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## Nexans and AMSC Introduce Fault Current Limiter for North American Utilities

- *Medium voltage system expected to improve grid reliability and operation while reducing costs*
- *Several systems already successfully operating in Europe*

DEVENS, Mass., Dec. 5, 2012 (GLOBE NEWSWIRE) -- AMSC (Nasdaq:AMSC), a global solutions provider serving wind and grid leaders, and Nexans, a worldwide expert in the cable industry, today introduced to the North American market a medium voltage superconductor fault current limiter (SFCL) solution that is designed to meet many of the challenges caused by today's highly interconnected networks and diversified generation sources.

Fault currents, which are caused by short circuits in the grid, are a growing challenge for power grid operators worldwide. These destructive currents can be caused by a variety of factors, including lightning or downed power lines. As electricity demand and generation has grown and power grids have become more interconnected, the magnitude of these fault currents has increased significantly. To counter this, utilities have long devised complicated operating schemes and have employed over-rated equipment and a variety of fault current mitigation systems such as fault current limiting reactors. However, each of these approaches has distinct drawbacks, most notably in the area of cost.

According to a report from the Electric Power Research Institute, "Utilities are seriously re-assessing fault current mitigation methods and consider emerging novel FCL technologies as vital alternatives to existing methods, provided these technologies prove to be the most cost effective means of fault current management."

Fault current limiters are one of the key elements in the development of smart grids. The superconductor-enabled fault current limiter being offered by Nexans and AMSC is a cost-effective, fast (response time of less than 2 milliseconds) and self-acting system that limits currents to safe, manageable values. The system is passive, typically sitting idle and "invisible" to the grid, but can sense and then suppress fault currents when they occur, sparing transformers, switchgear and other equipment from damage and protecting the broader power grid. Its ability to sit passively eliminates the losses associated with normal power flow along with many other constraints that are encountered with conventional solutions.

"Nexans has a lengthy history of meeting emerging utility market needs with innovative and highly reliable solutions," said Jean-Maxime Saugrain, Nexans Corporate Vice President Technical. "For years, power grid operators worldwide have been forced to implement sub-optimized schemes to deal with rising fault current levels. That is no longer the case. With a decade of development and demonstrations behind us and initial deployments taking place in Europe, we are excited to be introducing SFCLs to the North American marketplace with AMSC."

AMSC and Nexans are offering SFCL systems with ratings up to 36 kilovolts, allowing for their use on most utility electric distribution systems. These systems have been designed to offer numerous benefits. By lowering peak currents during faults, electric utilities can:

- Greatly reduce system equipment costs
- Defer or eliminate equipment replacement
- Increase equipment life
- Improve grid performance and operation
- Simplify renewables integration
- Improve operator safety

Electric utilities managing grids in urban centers are facing increasing load growth challenges. In these settings, substation expansion and construction can be exceedingly expensive and, while the interconnection of substations would be a compelling solution, it is often impossible due to the magnitude of fault currents that would result from these ties. By lowering fault current levels, SFCLs can overcome this impasse in a cost-effective manner and enable safe and reliable substation interconnections, providing utilities and their customers with unparalleled network reliability and resiliency. This is just one of the many compelling applications for the SFCL systems being offered by Nexans and AMSC.

Nexans has already installed SFCL systems in Germany and the United Kingdom and is going to install additional systems in Europe.

"We are pleased to be expanding our product line and our relationship with Nexans with the launch of the SFCL," said AMSC President and Chief Executive Officer Daniel P. McGahn. "Having successfully teamed to install superconductor power cables and develop and demonstrate SFCL systems, both AMSC and Nexans believe the time is now to begin capitalizing on the tremendous potential that exists for these offerings in the utility market."

The Nexans/AMSC SFCL system will employ AMSC's Amperium® superconductor wire, which is able to conduct approximately 200 times the electrical current of copper wire of similar dimensions. This wire is being used in numerous high-power applications, including SFCLs, power cables, motors and generators. AMSC will lead the North American marketing and sales efforts for the Nexans/AMSC SFCL solution.

### [About Nexans](#)

With energy at the basis of its development, Nexans, worldwide expert in the cable industry, offers an extensive range of cables and cabling solutions. The Group is a global player in the energy transmission and distribution, industry and building markets. Nexans addresses a wide series of market segments: from energy and telecom networks to energy resources (wind turbines, photovoltaic, oil and gas or mining...) to transportation (shipbuilding, aerospace, automotive and automation, railways...). 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 commitment, customer orientation 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 25,000 people and had sales in 2011 of 7 billion euros. Nexans is listed on NYSE Euronext Paris, compartment A. For more information, please consult: [www.nexans.com](http://www.nexans.com) or [www.nexans.mobi](http://www.nexans.mobi).

### [About AMSC \(NASDAQ: AMSC\)](#)

AMSC generates the ideas, technologies and solutions that meet the world's demand for smarter, cleaner ... better energy. Through its Windtec™ Solutions, AMSC provides wind turbine electronic controls and systems, designs and engineering services that reduce the cost of wind energy. Through its Gridtec™ Solutions, AMSC provides the engineering planning services and advanced grid systems that optimize network reliability, efficiency and performance. The company's solutions are now powering gigawatts of renewable energy globally and enhancing the performance and reliability of power networks in more than a dozen countries. Founded in 1987, AMSC is headquartered near Boston, Massachusetts with operations in Asia, Australia, Europe and North America. For more information, please visit [www.amsc.com](http://www.amsc.com).

The AMSC logo is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=11339>

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*an event of default, we may be required to repay our debt obligations in cash, which could have an adverse effect on our liquidity; we have recorded a liability for adverse purchase commitments with certain of our vendors - should we be required to settle these liabilities in cash, our liquidity could be adversely affected; if we fail to 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; 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; changes in exchange rates could adversely affect our results from operations; growth of the wind energy market depends largely on the availability and size of government subsidies and economic incentives; 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; our products face intense competition, which could limit our ability to acquire or retain customers; 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; adverse changes in domestic and global economic conditions could adversely affect our operating results; we may be unable to adequately prevent disclosure of trade secrets and other proprietary information; our patents may not provide meaningful protection for our technology, which could result in us losing some or all of our market position; the commercial uses of superconductor products are limited today, and a widespread commercial market for our products may not develop; 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; 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; 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; we have filed a demand for arbitration and other lawsuits against our former largest customer, Sinovel, regarding amounts we contend are overdue - we cannot be certain as to the outcome of these proceedings; we have been named as a party to purported stockholder class actions and stockholder 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 7% convertible note contains warrants and provisions that could limit our ability to repay the note in shares of common stock and should the note be repaid in stock, shareholders could experience significant dilution; 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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