

What's New in the World of Superconductivity (April)

Power

Nexans (April 17, 2003)

Nexans will provide a CRYOFLEX vacuum-insulated flexible cryogenic envelope for an HTS cable being constructed by Innopower Superconductor Cable Co., Ltd., China's first HTS cable manufacturer. This is the first HTS power cable project to be performed in China. The 30-meter long, three-phase, 35kV HTS cable will be installed in the Yunnan Electric Power Group Co. Ltd's power grid in Kunming, China, in the spring of 2004.

Source:

"Innopower chooses Nexans technology for China's first High Temperature Superconducting power cable project"

Nexans (April 17, 2003)

http://www.nexans.com/dyn/site.php3?page_id=18

American Superconductor Corporation and Nexans (April 23, 2003)

The U.S. Department of Energy has selected American Superconductor Corporation (AMSC) to be the prime contractor for a US \$ 30 million HTS power transmission cable project that will involve the Long Island Power Authority (LIPA) transmission grid. The project will represent the world's first installation of a superconductor cable in a live grid at transmission voltages. The 610-meter, 600-MW, 138-kV transmission circuit will be located in an existing underground right of way and will be capable of providing electricity to 300,000 homes. The cable will be manufactured by Nexans using wire produced by AMSC. The cable will contain a vacuum-insulated flexible cryogenic envelope developed by Nexans. Air Liquide will provide the refrigeration equipment and oversee the operation of the cable's cryogenic cooling system. The DOE will provide \$15 million in funding for the project, with the remaining \$15 million provided by the industrial partners. The cable is expected to become operational by the end of 2005. After an initial operating period, the cable is expected to be retained as a permanent part of the LIPA grid. The LIPA cable is one of three new superconductor cable projects to be initiated in the U.S. with the support of the DOE this year.

Source:

"American Superconductor Selected by Department of Energy to Lead \$30 Million Superconductor Cable Project for Long Island Power Authority"

American Superconductor Corporation press release (April 23, 2003)

<http://www.amsuper.com/html/newsEvents/news/105104812341.html>

"Nexans to manufacture superconductor cable for US Department of Energy's \$30 million project on Long Island"

Nexans press release (April 23, 2003)

http://www.nexans.com/dyn/site.php3?page_id=18

American Superconductor Corporation (April 24, 2003)

American Superconductor Corporation voiced its support of a new report issued by the Consumer Energy Council of America (CECA) that highlights the importance of a robust electrical transmission system. The report, entitled "Positioning the Consumer for the Future: A Roadmap to an Optimal Electric Power System", summarizes the findings of a year-long public policy forum. The

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report attempts to explain why the transition to a competitive electricity market has been so difficult and time-consuming in the United States. In addition, the report states that the inclusion of new technologies, like superconductors and other advanced grid solutions, will be critical in enabling the U.S. power infrastructure to meet the expanding needs of consumers.

Source:

“American Superconductor Welcomes New Report on Electric Industry Restructuring from the Consumer Energy Council of America”

American Superconductor Corporation press release (April 24, 2003)

<http://www.amsuper.com/html/newsEvents/news/105119090041.html>

Electric Power Research Institute (April 30, 2003)

The U.S. Department of Energy (DOE) has joined the Consortium for Electric Infrastructure to Support a Digital Society (CEIDS), a public-private partnership formed to address several complex issues surrounding future electric power delivery infrastructures. The main objective of the partnership is to ensure that future electric power delivery infrastructures are capable of meeting the ever-increasing power demands of our digital society. By joining CEIDS, the DOE expects to maximize taxpayer's dollars by leveraging federal resources with that of the private sector. The CEIDS partnership contains representatives from utilities as well as energy and technology organizations. Thus, the perspectives of both the public and private sectors will form important guides for the program's agenda. The partnership's first project will be the initial design of an open architecture for the electricity transmission and distribution system. This 18-month, multi-million dollar project, led by GE Global Research, will define the technical framework for the design of communications and intelligent equipment needed to support the “smart grids” of future electrical systems. More information on the CEIDS partnership can be found at <http://www.e2i.org/ceids>.

Source:

“DOE Joins Electricity Innovation Institute Partnership to Redesign the Nation's Power Delivery System”

Electric Power Research Institute press release (April 30, 2003)

http://www.epri.com/corporate/discover_epri/news/2003releases/043003_doe.html

Material

Superconductive Components, Inc. (April 4, 2003)

Superconductive Components, Inc. has reported their financial results for the three- and twelve-month periods ending December 31, 2002. Revenue for the twelve-month period decreased by 19.2% to US \$ 2.96 million, compared to \$ 3.66 million for the previous year. Product sales also decreased by 16.8% compared to the previous year, while contract revenue decreased by 38.7%. The company's gross margin was 20.9% of their total revenue for 2002, compared to 32.8% in 2001. While the company was disappointed with their results for 2002, they were encouraged by the fact that their cash flow remained neutral, despite the difficult market conditions.

Source:

“Superconductive Components, Inc. Reports Fourth Quarter and Year 2002 Results”

Superconductive Components, Inc. press release (April 4, 2003)

<http://www.prnewswire.com/news/index.shtml>

Communication

ISCO International, Inc., and Superconductor Technologies Inc. (April 3, 2003)

The jury verdict in the patent infringement allegation brought to trial by ISCO International against Superconductor Technologies Inc. (STI) and its wholly-owned subsidiary, Conductus Inc., has been announced. The jury unanimously ruled in favor of STI, stating that ISCO's "Cryoelectronically Cooled Receiver Front End for Mobile Radio Systems" patent (also known as the "215 patent") was invalid and unenforceable and that STI's Superfilter® product did not infringe upon the ISCO patent. The jury also awarded STI US \$ 3.87 million in compensatory damages for unfair competition on the part of ISCO International. M. Peter Thomas, STI's president and chief executive officer stated, "It has always been our firm belief that the '215 patent is invalid. We are very pleased with the outcome of the trial, and we look forward to getting back to business as usual." ISCO International expressed their shock at the jury's decision and intends to seek counsel regarding their options for overturning the verdict.

Sources:

"ISCO International Announces Jury Verdict in Patent Infringement Trial against Superconductor Technologies, Inc."

ISCO International, Inc. press release (April 3, 2003)

<http://www.iscointl.com/>

"Superconductor Technologies Inc. Wins Court Ruling on '215 Patent Infringement Lawsuit"

Superconductor Technologies Inc. press release (April 3, 2003)

<http://ir.thomsonfn.com/InvestorRelations/PubNewsStory.aspx?partner=Mzg0TIRrMU1RPT1QJfKEQ UALSTO&product=MzgwU1ZJPVakWQEQUALSTOEQUALSTO&storyId=84807>

HYPRES, Inc. (April 7, 2003)

HYPRES, Inc., has been awarded a contract from the U.S. Department of Defense to develop a high-performance digital channelizer for multiband and multifunction receivers. The contract, valued at approximately U.S. \$ 1.3 million, will build on the development of a family of HYPRES ultra-high performance analogue-to-digital converters (ADC) that utilize ultra-high speed and ultra-low power superconductor microelectronics (SME) technology. The channelizer will directly convert RF signals to digital baseband data with an exceptionally high resolution and dynamic range. The device is a critical enabling component for true all-digital receivers suitable for communications, radar, and several other applications, eliminating the need for analogue devices that limit overall system performance.

Source:

"HYPRES Awarded Contract to Develop Digital Channelizer"

HYPRES, Inc. press release (April 7, 2003)

http://www.hypres.com/pages/new/bnew_files/pr_channelizer.htm

Superconductor Technologies Inc. (April 30, 2003)

Superconductor Technologies Inc. (STI) reported their first-quarter financial results for the period ending March 29, 2002. Meeting their previously announced expectations, STI posted first quarter revenues of \$7.6 million, compared to \$4.6 million for the first quarter of 2002. Net commercial product revenues also increased during the first quarter of 2003, totaling \$5.1 million compared to \$3.7 million for the first quarter of 2002. Government and other contract revenues totaled \$2.5 million during the first quarter of 2003, compared to \$909,000 during the first quarter of 2002. Including litigation

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expenses (\$4.0 million), the total net loss for the first quarter was \$ 8.3 million, compared to \$6.4 million for the first quarter of 2002. Litigation expenses are expected to drop considerably in the next period. Providing further financial details, M. Peter Thomas, STI's president and chief executive officer, commented, "STI is now entirely focused on our goal of profitability by the fourth quarter. The first quarter results reflect progress on many fronts. First, we achieved our sales targets and recently added a new large wireless customer. Second, we achieved manufacturing efficiencies and posted another quarter of positive gross margins. We are also benefiting from expense reductions in 2002, although they are somewhat obscured by the litigation expenses and the acquisition of Conductus, which by itself accounts for the increase in R&D compared to the first quarter last year. Adjusting for these events, operating expenses are comparable on a larger revenue base this quarter compared to last year's first quarter." STI hopes to expand their international customer base in areas such as Mexico, Brazil, and China as well as in the United States.

Source:

"Superconductor Technologies Inc. Announces First Quarter Results"

Superconductor Technologies Inc. press release (April 30, 2003)

<http://ir.thomsonfn.com/InvestorRelations/PubNewsStory.aspx?partner=Mzg0TIRrMU1RPT1QJfKEQ UALSTO&product=MzgwU1ZJPVakWQEQUALSTOEQUALSTO&storyId=86517>

(Akihiko Tsutai, Director, International Affairs Department, ISTECC)

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