672	10.4	8/7/2007	
10.5+	Form of Restricted Stock Agreement Regarding Awards to Employees, under 2007 Stock Option Plan, as amended.	8-K	000-19672	10.5	8/7/2007	
10.6+	Form of Restricted Stock Agreement (regarding performance-based awards to executive officers and employees) under 2007 Stock Incentive Plan, as amended.	8-K	000-19672	10.1	5/20/2008	
10.7+	Form of Option Surrender Agreement under 2007 Stock Incentive Plan, as amended.	10-Q	000-19672	10.4	11/6/2018	
10.8+	Amended and Restated 2007 Director Stock Plan.	8-K	000-19672	10.2	8/2/2016	
10.9+	Form of Non-statutory Stock Option Agreement Under Amended and Restated 2007 Director Stock Plan.	8-K	000-19672	10.7	8/7/2007	
10.10+	Form of Employee Nondisclosure and Developments Agreement.	10-K/A	333-43647	10.11	6/7/2018	

		Incorporated by Reference				
Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed/ Furnished Herewith
10.11+	Amended and Restated Executive Severance Agreement, dated as of May 24, 2011, between the Registrant and Daniel P. McGahn.	8-K	000-19672	10.2	5/24/2011	
10.12+	Amended and Restated Executive Severance Agreement, dated as of September 20, 2013, between the Registrant and James F. Maguire.	8-K	000-19672	10.1	9/25/2013	
10.13+	First Amendment to Amended and Restated Executive Severance Agreement, dated April 6, 2018, between the Registrant and James F. Maguire	10-K	000-19672	10.5	6/6/2018	
10.14+	Executive Severance Agreement, dated as of January 13, 2012, between the Registrant and John W. Kosiba.	8-K	000-19672	10.1	4/4/2017	
10.15+	First Amendment to Executive Severance Agreement, effective as of July 31, 2017, between the Registrant and John W. Kosiba.	10-Q	000-19672	10.1	11/7/2017	
10.16+	Fiscal 2017 Executive Incentive Plan.	10-Q	000-19672	10.1	8/8/2017	
10.17+	Fiscal 2018 Executive Incentive Plan.	8-K	000-19672	10.1	7/3/2018	
10.18†	Supply Contract, effective as of February 8, 2013, by and between the Registrant and Inox Wind Limited.	8-K	000-19672	10.1	2/14/2013	
10.19†	Supply Contract, effective as of June 2, 2014, by and between the Registrant and Inox Wind Limited.	8-K	000-19672	10.1	6/5/2014	
10.20†	Amendment No.1 to Supply Contract (dated June 2, 2014), by and between the Registrant and Inox Wind Limited, entered into by the Registrant on August 26, 2015.	10-Q	000-19672	10.1	11/3/2015	
10.21†	Amendment No.2 to Supply Contract (dated June 2, 2014), by and between the Registrant and Inox Wind Limited, entered into by the Registrant on December 14, 2015.	10-Q	000-19672	10.3	2/9/2016	
10.22†	Amendment No.3 to Supply Contract (dated June 3, 2014), by and between the Registrant and Inox Wind Limited, entered into on February 18, 2016.	10-K	000-19672	10.41	5/31/2016	
10.23†	Supply Contract, effective as of August 15, 2014, by and between the Registrant and Inox Wind Limited.	10-Q	000-19672	10.1	11/6/2014	

		Incorporated by Reference				
Exhibit Number	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed/ Furnished Herewith
10.24†	Amendment No.1 to Supply Contract (effective as of August 15, 2014), by and between the Registrant and Inox Wind Limited, entered into by the Registrant on February 25, 2015.	10-Q	000-19672	10.2	11/3/2015	
10.25†	Amendment No.2 to Supply Contract (effective as of August 15, 2014), by and between the Registrant and Inox Wind Limited, entered into by the Registrant on August 26, 2015.	10-Q	000-19672	10.3	11/3/2015	
10.26†	Amendment No.3 to Supply Contract (effective as of August 15, 2014), by and between the Registrant and Inox Wind Limited, entered into on November 19, 2015.	10-Q	000-19672	10.4	2/9/2016	
10.27†	Amendment No.4 to Supply Contract (effective as of August 15, 2014), by and between the Registrant and Inox Wind Limited, entered into on February 18, 2016.	10-K	000-19672	10.46	5/31/2016	
10.28†	Supply Contract, dated December 16, 2015, by and between the Registrant and Inox Wind Limited.	10-Q	000-19672	10.1	2/9/2016	
10.29††	Amendment No. 1 to Supply Contract, entered into as of March 14, 2018 and effective as of November 8, 2017, by and between the Registrant and Inox Wind Limited.	10-K	000-19672	10.29	6/6/2018	
10.30††	Amendment No. 2 to Supply Contract, entered into on May 21, 2018, by and between the Registrant and Inox Wind Limited.	10-K	000-19672	10.30	6/6/2018	
10.31†	Technology License Agreement, dated December 16, 2015, by and among AMSC Austria GMBH, the Registrant and Inox Wind Limited.	10-Q	000-19672	10.2	2/9/2016	
10.32	Purchase and Sale Agreement, dated as of February 1, 2018, by and between ASC Devens LLC and 64 Jackson, LLC.	8-K	000-19672	10.1	2/1/2018	
10.33	Subordinated Secured Commercial Promissory Note of Jackson 64 MGI, LLC in favor of ASC Devens LLC dated March 28, 2018.	8-K	000-19672	10.1	4/3/2018	

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed/ Furnished Herewith
10.34	Assignment of Purchase and Sale Agreement, dated as of March 26, 2018, by and among ASC Devens LLC, 64 Jackson, LLC and Jackson 64 MGI, LLC.	8-K	000-19672	10.2	4/3/2018	
10.35	Subordinated Second Mortgage of Jackson 64 MGI, LLC in favor of ASC Devens LLC effective March 28, 2018.	8-K	000-19672	10.3	4/3/2018	
10.36	Subordinated Second Assignment of Leases and Rents by Jackson 64 MGI, LLC to ASC Devens LLC dated March 28, 2018.	8-K	000-19672	10.4	4/3/2018	
10.37	Intercreditor, Subordination and Standstill Agreement by and among East Boston Savings Bank, ASC Devens LLC and Jackson 64 MGI, LLC dated March 28, 2018.	8-K	000-19672	10.5	4/3/2018	
10.38	First Amendment to Intercreditor, Subordination and Standstill Agreement by and between East Boston Savings Bank and ASC Devens LLC dated March 28, 2019.					*
10.39	Subordination of Subordinated Second Mortgage Rents by ASC Devens LLC to East Boston Savings Bank dated March 28, 2019.					*
10.40	Subcontract Agreement, dated October 31, 2018, by and between the Registrant and Commonwealth Edison Company.	10-Q	000-19672	10.1	2/5/2019	
21.1	Subsidiaries.					*
23.1	Consent of RSM US LLP					*
31.1	Chief Executive Officer — Certification pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					*
31.2	Chief Financial Officer — Certification pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					*
32.1	Chief Executive Officer — Certification pursuant to Rule13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					**

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed/ Furnished Herewith
32.2	Chief Financial Officer — Certification pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					**
101.INS	XBRL Instance Document.*					
101.SCH	XBRL Taxonomy Extension Schema Document.*					
101.CAL	XBRL Taxonomy Calculation Linkbase Document.*					
101.DEF	XBRL Taxonomy Definition Linkbase Document.*					
101.LAB	XBRL Taxonomy Label Linkbase Document.*					
101.PRE	XBRL Taxonomy Presentation Linkbase Document.*					

† Confidential treatment previously requested and granted with respect to certain portions, which portions were omitted and filed separately with the Commission.

\+ Management contract or compensatory plan or arrangement required to be filed as an Exhibit to this Form 10-K.

* Filed herewith.

** Furnished herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMERICAN SUPERCONDUCTOR CORPORATION

BY: /S/ DANIEL P. MCGAHN

Daniel P. McGahn
Chairman of the Board, President, and Chief Executive Officer

Date: June 5, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Title	Date
/S/ DANIEL P. MCGAHN **Daniel P. McGahn**	Chairman of the Board, President, Chief Executive Officer, and Director (Principal Executive Officer)	June 5, 2019
/S/ JOHN W. KOSIBA, JR. **John W. Kosiba, Jr.**	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	June 5, 2019
/S/ ARTHUR H. HOUSE **Arthur H. House**	Lead Independent Director of the Board	June 5, 2019
/S/ VIKRAM S. BUDHRAJA **Vikram S. Budhraja**	Director	June 5, 2019
/S/ BARBARA G. LITTLEFIELD **Barbara G. Littlefield**	Director	June 5, 2019
/S/ DAVID R. OLIVER, JR. **David R. Oliver, Jr.**	Director	June 5, 2019

Corporate Management and Directors

Management Team

Daniel P. McGahn
Chairman, President and Chief Executive Officer

John W. Kosiba, Jr.
Senior Vice President, Chief Financial Officer and Treasurer

Board of Directors

Vikram Budhraja
President, Electric Power Group, LLC

Arthur H. House
Chief Cybersecurity Risk Officer, State of Connecticut

Barbara G. Littlefield
Chief Financial Officer, Poseidon Water, LLC

Daniel P. McGahn
Chairman, President and Chief Executive Officer

David Oliver, Jr.
Rear Admiral, U.S. Navy (Retired)
Chief Operating Officer, European Aeronautic Defense and Space Company North America (EADS NA) (Retired)

AMSC
114 E. Main Street
Ayer, MA 01432-1832
Phone: 978-842-3000

Transfer Agent and Registrar
American Stock Transfer & Trust Company
59 Maiden Lane Plaza Level
New York, NY 10038
800-937-5449

The transfer agent is responsible for handling shareholder questions about changes of ownership or the name in which shares are held. As of June 7, 2019 there were 185 holders of record of AMSC common stock.

Common Stock Listing
Nasdaq Global Select Market
Symbol: AMSC

Legal Counsel
Latham & Watkins LLP
John Hancock Tower, 20th Floor
200 Clarendon St
Boston, MA 02116

Independent Auditors
RSM U.S. LLP
80 City Square
Boston, MA 02129

Form 10-K
The text of the company's annual report on form 10-K for the fiscal year ended March 31, 2019 (excluding exhibits), as filed with the Securities and Exchange Commission, is included herein.

amsc smarter, cleaner ...better energy

This letter contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding: our future strategy, plans and prospects; expectations for future production and revenue growth; diversification of our revenue mix; the addressable market for our products; our goal to have our advanced HTS-based degaussing system designed into additional vessel platforms; timing of manufacturing of the first REG system for ComEd; our continued partnership with Inox; our entry into the off-shore market in fiscal 2019; generating sustainable and profitable growth; and delivering value to our shareholders. Factors that could cause actual results to differ materially from those indicated by such forward-looking statements include but are not limited to the important factors discussed under the caption "Risk Factors" in Part 1. Item 1A of our Form 10-K for the fiscal year ended March 31, 2019, which are included in this Annual Report. The forward-looking statements contained in this letter represent management's estimates as of the date of this letter. 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. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this letter.