



First Superconductor Cable Energized in Korea's Power Grid

Korea Electric Power Corporation, LS Cable & System and AMSC Partner on Superconductor Power Cable Utilizing Second Generation Superconductor Wire

I'CHEON, South Korea, Sep 29, 2011 (BUSINESS WIRE) --

Korea Electric Power Corporation (KEPCO), LS Cable & System and American Superconductor Corporation (NASDAQ: AMSC) today announced that the world's longest distribution-voltage superconductor cable system has been energized at the I'cheon substation located near the city of Seoul. Powered by AMSC's [Amperium™ superconductor wire](#) and installed in Korea Electric Power Company's (KEPCO) electricity grid, the 22.9 kV alternating current (AC) cable system is capable of carrying approximately 50 megawatts of power. This is longest HTS cable in the world to be energized in the grid utilizing second generation (2G) superconductor wire and is also currently the longest distribution voltage superconductor power cable in operation.

"The energizing of the I'cheon substation has great historical significance and demonstrates that Korean power electric technology is at a world-class level," said Yup Heo, Executive Vice President of KEPCO's construction division. "Based on the technology and the know-how from this installation, KEPCO will continue to develop transmission voltage superconductor power cables and is securing the world's top superconductor technology and market position."

AC superconductor power cable systems can conduct up to 10 times the amount of power of conventional cables made with copper wire. As demonstrated at the I'cheon substation installation, they can be placed strategically in urban power grids to deliver more power than conventional cables in the same right-of-way to mitigate grid congestion or can be used to replace overhead lines.

"Already over-taxed power grids around the world are being challenged to meet rising electricity demands associated with today's growing and increasingly networked economy. Because superconductor technology provides a reliable, cost-effective solution, we see it as a tremendous growth opportunity," said LS Cable & System President Jong-ho Son. "Beginning with helping to fulfill KEPCO's vision and expanding into a global business, we plan to capitalize on superconductor technology to meet the growing power demands of Korea and the world."

In October of 2010, LS Cable & System and AMSC entered into the world's first large-scale commercial superconductor wire supply agreement. AMSC recently made its initial wire shipment to LS Cable & System under this new agreement to allow it to begin qualification work for Korea's next superconductor cable projects. KEPCO is now planning a 1 kilometer, 154kV AC cable system and a 500 meter, 80kV DC cable system in the grid on South Korea's Jeju Island.

"This installation represents a significant milestone in our close strategic relationship with LS Cable & System and KEPCO," said AMSC President and Chief Executive Officer Daniel McGahn. "KEPCO is focused on ensuring that Korea's power grid is unparalleled in terms of its strength, its reliability and its efficiency. We are proud to work alongside them, providing the high-quality wire they require to begin manufacturing superconductor cables to upgrade their electricity network and others around the world."

Amperium wire is manufactured utilizing a proprietary process at AMSC's headquarters in Devens, Massachusetts - the world's largest commercial-scale HTS wire manufacturing facility. The wire can be used to increase efficiency and reduce the size and weight of a wide variety of applications, including power cables, motors, generators and defense systems. To learn more, visit <http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.amsc.com%2Fproducts%2Famperiumwire&esheet=50009999&lan=en-US&anchor=www.amsc.com%2Fproducts%2Famperiumwire&index=2&md5=0a0e1e7251ea95d2d697114507f14b87>.

[About Korea Electric Power Corporation \(KEPCO\)](#)

KEPCO is South Korea's sole power distributor, serving 13 million households. It also generates approximately 90% of Korea's power supply and is one of the world's top 10 electric utilities, with an installed capacity of nearly 64,000 MW (primarily from thermal and nuclear plants). More information is available at <http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.kepco.co.kr%2Feng%2F&esheet=50009999&lan=en-US&anchor=http%3A%2F%2Fwww.kepco.co.kr%2Feng%2F&index=4&md5=d040c7769984e776249cbb4e659c74ac>.

[About LS Cable & System](#)

LS stands for "Leading Solution." LS Group spun off from LG Group in 2003, Korea's 15th-largest conglomerate and the 3rd-largest power cable maker in the world, is leading the industry of energy and telecommunications systems. LS Cable & System, the flagship company of the conglomerate, is a global provider of cables and systems for the power and telecommunications industry. LS Cable & System also leads high-technology programs, including the production of high temperature superconductor power cables and submarine power transmission cables. LS Cable & System has 35 factories, 45 sales offices and subsidiaries and 4 R&D centers in 23 countries. More information is available at <http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.lscns.com%2F&esheet=50009999&lan=en-US&anchor=http%3A%2F%2Fwww.lscns.com%2F&index=6&md5=33d57c769b0c6bec53c578a0229a4d5d>.

[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 <http://cts.businesswire.com/ct/CT?id=smartlink&url=http%3A%2F%2Fwww.amsc.com&esheet=50009999&lan=en-US&anchor=www.amsc.com&index=10&md5=c60a7495f4ee5b9669004cc5af0bc429>.

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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.

SOURCE: American Superconductor Corporation

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