

# **3M's High-Capacity ACCR Conductor Hits Milestone As 1,000th Mile Rolls Off Wisconsin Production Line**

U.S. Department of Energy and Xcel Energy, the First Commercial User,

Participate in Event Marking Installations on Four Continents

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Sen. Ron Johnson, Rep. Ron Kind, and State Sen. Sheila Harsdorf Speak

In an event attended by federal and state lawmakers, utility executives and Department of Energy officials, 3M recently marked the production and commercial sale of the 1,000th mile of its groundbreaking high-voltage overhead electricity conductor – 3M ACCR – at its Menomonie, Wisc., factory, located about 65 miles east of 3M's headquarters in St. Paul, Minn.

3M ACCR (Aluminum Conductor Composite Reinforced) is a lightweight, high-temperature, low-sag conductor that can carry as much as twice the power of conventional steel core conductors of similar diameter on existing structures and rights of way. It enables utilities to cost-efficiently upgrade lines in areas where rebuilding transmission lines poses environmental, economic, clearance or aesthetic issues, such as at river crossings, in harsh environments, through public lands or in densely populated urban neighborhoods.

U.S. Sen. Ron Johnson, U.S. Rep. Ron Kind, and Wisconsin State Sen. Sheila Harsdorf each spoke about the importance of the new technology, and its role in innovation and jobs creation. Also speaking were Dominic Lee, program leader at the D.O.E.'s Oak Ridge National Laboratory, a principal site of field testing for ACCR; Michael L. Swenson, C.E.O. of the NSP Wisconsin subsidiary of Xcel Energy; and Teresa Mogensen, vice president of transmission for Xcel Energy, which field tested the conductor and became its first commercial user.

Dr. Lee cited ACCR's development as an example of the benefits that can result from close collaboration between government and industry. He explained that an advanced "accelerated aging" outdoor test facility was constructed at Oak Ridge, where, "essentially, 40 years of thermal-mechanical load was simulated in a span of three months." The results "demonstrated the integrity of the 3M ACCR at temperatures even higher than the thermal rating," he said.

A posting on the D.O.E.'s website referred to ACCR as a "breakthrough technology" that "delivers more power and greater reliability."

To date, nearly three dozen utilities across the U.S. and in 10 other nations on four continents have installed ACCR for a reliable high-capacity solution.

"By providing an unprecedented ability to double a line's transmission capacity without the need for costly and problematic construction, right-of-way expansion or permitting, ACCR offers a proven, reliable way to accommodate new expectations placed on the grid," says Joaquin Delgado, executive vice president of 3M's Electro and Communications Business. He cites the need "to integrate intermittent supply such as renewable power generation and accommodate wholesale transactions, while maintaining grid reliability and meeting regulatory requirements" as a major factor supporting the growing use of ACCR throughout the world.

The Menomonie plant where ACCR is produced also supports a number of high-tech 3M businesses. An important part of the community since it opened in 1974, the plant has grown steadily through the years and is

one of 3M's premier facilities for high-technology products. The company provides support to the community in the areas of education, health and human services, arts and culture, and environmental causes (3M is a recipient of multiple ENERGY STAR "Sustained Excellence" awards from the U.S. Environmental Protection Agency and the D.O.E.).

3M holds 18 patents on its ACCR technology, which has been recognized by *R&D Magazine* with an R&D 100 Award as one of the most technologically significant products introduced into the marketplace and by the Minnesota High Tech Association with a Tekne Award for innovative development.

The [3M Electrical Markets Division](#), based in Austin, Texas, designs, manufactures and markets products for electrical construction, industrial maintenance, utility and industrial power, and electrical and electronic components. EMD has more than 60 years of experience serving customers with highly reliable products, including electrical and electronic insulating tapes and papers; electromagnetic compatible products; power cable splices and terminations; high-temperature, low-sag transmission conductors; heat shrinkable tubing and molded shapes; electrical wire connectors, terminals, tools and lugs; wire marking products; cable ties; and electrical diagnostic and detection products.

More information about the 3M high capacity conductor is available at [www.3M.com/accr](http://www.3M.com/accr).

#### About 3M

3M captures the spark of new ideas and transforms them into thousands of ingenious products. Our culture of creative collaboration inspires a never-ending stream of powerful technologies that make life better. 3M is the innovation company that never stops inventing. With \$27 billion in sales, 3M employs about 80,000 people worldwide and has operations in more than 65 countries. For more information, visit [www.3M.com](http://www.3M.com) or follow @3MNews on Twitter.

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