



Superconductor Electricity Pipelines to be Adopted for America's First Renewable Energy Market Hub

American Superconductor to Supply Superconductor Wire and Cable System for; Tres Amigas SuperStation Tres Amigas to Provide First Interconnection of America's Three Power Grids to Enable Faster Adoption of Renewable Energy and Increase Reliability of Electric Power; AMSC Establishes Equity Position in Tres Amigas, LLC

ALBUQUERQUE, N.M., Oct 13, 2009 (BUSINESS WIRE) -- American Superconductor Corporation (NASDAQ: AMSC), a global energy technologies company, today announced that Superconductor Electricity Pipelines have been chosen for The Tres Amigas Project, the nation's first renewable energy market hub. Superconductor Electricity Pipelines comprise transmission-level direct current (DC) superconductor power cables powered by AMSC high temperature superconductor (HTS) wire and high-powered voltage-source AC/DC power converters. The Tres Amigas Project, which will be announced today in Albuquerque by New Mexico Governor Bill Richardson, focuses on uniting America's three power grids for the first time to enable faster adoption of renewable energy and increase the reliability of the U.S. grid.

The three U.S. power grids - or "Interconnections" - are known as the Eastern Interconnection, the Western Interconnection and the Texas Interconnection (also known as the Electric Reliability Council of Texas, or ERCOT). Power transmission within these three power grids is accomplished primarily utilizing alternating current (AC) power transmission lines. Power transfer *between* any two of the Interconnections, however, can only be accomplished through special power electronic conversion stations. This is commonly achieved by first converting AC power in one grid to DC as an intermediate power form at a substation, then reconverting from DC back to AC before reaching the adjacent grid. This, in effect, synchronizes power flows. While there are several relatively small bilateral "DC Links" existing today between two Interconnections, all three Interconnections have never been united by one system.

The Tres Amigas renewable energy market hub will be a multi-mile, triangular electricity pathway of Superconductor Electricity Pipelines capable of transferring and balancing many gigawatts of renewable power between the three Interconnections. Similar to highway rotaries used for traffic flow control, multiple power transmission lines from each of the Interconnections will feed power into and out of the [Tres Amigas SuperStation](#) through multiple AC/DC converters, each connected by DC superconductor cables. Tres Amigas, which will be a balancing authority, will help ensure the efficient and reliable flow of power from multiple renewable generation sources in all three power grids to customers across a wide area of the U.S., Canada and Mexico.

Phil Harris, chief executive officer of Tres Amigas, LLC, originally developed the concept for the Tres Amigas SuperStation. Harris was formerly the chief executive officer of PJM Interconnection, which serves 14 states and is the world's largest transmission balancing area with over 240,000 megawatts under management. "To truly open up the market for electricity generated from renewable sources of energy," said Harris, "we must enhance transmission in the United States. Tres Amigas will serve as a renewable energy market hub by connecting all three of America's power grids to enable the transfer of green power from region to region. The system will also add a new dimension of reliability and security for U.S. power supplies."

The Tres Amigas SuperStation will act as a power market hub, enabling the buying and selling of electricity between the nation's three Interconnections, which is not possible today. Wind, solar, hydro and geothermal renewable energy sources that do not currently have access to transmission lines and/or customers will be able to tap into multiple markets through the Tres Amigas SuperStation. For example, regions rich in solar energy will be able to buy electricity at night, when the sun is not shining, from regions rich in wind energy. As a merchant transmission system, Tres Amigas will charge a fee for usage of the power hub.

The Tres Amigas renewable energy market hub will be constructed in Clovis, New Mexico, a [location](#) that has easy access to all three of the nation's power grids. [New Mexico's State Land Office already has granted](#) Tres Amigas, LLC the right to lease 14,400 acres (22.5 square miles) of land in Clovis for this system. Tres Amigas, LLC is now in the process of filing with the Federal Energy Regulatory Commission (FERC) for a declaratory order that transmission lines that connect to Tres Amigas from ERCOT will not come under the jurisdiction of FERC and that Tres Amigas can be operated as a merchant transmission entity.

AMSC's Participation in Tres Amigas

"Tres Amigas will utilize the latest in power grid technologies," Harris continued. "We require gigawatt-scale underground cables and power conversion systems that can serve as access points for each of America's Interconnections, making Superconductor Electricity Pipelines a logical fit for the Tres Amigas SuperStation. The same can be said for American Superconductor. With its power grid experience, expertise in transmission planning, and global leadership in superconductor technology, AMSC is well equipped to help us make the vision of Tres Amigas a reality."

Following the project's approval, AMSC is expected to provide transmission planning services, superconductor wire and the superconductor cable system for the project. AMSC intends to partner with some of the industry's leading superconductor power cable and system component companies to manufacture the cable system to AMSC's specification.

"This is a tremendous opportunity to help unify the United States power grid and achieve the nation's renewable energy goals," said Greg Yurek, founder and chief executive officer of American Superconductor. "The time has come to utilize the latest technologies to not only balance renewable energy flows to get more clean electricity to customers, but also to increase the reliability and security of our power grids. Tres Amigas will help achieve these important goals."

AMSC has acquired a minority equity interest in Tres Amigas, LLC for \$1.75 million in cash and AMSC stock. AMSC will hold one of four seats on the Board of Directors of Tres Amigas, LLC. Terry Winter, executive vice president of power grid projects for AMSC, will be AMSC's representative on the Board. Winter was formerly the chief executive officer of the California Independent System Operator (CAISO), the transmission balancing authority for California.

Superconductor Electricity Pipelines

"For wind energy to grow significantly in the U.S., more transmission from locations where winds are strongest to population centers will be required," said American Wind Energy Association Chief Executive Officer Denise Bode. "New transmission technologies such as Superconductor Electricity Pipelines may alleviate some of the nation's transmission challenges, and we are excited about the progress being made with this promising technology."

The concept of using superconductor cables for DC power transmission originated with an [Electric Power Research Institute \(EPRI\)](#) report completed in 1997, which drew upon a seminal 1967 paper discussing the use of low temperature superconductors by IBM scientists and follow-up efforts in the 1970s by a team at New Mexico's Los Alamos National Laboratory. However, the more general concept of using superconductor cables for long distance, high power transmission dates back to at least 1967.

Superconductor Electricity Pipelines combine conventional underground pipeline construction techniques with two highly complementary electric power technologies: DC superconductor power transmission cables and multi-terminal (voltage-source) AC/DC power converters. The result is a high-capacity electric transmission "pipeline" that is underground, easy to site and access, highly efficient and controllable, offers greater security and avoids complex cost allocation issues for interstate transmission of power than competing technologies. To learn more about the technology, visit <http://www.amsc.com/products/applications/utilities/superconductorpipeline.html>

[About Tres Amigas, LLC](#)

Tres Amigas, LLC is uniting the electric grid. Utilizing the latest advances in power grid technology, Tres Amigas is focused on providing the first common interconnection of America's three power grids to help the country achieve its renewable energy goals and facilitate the smooth, reliable and efficient transfer of green power from region to region. Tres Amigas, LLC is a merchant transmission entity composed of electric utility industry operational, technology and thought leaders. More information is available at www.tresamigasllc.com.

[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 [alternative 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.

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Any statements in this release about future expectations, plans and prospects for the company, including our expectations regarding the future 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 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; a significant portion of our revenues are derived from a single customer, and a reduction in business with this customer could adversely affect our operating results; 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; our common stock may experience extreme 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; if we fail to implement our business strategy, our financial performance and our growth could be materially and adversely affected; 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, and a reduction in orders stemming from these companies could adversely affect our operating results; 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; and our international operations are subject to risks that we do not face in the U.S., which could have an adverse effect on our operating results. 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.

Photos/Multimedia Gallery Available: <http://www.businesswire.com/cgi-bin/mmg.cgi?eid=&lang=en>

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