American Superconductor Wire Serves in Superconductor Electrical Substation in China

Project Led by Institute of Electrical Engineering, China Academy of Science Substation Providing Highly Reliable, High Quality Power to City of Baiyin China Poised to Become Dominant Player in Superconductor Power Applications

DEVENS, Mass., Apr 21, 2011 (BUSINESS WIRE) --

American Superconductor Corporation (NASDAQ: AMSC), a global power technologies company, today announced that its high temperature superconductor (HTS) wire is being used in an electrical substation in China. Located in the city of Baiyin in the Gansu province of China, and built by the Institute of Electrical Engineering, China Academy of Science (IEE CAS), the Baiyin substation was celebrated earlier this week on the 25th anniversary of the discovery of HTS materials. This substation is now supplying higher quality, highly reliable electricity with higher efficiency to customers. IEE CAS is a scientific research base in the electrical engineering field focused on high tech research and development of new electrical engineering and energy technologies.

"The Baiyin superconductor substation is one of the most ambitious superconductor projects undertaken to date anywhere in the world," said Dr. Xiao Liye, head of IEE CAS. "This is a holistic project that demonstrates how superconductors will be applied in substations throughout China in the years ahead. As China's electricity needs continue to increase, these solutions will be essential to maintain a high level of efficiency and reliability for our homes and businesses."

The Baiyin substation began operation in February 2011 under a cooperation contract signed by Baiyin Municipal State Assets Supervising and Administration Committee, IEE CAS and Gansu Changtong Cable Company. The substation includes the following systems, all of which were developed by IEE CAS utilizing American Superconductor's HTS wire:

- A superconductor fault current limiter (FCL): Superconductor FCLs act as high-voltage surge protectors for the power grid;
- A superconductor power cable system: HTS power cables are able to transmit up to 10 times more power than copper cables in the same footprint with high efficiency to support new sources of generation and load growth;
- A superconductor magnetic energy storage (SMES) system: SMES systems provide backup electric power that is able to respond instantly to power fluctuations on transmission and distribution grids; and
- A superconductor transformer: Superconductor transformers increase and decrease voltage with less power loss than traditional copper-based systems.

American Superconductor's wire is also being utilized by Shanghai Electric Cable Research Institute to develop new superconductor power cable solutions.

"China is moving forward on multiple fronts to become a first large-scale, commercial adopter of superconductor power grid solutions," said American Superconductor founder and Chief Executive Officer Greg Yurek. "We applaud IEE CAS for developing superconductor products and implementing them in the Baiyin substation, and we look forward to supporting many more such implementations in China in the years ahead."

American Superconductor is the world's leading manufacturer of HTS wire. Amperium™ wire is the brand name for the company's second-generation (2G) high temperature superconductor (HTS) wire. This wire is able to conduct more than 100 times the electrical current of copper wire of the same dimensions. To put this into perspective, in high-voltage power transmission systems, just one of these ultra-thin wires would be able to carry enough power to serve the needs of more than 50,000 Chinese households. Applications for Amperium wire include AC and DC power transmission and distribution cables, ship propulsion motors and generators, wind turbine generators such as American Superconductor's SeaTitan™, degaussing systems for naval vessels, electromagnets, maglev trains, fault current limiters and FaultBlocker™ surge-suppressing power cable systems.

To learn more about AMSC's Amperium wire and other product offerings, please visit http://www.amsc.com/products/amperiumwire/index.html.

AboutIEE CAS

As a scientific research base in the electrical engineering field focusing on the high-tech research and development, and a national scientific research organization aiming at developing new technologies of electrical engineering and energy as its scientific orientation, Institute of Electrical Engineering, Chinese Academy of Sciences (IEE CAS) plays a unique role in China's deployment of electrical engineering science. During the 40 years since its foundation, IEE CAS has been fighting on the frontline of basic research and high-tech strategic development for electrical engineering discipline.

About American Superconductor (NASDAQ: AMSC)

AMSC offers an array of proprietary technologies and solutions spanning the electric power infrastructure - from generation to delivery to end use. The company is a leader in renewable energy, providing proven, megawatt-scale wind turbine designs and electrical control systems. The company also offers a host of Smart Grid technologies for power grid operators that enhance the reliability, efficiency and capacity of the grid, and seamlessly integrate renewable energy sources into the power infrastructure. These include superconductor power cable systems, grid-level surge protectors and power electronics-based voltage stabilization systems. AMSC's technologies are protected by a broad and deep intellectual property portfolio consisting of hundreds of patents and licenses worldwide. More information is available at www.amsc.com.

Any statements in this release about future expectations, plans and prospects for the company, including our expectations regarding the financial performance of the company and other statements containing the words "believes," "anticipates," "plans," "expects," "will" and similar expressions, constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. 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: we have a history of operating losses, and we may incur losses in the future; our operating results may fluctuate significantly from quarter to quarter and may fall below expectations in any particular fiscal quarter, including any expectations resulting from financial guidance issued by us; a significant portion of our revenues are derived from a single customer, Sinovel, and revenues from this customer may decline in future periods; any failure by this customer (or other customers) to honor contractual obligations to accept products or to pay for products may have a material adverse impact on our financial condition or results from operations;additional or unanticipated issues leading Sinovel to refuse to accept or pay for shipments; we may be subject to restatement of financial information from prior periods, identification of deficiencies in our internal control over financial reporting or disclosure control and procedures, and/or additional unanticipated accounting, audit and internal control issues; adverse changes in domestic and global economic conditions could adversely affect our business; changes in exchange rates could adversely affect our financial results; we may not realize all of the sales expected from our backlog of orders and contracts; we rely upon third party suppliers for the components and subassemblies of many of our products, making us vulnerable to supply shortages and price fluctuations; we have not manufactured our Amperium wire in commercial quantities, and a failure to manufacture our Amperium wire in commercial quantities at acceptable cost and quality levels would substantially limit our future revenue and profit potential; and our patents may not provide meaningful protection for our technology, which could result in us losing some or all of our market position. Reference is made to these and other factors discussed in the "Risk Factors" section of the company's most recent quarterly or annual report filed with the Securities and Exchange Commission. In addition, any forward-looking statements included in this press release represent the company's views as of the date of this release. While the company anticipates that subsequent events and developments may cause the company's views to change, the company specifically disclaims any obligation to update these forward-looking statements. These forward-looking statements should not be relied upon as representing the company's views as of any date subsequent to the date this press release is issued.

SOURCE: American Superconductor Corporation

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