

World premiere in Essen: RWE integrates superconductor cable for the first time into existing power grid

- **Energy utility testing urban power supply of the future together with partners**
- **AmpaCity pilot project funded by grants of the German Economics Ministry BMWi**
- **Premier Hannelore Kraft emphasises the importance of technical innovation for a successful energy transition**

Paris, May 5, 2014- RWE integrated last week on April 30, 2014, the world's longest superconductor cable officially into Essen's power grid, thus putting it into real operation for the first time. About a year after ground-breaking for the installation of the cable spanning a length of one kilometre, which connects two substations in Essen's city centre, the field test is now starting for the future energy supply of inner cities. The particularly efficient and space-saving technology transports five times more electricity than conventional cables, almost without any losses.

This pilot project by the name of AmpaCity had been made possible by grants of the German Federal Economics Ministry for the Environment and Energy (BMWi). In fact, BMWi contributed € 5.9 million to the € 13.5 million invested in the project by RWE and its project partners. They are the cable manufacturer Nexans, that also designed a superconducting short-circuit current limiter apart from the superconductor for the trial operation. Furthermore, AmpaCity is supported by the Karlsruhe-based Institute for Technology (KIT), providing scientific assistance to the field trial.

The federal government justifies the research funding as a measure designed to meet the technological challenges posed by the energy transition for all players in the energy system. The AmpaCity pilot project was selected and supported by BMWi as an excellent contribution under the energy research program.

Hannelore Kraft, Premier of the state of North Rhine-Westphalia, Nobel Prize laureate for physics, Dr. Johannes Georg Bednorz, who discovered the high-temperature super conductivity and numerous representatives from politics, industry, science and the project partner had come to the Herkules transformer station at Essen's city centre to celebrate the commissioning today.

"This is a good day for RWE, for the city of Essen, North Rhine-Westphalia and the energy transition in Germany. Today we send the superconductor technology in the world's first practical test. The project "AmpaCity" is for us as Energy State No. 1 of great importance. Particularly, I am pleased that the traditional Energy-City Essen is involved in the AmpaCity project and supports the project actively", said Prime Minister Hannelore Kraft.

Reinhard Paß, Mayor of Essen, added: "The foundation stone is being laid here in Essen in the truest sense of the word for a technology which can be of great benefit to future generations. This fills the city and its population with pride. AmpaCity is already a showcase for innovation on the Ruhr."

Peter Terium, Chief Executive Officer of RWE AG, emphasized at the commissioning ceremony: "AmpaCity ranks among the outstanding innovative projects which RWE is implementing with a lot of energy and passion. The transformation of our energy system does not only require courage, inventive genius and reliable partnerships. The energy transition also needs healthy, competent companies able to rise to the challenges it poses. This is what we are impressively demonstrating at Essen."

"Today, scientists and researchers from all over the world are rightly looking to Essen with great interest. Together with the city and our project partners we are translating a pioneering pilot project into practice on a unique scale. Following the successful installation of the superconductor cable, we are now happy to start the two-year trial operation", said Dr. Arndt Neuhaus, Chief Executive Officer of RWE Deutschland AG.

"With AmpaCity, RWE is again charting new technological territory. We were already able to gather first valuable experience when laying the cables and assembling the sophisticated technical components. Now we are keen to see how the field trial goes", Dr. Joachim Schneider, Technology Board Member of RWE Deutschland AG, commented.

Christof Barklage, Chairman of the Board of Directors at Nexans Germany said: "Following more than ten years of research and development in the field of superconductor technology, we can demonstrate, together with our partner RWE, by way of AmpaCity that superconduction makes economic sense." Frank Schmidt, Head of the Superconductor Division at Nexans added: "Essen can take pride in being a role model city. Its grid typology and the associated problems are symptomatic of large cities, also outside Germany; the superconductor involvement is exemplary. This project is a milestone on the path towards commercialisation of superconducting operating resources."

"For KIT AmpaCity is an important milestone in the long-term research and development of superconducting grid components. The fundamental change the electricity grid will be going through as the integration of renewable energies continues is a motivation and challenge for us to continue contributing with innovative, superconducting solutions to a reliable, stable and efficient grid in the future, too," said Professor Joachim Knebel, Head of Division at Karlsruhe Institute for Technology.

High-temperature superconduction and hence the transmission of electricity at minus 200 instead of minus 270 degrees Celsius goes back to the research work done by Dr. Johannes Georg Bednorz, who had been awarded the physics Nobel prize for his work in 1987. The properties of the superconduction material, a special type of ceramics, and its cooling to minus 200 degrees Celsius turn the cable into an ideal electrical conductor. At Essen, the 10,000-volt superconductor cable replaces a conventional 110,000-volt transmission line. This is also intended to reduce the number of transformer stations and to move them to the outskirts of cities. This would make valuable sites in city centres available again for other purposes.

AmpaCity met with a lively response at home and abroad even before today's commissioning. In fact, the technology was explained on site to delegations from France, Ghana, the US and numerous representatives from science and research.

More information and background on: <http://www.rwe.com/ampacity> (in German)

About Nexans

Nexans brings energy to life through an extensive range of cables and cabling solutions that deliver increased performance for our customers worldwide. Nexans' teams are committed to a partnership approach that supports customers in four main business areas: Power transmission and distribution (submarine and land), Energy resources (Oil & Gas, Mining and Renewables), Transportation (Road, Rail, Air, Sea) and Building (Commercial, Residential and Data Centers). Nexans' strategy is founded on continuous innovation in products, solutions and services, employee development, customer training and the introduction of safe, low -environmental- impact industrial processes.

In 2013, Nexans became the first cable player to create a Foundation to introduce sustained initiatives for access to energy for disadvantaged communities worldwide.

We have an industrial presence in 40 countries and commercial activities worldwide, employing close to 26,000 people and generating sales in 2013 of nearly 6.7 billion euros. Nexans is listed on NYSE Euronext Paris, compartment A.

For more information, please consult: www.nexans.com

Contacts:

Press

Angéline Afanoukoe

Tel. : +33 (0)1 73 23 84 12

Angeline.afanoukoe@nexans.com

Investor relations

Michel Gédéon

Tel.: +33 (0)1 73 23 85 31

Michel.gedeon@nexans.com