



United States Department of Energy
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NEWS MEDIA CONTACT:
Julie Ruggiero, (202) 586-4940

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**U.S. Department of Energy and SuperPower, Inc. Increase Energy Efficiency
in the Nation's Electric Grid**
\$27 Million Project Demonstrates Advanced Superconductivity Technology

ALBANY, NY- The U.S. Department of Energy (DOE) and SuperPower, Inc. today commemorated the Albany High-Temperature Superconducting (HTS) Cable Project, the world's first use of second-generation HTS wire on the grid. This 350-meter HTS cable runs between the Riverside and Menands Substations in Albany, New York. HTS cables encounter essentially no resistance in electricity flow, which increases efficiency by eliminating 7-10 percent of the energy losses of conventional copper-based cables. DOE's over \$13.5 million investment in this \$27 million project is part of the President's commitment to increase research, development and deployment of cutting-edge technology to help meet the nation's ever-growing power needs.

"The Department is committed to continuing to work with academia, industry and the states to advance High Temperature Superconductivity and other breakthrough technologies," DOE Assistant Secretary for Electricity Delivery and Energy Reliability Kevin Kolevar said. "High Temperature Superconductivity has repeatedly demonstrated that it has the potential to play a pivotal role in modernizing our electric infrastructure and ensuring the stable and affordable delivery of electricity to our homes, businesses and industry. As the nation's demand for electricity continues to grow, so too do the pressures on our electric utilities to continue to provide the reliable electric service that is so important to our economy and way of life."

The first phase of the Albany HTS Cable Project, installed and energized in July 2006, was initially comprised of two sections, a 320-meter long section connected to another 30-meter section, both fabricated with first generation HTS wire. During Phase 2 of this demonstration project in 2007, the 30-meter section was removed and replaced with an equal section fabricated from SuperPower's new second-generation HTS wire. This highly efficient HTS technology has the potential for widespread use in a number of energy applications, including motors, generators, transformers, cables, and fault current limiters.

This project builds upon the recently announced licensing agreement between DOE's Oak Ridge National Laboratory (ORNL) and SuperPower to use an ORNL-developed technology to lower the production costs of superconducting wires. When combined with other wire technologies that have been licensed from DOE's Los Alamos National Laboratory (LANL), the SuperPower manufacturing process can lower the cost of producing superconducting wires for more efficient transmission of electricity. For more information on this technology, visit: http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20080109-00 and http://www.lanl.gov/news/index.php/fuseaction/home.story/story_id/1177. The project commemorated today also advances the Bush Administration's efforts—led by DOE's Office of Electricity Delivery and Energy Reliability—to modernize the electric grid; enhance the security and reliability of the energy infrastructure; and facilitate recovery from disruptions to the energy supply. For more information, visit: www.oe.energy.gov

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