

Vienna, Austria | 6 April 2017

Borlink™ extruded high voltage direct current technology sets new record at 640 kilovolt

Borealis and Borouge, leading providers of innovative, value-creating solutions for the wire and cable industry, are proud to announce a new world record of 640 kilovolt (kV) for extruded high voltage direct current (HVDC) cable technology. The record-breaking voltage level and the robustness of a cable system based on Borlink™ LS4258DCE and Borlink™ LE0550DC was proven by way of successful type and pre-qualification testing in accordance with Cigré recommendation TB496. This innovative material technology enables the efficient delivery of even more transmission capacity over longer distances, better interconnectivity among countries and grids, and better connection of renewable energy sources to future grids.

Building on over 15 years experience in extruded HVDC cable material technology for even higher voltage

As a global leading innovator, Borealis is building on its over 15 years of operational experience in extruded HVDC materials and its proprietary Borlink™ technology to set ever higher standards in proven system performance. This new step-change in electrical performance has been made possible due to the unique properties offered by tailored polymers based on Borlink, in combination with the high levels of chemical and physical cleanliness these compounds offer. Production of these tailor-made compounds takes place at Borealis' state-of-the-art facilities in Stenungsund, Sweden and Antwerp, Belgium.

This HVDC innovation was developed in partnership with nkt cables. It was first unveiled in 2014 at the Cigré Session in Paris, France, after a record-breaking 525 kV proven performance level based on Borlink LS4258DCE and the semicon Borlink LE0550DC. The same HVDC material solution based on cross-linked polyethylene (XLPE) now offers the next level of performance. By leveraging their combined industry experience and proven track records, both companies have now set the 640 kV record. This is the highest voltage ever for extruded HVDC technology, therefore a clear proof of system robustness and technical margin.

In real terms, one pair of 640 kV HVDC extruded cables can transmit over 3 gigawatt (GW) of power from renewable sources. This is equal to the combined output of the six biggest hydroelectric power plants in Sweden. Put another way, a single pair of 640 kV extruded HVDC cables could for example transmit enough green power to supply about three million households. This equals around 80% of the 3.8 million Austrian households.



Photo: Borlink™ extruded HVDC technology sets a new record at 640 kV

Photo: courtesy of NKT

The broader significance of this HVDC innovation is apparent when considering the challenges and opportunities faced by the energy industry. HVDC connections can deliver power over longer distances with less energy loss, and are thus well suited for subsea and underground applications, including transmission from offshore windfarms. The innovation addresses the need for better interconnection of countries and grids, increased transmission capacity, efficiency, and supply security.

“Value Creation through Innovation dictates that we continue to push the envelope in developing and enhancing our Borlink technology,” explains Bart Verheule, Borealis Head of Marketing, Energy. “Our step-change Borlink HVDC technology will help cable manufacturers to make electricity grids more powerful and efficient. It represents a tangible contribution to better, more sustainable energy management, and embodies our mission of Bringing Energy All Around.”

END

For further information please contact:

Virginia Mesicek
External Communications Manager
tel.: +43 1 22 400 772 (Vienna, Austria)
e-mail: virginia.mesicek@borealisgroup.com

About Borealis Energy

For over 50 years, Borealis has been a leading provider of polyolefin compounds for the global wire and cable industry. Its large portfolio of products and services is based on unique and proprietary technologies that create real value for customers and enable step-change innovations. A broad range of sophisticated extra-high, high and medium voltage cable applications as well as semi-conductive products are made possible by Borealis' Borlink™ technology. Borealis' Visico™/Ambicat™ technology is used in low voltage energy transmission and distribution cable solutions, where it helps extend the lifetime of cable systems. Capacitor film products are consistently and qualitatively enhanced by Borealis' leading polypropylene (PP) material solutions.

About Borealis and Borouge

Borealis is a leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers. With its Head Office in Vienna, Austria, the company currently has around 6,600 employees and operates in over 120 countries. Borealis generated EUR 7.2 billion in sales revenue and a net profit of EUR 1,107 million in 2016. The International Petroleum Investment Company (IPIC) of Abu Dhabi owns 64% of the company, with the remaining 36% belonging to Austria-based OMV, an integrated, international oil and gas company. Borealis provides services and products to customers around the world in collaboration with Borouge, a joint venture with the Abu Dhabi National Oil Company (ADNOC).

Building on its proprietary Borstar® and Borlink™ technologies and more than 50 years of experience in polyolefins, Borealis and Borouge support key industries with a wide range of applications in the areas of energy, automotive, pipes, consumer products, healthcare, and advanced packaging.

The Borouge 3 plant expansion made Borouge the world's largest integrated polyolefins complex. Now fully ramped up, the additional 2.5 million tonnes of polyolefins capacity yield a total Borouge capacity of 4.5 million tonnes, and a combined Borealis and Borouge capacity of 8 million tonnes.

Borealis offers a wide range of base chemicals, including melamine, phenol, acetone, ethylene, propylene, butadiene and pygas, servicing a wide range of industries. Borealis also creates real value for the agricultural industry, selling approximately 5 million tonnes of fertilizers. Technical nitrogen and melamine products complement the portfolio with applications ranging from mono-nitrogen oxide (NOx) abatement to glues and laminates in the wood working industry.

Borealis and Borouge aim to proactively benefit society by taking on real societal challenges and offering real solutions. Both companies are committed to the principles of Responsible Care®, an initiative to improve safety performance within the chemical industry, and work to solve the world's water and sanitation challenges through product innovation and their Water for the World™ programme.

For more information visit:

www.borealisgroup.com

www.borouge.com

www.waterfortheworld.net

Borstar is a registered trademark of the Borealis Group.

Borlink, Visico, Ambicat and Water for the World are trademarks of the Borealis Group.