



Industry Leaders Successfully Demonstrate Transmission Voltage Superconductor Fault Current Limiter

Nexans, Siemens and American Superconductor Successfully Test High Voltage System

DEVENS, Mass., Oct 13, 2011 (BUSINESS WIRE) --

Nexans, Siemens and American Superconductor Corporation (NASDAQ: AMSC) today announced the successful qualification of a transmission voltage resistive fault current limiter (FCL) that utilizes high temperature superconductor (HTS) wire. This marks the first time a resistive superconductor FCL has been developed and successfully tested for power levels suitable for application in the transmission grid (138 kV insulation class and nominal current of 900 A).

As electrical demand increases, more power generation must be added to the grid. The addition of generation capacity also tends to increase the destructive over-current available when a fault occurs on the power system, taxing the capabilities of installed equipment, such as circuit breakers. Faults can be caused by equipment failures, severe weather, accidents or even acts of willful destruction. Such faults can damage major, expensive components and, if not cleared quickly, can lead to lengthy, costly outages.

Used in a substation, FCL's acts as current surge protectors for the power grid. A resistive FCL consists of low inductance superconducting coils that work in parallel with a shunt reactor. Unlike other approaches, this type of system has low impedance, meaning it is virtually transparent to the grid until it "sees" a fault. At this point, the superconductor coils transition from a conductive to a resistive state to suppress the fault current.

The system that was tested by Nexans, Siemens and AMSC proved to reduce fault current levels by more than 50 percent. This smart grid system can strengthen the grid by reducing the destructive nature of faults, extending the life of existing substation equipment and allowing utilities to defer or eliminate equipment replacements or upgrades. The resistive nature of this superconductor-based FCL can also improve the ability of the high voltage transmission power grid to remain stable, reducing the likelihood of more widespread system collapse.

The collaboration between the three industry leaders resulted in a solution that has virtually no electrical impact to a large electric utility grid under normal operation but limits currents in response to a downstream short circuit, limiting damage and the stress that other grid components experience.

The FCL development and testing was done as part of a project cost-shared by industry partners and sponsored by the U.S. Department of Energy and was aimed at accelerating the modernization of the U.S. electricity grid using superconductor technology. Nexans, Siemens and AMSC jointly designed, developed and tested the FCL. It features a proprietary Siemens-developed, low inductance coil technology that makes the FCL invisible to the grid until it switches to a resistive state. Nexans designed and built the high-voltage terminations and their connections to the FCL module in the cryostat. AMSC provided its proprietary Amperium™ HTS wire for the system.

[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.

[About Nexans](#)

With energy as the basis of its development, Nexans, a worldwide leading expert in the cable industry, offers an extensive range of cables and cabling systems. The Group is a global player in the infrastructure, industry, building and Local Area Network markets. Nexans addresses a series of market segments: from energy, transport and telecom networks to shipbuilding, oil and

gas, nuclear power, automotives, electronics, aeronautics, material handling and automation. Nexans is a responsible industrial company that regards sustainable development as integral to its global and operational strategy. Continuous innovation in products, solutions and services, employee development and engagement, and the introduction of safe industrial processes with limited environmental impact are among the key initiatives that place Nexans at the core of a sustainable future. With an industrial presence in 40 countries and commercial activities worldwide, Nexans employs 23,700 people and had sales in 2010 of more than 6 billion euros. Nexans is listed on NYSE Euronext Paris, compartment A. For more information, please consult www.nexans.com or <http://www.nexans.mobi>.

About Siemens

Siemens AG is a global powerhouse in electronics and electrical engineering, operating in the industry, energy and healthcare sectors. For over 160 years, Siemens has stood for technological excellence, innovation, quality, reliability and internationality. The company is the world's largest provider of environmental technologies. More than one-third of its total revenue stems from green products and solutions. In fiscal 2010, which ended on September 30, 2010, revenue from continuing operations (excluding Osram and Siemens IT Solutions and Services) totaled EUR 69 billion and net income from continuing operations EUR 4.3 billion. At the end of September 2010, Siemens had around 336,000 employees worldwide on the basis of continuing operations. Further information is available on the Internet at: <http://www.siemens.com>.

American Superconductor and design, Revolutionizing the Way the World Uses Electricity, AMSC, Powered by AMSC, Amperium, D-VAR, dSVC, FaultBlocker, PowerModule, PowerPipelines, PQ-IVR, PQ-SVC, SeaTitan, SolarTie, SuperGEAR and Windtec and design are trademarks or registered trademarks of American Superconductor Corporation or its subsidiaries. All other brand names, product names or trademarks belong to their respective holders.

Any statements in this release about future expectations, plans and prospects for the company, including without limitation our expectations regarding the recognition of revenue associated with the new contracts 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: a significant portion of our revenues has been derived from Sinovel Wind Group Co. Ltd., ("Sinovel"), which has stopped accepting scheduled deliveries and refused to pay amounts outstanding; the disruption in our relationship with Sinovel has materially and adversely affected our business and results of operations and if, as we expect, Sinovel continues to refuse to accept shipments from us, our business and results of operations will be further materially and adversely affected; we will require significant additional funding and may be unable to raise capital when needed, which could force us to delay, reduce or eliminate planned activities, including the planned acquisition of The Switch Engineering Oy ("The Switch"); we have a history of operating losses, and we may incur additional losses in the future; our operating results may fluctuate significantly from quarter to quarter and may fall below expectations in any particular fiscal quarter; if we fail to complete the planned acquisition of The Switch, our operating results and financial condition could be harmed and the price of our common stock could decline; completion of the planned acquisition of The Switch could present certain risks to our business; adverse changes in domestic and global economic conditions could adversely affect our operating results; changes in exchange rates could adversely affect our results from operations; we have identified material weaknesses in our internal control over financial reporting and if we fail to remediate these weaknesses and maintain proper and effective internal controls 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; if we fail to implement our business strategy successfully, our financial performance could be harmed; we may not realize all of the sales expected from our backlog of orders and contracts; many of our revenue opportunities are dependent upon subcontractors and other business collaborators; our products face intense competition, which could limit our ability to acquire or retain customers; our success is dependent upon attracting and retaining qualified personnel and our inability to do so could significantly damage our business and prospects; 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 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; we depend on sales to customers in China, and global conditions could negatively affect our operating results or limit our ability to expand our operations outside of China; changes in China's political, social, regulatory and economic environment may affect our financial performance; many of our customer relationships outside of the United States are, either directly or indirectly, with 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; 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; we are becoming increasingly reliant on contracts that require the issuance of performance bonds; 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; our success in addressing the wind energy market is dependent on the manufacturers that license our designs; growth of the wind energy market depends largely on the availability and size of government subsidies and economic incentives; 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; 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; the commercial uses of superconductor products are limited today, and a widespread commercial

market for our products may not develop; we have limited experience in marketing and selling our superconductor products and system-level solutions, and our failure to effectively market and sell our products and solutions could lower our revenue and cash flow; 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; we may be unable to adequately prevent disclosure of trade secrets and other proprietary information; we have filed a demand for arbitration and other lawsuits against Sinovel regarding amounts we contend are due and owing and are in dispute; we cannot be certain as to the outcome of the proceedings against Sinovel; we have been named as a party to purported stockholder class actions and shareholder derivative complaints, and we may be named in additional litigation, all of which will require significant management time and attention, result in significant legal expenses and may result in an unfavorable outcome, which could have a material adverse effect on our business, operating results and financial condition; 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; our patents may not provide meaningful protection for our technology, which could result in us losing some or all of our market position; 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; and 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. Reference is made to many of these factors and others 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 release represent the company's expectations 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 of this release.

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